ORACLE NetSuite

SuiteProjects Pro

REST API

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Table of Contents

REST API Overview

SuiteProjects Pro REST API provides an interface for integration applications to exchange information with SuiteProjects Pro.

The REST API:

- Is organized around REST.
- Uses predictable resource-oriented URLs.
- Accepts JSON-encoded request bodies.
- Returns JSON-encoded responses.
- Uses standard HTTP response codes, authentication and verbs.

The REST API lets you:

- Use CRUD (create, read, update, delete) operations on SuiteProjects Pro records.
- Retrieve a list of records from a collections and use pagination.
- Filter SuiteProjects Pro record collections.

The REST API is a service layer that is built on top of the business layer in SuiteProjects Pro. This ensures that business rules configured for your SuiteProjects Pro account are applied when an integration application interacts with your SuiteProjects Pro data through SuiteProjects Pro REST API. Business rules include SuiteProjects Pro account configuration settings and access control mechanisms, as well as any user scripts deployed on your SuiteProjects Pro account.

This guide provides a reference for using the REST API. This section provides a high level overview. Review Getting Started with the REST API for guidance about setting up and using the API. Other sections in this guide address specific conceptual topics, including Supported Resources, Methods and API Features, OAuth 2.0 Authorization and Authentication, Request Format, Response Format, Active Filter Set, Errors, API Limits, Web Services Logs and API features including Filtering, Pagination, Sorting and Referenced Objects and Expansion. The final section gives reference information about supported endpoints, methods, and resources — REST API Endpoint Reference.

You can also access the generated REST API reference documentation in OpenAPI 3.0 JSON format and use it alongside this guide. For more information, see Generated API Documentation JSON.

> **Important:** The REST API was introduced in the October 10, 2020 SuiteProjects Pro release. It is an initial version with limited functionality.
>
> Some optional features and application settings may not be fully supported.
>
> The current scope of the REST API is limited to selected SuiteProjects Pro modules and object types. It supports the following resources: Expense reports (including attachments), Receipts (including attachments), Projects, Job codes, Contacts. See Supported Resources, Methods and API Features.
>
> As with any other API or platform features, it is crucial that you test integration applications leveraging the REST API extensively on a Sandbox account. Make sure your integration applications run smoothly without error on a non-production account before you implement it on your production account.

Key Concepts

SuiteProjects Pro REST API is an application programming interface (API) - a set of functions and procedures that let application developers access SuiteProjects Pro functionality and data within their application. The information is exchanged across the internet in a consistent format.

> **Note:** The REST API follows the same security best practice as SuiteProjects Pro. All data is encrypted in transport using the industry standard transport layer security (TLS) protocol.

REST

Representational State Transfer (REST) refers to the architectural style used to create web services that let developers access SuiteProjects Pro resources at predefined URLs using the HTTP protocol and perform CRUD operations (Create, Retrieve, Update, Delete) on these resources.

Resource

A resource represents SuiteProjects Pro data that can be uniquely identified. Each resource has its own unique URL. When accessing the URL, information and content can be returned as a JSON-encoded string, in the case of record information, or as download file, in the case of file attachments.

In SuiteProjects Pro, the most important resource is a record. Resources can be grouped into collections that each contain only one type of resources - for example, a collection of expense report records. A resource can also contain a sub-collection — for example, an expense report contains a sub-collection of receipts, with each receipt being a sub-resource. Collections are themselves resources as well.

REST API Benefits

The main benefits of REST web services include the following:

- **Business Layer API** — In contrast with the XML API and SOAP API, which interface with the data layer in SuiteProjects Pro, the REST API interfaces with the business layer. The business logic is already applied — you do not need to replicate the business logic in your integration applications. This makes integration applications simpler and faster as it reduces the volume of data that needs to be exchanged and processed. It also ensures that behavior is consistent with the SuiteProjects Pro web application and across integrated applications and that you can take advantage of new features in SuiteProjects Pro when they become available or when they are enabled for your account.

- **OAuth 2.0** — The REST API supports OAuth 2.0 exclusively for authentication and authorization, which is a more robust and reliable way to access data.
- **JSON-encoded request bodies and responses** — JSON (JavaScript Object Notation) is a lightweight data-interchange format which is self-describing and human-readable.
- **Easier deployment** — REST has a more flexible and lightweight architecture than SOAP, which requires heavy programming and deployment environment (C#, Java).

REST API Limitations

Consider the following information when working with the REST API.

- The REST API was introduced in the October 10, 2020 SuiteProjects Pro release. It is an initial version with limited functionality. Some SuiteProjects Pro features and application settings may not be fully supported. See REST API Known Limitations.
- The current scope of the REST API is limited to selected SuiteProjects Pro resources. See Supported Resources, Methods and API Features.
- As with any other API or platform features, it is crucial that you test integration applications leveraging the REST API extensively on a Sandbox account. Make sure your integration applications run smoothly without error on a non-production account before you implement it on your production account.

Getting Started with the REST API

You can use the following steps to set up and get familiar with the REST API before using it in your integration applications:

- Step 1 — Prerequisites and Setup
- Step 2 — Read the Relevant Documentation
- Step 3 — Register an API Integration Application
- Step 4 — Test and Familiarize Yourself With the REST API on a Sandbox Account

Step 1 — Prerequisites and Setup

The following features must be enabled for your SuiteProjects Pro account to use the REST API.

Feature	How to enable / Usage
API Access	Contact your SuiteProjects Pro account manager.
REST API	Contact SuiteProjects Pro Support.
REST API definition (OpenAPI 3.0 / JSON)	Account administrators and employees with the Export data role permission can access the REST API reference documentation in OpenAPI 3.0 JSON format. To access the generated API reference documentation, including resource and method references specific to your account, go to Administration > Global Settings > Account > Integration: Import/Export and click **REST API documentation** under Account data. For more information, see Generated API Documentation JSON.

> **Note:** If the Business Intelligence (BI) Connector feature is enabled for you company's SuiteProjects Pro account, you can use the REST API to access BI Connector resources even if API access and REST API are not enabled for your account.

Step 2 — Read the Relevant Documentation

This guide provides a reference for using the REST API. The guide is organized around the following conceptual topics for ease of reference:

- Supported Resources, Methods and API Features — Get a quick overview of what you can do using the API.
- REST API Known Limitations — Review the list of features that are only partially supported or not currently supported.
- Authentication — Ensure each API request must have the relevant authorization.
- OAuth 2.0 Authorization — Register client applications so they can use the OAuth 2.0 authorization code flow to access your company's SuiteProjects Pro account.
- Request Format — Review how to form your API requests.
- Response Format — Get an overview of the information returned in the API responses.
- Returned Data — Review what to expect in the data returned and how to include only what you need in the response data.
- Attribute Naming Convention, Data Types and Formats — Review the naming convention for resource attributes (fields), and the data types and formats used.
- Custom Fields — Review special considerations concerning custom fields defined for your company's SuiteProjects Pro account.

- Active Filter Set — Specify the filter set to be applied to your requests.
- Filtering — Build query expressions to retrieve the resources matching your search criteria.
- Pagination — Control the volume of data returned in the response and how to page multiple pages of data.
- Sorting — Sort a returned list of objects in ascending or descending order.
- Referenced Objects and Expansion — Expand object referenced by ID in the main response payload.
- Errors — Review possible API errors to handle errors programmatically in your client applications.
- API Limits — Review the API limits set for your company's SuiteProjects Pro account.
- Web Services Logs — Access log reports to audit API requests for your account, and troubleshoot your integrations.
- Generated API Documentation JSON — Access a generated reference document in OpenAPI 3.0 JSON format. The generated documentation includes account specific information such as custom fields.

This guide also include descriptions for each endpoints and methods for reference — See REST API Endpoint Reference. For account specific reference documentation, use Generated API Documentation JSON.

The business logic configured for your account may impact API requests and responses. Make sure you consult the relevant documentation, for information about SuiteProjects Pro business rules. For example:

- For a description of account global and application settings and access control mechanisms, see Administrator Guide and Security.
- For a description of optional features that may impact behavior, see Optional Features.
- For a description of user scripting, see User Scripting.
- For reference documentation about the SuiteProjects Pro database, see Database and the SuiteProjects Pro Data Dictionary.

> **Note:** Unless you are viewing this help topic in the SuiteProjects Pro Help Center, links to the data dictionary use the generic SuiteProjects Pro domain for production accounts (`www.netsuitesuiteprojectspro.com`). In some instances, you may need to replace the generic domain name with your account-specific domain name in the link URLs.
>
> - To view the SuiteProjects Pro Data Dictionary, use the following URL:
>
>   `https://<account-domain>/database/single_user.html`, where `<account-domain>` is the account-specific domain for your account.
> - To view the details of a specific table, append a hash symbol # followed by the table name to the end of the data dictionary URL.
>
>   For example, use `https://<account-domain>/database/single_user.html#project` to view the details of the Project table.
>
> For more information about your account-specific domain name, see the help topic Your Account URLs.

Step 3 — Register an API Integration Application

The REST API supports OAuth 2.0 exclusively for authentication and authorization. An account administrator must register an application in SuiteProjects Pro and enable it before you can use the REST

API. To register an application, go to Application > Global settings > API integration Applications and click **Add new app**. Note the **client ID**, **client secret** and **redirect URI** for the application. You will need this information to get the user's permission and to obtain an access token. For more information, see OAuth 2.0 Authorization.

Step 4 — Test and Familiarize Yourself With the REST API on a Sandbox Account

> **Important:** The REST API was introduced in the October 10, 2020 SuiteProjects Pro release. It is an initial version with a limited scope and functionality. Some SuiteProjects Pro business logic may not be fully supported. Review the list of features that are only partially supported or not currently supported — see REST API Known Limitations. As with any other API or platform features, it is crucial that you test integration applications leveraging the REST API extensively on a Sandbox account. Make sure your integration applications run smoothly without error on a non-production account before you implement it on your production account.

You can use a GUI REST client to test and familiarize yourself with the REST API. A GUI REST client lets you:

- Make HTTP requests from a user-friendly interface instead of using a command-line utility such as cURL.
- Save your requests and other important information and reuse them again later.
- Get a new access token using the built-in GUI REST client functionality.
- Enter request information more easily and in the right format (headers, query parameters).
- See the response in a prettified JSON view or a raw format.

This guide includes some guidelines working with the Postman desktop application to test the REST API. See Testing the REST API Using Postman.

Supported Resources, Methods and API Features

The current scope of the REST API is limited to selected SuiteProjects Pro modules and object types.

The following table summarizes the methods available for supported resources. For more information about the endpoints and methods, see REST API Endpoint Reference.

Resources	`POST`	`GET`	`PUT`	`DELETE`	`OPTIONS`
Attachments (*Use the endpoints and methods specific to the object the attachments are associated with*)	✓	✓	✓	✓	—
Contacts	✓	✓	✓	✓	✓
Customers	—	✓	—	—	✓
Expense reports	✓	✓	✓	✓	✓
Job codes	✓	✓	✓	✓	✓
Projects	✓	✓	✓	✓	✓
Project milestones	—	✓ (objects with **Task classification** set to "Milestone" only)	—	—	—
Project phases	—	✓ (objects with **Task classification** set to "Phase" only)	—	—	—
Project tasks	✓ (objects with **Task classification** set to "Task" only)	✓ (objects with **Task classification** set to "Task" only)	—	—	—
Published reports [*]	—	✓	—	—	—
Receipts	✓	✓	✓	✓	✓
Time entries	✓	✓	—	✓	✓
Users	—	✓	—	—	✓

The following table summarizes the API features available for supported resources. It includes two columns for the Expansion feature to show the resource endpoints for which the feature is available, and the referenced objects that can be expanded.

- For more information about the Filtering feature, see Filtering.

- For more information about the Pagination feature, see Pagination.
- For more information about the Sorting feature, see Sorting.
- For more information about the Expansion feature, see Referenced Objects and Expansion.

Resources	**Filtering**	**Pagination**	**Sorting**	**Expansion (Endpoints)**	**Expansion (Referenced Objects)**
Attachments (*Use the endpoints and methods specific to the object the attachments are associated with*)	—	—	✓	✓	✓
Contacts	✓	✓	✓	—	—
Customers	✓	✓	✓	✓	—
Expense reports	✓	✓	✓	✓	—
Job codes	✓	✓	✓	—	—
Projects	✓	✓	✓	✓	—
Project milestones	✓	✓	✓	✓	—
Project phases	✓	✓	✓	✓	—
Project stages (name only)	—	—	—	—	✓
Project tasks	✓	✓	✓	✓	—
Published reports *	—	✓ (Only for rows of report data)	—	—	—
Receipts	✓	✓	✓	✓	—
Time entries	✓	✓	✓	✓	—
Users	✓	✓	✓	✓	—
Users (display name only)	—	—	—	—	✓
Workspaces	—	—	—	—	✓

Note: * – Published reports are available only if the Business Intelligence (BI) Connector feature is enabled for your account. You can access BI Connector resources even if API access and REST API are not enabled for your account.

REST API Known Limitations

The following table lists features and configuration settings that are only partially supported or not currently supported. The “Feature or Setting Type” column indicates whether it is a standard SuiteProjects Pro feature, an API feature, an Application setting, Global setting, User setting or Role permission controlled by account administrators, or an optional feature controlled by SuiteProjects Pro Support and documented in Optional Features. Other limitations specific to your account configuration may apply.

Feature / Setting	Feature or Setting Type	Partially / Not Supported	Notes
User proxy	Standard	Not currently supported	
UTF-8		Partially supported	The REST API largely supports both Latin1 and UTF-8 encoded characters in the response. There are some known issues for specific cases.
Approval actions (Submit, Approve, Reject, Unapprove)	Standard	Not currently supported	
Bulk actions	Standard	Partially supported	The ability to create, update, or delete multiple resources in the same collection is only supported for projects. Deleting multiple attachments is also supported.
Form messages set in form permissions and form rules.	Standard	Not currently supported	See Form permissions form in SuiteProjects Pro
Repeat receipt	Standard	Not currently supported	See Receipt entity properties form in SuiteProjects Pro.
Selection from sorted dropdown list of available values	Standard	Not currently supported	See Receipt entity properties form in SuiteProjects Pro.
Sorting	Standard	Not currently supported	The ability to specify a sort order for the list of resources returned in the response is not currently supported.
Upsert operation using an external ID parameter	REST API	Not currently supported	This method is not currently supported. The upsert operation would enable you to create a record or update an existing record, using an external ID as a parameter. It would be useful for synchronizing data between SuiteProjects Pro and an external system.
Hide the "Expense type location" field on receipts	Application	Partially supported	Administration > Application Settings > Expenses > other Settings. In some circumstances, the REST API accepts values for the hidden "Expense type location" field if the new value is the same as the existing value or the value set automatically by SuiteProjects Pro.
Hide the "Reimbursable/Non-reimbursable" drop-down on receipts	Application	Partially supported	Administration > Application Settings > Expenses > other Settings. In some circumstances, the REST API accepts values for the hidden "Reimbursable/Non-

Feature / Setting	Feature or Setting Type	Partially / Not Supported	Notes
			reimbursable" field if the new value is the same as the existing value or the value set automatically by SuiteProjects Pro.
Foreign currency receipt markup (%)	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings.
Minimum amount required to submit an envelope	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings. Requires support for approval actions.
Enable line item rejection of receipts	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings. Requires support for approval actions.
Enable expense authorizations	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings.
Hide the "Advanced required" field on expense authorizations	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings.
Allow an approver to edit a submitted expense authorization	Application	Not currently supported	Administration > Application Settings > Expenses > other Settings. Requires support for approval actions.
Show the phase name on task drop-downs and pickers	Global	Not currently supported	Administration > Global settings > Account > Optional features. Requires support for selection from dropdown list of available values
Custom Field Allocation Worksheets	Optional	Partially supported	Administration > Global Settings > Reports > Enabled Features (Global). The validation enforcing 100% total allocation is not fully supported.
Adjust an Approved Expense Report	Optional	Not currently supported	Administration > Global Settings > Reports > Enabled Features (Expenses).
Suppress Email Notifications or Add Addresses to Notifications	Optional	Not currently supported	Administration > Global Settings > Reports > Enabled Features (Global).
Allow employee to delete (individually or in bulk) open, submitted or rejected envelopes	Role	Not currently supported	Administration > Global Settings > Users > Roles > [*Select a role*]. Requires support for bulk actions
Allow the user to un-approve an expense report	User	Not currently supported	Administration > Global Settings > Users > Employees > [*Select an employee*]. Requires support for approval actions.
Allow the user to un-approve an authorization	User	Not currently supported	Administration > Global Settings > Users > Employees > [*Select an employee*]. Requires support for expense authorizations and approval actions.

Feature / Setting	Feature or Setting Type	Partially / Not Supported	Notes
The user can un-export expense reports	User	Not currently supported	Administration > Global Settings > Users > Employees > [*Select an employee*].
The user can mark expense reports exported	User	Not currently supported	Administration > Global Settings > Users > Employees > [*Select an employee*]. Setting associated with the SuiteProjects Pro Integration Manager add-on application.

Authentication

The REST API supports authentication by OAuth 2.0 bearer token exclusively. You must send the OAuth 2.0 access token as a bearer token in the Authorization header for each request.

Integration applications must be registered in SuiteProjects Pro to use the REST API to access SuiteProjects Pro data, and users must give the application explicit permission to access SuiteProjects Pro on their behalf.

For more information about using the OAuth 2.0 authorization framework, see OAuth 2.0 Authorization.

Important: All API requests must be made over HTTPS. Calls made over plain HTTP will fail. API requests without authentication will also fail.

Example

The following request sends a bearer token in the Authorization header.

```
GET /rest/v1/rest/v1/job-codes/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro.

Authentication Errors

Your client application needs to handle the following cases when the authentication may fail. The REST API may return one of the errors listed in the following table if the authentication fails. The response includes a HTTP Status and WWW-Authenticate header with information about the error.

`HTTP Status`	`WWW-Authenticate Header`	Reason
400 Bad request	error="invalid_request", error_description="Invalid Bearer token format"	The Authorization header sent in the request must have the correct format for Bearer token authentication. For example, a missing space between "Bearer" and the token would cause a `400 Bad Request` error.

401 Unauthorized	error="insufficient_scope", error_description="The access token is invalid"	The bearer token sent in the request is not valid. Possible reasons include:
		- **Invalid scope** — Tokens are issued for a specific `scope`. The scope of the access token does not allow access to the resource endpoint using the REST API.
		  - The scope must include `rest` to access SuiteProjects Pro resources other than Business Intelligence (BI) Connector resources.
		  - The scope must include `bi` to access BI Connector resources.

<table>
<tr><th>HTTP Status</th><th>WWW-Authenticate Header</th><th>Reason</th></tr>
<tr><td>401 Unauthorized</td><td>error="invalid_token", error_description="The access token is invalid"</td><td>The bearer token sent in the request is not valid. Possible reasons include:
Expired access token — Access tokens are valid for the period specified in the application configuration in SuiteProjects Pro.
Authorization revoked — Users can revoke an application at any time.
Disabled application — Account administrators can disable an application at any time.
Application removed — Account administrators can remove an application at any time.
Access not allowed for the client IP address — The IP Restriction feature is enabled for the SuiteProjects Pro account and the client IP address is not in the allowlist for the user associated with the bearer token.
Disabled feature — The feature required to access the resources is not enabled for your account.
API Access and REST API must be enabled for your account to access SuiteProjects Pro resources other than Business Intelligence (BI) Connector resources.
The BI Connector feature must be enabled for your account to access BI Connector resources. API access and REST API are not required.</td></tr>
</table>

OAuth 2.0 Authorization

SuiteProjects Pro supports OAuth 2.0, a robust authorization framework. This authorization framework enables client applications to use a token to access SuiteProjects Pro through the XML API, SOAP API, or REST API. The application accesses the protected resources on behalf of a user who gave an explicit permission for the access. This method eliminates the need for API integrations to store user credentials.

This feature is available if API Access is enabled for your account. It includes the following elements:

- **Administrators** can register up to 20 integration applications with SuiteProjects Pro and enable or disable these applications in the Administration module. For more information, see Managing API Integration Applications.
- **Administrators** can use web services reports to audit and revoke authorizations granted by SuiteProjects Pro users to integration applications. For more information, see Auditing and Managing OAuth 2.0 Authorizations.
- **Application Developers** can use the OAuth 2.0 authorization code flow to get an access token then use the access token to access your SuiteProjects Pro data using the XML API or SOAP API. For more information, see OAuth 2.0 for Integration Applications Developers.

  > **Note:** SuiteProjects Pro only supports the OAuth 2.0 authorization code grant type.

- **End-users** can give applications explicit permission to access SuiteProjects Pro on their behalf and they can revoke this permission at any time. For more information, see Authorizing Applications to Access SuiteProjects Pro on Your Behalf.

  > **Note:** The first time a registered application attempts to access SuiteProjects Pro on their behalf, users must sign in using the same trusted sign-in page they normally use to sign in to SuiteProjects Pro then give the application explicit permission. The OAuth 2.0 feature supports the following user authentication mechanisms:
  >
  > - Password authentication by SuiteProjects Pro — Users enter their Company ID, User ID and Password on the SuiteProjects Pro sign-in page.
  > - SAML authentication:
  >   - Service Provider initiated Single Sign-on — Users enter their sign-in details on your company Single Sign-on form.
  >   - Identity Provider initiated Single Sign-on — Users must sign in using their Identity Provider Single Sign-on form before the application attempts to access SuiteProjects Pro on their behalf. When the application attempts to access SuiteProjects Pro, the authorization page appears automatically. Users do not need to enter their sign-in details again if the Single Sign-on session has not expired.

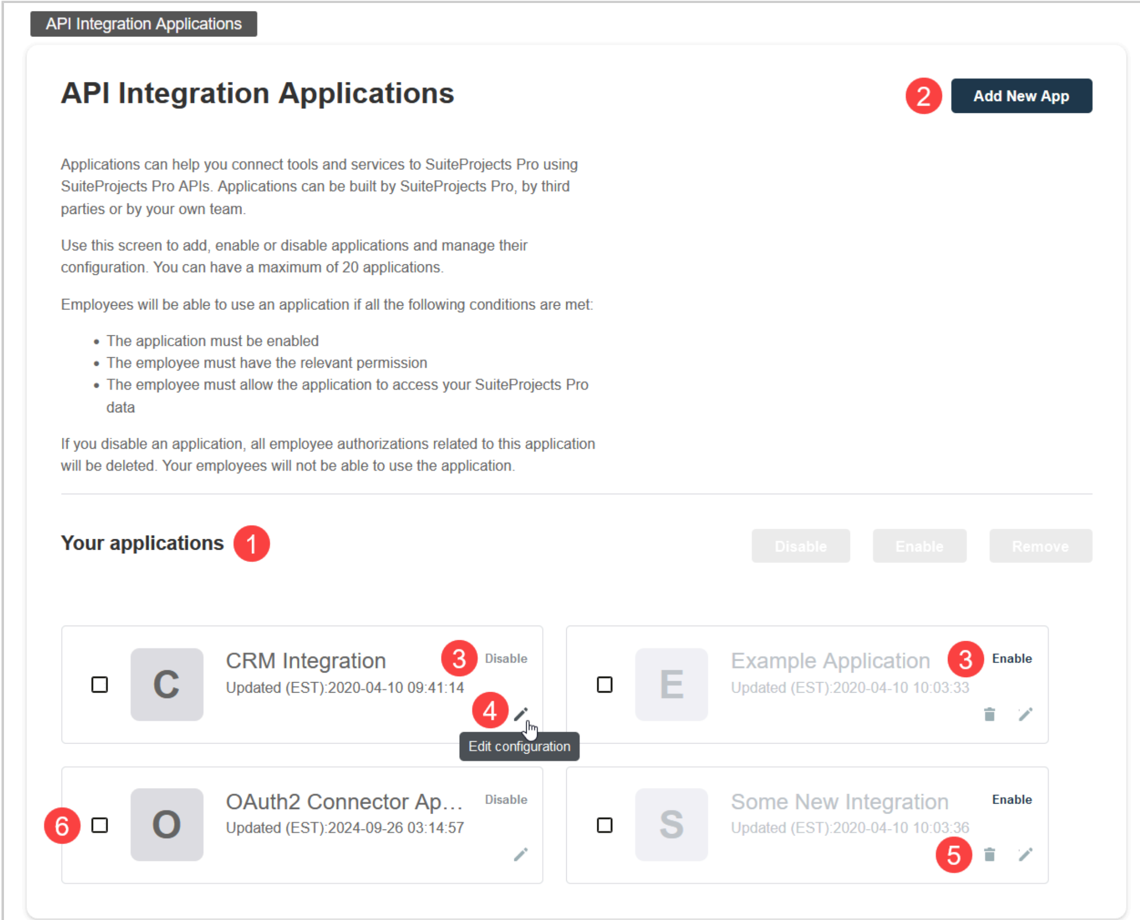
Managing API Integration Applications

Integration applications using OAuth 2.0 to obtain access to your SuiteProjects Pro data must be registered and enabled by an account administrator. To register and manage your integration applications, go to Administration > Global Settings > Account > API Integration Applications.

> **Note:** API Access must be enabled in your account to connect tools and services to SuiteProjects Pro using the API. The Business Intelligence (BI) Connector feature must be enabled in your account to connect tools and services to your published reports using the REST API. The API Integration Application page is not available unless API Access or BI Connector is enabled. To enable API Access or BI Connector in your account, contact SuiteProjects Pro Support or your SuiteProjects Pro account manager.

1. All your registered applications are listed in a grid. Details include the name of the application and the date and time when it was last updated.
2. To register a new application, click **ADD NEW APP**. This button is disabled if you reach the limit of 20 registered applications. See Adding a New Application.
3. To enable or disable an application, click **ENABLE** or **DISABLE** in the top right corner of the corresponding box. See Enabling, Disabling, or Removing Registered Applications
4. To edit an application configuration, click the edit icon in the bottom right corner of the corresponding box. See Application Configuration.
5. To remove an application configuration from the list of registered applications, click the delete icon in the bottom right corner of the corresponding box. See Enabling, Disabling, or Removing Registered Applications.
6. To select one or more applications, check the box next to each application you want to select. You can only select multiple applications if they are either all enabled, or all disabled. You can then enable, disable or remove the selected applications. See Enabling, Disabling, or Removing Registered Applications.

Note: All times are given as Eastern Standard Time (EST).



Adding a New Application

You can register up to 20 applications. Each application needs a Client ID and Client Secret to obtain access to SuiteProjects Pro using OAuth 2.0. The Client ID and Client Secret are generated by SuiteProjects Pro as part of the registration process and are unique to each application.

Important: The Client Secret is a **private** key the application uses to request an authorization code from SuiteProjects Pro. It should not be shared or stored in public code repositories.

The Client Secret is displayed only one time. You will not be able to retrieve it after you close the Application Credentials dialog.

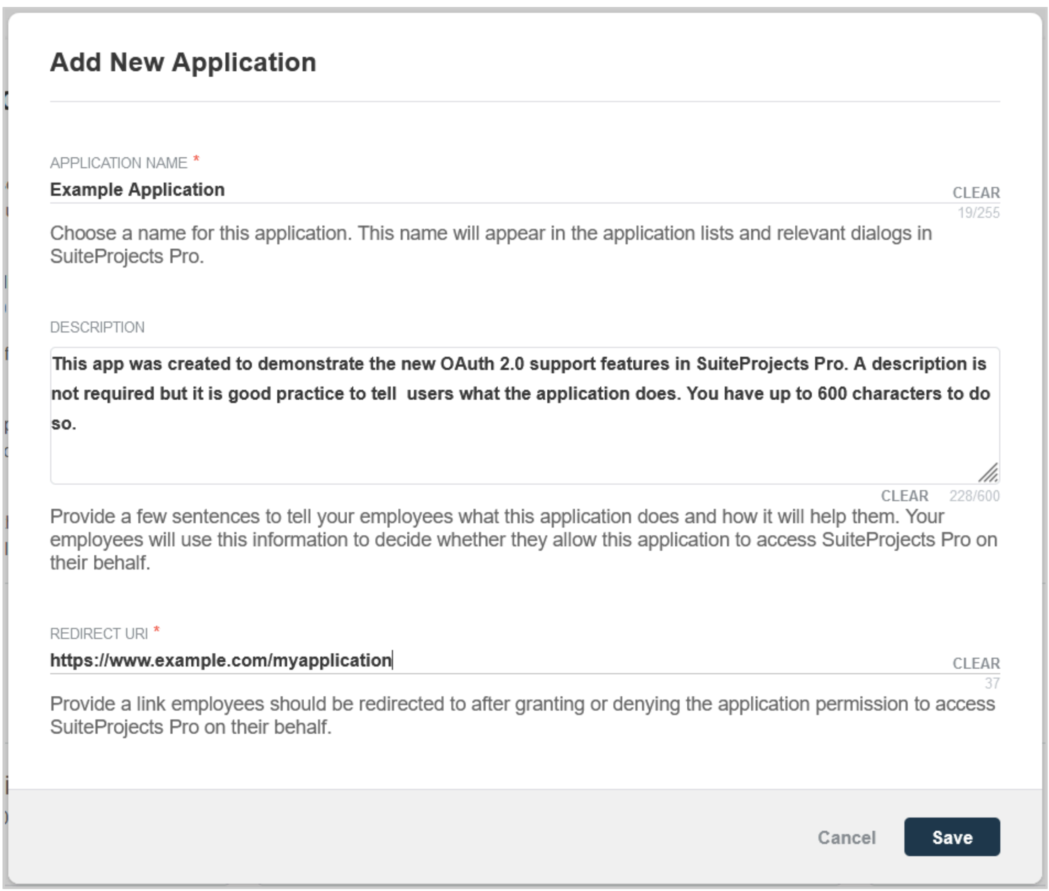
If you misplace the Client Secret, you can edit the application configuration and generate a new Client Secret for the application.

To register a new application with SuiteProjects Pro:

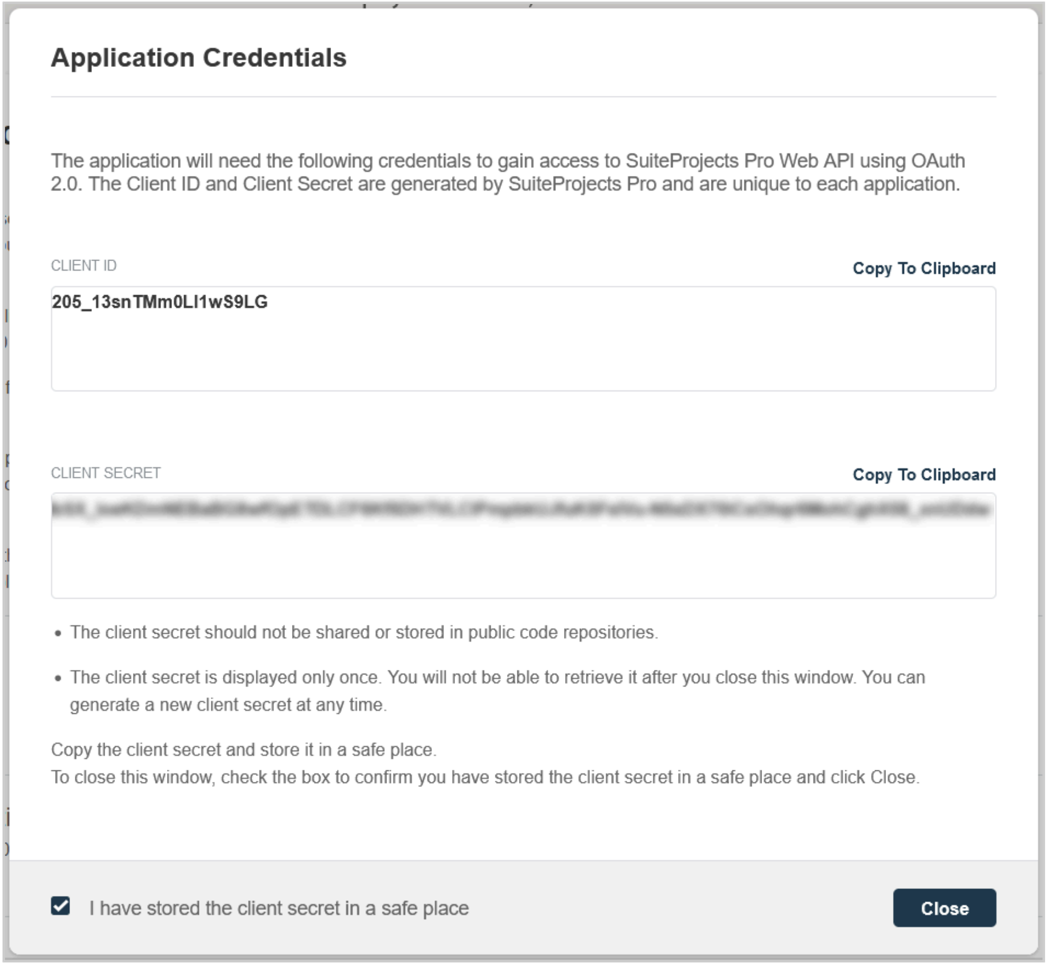
1. Do one of the following:
   - Go to Administration > Global settings > Account > API Integration Applications, and click **ADD NEW APP**.
   - From any page in SuiteProjects Pro, click the Create button and click API integration application.

   The Add New Application popup window appears.
2. Enter the following information:
   - **Application name** (Required) — Enter a display name for your application in SuiteProjects Pro. The name must be unique to the application. You will not be able to use a name already used by another registered application.
   - **Description** — Enter a few sentences to tell your employees what the application and how it will help them. Your employees will use this information to decide whether they allow this application to access SuiteProjects Pro on their behalf.
   - **Redirect URI** (Required) — Enter a link users should be redirected to after granting or denying the application permission to access SuiteProjects Pro on their behalf.

     > **Important:** Client applications use the redirect URI when requesting access to SuiteProjects Pro. Ensure you enter the redirect URI supplied by the application developers.



3. Click **Save**. The Application Credentials popup window appears.
4. Copy the **Client Secret** and store it in a safe place. The Client Secret is displayed only one time. You will not be able to retrieve it after you close this window.



5. Check the box to confirm you have copied and stored the Client Secret in a safe place then Click **Close**.

Enabling, Disabling, or Removing Registered Applications

You must enable an application to allow this application to obtain access to SuiteProjects Pro using OAuth 2.0.

You can disable an application to prevent this application from obtaining access to SuiteProjects Pro using OAuth 2.0. If you disable an application, SuiteProjects Pro automatically revokes all permissions given by users for the application to access SuiteProjects Pro on their behalf. Employees will not be able to use the disabled application.

You can remove a disabled application from the list of registered applications. All permissions, authorizations and application credentials associated with the application configuration will be deleted. This action cannot be undone.

To enable or disable a registered application:

1. Go to Administration > Global settings > Account > API Integration Applications.
2. Click **ENABLE** or **DISABLE** in the top right corner of the corresponding box. A confirmation popup window appears.

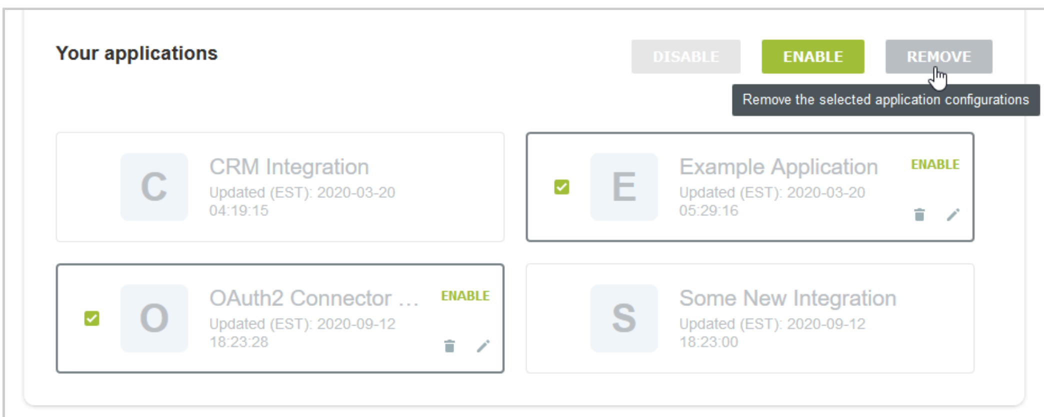
3. Click **ENABLE** or **DISABLE** to enable or disable the application. Click **Cancel** to cancel the operation and return to the API Integration Applications page.

To remove a registered application:

1. Go to Administration > Global settings > Account > API Integration Applications.
2. Click the delete icon in the bottom right corner of the corresponding box. A confirmation popup window appears.
3. Click **REMOVE** to remove the application. Click **Cancel** to cancel the operation and return to the API Integration Applications page.

To enable, disable, or remove multiple applications at the same time:

1. Go to Administration > Global settings > Account > API Integration Applications.
2. Check the box for each application you want to enable, disable, or remove. Notice that you can only select multiple applications if they are either all enabled, or all disabled. After you select the first application, the application that are not available for selection appear in light gray color. Notice also that some of the buttons in the top right corner of the list of registered applications become available and change from light gray color to dark gray or green.



3. Click **ENABLE**, **DISABLE**, or **REMOVE** to perform the corresponding action on all selected applications. A confirmation popup window appears. Click **ENABLE**, **DISABLE**, or **REMOVE** to confirm. Click **Cancel** to cancel the operation and return to the API Integration Applications page.

Application Configuration

You can view the configuration details of your registered applications, including their unique Client ID from the Application Configuration form. You can change the application name, description or Redirect URI or generate a new Client Secret for the application.

To open the Application Configuration page for a registered application, go to Administration > Global Settings > Account > API Integration Applications and click the edit icon in the bottom right corner of the corresponding box.

1. The **General** section of the form lists the main application detail:
   - You can change the **Application name**, **Description** and **Redirect URI**.

> **Important:** Client applications use the redirect URI when requesting access to SuiteProjects Pro. Ensure you enter the redirect URI supplied by the application developers. If you need to change the redirect URI, disable the application, change the redirect URI and enable the application again.

- You can view when the application was registered under **Created**.

> **Note:** All times are given as Eastern Standard Time (EST).

2. You can view the **Client ID** — the unique identifier a client application needs to send to SuiteProjects Pro along with a client secret as part of the OAuth 2.0 authorization code flow.
3. Use the **Tokens Lifetime** section to configure the validity period of the access and refresh tokens:
   - **Access token lifetime** — Select the expiration time of access tokens. Available values go from 5 to 60 minutes in 5–minute increments. The default access token lifetime is 15 minutes.

     > **Note:** The validity period of access tokens cannot be greater than the session timeout set for your account. If the **Access token lifetime** value is greater than the session timeout value, the session timeout value is used for the access token validity period. The application configuration form shows the current values for the session timeout and access token validity period for reference.
     >
     > To change the session timeout value , go to Administration > Global settings > Account > Security.

   - **Refresh token lifetime** — Select the expiration time of refresh tokens. Available values go from 1 to 31 days in one–day increments. The default access token lifetime is 1 day.

     > **Note:** Before the SuiteProjects Pro 2021.2 release, you could set the refresh token lifetime to values from 1 to 24 hours in one–hour increments. Values for the refresh token lifetime set before the SuiteProjects Pro 2021.2 release show in days (decimal values) instead of hours

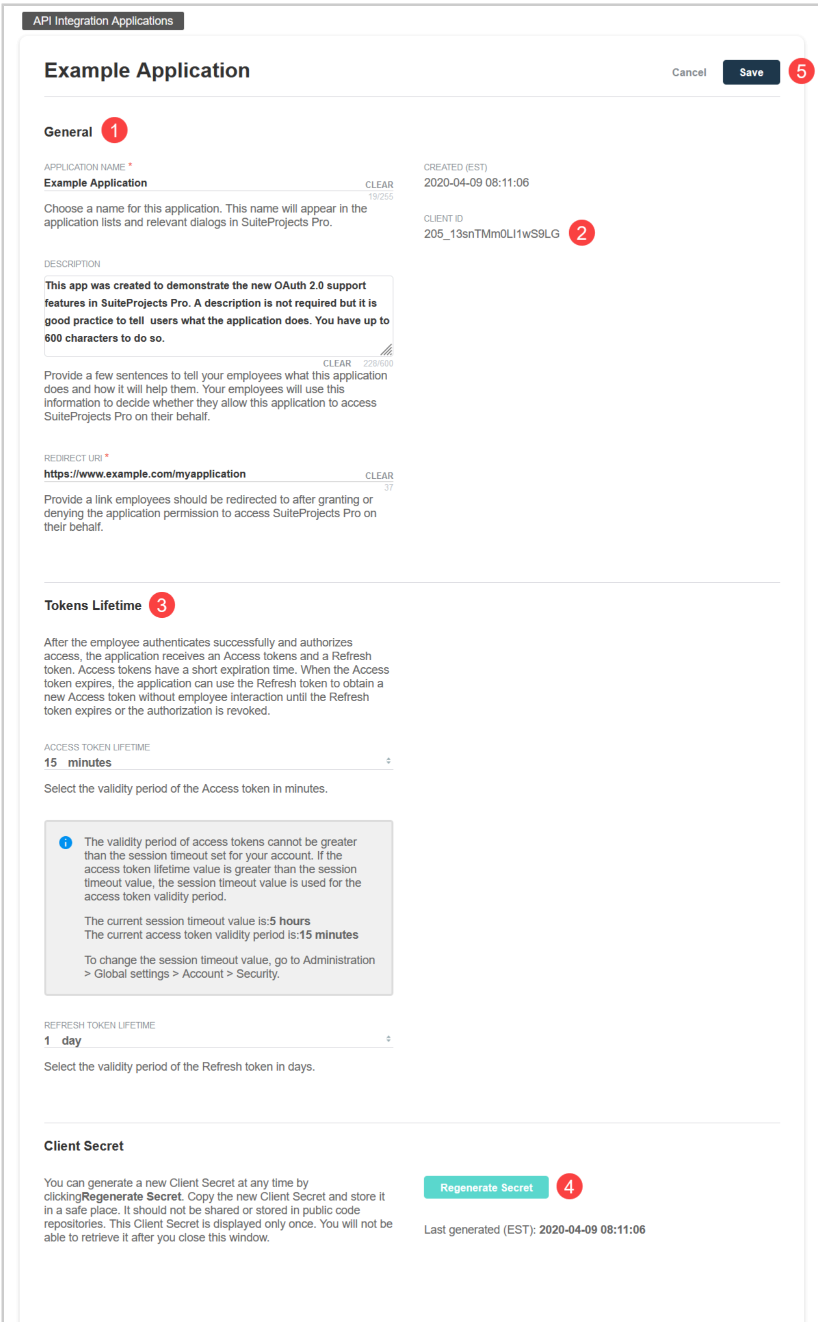
   As part of the OAuth 2.0 authorization code flow, authorized applications need to exchange an authorization code for an access token and refresh token to obtain access to SuiteProjects Pro. The access token has a short expiration time. When the access token expires, the client application can use the refresh token to obtain a new access token without user interaction until the refresh token expires or the authorization is revoked.

   > **Note:** Access tokens normally remain valid for their entire lifetime. However, the access token becomes invalid before it is due to expire if any of the SuiteProjects Pro business rules have changed and the access token is refreshed. Business rule changes may include any changes to your company's SuiteProjects Pro account configuration, or to the access privileges or role permissions of the employee who authorized the client application.
   >
   > Each refresh token can be used one time only. Refresh in an access token generates a new access token and a new refresh token.

4. To generate a new Client Secret, click **Regenerate Secret** — You may need to generate a new client secret if you misplace or delete the client secret accidentally or if your client secret becomes compromised.

The new client secret will be valid immediately. The old client secret will continue to be valid for 24 hours after you generate a new one. This allows time to update any enabled application with the new client secret.

5. If you made any changes to the configuration details in the General section, the **Save** button is enabled. Click **Save** to save changes and return to the API Integration Applications page or click **Cancel** to close the configuration form without saving.



Auditing and Managing OAuth 2.0 Authorizations

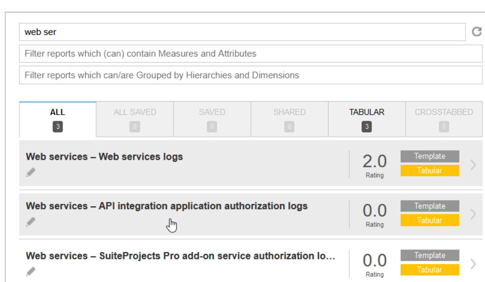
Account administrators can use web services reports to audit and revoke authorizations granted by SuiteProjects Pro users to integration applications utilizing OAuth 2.0 to connect to SuiteProjects Pro data.

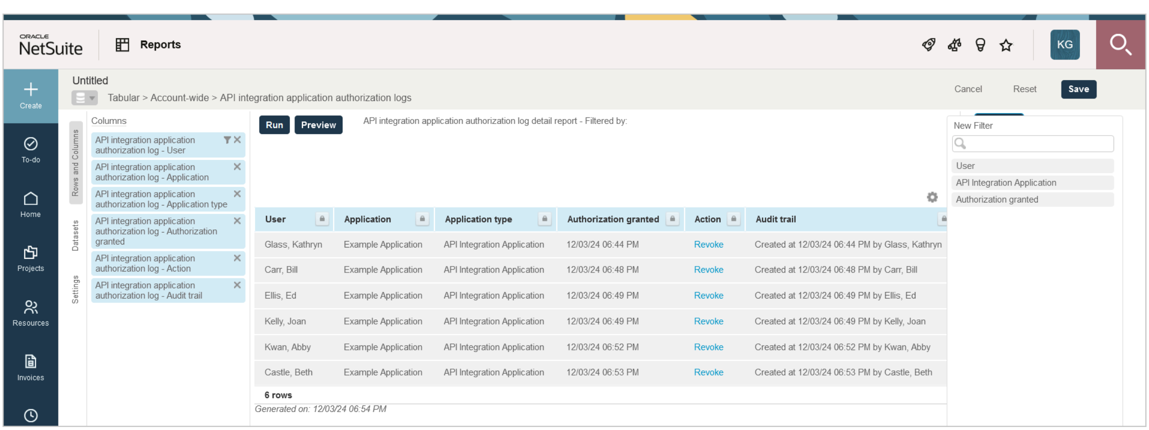
- **API integration application authorization logs** — User authorizations granted to custom or third party applications registered with your SuiteProjects Pro account in Administration > Account > API integration applications.
- **SuiteProjects Pro add-on service authorization logs** — User authorizations granted to SuiteProjects Pro add-on services (SuiteProjects Pro Mobile and other add-on service applications).

The reports include information about which integration applications were authorized, when, and by which users. The reports also include a link to revoke the authorization given for an integration application by a user.

To access the OAuth 2.0 authorizations logs (if the Report Management feature is enabled):

1. In SuiteProjects Pro, go to Reports > Management.
2. Enter “web services” in the **Search saved reports by name** box. The Report Management UI shows the list of web-services tabular reports.
3. Click the report name, then click **New** to create a new report.
4. Add columns and define filters as required.
5. (Optional) Click Untitled in the top bar and enter a name for your report.
6. (Optional) Click **Save** to save the report you created for later use. The Report Management UI will list the report under on Saved reports tab.
7. Click **Run** to run the report.





To access the OAuth 2.0 authorizations logs (if the Report Management feature is not enabled):

1. In SuiteProjects Pro, go to Reports > Detail.
2. Click the report name under the Web services heading. The report options form appears.
3. (Optional) Set a date range for the **Authorization granted** filter. Defaults to All.
4. Click **Report layout** and select the columns to include, or keep the default layout.
5. (Optional) Click **Employee** and select the employees to include in the report.
6. (Optional) Click **API integration application** and select the applications to include in the report.
7. (Optional) Check the **Save this report as** box and enter a name for the report
8. (Optional) Click **Save** to save the report. The report will be accessible in Reports > Saved reports.
9. Click **Run** to run the report.

OAuth 2.0 for Integration Applications Developers

SuiteProjects Pro supports two methods to access SuiteProjects Pro data using XML API or SOAP API requests:

- Using user credentials (Company ID, User ID, password) and, in the case of SOAP web services (SOAP API), a session ID.
- Using OAuth 2.0 access tokens.

OAuth 2.0 bearer token authentication is the only supported method to access SuiteProjects Pro data using the REST API.

In the OAuth 2.0 scenario, client applications use one of the OAuth 2.0 grant types to get an access token after the user authorizes the application. The user’s identity is verified by an authentication service, which issues the access token. The access token can then be used to gain authenticated access to SuiteProjects Pro through the XMl API, SOAP API or REST API.

This section describes how to get an access token using the OAuth 2.0 authorization code grant type in your applications, and how to use the access token in your API calls.

> **Note:** SuiteProjects Pro only supports the OAuth 2.0 authorization code grant type, which defines a particular workflow client applications can use to obtain the access token.

OAuth 2.0 Authorization Code Flow

Application developers can use the OAuth 2.0 redirection-based authorization code grant type to obtain an access token. This method eliminates the need for client applications to collect and store user credentials.

The authorization code flow includes the following steps:

1. **Getting the user’s explicit permission** to access SuiteProjects Pro on their behalf. See Getting the User’s Permission.
    a. The client application opens a browser and directs the user to the SuiteProjects Pro identity authentication service with the necessary URL query string parameters.

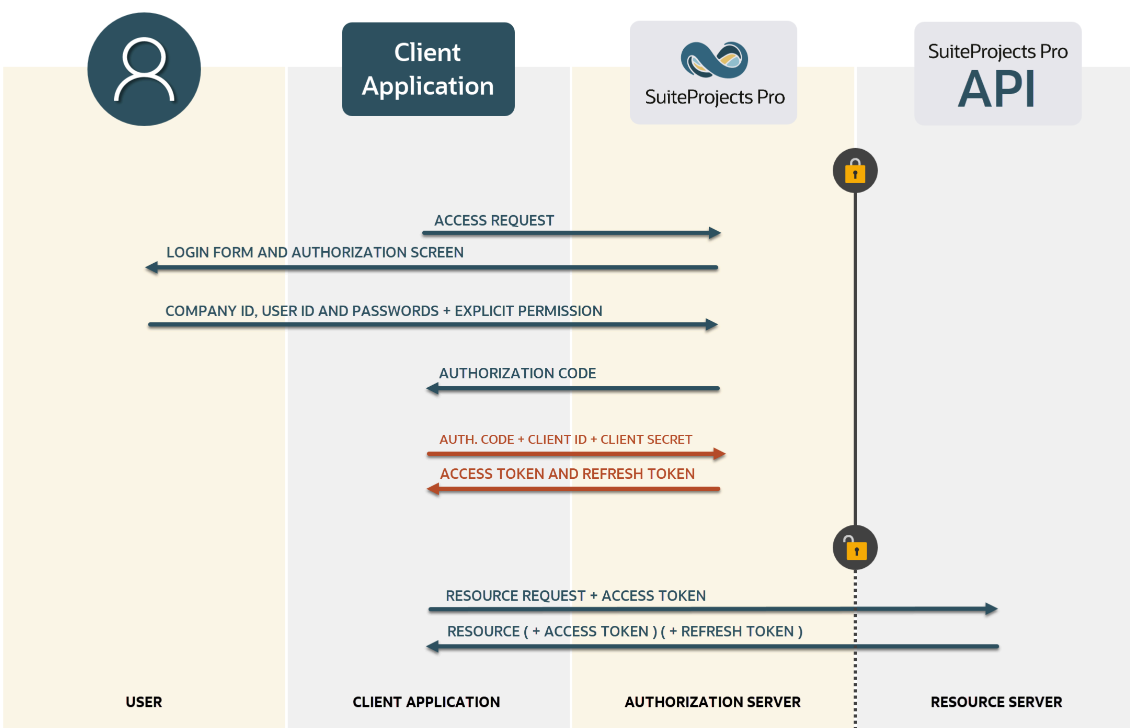
b. The user enters user credentials in the SuiteProjects Pro sign-in page or in a third-party identity provider Single Sign-on form . The authenticated user is then prompted to authorize the application's access request.

2. **Receiving the authorization code** — SuiteProjects Pro issues an authorization code. The user is redirected back to the client application with the authorization code in the query string. See Receiving the Authorization Code.
3. **Exchanging the authorization code for an access token** — The client application must exchange the authorization code for an access token and a refresh token. See Exchanging the Authorization Code for an Access Token.

An additional step — **Refreshing an access token** — is required to get a new access token after the previously issued access token has expired. See Refreshing an Access Token.

> **Note:** You must send a request to one of the OAuth 2.0 endpoints for each of these steps. For information about OAuth 2.0 URLs, see OAuth 2.0 Endpoints URL Schema and Account-Specific URLs.

You can then use OAuth 2.0 token based authentication for your API calls. See Using OAuth 2.0 Access Tokens in Your API Requests.



OAuth 2.0 Endpoints URL Schema and Account-Specific URLs

For each step of the OAuth 2.0 authorization code flow, you must send requests to the authorization server using URLs specific to each type of request.

The following URL shows how you construct a request URL:

```
https://<account-domain>/login/oauth2/v1/<endpoint><query-string>
```

- The first part of the URL must include your account-specific domain <account-domain> and the service path for OAuth 2.0. For more information about your account-specific domain name, see the help topic Your Account URLs.
- The second part of the URL depends on the endpoint you want to access

<endpoint>	Description
authorize	Use the authorization endpoint to get the user's explicit permission and receive an authorization code in response if the user authorizes the app to access SuiteProjects Pro on their behalf. The request URL includes a query string with request parameter. `https://<account-domain>/login/oauth2/v1/authorize?<query-string>` See Getting the User's Permission and Receiving the Authorization Code.
token	Use the token endpoint to exchange the authorization code for an access token or to refresh an access token. Request parameters are passed in the request headers and body. `https://<account-domain>/login/oauth2/v1/token` See Exchanging the Authorization Code for an Access Token and Refreshing an Access Token.

Getting the User's Permission

To begin the OAuth 2.0 authorization code flow, the client application must direct the user to the authorization server — SuiteProjects Pro — using a GET request.

Send a GET request to the authorization endpoint using a URL like the following example:

```
https://company-id.app.netsuitesuiteprojectspro.com/login/oauth2/v1/authorize?response_type=code&redirect_uri=https://example-app.com/
redirect&client_id=client_application_id&scope=xml+soap+rest&state=client_generated_string
```

Replace the account domain and parameter values `https://example-app.com/redirect`, `client_application_id` and `client_generated_string` given in the example using the following guidelines.

The GET request URL includes the authorization endpoint for the SuiteProjects Pro account followed by a query string:

`https://<account-domain>/login/oauth2/v1/authorize?<query-string>`

where <account-domain> is your account-specific domain name. For more information, see the help topic Your Account URLs.

The request parameters are described in the following table.

Request parameter	Description
response_type	The value of the response_type parameter is always code. It tells the authorization server that the client application is initiating the OAuth 2.0 authorization code flow.
redirect_uri	The valid redirect URI where the application will process the authorization code. The user should be redirected to this URI after allowing or denying the access request. The redirect URI must match the redirect URI specified on the application configuration form in SuiteProjects Pro. See Adding a New Application.
client_id	The public identifier for the client application. The Client ID is generated by SuiteProjects Pro when an administrator registers the client application. See Adding a New Application.
scope	One or more plus-separated scope values indicating the access requested by the application. The scope determines which component API and which resources the application will be able to access. - SuiteProjects Pro currently supports the following scope values:

<table>
<tr><th>Request parameter</th><th>Description</th></tr>
<tr><td></td><td>

<code>bi</code> – Use this scope to access supported Business Intelligence (BI) Connector resources using the REST API.
<blockquote>Note: You can access BI Connector resources using the REST API even if API access and REST API are not enabled in your account.
The BI Connector feature is a licensed add-on. To enable this feature, contact your SuiteProjects Pro account manager.</blockquote>
<code>rest</code> – Use this scope to access all supported SuiteProjects Pro resources except BI Connector resources using the REST API. Requires API Access and REST API to be enabled in your account.
<code>soap</code> – Use this scope to access all supported SuiteProjects Pro resources using the SOAP API. Requires API Access to be enabled in your account.
<code>xml</code> – Use this scope to access all supported SuiteProjects Pro resources using the XML API. Requires API Access to be enabled in your account.

SuiteProjects Pro accepts multiple scope values. The scope values are case insensitive.
<blockquote>Note: You can combine scope values <code>rest</code>, <code>soap</code> and <code>xml</code>. For example, use the scope <code>rest+soap</code> to access supported resources using the REST API and SOAP API.
The <code>bi</code> scope value cannot be combined with any other scope values. The authorization endpoint returns an <code>invalid_scope</code> error if you combine <code>bi</code> with other scope values, such as <code>bi+rest</code>, for example. If you want the same client application to use the REST API to read BI connector resources and interact with other supported resource, you need to obtain two authorization codes and use two sets of access and refresh tokens, one for each scope.</blockquote>
Authorized applications have the same permissions and data access privileges as the user authorizing the application within the selected scope.

</td></tr>
<tr><td><code>state</code></td><td>A random string generated by the client application, which is used to prevent cross-site request forgery (CSRF) attacks. For more information see the OAuth 2.0 specification RFC6749 Section 10.12.</td></tr>
</table>

After the application sends the GET request, SuiteProjects Pro redirects the user to the SuiteProjects Pro sign-in page. SuiteProjects Pro may redirect the user to a third-party Identity provider Single Sign-on form, if SAML SSO is enabled for the account and the user. After successful authentication, SuiteProjects Pro shows an authorization page prompting the user to approve the application's access request.

Receiving the Authorization Code

After obtaining the user's explicit permission, SuiteProjects Pro initiates a redirect to the redirect URI specified in the GET request with the authorization code and the state as query parameters.

The redirect query parameters are described in the following table.

Redirect parameter	Description
`state`	The client application should check that the state in the redirect matches the state set in the GET request initiating the OAuth 2.0 authorization code flow. Validating the state sent to and returned from the authorization server can be used to prevent cross-site request forgery (CSRF) attacks.

Redirect parameter	Description
code	The authorization code issued by SuiteProjects Pro. ■ It is a unique single use code issued only for the client application requesting access. ■ The authorization code is valid for 10 minutes. The client application must exchange the authorization code for an access token before the authorization expires.

The following sample redirects illustrate successful and unsuccessful authorization.

- Application successfully authorized.

  ```
  https://example-app.com/redirect?state=client_generated_string&code=authorization_code
  ```

  ```
  https://example-app.com/redirect?
  state=ryjp37y2qa28hdseck1gat&code=JTlQ43UvYDKbhI_SpEWsIE_bTpbou2-
  kYeeLtKiMuR1iqZ3W3roqM4rmRC8fFCOJtBI6a85AnJPefx2szW9g4jCY
  ```

- Application not authorized.

  ```
  https://example-app.com/redirect?error_description=The+resource+owner+or+authorization+server+denied+the+request&error=access_de
  nied&state=client_generated_string
  ```

  ```
  https://example-app.com/redirect?error_description=The+resource+owner+or+authorization+server
  +denied+the+request&error=access_denied&state=ryjp37y2qa28hdseck1gat
  ```

where:

- `client_generated_string` is the same string that was sent in the request using the `state` parameter.
- `authorization_code` is the OAuth 2.0 authorization code obtained for a specific client application and a specific user.

Exchanging the Authorization Code for an Access Token

The application can use the authorization code to obtain an access token and a refresh token using a POST request.

Send a POST request to the token endpoint.

- The POST request URL is https://<account-domain>/login/oauth2/v1/token
- The request must include the client ID and the client secret in the HTTP authorization request header.
  - The client authentication method used in a header of the request follows the HTTP Basic authentication scheme. For more information, see RFC 7617.
  - The format is `client_id:clientsecret`.
  - The string value is Base64 encoded.
- The request must include the parameters `grant_type`, `code` and `redirect_uri` in the request body.
- Request parameters must be encoded based on the HTML specification for `application/x-www-form-urlencoded` media type. For more information, see URL Specification 5.1.

The request parameters are described in the following table.

Request parameter	Description
grant_type	The value of the `grant_type` parameter is `authorization_code`. It tells the token endpoint that the client application is using the OAuth 2.0 authorization code grant type.

Request parameter	Description
code	The authorization code issued by SuiteProjects Pro and received by the client application in the redirect.
redirect_uri	The valid redirect URI. The redirect URI must match the redirect URI specified on the application configuration form in SuiteProjects Pro and when requesting the authorization code.
client_id	The public identifier for the client application. The Client ID is generated by SuiteProjects Pro when an administrator registers the client application.
client_secret	The client secret for the application. This ensures that the request to get the access token is made only from the application, and not from a potential attacker that may have intercepted the authorization code.

Example POST request:

```
POST /login/oauth2/v1/token HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Basic base_64_encoded_client_id:client_secret
Content-Type: application/x-www-form-urlencoded
code=authorization_code&redirect_uri=https%3A%2F%2Fexample-app.com%2Fredirect&grant_type=authorization_code
```

Replace the following values in the example:

- `base_64_encoded_client_id:client_secret` with the base 64 encoded string required to authenticate the request, which includes the client ID and client secret.
- `authorization_code` with the OAuth 2.0 authorization code obtained for a specific client application and a specific user.
- `https%3A%2F%2Fexample-app.com%2Fredirect` with the URL-encoded redirect URI for the client application.

The token endpoint will verify all the parameters in the request to ensure that the authorization code is valid and that the client ID and client secret match. If all the request headers and parameters are valid, the token endpoint generates an access token and refresh token and includes them in the response.

The token endpoint returns the response as a JSON object with the properties described in the following table.

JSON object properties	Description
access_token	The access token in JSON Web Token (JWT) format. The access token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
refresh_token	The refresh token in JSON JWT format. The refresh token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
expires_in	The access token expiration time in seconds. The access token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
type	The value of the `type` property is always `bearer`. For more information, see the OAuth 2.0 specification — RFC 6750.

Example response (successful token request):

```
HTTP/1.1 200 OK
Content-Type: application/json
```

```
Cache-Control: no-store
Pragma: no-cache
{
       "refresh_token":"OAuth2_refresh_token",
       "expires_in":900,
       "access_token":"OAuth2_access_token",
       "token_type":"bearer"
}
```

In the example, `OAuth2_access_token` is the OAuth 2.0 access token obtained for the client application that is used to authenticate API requests, and `OAuth2_refresh_token` is the OAuth 2.0 refresh token obtained for the client application that is used to request a new access token when it expires.

If the request fails, the token endpoint returns a JSON object with the `error` and `error_descrtiption` properties. See Token Request Errors.

The client application can now use the access token to make API requests. This completes the authorization flow.

The access token is only valid for a short period of time and within the scope it was issued for. The client application will need to refresh the access token to continue making API requests after it expires.

Refreshing an Access Token

The access token has a short expiration time (15 minutes). When the access token expires, the client application can use the refresh token to obtain a new access token using a POST request.

- You can use the expiration time value (`expires_in`) to refresh access tokens before it is due to expire.
- You can refresh access tokens if an API request returns an authentication failed error.
- Each refresh token can be used one time only. Refresh in an access token generates a new access token and a new refresh token.

Send a POST request to the SuiteProjects Pro token endpoint. The POST request is similar to that used to exchange an authorization code for an access token except it now uses the parameters set in the following table.

Request parameter	Description
`grant_type`	The value of the `grant_type` parameter is `refresh_token`. It tells the token endpoint that the client application is requesting to refresh an access token.
`refresh_token`	A valid refresh_token. Refresh tokens are valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
`scope`	(Optional) The requested scope must be within the scope the original access token was issued for. If omitted, the new access token will be issued for the same scope as the original access token. **Note:** The `bi` scope value cannot be combined with any other scope values. If you want the same client application to use the REST API to read BI connector resources and interact with other supported resource, you need to use two sets of access and refresh tokens, one for each scope. See Getting the User's Permission.
`redirect_uri`	The valid redirect URI.
`client_id`	The public identifier for the client application.
`client_secret`	The client secret for the application.

Example POST request:

```
POST /login/oauth2/v1/token HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Basic base_64_encoded_client_id:client_secret
Content-Type: application/x-www-form-urlencoded
refresh_token=OAuth2_refresh_tokenredirect_uri=https%3A%2F%2Fexample-app.com%2Fredirect&grant_type=refresh_token
```

Replace the following values in the example:

- `base_64_encoded_client_id:client_secret` with the base 64 encoded string required to authenticate the request, which includes the client ID and client secret.
- `OAuth2_refresh_token` with the OAuth 2.0 refresh token obtained for the client application.
- `https%3A%2F%2Fexample-app.com%2Fredirect` with the URL-encoded redirect URI for the client application.

The token endpoint will verify all the parameters in the request to ensure that the refresh token is valid and that the client ID and client secret match. If all the request headers and parameters are valid, the token endpoint generates an access token and refresh token and includes them in the response.

The token endpoint returns the response as a JSON object with the properties described in the following table. The response includes both a new access token and a new refresh token.

JSON object properties	Description
`access_token`	The access token in JSON Web Token (JWT) format. The access token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
`refresh_token`	The refresh token in JSON JWT format. The refresh token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
`expires_in`	The access token expiration time in seconds. The access token is valid for the period configured in SuiteProjects Pro for the application. See Application Configuration.
`type`	The value of the `type` property is always `bearer`. For more information, see the OAuth 2.0 specification — RFC 6750.

> **Note:** Access tokens normally remain valid for their entire lifetime. However, the access token becomes invalid before it is due to expire if there are any changes in the SuiteProjects Pro configuration, or in the access privileges or role permissions of the employee who authorized the client application, and the application uses the access token is refreshed.

Example response (successful token request):

```
HTTP/1.1 200 OK
Content-Type: application/json
Cache-Control: no-store
Pragma: no-cache
{
      "refresh_token":"OAuth2_refresh_token",
      "expires_in":900,
      "access_token":"OAuth2_access_token",
      "token_type":"bearer"
}
```

In the example, `OAuth2_access_token` and `OAuth2_refresh_token` are the new OAuth 2.0 access token and the new OAuth 2.0 refresh token obtained for the client application.

If the request fails, the token endpoint returns a JSON object with the `error` and `error_descrtiption` properties. See Token Request Errors.

Token Request Errors

Your client application needs to handle the following cases when the request to exchange an authorization code for an access token or to refresh a token fails. The token endpoint may return one of the errors listed in the following table if the token request fails.

- Errors are listed in descending priority order. Only the first error is returned if there are more than one.
- Some of the errors are specific to one of the two possible types of request (`grant_type`).

error	error_description	grant_type	Reason
unsupported_grant_type	The authorization grant type is not supported by the authorization server	—	The `grant_type` must be either `authorization_code` or `refresh_token`.
invalid_request	Authorization header not sent	—	Request headers must include a Basic Authorization header.
invalid_request	No credentials provided	—	The Client Id and Client Secret must be sent in the request Authorization header.
access_denied	Authorization code is not valid	`authorization_code`	The authorization code must be valid. Possible reasons include: - **Expired authorization code** — The authorization code is valid for 10 minutes. - **Authorization revoked** — Users can revoke an application at any time. - **Disabled application** — Account administrators can disable an application at any time. - **Application removed** — Account administrators can remove an application at any time.
invalid_request	redirect_uri or client_id is not valid	`authorization_code`	The redirect URI and Client ID must match the information specified on the application configuration form in SuiteProjects Pro.
access_denied	Refresh token is not valid	`refresh_token`	The refresh token sent in the request is not valid. Possible reasons include: - **Expired refresh token** — Refresh tokens are valid for 24 hours. - **Authorization revoked** — Users can revoke an application at any time.

error	error_description	grant_type	Reason
			■ **Disabled application** — Account administrators can disable an application at any time. ■ **Application removed** — Account administrators can remove an application at any time.
invalid_scope	Changing scopes is not supported	`refresh_token`	Tokens are issued for a specific `scope`. The `scope` of the token requested must be within the `scope` of the token sent in the request. For example, if the scope of the original token includes both `xml` and `rest`, the scope of the access token requested can be `rest` only.
access_denied	Authorization failed	—	The Client Id and Client Secret pair sent in the request is not valid. Note that account administrators may generate a new Client Secret for the application in SuiteProjects Pro.
access_denied	API access via OAuth2 is disabled	—	API access is not enabled for the SuiteProjects Pro account and the `scope` includes `rest`, `soap` or `xml`.
access_denied	REST API access disabled	—	REST API is not enabled for the SuiteProjects Pro account and the `scope` includes `rest`.
access_denied	BI Connector access disabled	—	The BI Connector feature is not enabled for the SuiteProjects Pro account and the `scope` is `bi`.

Note: If applicable, the client application can initiate the OAuth 2.0 authorization code flow again to obtain a new authorization code and exchange it for an access token. The user is directed to the sign-in page and required to enter valid user credentials. If the user revoked the application the authorization page will appear. If the application is still authorized, the authorization endpoint will return a new authorization code immediately after the successful user authentication.

Using OAuth 2.0 Access Tokens in Your API Requests

You can use OAuth 2.0 access token authorization instead of password authentication or Session ID in your API requests. The XML API, SOAP API and REST API support authorization using access tokens. OAuth 2.0 access token authorization is the only supported authentication method with the REST API.

- In your **XML API** requests, use the `Auth` XML command. See the help topic OAuth 2.0 Access Token Authentication.
- In your **SOAP API** requests, use the `SessionHeader` web services method complex type to hold the access token. See the help topic Using SessionHeader for OAuth2.0 Token Based Authentication.
- In your **REST API** requests, send the access token as a bearer token in the HTTP authorization header. See Authentication.

> **Note:** For REST API requests, the access token lifetime will either be the **Access token lifetime** set on the application configuration form in SuiteProjects Pro, or the **Session timeout** set in Administration > Global settings > Account > Security options, whichever is the lower.

> **Note:** Both the XML API and SOAP API continue to support password authentication. The SOAP API continues to support `SessionID`.

Authorization Errors

The relevant licensed add-on features must be enabled in your account:

- API access must be enabled except if you are using the REST API to access supported Business Intelligence (BI) Connector resources.
- The BI Connector feature must be enabled if you are using the REST API to access supported Business Intelligence (BI) Connector resources. The REST API returns HTTP status `404 Not found` with error message `Page not found` or `Report not found` if you attempt to access a BI Connector resource endpoint with a valid access token and the BI Connector feature is disabled.

API requests must use a valid access token with a valid scope.

- The access token must exist.
- The access token must not be expired.
- The user who gave the application permission to access SuiteProjects Pro must be active. The same access token can be used if the user is set to active again.
- The application must be enabled in the SuiteProjects Pro account. The same access token can be used if the application is disabled and then enabled again.
- The access token must be used within the scope it was issued for. For example, if the authorization code was obtained for the scope `xml+rest`, the client application cannot use the access token in a SOAP API request.

The error code and message returned depend on the API:

- The XML API returns error code `420` and message `Authentication failed`.
- The SOAP API returns error code `9` and message `Logged out`.
- The REST API returns HTTP status `401 Unauthorized` and the response includes a `WWW-Authenticate` header `error="invalid_token", error_description="The access token is invalid"`.

An invalid OAuth 2.0 access token authorization has priority over a valid password authentication. You cannot use password authentication (Company ID, User ID, password) — or a valid Session ID in the SOAP session header — as a fallback for an invalid access token.

Authorizing Applications to Access SuiteProjects Pro on Your Behalf

Integration applications let you connect SuiteProjects Pro with other applications and they extend what you can do with SuiteProjects Pro. Integration applications may use the OAuth 2.0 authorization protocol to gain access to your company's SuiteProjects Pro account.

The first time an application using the OAuth 2.0 protocol attempts to access SuiteProjects Pro on your behalf, you will need to give this application your explicit permission.

To authorize an application, you will typically use the following steps:

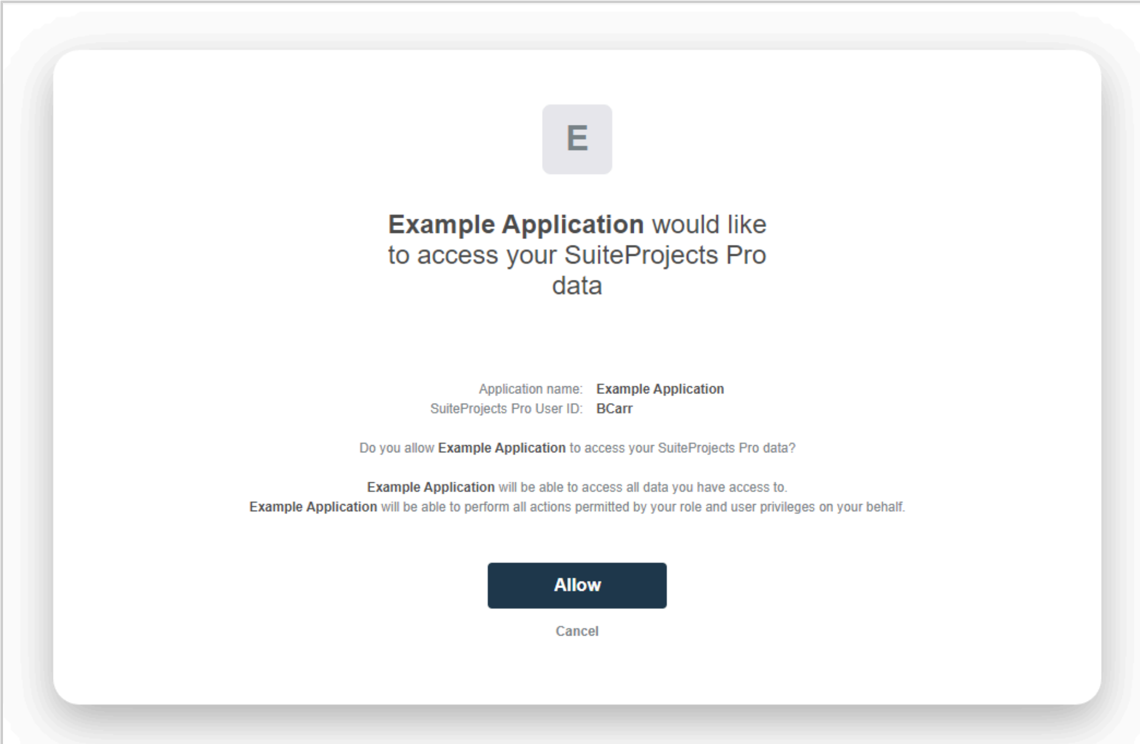
1. The application opens a browser and directs you to the same trusted sign-in page you normally use to sign in to SuiteProjects Pro — the SuiteProjects Pro sign-in page or your company Single Sign-on form appears.
2. Enter your sign-in details and click **Log in**.

   An authorization page will appear indicating that the application `<application name>` would like to access your SuiteProjects Pro data.
3. Read the content of the authorization page attentively. It should describe what the application does and how it will help you. It should also say what the application can do, for example:
   - The application will be able to access all data you have access to.
   - The application will be able to perform all actions permitted by your role and user privileges.

   > **Important:** **For Administrators** — Business rules configured for your company's SuiteProjects Pro account are applied when an integration application interacts with your SuiteProjects Pro data through the REST API. However, they are not applied when an integration application interacts with your SuiteProjects Pro data through the SOAP API or XML API — application developers must enforce business rules within their integration application if required. Business rules include SuiteProjects Pro account configuration settings and access control mechanisms, as well as any user scripts deployed on your company's SuiteProjects Pro account.
4. Click **ALLOW** to authorize the application or click **CANCEL** if you do not want the application to access SuiteProjects Pro on your behalf.

> **Note:** The steps may vary depending on the method you use to sign in to SuiteProjects Pro:
>
> - If you normally enter your company ID, user ID and password on the SuiteProjects Pro sign-in page, or if you enter your company ID on the SuiteProjects Pro sign-in page and then your password on your company single sign-on page, the above steps apply.
> - If you normally need to enter all sign-in details on your company single sign-on page to access SuiteProjects Pro without going to the SuiteProjects Pro sign-in page first (Identity Provider initiated Single Sign-on), you must sign in and launch SuiteProjects Pro before the application attempts to access SuiteProjects Pro on your behalf. The authorization page appears automatically. Follow steps 3 and 4 above. You do not need to re-enter your sign-in details.

Integration applications are registered and managed by your account administrator. They need to be enabled on your account before they can attempt to connect to SuiteProjects Pro and request your permission.



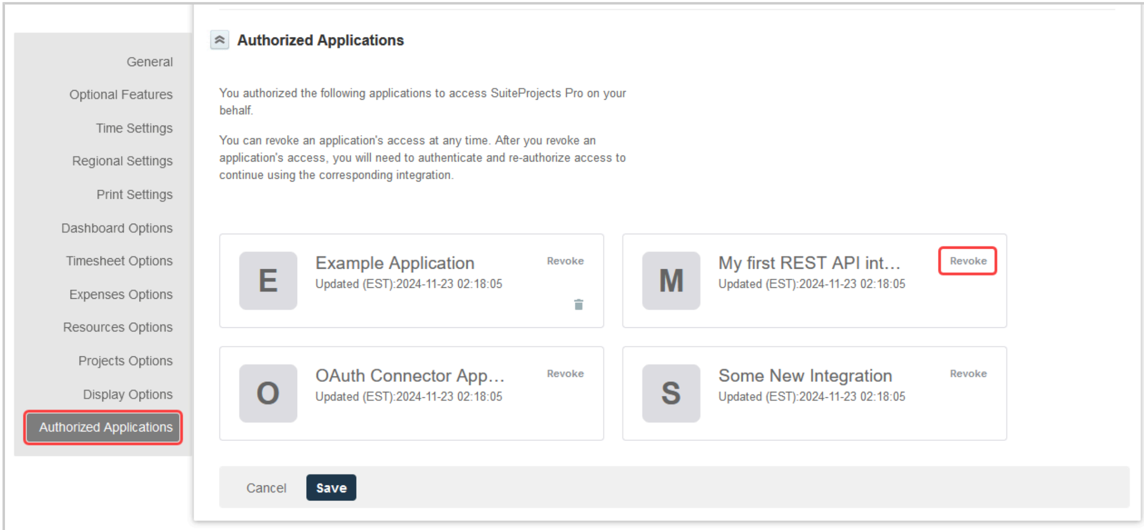
> **Note:** Integration applications are registered and managed by your account administrator. They need to be enabled on your company's SuiteProjects Pro account before they can attempt to connect to SuiteProjects Pro and request your permission.
>
> Account administrators can disable an application at any time.
>
> - If you have authorized an application and this application is disabled by an administrator, the application will no longer be able to interact with SuiteProjects Pro.
> - If an administrator enables this application again, you will need to give this application your explicit permission again before you can continue to work with it in connection with SuiteProjects Pro.

After you authorize an application, it will be able to interact with SuiteProjects Pro on your behalf until you revoke the authorization.

To view the application you have authorized, go to User Menu > Personal Settings > Authorized Applications. All your authorized applications are listed in a grid. Details include the name of the application and the date and time when it was last updated.

> **Note:** All times are given as Eastern Standard Time (EST).

To revoke an application, click **REVOKE** in the top right corner of the corresponding box, then click **REVOKE** in the confirmation message. The application no longer shows in the authorized applications list. If a revoked application attempts to access SuiteProjects Pro on your behalf, you will be prompted to give this application your explicit permission again.


General
Optional Features
Time Settings
Regional Settings
Print Settings
Dashboard Options
Timesheet Options
Expenses Options
Resources Options
Projects Options
Display Options
Authorized Applications
Authorized Applications
You authorized the following applications to access SuiteProjects Pro on your behalf.
You can revoke an application's access at any time. After you revoke an application's access, you will need to authenticate and re-authorize access to continue using the corresponding integration.
E
Example Application
Updated (EST):2024-11-23 02:18:05
Revoke
M
My first REST API int…
Updated (EST):2024-11-23 02:18:05
Revoke
O
OAuth Connector App…
Updated (EST):2024-11-23 02:18:05
Revoke
S
Some New Integration
Updated (EST):2024-11-23 02:18:05
Revoke
Cancel
Save

Request Format

This section describes how to format REST API requests. Each request includes the following parts:

- Request Method
- Request URL
- Request Headers
- Request Body (when creating or updating a record)

For example requests, see Examples.

Request Method

The REST API uses standard HTTP methods or verbs. The following table lists the CRUD operations you can perform using the REST API. The table shows example URLs for each operation and whether the method expects a request body.

For more information about methods supported for each resources, see Supported Resources, Methods and API Features.

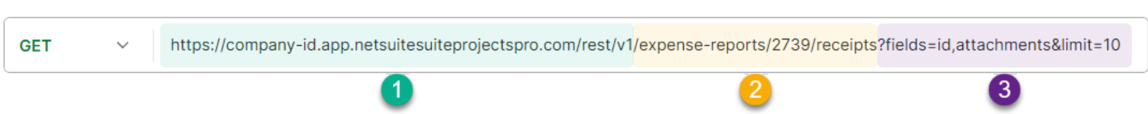
For more information about request URLs, see Request URL.

For more information about request bodies, see Request Body.

Operation	HTTP Method	Example Resource Endpoint Path	Request Body
Create a record	**POST**	`/expense-reports/`	JSON object
Retrieve all records	**GET**	`/expense-reports/`	*None*
Retrieve the record with internal ID = `{id}`	**GET**	`/expense-reports/{id}`	*None*
Update the record with internal ID = `{id}`	**PUT**	`/expense-reports/{id}`	JSON object
Delete the record with internal ID = `{id}`	**DELETE**	`/expense-reports/{id}`	*None*
Discover available methods and fetch the endpoint reference	**OPTIONS**	`/expense-reports/`	*None*

Request URL

You can access SuiteProjects Pro resources through the REST API by using URLs specific to each resource, and pass parameters in the query string to specify the information you need in the response.



The request URL includes:

1. **Base URL** — The base URL includes your account-specific domain, with a unique account identifier usually based on your Company ID, and the REST API service path.

Environment	Base URL
Production	`https://<company-id>.app.netsuitesuiteprojectspro.com/rest/v1`
Sandbox	`https://<company-id>.app.sandbox.netsuitesuiteprojectspro.com/rest/v1`

> **Note:** The base URL is typically sent in the Host header.
>
> The examples in this document include the base URL for a production account in the Host header, and use `company-id` as the unique account identifier. Substitute `company-id` with your account identifier, which is typically based on your company ID.

> **Note:** OpenAir is now SuiteProjects Pro. As of 5 a.m. Eastern Time (UTC–5) on January 25, 2025, for your sandbox account, and on February 15, 2025, for your production account, service URLs with the `netsuitesuiteprojectspro.com` domain name replace URLs with the `openair.com` domain name.
>
> For your production account, the sign-in page URL now is `https://auth.netsuitesuiteprojectspro.com/login` and the account-specific domain is `<company-id>.app.netsuitesuiteprojectspro.com`. After signing in, you are redirected to an account URL with the `netsuitesuiteprojectspro.com` domain name. Any links or bookmarks to sign-in page or account URLs with the `openair.com` domain name redirect to the SuiteProjects Pro sign-in page, even if you have an active SuiteProjects Pro session in a different browser tab.
>
> For backward compatibility, service URLs with the `openair.com` domain name continue to be supported until further notice for API requests, BI Connector requests, WSDL, and the NetSuite integration setup for real-time record import and single sign-on.
>
> For more information about the change, see the help topic Introducing SuiteProjects Pro (Action Required).

2. **Resource endpoint path**

   - There is a predictable resource endpoint path for each entity supported.

Entity	Path
Attachments	`/attachments/` *NOT SUPPORTED — Use the endpoints specific to the object the attachments are associated with*)
Contacts	`/contacts/`
Customers	`/customers/`
Expense reports	`/expense-reports/`
Job codes	`/job-codes/`
Projects	`/projects/` `/projects/bulk` (bulk actions)
Project milestones	`/project-milestones/`

Entity	Path
Project phases	`/project-phases/`
Project tasks	`/project-tasks/`
Published reports	`/published-reports/`
Receipts	`/receipts/`
Time entries	`/time-entries/`
Users	`/users/`

- The path may also include URL parameters.

  For example, `{id}` — The internal ID of the specific record you want to retrieve, update or delete.
- The path may also include additional path segments in the following cases:
  - The core entity object can be a parent to other entity objects. For example, `/expense-reports/{id}/receipts/` points to the subcollection of receipts that have the expense report with the specified internal ID as parent and `/expense-reports/{id}/receipts/{ticket_id}` point to a specific receipt within that subcollection.
  - The path points to a subset of entity objects, for which different business logic may apply. See Insert an Overlapping Expense Report (`/expense-reports/overlapping/` endpoint path), for example.

3. **Query string** — A query string may be used to specify what information you need in the response, to specify the filter set to apply, or to use the pagination, filtering, and referenced object expansion features.

> **Note:** For more information about endpoints, methods and parameters available for each supported resource collection, see REST API Endpoint Reference or consult the Generated API Documentation JSON.

Request Headers

The request headers include:

- **Host** — The base URL is typically sent in the Host header.
- **Authorization** — Requests must include the OAuth 2.0 bearer token in the Authorization header. See Authentication.
- **Content-Type** — POST and PUT requests include a request body. Use this header to specify the type of content. The REST API supports the following content types:
  - JSON (`application/json`) — for all POST and PUT requests.
  - form-data (`multipart/form-data`) — to insert a new attachment. See Add an Attachment to an Expense Report and Add an Attachment to a Receipt

Request Body

POST requests must include a request body. The body can be either of the following:

- A JSON-encoded string with the object to be created.
- Form-data with the file to be uploaded, when adding a new attachment.

PUT requests must include a JSON-encoded request body with the key-value pairs for the fields to be updated.

The following requirements apply to the JSON object in the request body:

- For PUT and POST requests:
  - Only include valid attribute-value pairs, that is valid attributes and valid values in the correct data type and format.
  - Not include read-only attributes. Hidden fields are read-only. The REST API returns an error if an attribute-value pair for a hidden field is included in a POST or PUT request body.
- For POST requests, include all required attributes.

For more information about valid, read-only and required attributes for each resource, see the resource schema object in REST API Endpoint Reference, or consult the Generated API Documentation JSON.

Examples

The following examples demonstrate the request URL format.

GET request example

The following request retrieves a filtered and paginated list of expense reports. The request URL includes:

- The resource endpoint `/expense-reports`
- A query string which illustrates some of the available query parameters:
  - `fields` — to return the exact fields you need. See Response Data Modifiers.
  - `filterSetId` — to apply a specific filter set which determines what data the authenticated user has access to and can view or update. The request will return only the objects that the authenticated user has access to when the specified filter set is active in SuiteProjects Pro. See Active Filter Set.
  - `limit` and `offset` — to delimit the number of objects returned in a page and identify the exact page to return. See Pagination.
  - `q` — to return only the objects according to the filter criteria specified. See Filtering.

```
GET /rest/v1/expense-reports?fields=id,attachments&filterSetId=3&limit=10&offset=10&q=created BETWEEN ['2020-01-01','2020-06-30']
 AND currency IS 'EUR' HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

PUT request example

The following request updates the receipt with the internal ID 3825. The request URL includes:

- The resource endpoint `/receipts/`
- The resource ID `{id}`
- A query string which illustrates some of the available query parameters:
  - `fields` — to return the exact fields you need. See Response Data Modifiers.

- `filterSetId` — to apply a specific filter set which determines what data the authenticated user has access to and can view or update. The request will update the object only if the authenticated user has access to that object when the specified filter set is active in SuiteProjects Pro. See Active Filter Set.
- `return_object` — to include the object updated in the response instead of returning only the internal ID of the object updated. See Response Data Modifiers.
- q — to return only the objects according to the filter criteria specified. See Filtering.

```
PUT /rest/v1/rest/v1/receipts/3825?fields=id,attachments&filterSetId=3&return_object=1 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
  "cfCheckboxReceipts": true,
  "date": "2020-06-30",
  "currency": "USD",
  "isTaxIncludedInCost": false,
  "notes": "Receipt updated using SuiteProjects Pro REST API"
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Response Format

The response returned includes the following parts:

- HTTP Response Code — The REST API uses standard 3–digit HTTP response status codes. See Errors.
- HTTP Response headers — All headers have the meanings defined by the HTTP specification. The REST API returns a JSON-encoded response and response headers always include `Content-Type: application/json`.
- HTTP Response Body — The REST API returns the response as a JSON-encoded object. The JSON-encoded may include the properties listed in the following table.

Property	Description
`message`	A string containing a brief message about the status of your request — for example "`Success`".
`data`	An array containing the actual response elements. See Returned Data.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, and links to other pages, if a list is returned and if the resource endpoint supports pagination. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`errorFields`	An object returned if the request fails with a HTTP status code `400`, listing fields with validation errors. See Errors.
`included`	An array contains expanded objects referenced by internal ID in the `data` array, and specified in the request using the expand parameter. See Referenced Objects and Expansion.

Returned Data

The response object includes a `data` property for all successful `POST`, `GET`, `PUT` or `DELETE` requests. The content of the `data` array depends on the method used in the request. By default, `data` contains:

- A single object or up to 1000 objects, if you use a `GET` request to retrieve a single resource or a list of resources. The object contains key-value pairs for all fields. For more information about fields returned, see REST API Endpoint Reference or Generated API Documentation JSON.
- The internal ID of the object created, updated, or deleted, if you use a `POST`, `PUT` or `DELETE` request to insert, modify or delete a resource.

The response object includes a `meta` property for successful requests if the response is paginated, or if there are objects referenced by internal ID in the `data` array that support expansion. See Pagination and Referenced Objects and Expansion.

Response Data Modifiers

You can use the following query parameters to modify the default response data.

Parameter	Description
`fields`	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each object returned. The comma-separated list may include spaces (or `%20` in the URL encoded string). You can use the `fields` query parameter to return exactly the fields you need in the response. Supported methods: `POST`, `GET`, `PUT`. **Note:** The `GET /contacts/` and `GET /job-codes/` methods to retrieve a list of contacts and job codes, respectively, do not currently support the `fields` parameter.
`return_object`	If set to any value other than `0` (zero), the response will include the object created or updated in the `data` array. You can use both the `return_object` and `fields` parameters to return exactly the fields you need. Otherwise, the response will include only the internal ID of the object created or updated in the `data` array. Supported methods: `POST`, `PUT`.

Attribute Naming Convention, Data Types and Formats

Attribute names are case sensitive and use camelCase, a naming convention in which each word within a compound word is capitalized except for the first word. Attribute names do not include dash and underscore characters. For example, note the initial lowercase `t` and the uppercase `L` and `I` for the `taxLocationId` ExpenseReport attribute, which corresponds to the `tax_location_id` field in the Envelope table described in the SuiteProjects Pro Data Dictionary, or `tax_locationid` in the oaEnvelope SOAP API complex type and <Envelope> XML API data type.

The REST API uses data types and formats defined by the OpenAPI Specification (OAS). The OAS identifies four primitive data types: `Boolean`, `integer`, `number`, and `string`. Primitive data types have an optional modifier property: format. The REST API uses several known formats to define the data type used for each attribute in the JSON-encoded requests and responses. In this guide and in the generated API reference documentation, the following notation is used to indicate the data type and format: `type($format)`.

The following tables shows the data types and formats used by the REST API:

type	format	Notation	Description
Boolean		`Boolean`	true / false
integer	int64	`integer($int64)`	long integer
number	double	`number($double)`	double precision floating point number
number	float	`number($float)`	single precision floating point number
string		`string`	string of unicode code points **Note:** Some SuiteProjects Pro accounts may be configured to use UTF-8 character encoding instead of Latin1. The REST API supports both Latin1 and UTF-8 encoded characters in the response.
string	date	`string($date)`	string using the date format `YYYY-MM-DD`, where `YYYY` is the four-digit year, `MM` the two-digit month, and `DD` the two-digit day of the month — Example: `2020-09-19`
string	date-time	`string($date-time)`	string using the date-time format `YYYY-MM-DD hh:mm:ss`, where `hh` is the two-digit hours, `mm` the two-digit minutes, and `ss` the two-digit seconds — Example: `2020-09-19 17:56:38` **Note:** This format is used for system-generated and read-only fields. The format applies to the following attributes in the data returned: `created`, `updated`, and `exported`. Note however that the `date-time` format is not supported in query expressions used for Filtering.

Custom Fields

The REST API supports custom fields associated with the supported resources (object types).

- Custom fields are queryable. See Filtering. However, review the current limitations — Custom Fields Limitations in the REST API.
- Attribute names for custom fields do not use the same naming convention as built-in fields. Custom field attribute names are formed using the custom field name as set in SuiteProjects Pro with the prefix `cf`. For example, the attribute for a custom field with the name `amex_transaction_number` in SuiteProjects Pro is `cfamex_transaction_number`.

The following table shows the data types and formats corresponding to each custom field type in SuiteProjects Pro:

Custom Field Type	Data Type and Format
Check box	`Boolean`
Numeric	■ `integer($int64)` if **Decimal point** is set to `0` (zero) on the custom fields properties form ■ `number($float)` otherwise
Date	`string($date)`
[*All other custom field types*]	`string`

Custom Fields Limitations in the REST API

Review the following limitations:

- Custom field types other than check box, numeric, and date are treated as string. The string value may depend according to the custom field type. For example, tag custom field type values include an HEX color code as well as the display text, multiple selection and pick list include all selected values in a string but in no determined order.
- Error message for custom dropdown fields do not support UTF-8 encoded dropdown values.
- When using custom fields with the filtering feature. See also Filtering.
  - Custom field types other than check box, numeric, and date are treated as string. You can only use the query operators available for the relevant data type and format string data types when querying other custom field types.
  - Custom field types multiple selection and pick list are supported but may not be handled correctly. Use the operators `CONTAIN` and `CONTAIN_NOT` with these custom field types and compare with a valued including only one of the possible multiple selection or pick list field values.

Active Filter Set

You can specify the filter set you want to apply to your request by using the `filterSetId` query parameter. The active filter set determines what data can be viewed or modified.

> **Note:** In SuiteProjects Pro, filter sets define what data the authenticated user has permission to view or update. Each user has at least one filter set assigned — the primary filter set. If more than one filter set are assigned to a user, that user can set an filter set as active to control the data available in SuiteProjects Pro. For more information, see Security.

The `filterSetId` is the internal ID of the filter set to be applied.

- When specified, the request is successful only if the data is accessible when the specified filter set is active in SuiteProjects Pro. For example:
  - A `GET` request only returns an object if the object can be accessed when the specified filter set is active.
  - A `POST` request only creates an object if all items associated with this object can be accessed when the specified filter set is active.
  - A `PUT` request only updates an object if the object and all the updated object properties can be accessed when the specified filter set is active.
  - A `DELETE` request only deletes an object if the object can be accessed when the specified filter set is active.
- Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.

> **Important:** Review the following guidelines:
>
> - The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token.
> - If the request concerns multiple objects, the requests returns, creates, updates or deletes only the objects that can be viewed or modified when the specified filter set is active. In the case of `POST`, `PUT`, and `DELETE` requests, the REST API returns the HTTP response code `207 Multiple statuses returned`. See also Errors.
> - Filter sets may overlay with other access control features such as role permissions, and form permissions, for example.

Filtering

You can search the collection of resources by using the q query parameter to specify search criteria. If you use the q parameter when retrieving a list of resources using the GET method, the response will only include the objects matching the conditions specified in the request.

The query expression can include a single clause or combine several clauses.

- Each clause includes a field name and a comparison operator — See Queryable Fields and Comparison Operators.
- Clauses may include one or more values — See Values in Query Clauses.
- To combine clause, you can use logical operators and parenthesis ( ) — See Logical Operators and Precedence.

Important: The query expression must be URL-encoded to be included as part of the URL query string. The request will fail otherwise. The examples in this guide do not show URL-encoded query expressions for ease of reading. For example, the query expression `q=created BETWEEN ['2020-01-01','2020-06-30'] AND currency IS 'EUR'` should be encoded to `q=created%20BETWEEN%20[%272020-01-01%27,%272020-06-30%27]%20AND%20currency%20IS%20%27EUR%27`.

Please review the current limitations for this feature — See Limitations.

Queryable Fields

The field descriptions in the Generated API Documentation JSON or the REST API Endpoint Reference indicate whether you can use the field in your query clauses. Look for the `[Query allowed]` mention in the schema object field descriptions.

Comparison Operators

The comparison operators you can use depend on the field data type and format. The following table lists the comparison operators available for each data type and format.

There are different classes of operators:

- Unary operators operate on only one operand — the field name. A unary operator is typically used in this format: `fieldName OPERATOR`
- Binary operators operate on two operands — the field name and a value. A binary operator is typically used in this format: `fieldName OPERATOR value`
- Ternary operators operate on three operands — the field name and two values. A ternary operator is typically used in this format: `fieldName OPERATOR [value1,value2]`
- N-ary operators operate on N operands — the field name and one or more values. A ternary operator is typically used in this format: `fieldName OPERATOR [value1,value2,value3,...]`

Data Type (Format)	Query Operators	Class	Examples
[*All data types and formats*]	EMPTY, EMPTY_NOT	Unary	`description EMPTY`

Data Type (Format)	Query Operators	Class	Examples
Boolean	IS, IS_NOT	Binary	`isActive IS true`
integer($int64) number($double) number($float)	EQUAL, EQUAL_NOT, GREATER, GREATER_NOT, GREATER_OR_EQUAL, GREATER_OR_EQUAL_NOT, LESS, LESS_NOT, LESS_OR_EQUAL, LESS_OR_EQUAL_NOT,	Binary	`userId EQUAL 237` `total LESS_OR_EQUAL 148.5`
integer($int64) number($double) number($float)	BETWEEN, BETWEEN_NOT, WITHIN, WITHIN_NOT	Ternary	`total BETWEEN [25,148.5]`
integer($int64) number($double) number($float)	ANY_OF, ANY_OF_NOT	N-ary	`userId ANY_OF [217, 237, 638,755,829]`
string	CONTAIN, CONTAIN_NOT, IS, IS_NOT, START_WITH, START_WITH_NOT, END_WITH, END_WITH_NOT	Binary	`description CONTAIN “meal”`
string($date) string($date-time)	AFTER, AFTER_NOT, BEFORE, BEFORE_NOT, ON, ON_NOT, ON_OR_AFTER, ON_OR_AFTER_NOT, ON_OR_BEFORE, ON_OR_BEFORE_NOT	Binary	`accountingDate ON_OR_BEFORE “2020-09-30”`
string($date) string($date-time)	BETWEEN, BETWEEN_NOT,	Ternary	`created BETWEEN [“2020-01-01”, “2020-06-30”]`

Values in Query Clauses

Query clauses may include one or more values. Multiple values are The following table lists the accepted value formats for each data type and format.

Data Type (Format)	Value Format	Examples
Boolean	lowercase, Titlecase, or numeric Boolean values, with or without single or double quotes	`true`, `False`, `‘true’`, `“False”`, `1`, `‘0’`, `“1”`
integer($int64) number($double) number($float)	numeric values, with or without single or double quotes	`126.32`, `‘126.32’`, `“126.32”`
string	string values, with single or double quotes	`'USD'`, `“CAD”`
string($date)	string values using the date format `YYYY-MM-DD`, with single or double quotes	`'2020-09-19'`, `“2020-09-19”`

Data Type (Format)	Value Format	Examples
string($date-time)	**Note:** The date-time format is not supported for values in query expressions. Use the date format YYYY-MM-DD in query clauses for the read-only fields created, updated, and exported, even though values are returned as string($date-time).	

Logical Operators and Precedence

You can combine clauses in your query expression using the logical operators AND and OR. The operator AND takes precedence over the operator OR. You can use parenthesis () to mark precedence in your query expression.

Consider the example `isAdjusting IS false AND (currency IS 'CAD' OR userId EQUAL 237) AND accountingDate EMPTY` — the request returns the objects meeting all the following criteria:

- `isAdjusting IS false` — The expense report is not an adjusting expense report.
- `currency IS 'CAD' OR userId EQUAL 237` — Either the expense report currency is Canadian Dollars or the internal ID for the Employee is 237.
- `accountingDate EMPTY` — The accounting date is not set.

Limitations

The following limitations currently apply to the filtering feature:

- The query expression passed using the q parameter in query string can be up to around 5500 characters long. Longer query strings return an invalid request error.
- SuiteProjects Pro custom field types other than Check box, Numeric, and Date are treated as string. You can only use the query operators available for the relevant data type and format string data types when querying other custom field types. See also Custom Fields.
- SuiteProjects Pro custom field types Multiple selection and Pick list may not be handled correctly with some string query operators. Use the operators CONTAIN and CONTAIN_NOT with these custom field types. See also Custom Fields.

Pagination

Some resources support GET methods to retrieve a list of resources. The response may be returned in one or more pages depending on the number of objects to be returned. For some resources, you can use the `limit` and `offset` parameters to control the response pagination.

Parameters

Parameter	Description	Default
`limit`	A limit on the length of the page. You can set the maximum number of objects to be returned per page between 1 and 1000.	`100`
`offset`	A cursor for use in pagination. The response will skip the number of matching objects (or rows) specified using the `offset` parameter and return the page of objects starting with the next object (or row) in the list. The `offset` must be a positive number divisible by the page `limit`.	`0`

Response

A paginated response includes the `meta` property in the JSON-encoded object returned. For a paginated response, the `meta` property has the following attributes:

Property	Description
`rowsPerPage`	The number of objects (or rows) per page.
`totalPages`	The total number of pages in the list.
`totalRows`	The total number of objects (or rows) in the list.
`links`	An array of objects containing direct links to other pages and their relation to the page returned: ■ `first` — the URL for the first page. Not included if the page returned is the first page. ■ `prev` — the URL for the previous page. Not included if the page returned is the first page. ■ `self` — the URL for the current page (the page requested). ■ `next` — the URL for the next page. Not included if the page returned is the last page. ■ `last` — the URL for the last page. Not included if the page returned is the last page.

Example

The following example skips the first 90 objects and returns a page of 10 objects starting from the 91th object in the list of results.

```
GET /rest/v1/receipts?limit=10&offset=90 HTTP/1.1
```

The response includes the `meta` attribute with information about the page (`rowsPerPage` — the number of objects per page), the list (`totalPages` and `totalRows` — the total number of pages and objects in the list, respectively), and direct links to the first, previous, next and last page, as well as the requested page.

```json
{
   "message" : "success",
   "data" : [
      {...}
   ],
   "meta" : { "rowsPerPage": 10,
      "totalPages": 85,
      "totalRows": 841,
      "links": [
         {
            "rel": "first",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?limit=10"
         },
         {
            "rel": "prev",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?limit=10&offset=80"
         },
         {
            "rel": "self",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?limit=10&offset=90"
         },
         {
            "rel": "next",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?limit=10&offset=20"
         },
         {
            "rel": "last",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?limit=10&offset=840"
         }
      ]
   }
}
```

Sorting

You can use the `orderBy` parameter when retrieving a list of resources using the GET method to sort the returned list by the specified attribute in ascending or descending order.

- You can specify an ascending sort order or descending sort order using a + sign (ascending) or - sign (descending) before the attribute name. An ascending sort order is used if the sort order is not specified.

  Examples:

  - `GET /rest/v1/receipts?orderBy=date` lists receipts and sort them in ascending order of receipt date (oldest first).
  - `GET /rest/v1/receipts?orderBy=+date` lists receipts and sort them in ascending order of receipt date (oldest first).
  - `GET /rest/v1/receipts?orderBy=-date` lists receipts and sort them in descending order of receipt date (most recent first).
- The Sorting feature supports single level sorting only. Entering a comma-separated list of attributes will return an error. A secondary sorting level by internal ID is applied by default. When reading a list of receipts sorted by date, for example, if two receipts have the same receipt date, the response lists the receipt with the lower internal ID (`id`) first.
- The Sorting feature supports standard indexed fields only. See Sortable fields.
- Sorting by a hidden sortable field is allowed. The returned list of resources is sorted in the order specified even if the sortable field is hidden due to form permissions, form permission rules or other account configuration setting.

Sortable fields

The Sorting feature supports standard indexed fields only. The field descriptions in the Generated API Documentation JSON or the REST API Endpoint Reference indicate whether you can sort the list of resources by the field. Look for the `[Sorting allowed]` mention in the schema object field descriptions.

Parameters

Parameter	Description
`orderBy`	The attribute to sort the list by. The attribute must be sortable – Look for the `[Sorting allowed]` mention in the schema object field descriptions. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified.

Response

A sorted list of resources. The response includes the `meta` property in the JSON-encoded object returned. For a sorted response, the `meta` property has the following attribute in addition to other relevant attributes (see also Pagination, for example).

Property	Description
orderBy	An array of one object containing the following properties: ▪ `reversed` — `true` if the list is sorted in descending order, or `false` if the list is sorted in ascending order. ▪ `field` — the attribute used to sort the list by.

Example

The following example returns a page of 5 receipt objects in descending order of receipt date.

Request:

```
GET /rest/v1/receipts?orderBy=-date&fields=date,id&limit=5 HTTP/1.1
```

Response:

```
{
   "message" : "success",
   "data" : [
      {
          "date": "2022-10-03",
          "id": 146
      },
      {
          "date": "2022-10-03",
          "id": 152
      },
      {
          "date": "2022-10-03",
          "id": 186
      },
      {
          "date": "2022-09-26",
          "id": 116
      },
      {
          "date": "2022-09-23",
          "id": 98
      }
   ],
   "meta" : { "rowsPerPage": 5,
      "totalPages": 44,
      "totalRows": 9,
      "orderBy": [
         {
            "reversed": true,
            "field": "date"
         }
      ],
      "links": [
         {
            "rel": "self",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?orderBy=-date&fields=date,id&limit=5"
         },
         {
            "rel": "next",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?orderBy=-date&fields=date,id&limit=5&off
set=5"
         },
         {
            "rel": "last",
            "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts?orderBy=-date&fields=date,id&limit=5&off
set=40"
```

```
            }
        ]
    }
}
```

Referenced Objects and Expansion

You can expand objects referenced by internal ID in the main response elements (`data` array), if the referenced object type supports expansion. It can be used to return additional data in the same response without the need for separate requests. Some of this additional data is only available when using expansion.

If there are any attributes available for expansion in the main response elements (`data` array), the response automatically includes a `relationships` property in the response metadata (`meta` object) with information about the attributes available for expansion and the referenced objects (object type and internal ID).

To include the expanded objects in your response, use the `expand` query parameter. The JSON-encoded object returned will include the `included` property, an array of expanded objects.

For information about available expansions and supported object types, see Available Expansions and Supported Object Types.

Parameters

Parameter	Description
`expand`	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** Review the following: - If you use the `expand` parameter with a `POST` or `PUT` request and `return_object` is set to any value other than `0` (zero), the `expand` value must contain only attributes referencing a supported object type. If the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.

Response

An expanded response includes the `meta` and `included` properties in the JSON-encoded object returned.

Note: The main response element (`data` array) must include resource objects with attributes available for expansions for the following properties to be returned. Referenced objects metadata and expanded objects can be included in responses to `GET` request used to retrieve a list of objects or a single object, or in responses to `PUT` and `POST` requests if the `return_object` query parameter is set to any value other than `0` (zero).

Property	Description
`meta`	The response metadata object includes a `relationships` property — an array of objects containing information about attributes available for expansion in the main response elements (`data` array), and about referenced objects. The `relationships` array is always included if there are any attributes available for expansion in the main response elements (`data` array).

<table>
<tr><th>Property</th><th>Description</th></tr>
<tr><td></td><td>
Each object in the <code>relationships</code> array includes a key-value pair for each attribute available for expansion, where the key is the attribute available for expansion, and the value is an object with the following properties:

<code>data</code> — An object with the following attributes:

<code>type</code> — The referenced object type.
<code>id</code> — The internal ID of the referenced object is returned even If the object is referenced by a metavalue (negative integer) instead of an internal ID in the main response element (<code>data</code> array). The response substitutes the internal ID of the object for the metavalue reference. For information about possible metavalue references, see object property descriptions in REST API Endpoint Reference.

The key-value pair is omitted if there are no referenced objects (if the internal ID of the referenced object is <code>0</code>).
The response metadata object also includes a <code>warning</code> property if the number expandable objects referenced in the main response elements is over the maximum number of expanded objects that can be returned by a single REST API request. For example: “<code>Could not return all expanded objects. The response contains only the first 1,000 expanded objects. Use the limit parameter to reduce the number of main response objects and expanded objects returned.</code>”.
</td></tr>
<tr><td><code>included</code></td><td>
An array of expanded objects. The objects in the <code>included</code> array have the following attributes:

<code>type</code> — The expanded object type.
<code>data</code> — The expanded object.

Each expanded object in the <code>included</code> array is unique. If the object is referenced multiple times in the main response elements (<code>data</code> array), the expanded object is only included one time in the <code>included</code> array.
The number of expanded objects that can be returned in the <code>included</code> array is limited to 1,000 objects by default. If the number of expandable objects referenced in the main response elements (<code>data</code> array) exceeds 1,000 objects that can be returned by a single request, the <code>included</code> array contains only the first 1,000 expanded objects. The response also includes a warning message in the <code>meta</code> object. To avoid this situation, use the <code>limit</code> parameter to reduce the number of main response objects and expanded objects returned. For more information about the <code>limit</code> parameter, see Pagination.
Note: To review your requirements, and increase the maximum number of expanded objects that can be returned by a single REST API request, contact SuiteProjects Pro Support. Note that there will be a performance trade off if the maximum number of expanded object is increased.
</td></tr>
</table>

Example

The following request returns the list of attachments associated with the receipt with the internal ID 467 with expansions for the `lockedBy`, `uploadedBy` and `workspaceId` attributes.

```
GET /rest/v1/receipts/467/attachments?expand=lockedBy,uploadedBy,workspaceId
```

The response includes the following properties:

- `meta` — the response metadata includes `relationships` information about the attributes available for expansion (`uploadedBy` and `workspaceId`) and the referenced object internal IDs and types (`userDisplayName` and `workspace`, respectively). The `lockedBy` attribute is omitted as the referenced object internal ID is `0` for all the main response elements in the `data` array (no referenced objects).
- `included` — an array of expanded `userDisplayName` and `workspace` objects.

```
{
    "included": [
        {
            "data": {
                "id": 12,
                "displayName": "Marc Collins"
            },
            "type": "userDisplayName"
        },
        {
            "data": {
                "created": "2020-12-10 08:09:21",
                "name": "Altima Technology",
                "updated": "2020-12-10 08:09:21",
                "id": 103
            },
            "type": "workspace"
        }
    "data" : [
        {
            "workspaceId": 103
            "isFolder": false,
            "fileName": "receipt1.jpg",
            "name": "receipt1.jpg",
            "isLocked": false,
            "uploadedBy": 12,
            "lockedBy": 0,
            "isExcludedFromAlert": false,
            "size": 17762,
            "attachmentCategoryId": 0,
            "created": "2020-12-13 07:01:00",
            "notes": "",
            "updated": "2020-12-13 07:01:00",
            "id": 1056,
            "fileType": "JPEG image data, JFIF standard 1.00, comment: \"LEAD Technologies Inc. V1.01\""
        }
    ],
    "message" : "success",
    "meta": {
       "relationships": [
                  {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 12 }
                  },
                  "workspaceId": {
                      "data": { "type": "workspace", "id": 103 }
                  }
             },
          ],
       "rowsPerPage": 100,
       "totalPages": 1,
       "totalRows": 1,
       "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts/467/attachments?expand=lockedBy,workspaceId,uploadedBy"
            }
       ]
    }
}
```


Available Expansions and Supported Object Types

The following object types support expansion:

- `attachment` — See Attachment object properties.
- `projectStageName` — The `projectStageName` object type is available only as an expanded object and has the following attributes:

Property	Description	Type
`id`	The unique internal identifier of the project stage.	integer($int64)
`name`	The name of the project stage.	string

- `userDisplayName` — The `userDisplayName` object type is available only as an expanded object and has the following attributes:

Property	Description	Type
`id`	The unique internal identifier of the user.	integer($int64)
`displayName`	The display name of the user.	string

- `workspace` — The `workspace` object type is available only as an expanded object and has the following attributes:

Property	Description	Type
`created`	The date the workspace was created.	string($date-time)
`id`	The unique internal identifier of the workspace.	integer($int64)
`name`	The name of the workspace.	string
`updated`	The date the workspace was last updated or modified.	string($date-time)

The following table lists the main response attributes available for expansion:

Main response object	Attribute	Referenced object type	Description
Attachment	`lockedBy`	`userDisplayName`	Returns the display name of the employee who locked the attachment for editing.
Attachment	`uploadedBy`	`userDisplayName`	Returns the display name of the employee who uploaded the attachment file.
Attachment	`workspaceId`	`workspace`	Returns the workspace the attachment is associated with, if the attachment is a workspace document.
Customer	`invoiceApprover`, `userId`	`userDisplayName`	Returns the display name of the employee.
ExpenseReport	`attachments`	`attachment`	Returns the metadata for all attachments associated with the expense report.

Main response object	Attribute	Referenced object type	Description
ExpenseReport	userId	userDisplayName	Returns the display name of the employee associated with the expense report.
Project	attachments	attachment	Returns the metadata for all attachments associated with the project.
Project	bookingApprover, bookingRequestApprover, budgetApprover, expenseAllowanceApprover, expenseApprover, expenseAuthorizationApprover, invoiceApprover, projectApprover1, projectApprover2, projectApprover3, purchaseOrderApprover, purchaseRequestApprover, revenueApprover , timesheetApprover , userId	userDisplayName	Returns the display name of the employee.
Project	projectStageId	projectStageName	Returns the name of the project stage.
ProjectMilestones, ProjectPhase, ProjectTask	attachments	attachment	Returns the metadata for all attachments associated with the project milestone, phase, or task.
Receipt	attachments	attachment	Returns the metadata for all attachments associated with the receipt.
Receipt	userId	userDisplayName	Returns the display name of the employee associated with the receipt.
TimeEntry	userId	userDisplayName	Returns the display name of the employee associated with the time entry.
User	attachments	attachment	Returns the metadata for the attachment associated with the user.
User	bookingApprover, bookingRequestApprover, budgetApprover, dealBookingRequestApprover, expenseAllowanceApprover, expenseApprover,	userDisplayName	Returns the display name of the employee.

Main response object	Attribute	Referenced object type	Description
	`expenseAuthorizationApprover`, `lineManagerId`, `proposalApprover`, `purchaseOrderApprover`, `purchaseRequestApprover`, `resourceProfileApprover`, `scheduleRequestApprover`, `timesheetApprover`		

Errors

The REST API uses conventional HTTP response codes to indicate the success or failure of a request. The codes can be in one of the following ranges:

- 2xx if the request is successful.
- 4xx if the request fails due to the information provided in the request — it indicates an error in the request.
- 5xx if the request fails due to a problem with the SuiteProjects Pro server.

Your client application needs to handle errors when the request fails. The following table lists common response codes and possible reasons for failing requests. The JSON-encoded response should always include the `message` property, a string containing a brief message about the status of your request.

HTTP Status Code	Description	Reasons
`200 OK`	The request was successful.	
`207 Multiple statuses returned`	Part of the request was successful, part of the request failed.	Possible reasons include: ■ Some of the requested resources do not exist or access to these resources is denied. For example, if you send a request to delete multiple attachments associated with a receipt, the REST API returns an error if any of the attachments listed are not associated with the receipt but the listed attachments that are associated with the receipt are deleted successfully.
`400 Bad Request`	The request is unacceptable.	Possible reasons include: ■ The request was improperly formed. For example: □ The Authorization header was not formatted correctly — See Authentication Errors. □ For a PUT or POST request, the Content-Type header is incorrect or there is a syntax error in the request body and the REST API cannot interpret the information. In this case the response object contains the following `message` string: "`<ObjectName> deserialization failed`". □ Parameter error — The pagination or filtering parameters in the request URL are not valid. The `limit` parameter may be above the maximum allowed, the `offset` may not be divisible by the page `limit`, or there may be a problem with the query expression `q`. ■ A validation error. There is a problem with the object sent in the request body. See Validation Errors.
`401 Unauthorized`	Authentication error. The response includes a WWW-Authenticate header with information about the error.	The access token is invalid. See Authentication Errors.
`403 Forbidden`	Permission to perform the request is denied.	The access token does not allow the client application to perform the operation requested on the resource specified in the request. In most cases, this is due to business rules configured for the SuiteProjects Pro account, which may include:

HTTP Status Code	Description	Reasons
		▪ Global or Application settings controlled by account administrators or by SuiteProjects Pro Support — The operation is restricted across the entire account. ▪ Role permissions, filter sets (default, or specified using `filterSetId`), or other user privileges — The client application is using the REST API to access SuiteProjects Pro on behalf of a user who does not have the relevant privileges to perform the operation requested. ▪ Invalid filter set — The request specifies the filter set to apply using the `filterSetId` query parameter and the specified filter set does not exist or is not associated with the user on behalf of whom the client application is using the REST API to access SuiteProjects Pro. See Active Filter Set.
`404 Not Found`	The requested resource does not exist.	Possible reasons include: ▪ The requested resource does not exist. ▪ A required URL parameter is missing. For example the `{id}` URL parameter is missing in a `GET` request, and the resource only supports retrieving a single object.
`405 Method Not Allowed`	The method is not allowed.	Possible reasons include: ▪ The method is not supported for the resource. ▪ A required URL parameter is missing. For example the `{id}` URL parameter is missing in a `PUT` or `DELETE` request.
`429 Too Many Requests`	API limit reached.	One of the API limits set for the account was reached. See API Limits.
`500 Internal Server Error`	A problem occurred on SuiteProjects Pro's end.	If system errors persist, please check SuiteProjects Pro system status, or contact SuiteProjects Pro Support.
`503 Internal Server Error`	The service is temporarily unavailable.	If the problem persists, please check SuiteProjects Pro system status, or contact SuiteProjects Pro Support.

Note: The REST API returns HTTP status `500 Internal Server Error` if you attempt to access a BI Connector resource endpoint with a valid access token and the BI Connector feature is disabled.

Parameter errors

Requests return a `400 Bad Request` HTTP response code if there is a problem with one of the query parameters in the request URL. The response JSON object includes the `message` property only, with an error description.

Examples of parameter error messages:

- `limit` parameter above the maximum allowed — `The specified query parameter 'limit' is out of bounds. Provide value between 1 and 1000`
- The page `offset` is not divisible by the page `limit` — `Invalid limit and offset values. The offset must be divisible by the page limit`
- Problem with the query expression `q` — `Filter error: Expected a valid field name, but found 'created AFTER '2020-' instead`

Validation Errors

PUT or POST requests return a `400 Bad Request` HTTP response code if there is a problem with any key-value pair in the JSON-encoded request body. The response JSON object includes the following properties:

- `message` — The `message` string shows "`Invalid data`".
- `errorFields` — An object containing the fields with errors as attributes, and for each field an array of objects containing the attributes:
  - `type` — The type of validation error returned.
  - `message` — The error message.

The following example shows the response returned if the request attempts to set or update read-only fields.

```
HTTP/ 1.1 400 Bad Request
Content-Type: application/json

{
  "errorFields": {
    "created": [{
      "type": "read-only-value",
      "message": "Read-only value"
    }],
    "updated": [{
      "type": "read-only-value",
      "message": "Read-only value"
    }]
  },
  "message": "Invalid data"
}
```

The following table lists the validation error types

Error Type	Description
custom-error	A `custom-error` type is usually associated to a form script associated with the entity property form in SuiteProjects Pro.
invalid-value	The value is not formatted correctly. For example, if the field data type and format is `string($date)`, the string value must follow the format "`yyyy-mm-dd`". If the value in the request is "`2020-10`", the response includes an `invalid-value` error type for this field with the message `"Invalid date format"`.
netsuite-integration-error	A `netsuite-integration-error` type is returned if the resource is selected for real-time NetSuite integration, and the operation results in an integration error.
permission-error	A `permission-error` type is returned if the access token does not allow the client application to perform the operation requested for this field due to the form rules or form permissions configured in SuiteProjects Pro.
required-field	The field is required. The object in the request body must contain a value for this field. For more information about required fields, see REST API Endpoint Reference or Generated API Documentation JSON.
read-only-value	The field is read-only. The field cannot be set or updated using the REST API. Hidden fields are read-only. The REST API returns an error if an attribute-value pair for a hidden field is included in a POST or PUT request body. For more information about read-only fields, see REST API Endpoint Reference or Generated API Documentation JSON.

<table>
<tr><th>Error Type</th><th>Description</th></tr>
<tr><td>unknown-field</td><td>The attribute is not a valid attribute for the object to be created or updated. For more information about valid object attributes, see REST API Endpoint Reference or Generated API Documentation JSON.

Note: Attribute names are case sensitive and use camelCase, a naming convention in which each word within a compound word is capitalized except for the first word. For example, note the initial lowercase <code>t</code> and the uppercase <code>L</code> and <code>I</code> for <code>taxLocationId</code>.</td></tr>
<tr><td>unknown-type</td><td>Unknown error type.</td></tr>
</table>

Note: An evaluation order is used for the different validation rules. If an error of a given type is encountered, validation stops and a response returned with that given error type. For example, if the object in the request body includes an invalid attribute name, and an attribute-value pair for a read-only field, the `unknown-field` validation rule is evaluated first, and an error response is returned before the `read-only-value` validation rule is evaluated.

API Limits

SuiteProjects Pro enforces some limits to control API consumption and manage the demands on SuiteProjects Pro application and database servers. These limits apply across all API components — SOAP API, XML API, and REST API.

There are two types of usage limits

- **Number of objects**
  - The API returns a maximum of 1,000 objects per request. Use pagination to retrieve a list of more than 1,000 objects. The maximum page length is `1000`.
    - REST API – You can set a `limit` parameter to control the page length. The page length defaults to `100` if not specified. See Pagination.
    - XML and SOAP API – You must set a `limit` attribute to control the page length. See the help topics Read Attributes and Pagination.
  - The API accepts a maximum of 1,000 objects as arguments per request. To process more than 1,000 objects, do so in batches. You can add, modify, delete, submit, approve, reject or unapprove a maximum of 1,000 objects using one XML API call or SOAP API command. You can add or modify only one object using one REST API request, You can delete a maximum of 100 or 1,000 objects, depending on the object type, using one REST API request.
- **Frequency limits**
  - Maximum number of requests allowed within a 24–hour window for your company's SuiteProjects Pro account.
  - Maximum number of requests allowed within a 60–second window for your company's SuiteProjects Pro account.

API Frequency Limit Error

If the number of API requests made in the last 60 seconds or in the last 24 hours reaches the maximum allowed, the API returns an error.

- The XML API returns the error code 556 to the authentication operation [`Auth`].
- The SOAP API returns a `403 Access denied`.
- The REST API returns a `429 Too Many Requests` error for any request sent within the 24–hour or 60–second window.

SuiteProjects Pro sends a warning email when you approach your API frequency limits.

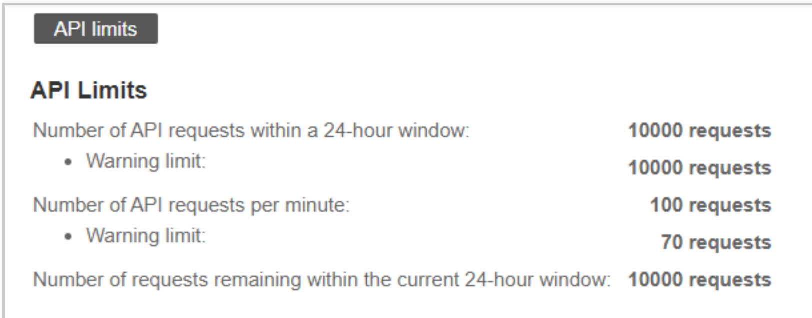
> **Tip:** To work within your API frequency limits and avoid frequency limit errors, batch operations into each API call and avoid making API calls within a loop. See the help topic Optimize the API Integration.

Tracking API Usage Against Frequency Limits

This page shows the API requests limits that are currently set for the account and the number of requests remaining within the current 24-hour period. It is a useful reference to track your usage level when using the SOAP API and XML API. This is for reference purposes only, account administrators cannot change these settings.

To track your API usage against frequency limits, do one of the following:

- In SuiteProjects Pro, go to Administration > Global Settings > Account > API Limits. The page shows the API frequency limits for your company's SuiteProjects Pro account, the thresholds when SuiteProjects Pro sends a warning email for each frequency limit, and the number of requests remaining within the current 24-hour window. You can use this page to track API usage but you cannot change the frequency limit settings. It is a read-only page for all users.



- In SuiteProjects Pro, review web services logs to identify requests contributing toward any usage limit overages. See Web Services Logs.
- Use the XML API to read the number of requests remaining within the current 24-hour window. To do so, use the Read XML API command and the RateLimit object.

> **Tip:** Query the remaining number of requests at various points in your integration application to identify where your application is sending the highest volume of requests.
>
> Follow API Best Practice Guidelines to see how you can improve your application.

If you have any questions about frequency limits, contact SuiteProjects Pro Support. For assistance with your integration applications and to help reduce the number of API requests in your integration applications, contact SuiteProjects Pro Professional Services.

RateLimit

The rate limit [`RateLimit`] is the number of API requests remaining in the current 24-hour window.

Review Usage Guidelines for the `RateLimit` object.

> **Note:** SuiteProjects Pro enforces some limits to control API consumption and manage the demands on SuiteProjects Pro application and database servers. One such usage limit applies to the number of requests in any 24-hour window. See API Limits.

—	XML	SOAP	REST
Object	`RateLimit`	`oaRateLimit`	—
Supported Commands	Read (`all`)	—	—

> **Note:** The `RateLimit` object supports the `all` read method only.

The `RateLimit` object has the following properties:

Field Name	Description
`remain_24h_error`	Number of calls remaining in a 24 hour window

Usage Guidelines

You can only query the remaining number of requests using the XML API. The SuiteProjects Pro WSDL lists the `oaRateLimit` but the SOAP API does not support reading this object. The REST API does not have an equivalent method to query the remaining number of requests.

The following XML API sample code queries the remaining number of requests within the current 24-hour window:

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<request API_version="1.0" client="example client" client_ver="1.1" namespace="example" key="0123456789">
   <Auth>
      <Login>
         <access_token>0123456789-ABCDEFGHIJKLMNIOQRSTUVWXYZ0123456789ABCDEF-ABCDEFGHIJKLMNIOQRSTUVWXYZ01234567</access_token>
      </Login>
   </Auth>
   <Read type="RateLimit" method="all" limit="1">
   </Read>
</request>
```

The following XML API sample response indicates that there are 99949 requests remaining within the current 24-hour window.

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<response>
   <Auth status = "0"></Auth >
   <Read status = "0">
      <RateLimit>
         <remain_24h_error>99949</remain_24h_error>
      </RateLimit>
   </Read>
</response>
```

Note: This request call counts uses up one request in your API frequency limit.

Web Services Logs

An optional feature lets you access web services logs in the Reports application in SuiteProjects Pro. If the feature is enabled for your account, go to Reports > Detail > Web services > Web services logs, or go to Reports > Management and search for “Web services logs”. Configure and run the report for auditing purposes or to help troubleshooting API requests in your integration applications.

- Each row in the Web services log represents **one** request and response pair. For the request part, SuiteProjects Pro logs the method used, the request URL, the Content-Type header and the request body. For the response part, SuiteProjects Pro logs the HTTP response code and the response body.
- Records in the Web services log are only available for seven days after they are created.

> **Note:** This feature includes an optional component, which may be enabled to help troubleshoot any issues with the add-on services provided by SuiteProjects Pro.
>
> If you are using Web services log reports to track your API usage limits, note that API requests made by SuiteProjects Pro Mobile apps,SuiteProjects Pro Integration Manager and other SuiteProjects Pro add-on services do not count toward your usage limits.

> **Important:** The Web services log report feature has the following limitations:
>
> - If you do not use this feature for more than 30 days, the feature is disabled and the log entries are deleted.
> - Log entries are retained for 7 days only, then they are purged from the database.

Generated API Documentation JSON

If the REST API is enabled for your account, account administrators and employees with the Export data role permission can access a system-generated API documentation in OpenAPI 3.0 JSON format. The generated documentation provides a reference for the REST API including resource descriptions, endpoints and methods, parameters, request body and response examples and schema. It includes resource attributes for custom fields specific to your SuiteProjects Pro account. You can then use any OpenAPI 3.0 compatible tool for further processing.

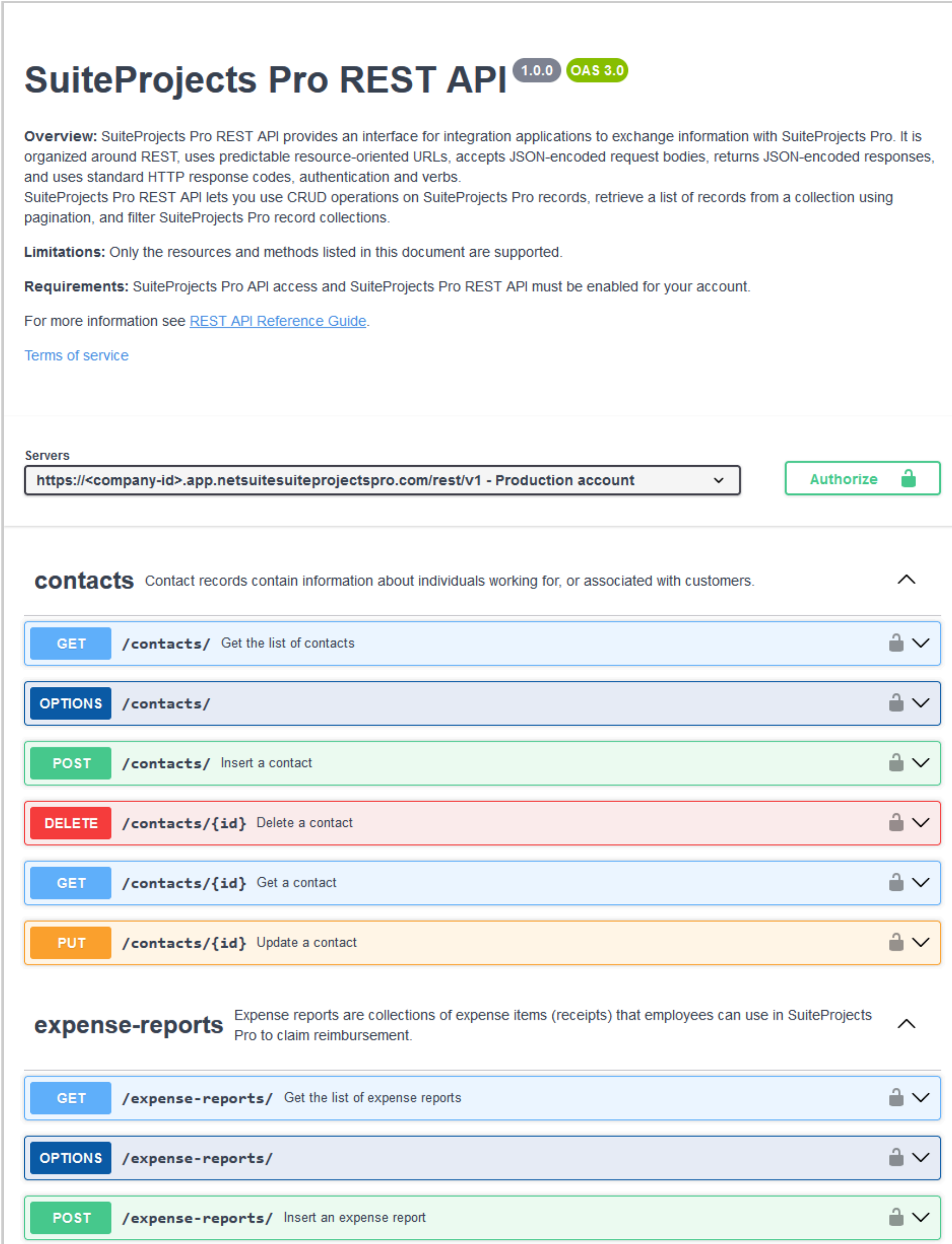
> **Note:** Business Intelligence (BI) resources are not included in the generated API documentation, even if the BI Connector feature is enabled for your account.

To access and use the generated API documentation:

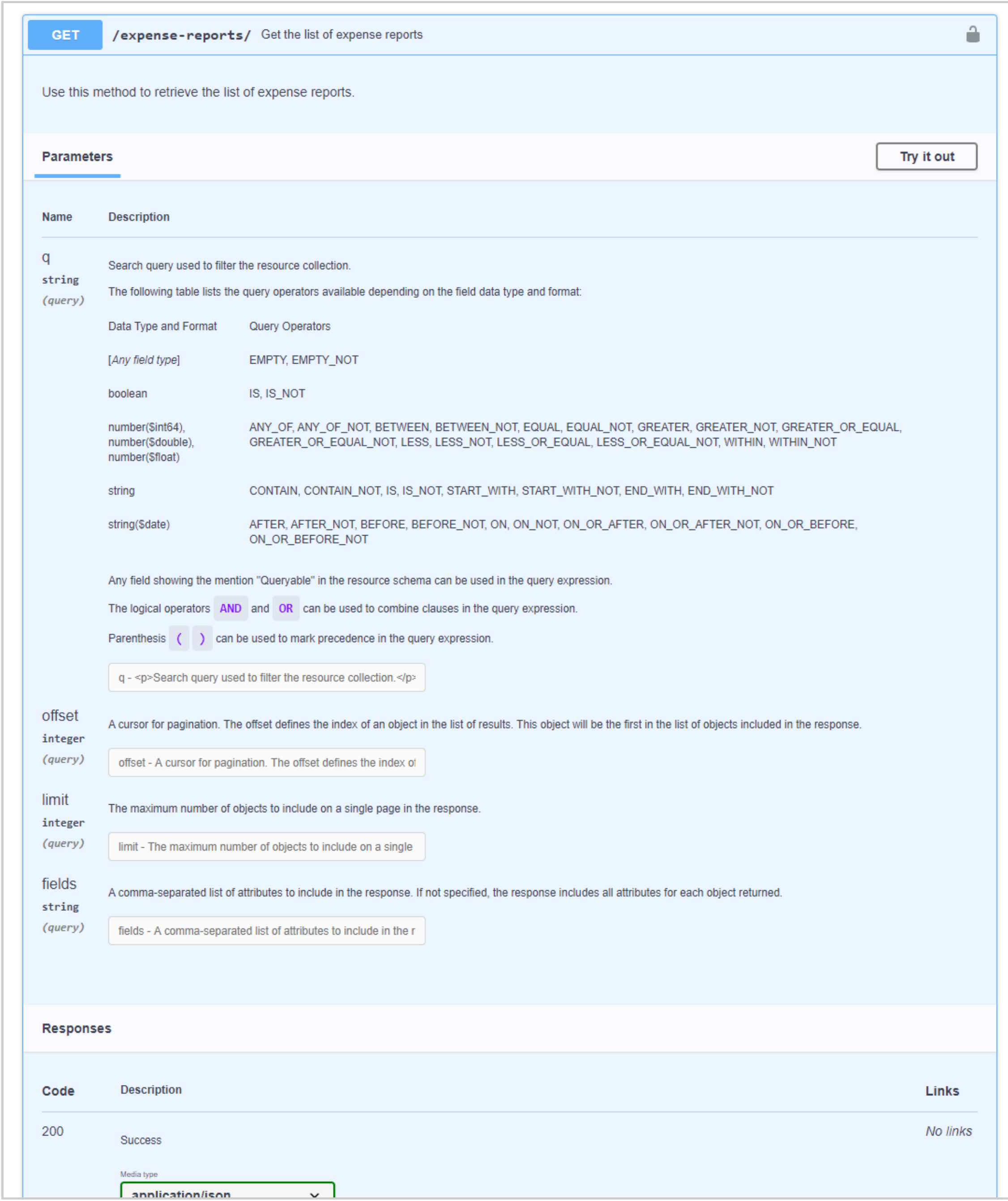
1. In SuiteProjects Pro, go to Administration > Global settings > Account > Integration: Import/Export. You must be an Administrator or have the relevant role permission to access this page.
2. Click **REST API documentation**. The generated REST API documentation JSON object appears in a new browser tab.

3. Click **Copy**.
4. Open an OpenAPI 3.0 compatible tool. For example, open the freely available online tool Swagger Editor in a new browser tab.
5. Clear any default content and paste the REST API documentation JSON you previously copied to your clipboard. If using Swagger Editor, you copy the JSON in the left pane, The tool can convert the JSON to YAML, generates a static web page and shows the web page in the right pane. You can edit the JSON or YAML and use the resulting static web page as reference to work with the REST API.

The following screenshots show the generated the REST API documentation as a static web page as obtained using Swagger Editor.



The page shows a brief overview followed by endpoints and methods reference. Click any of the frame corresponding to a specific method and endpoint to show reference information for this method and endpoint, including a description of parameters and responses.



Scroll down to see resource and response models (schema objects), including a description of attributes (fields).

Schemas

Attachment >

Contact >

ExpenseReport {

description: An expense report is a collection of expense items (receipts) that employees can use in OpenAir to claim reimbursement.

advance	number($float) [Queryable] The amount of any cash advance on the expense report.
totalReceipts	integer($int64) [Queryable] The total number of receipts in the expense report.
isForeignCurrencyExchangeIntolerance	boolean [Queryable] A 1/0 field indicating if the record is within the specified foreign currency tolerance as defined in database data definitions.
externalId	string [Queryable] The unique external ID of the expense report, if the record was imported from an external system.
date	string($date) *example: 2019-12-31* [Queryable] The date of the expense report.
status	string [Queryable] The status of the expense report. Possible values: • O – open • S – submitted • A – approved • R – rejected
accountingDate	string($date) *example: 2019-12-31* [Queryable] The accounting period date of the expense report.
isAdjusting	boolean [Queryable] A 1/0 field indicating if the expense report is an adjusting expense report.

Testing the REST API Using Postman

This section provides some tips and guidelines you can use to get started with testing the REST API using the GUI REST client Postman.

You can download Postman from https://www.getpostman.com/ and install it on your computer. After you have installed Postman, you will be able to:

- Define and save a set of environment variables, which you can then used in your requests, export and import. See Defining and Saving Environment Variables in Postman.
- Create collections, you can use to save your requests for later use, export, and import. See Creating a Request Collection in Postman.
- Create and send HTTP requests with the help of a user interface. See Creating and Sending API Requests Using Postman.
- Use the OAuth 2.0 authorization code flow to get a user's permission and obtain an access token. See Getting Authorization and Obtaining a New Access Token Using Postman.
- Refresh access tokens manually or programmatically. Refreshing Access Tokens Using Postman.

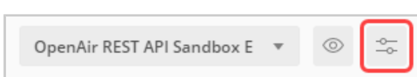
> **Note:** These guidelines are given for illustration purposes only. You can use any GUI REST client of your choosing. You can also use the curl command-line utility to make HTTP requests. Refer to the relevant product documentation for detailed information about its setup and usage.

Defining and Saving Environment Variables in Postman

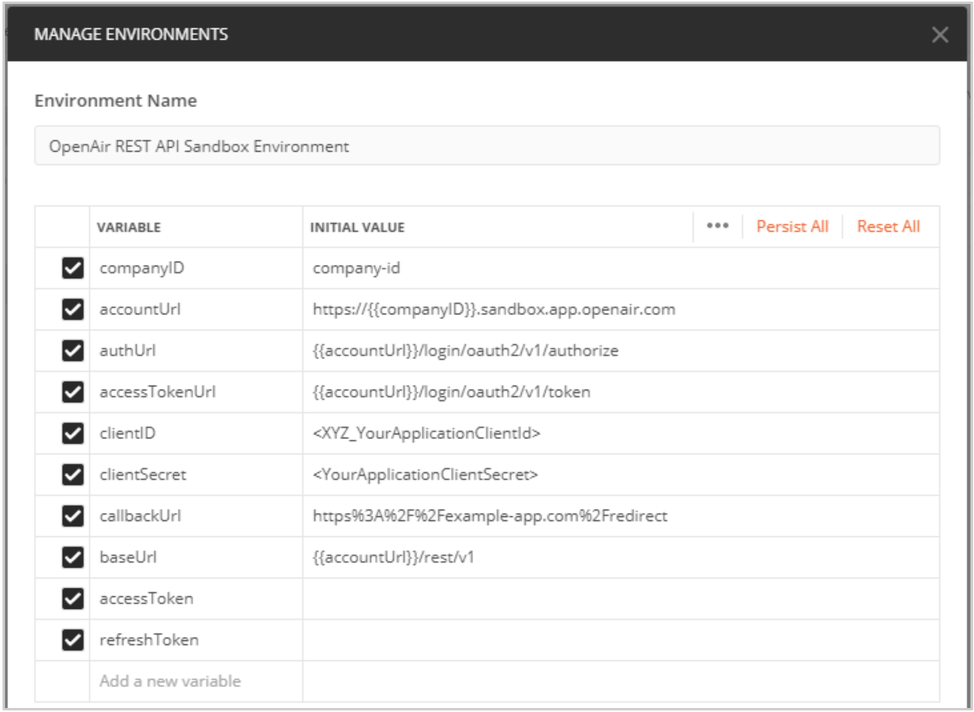
A Postman environment is a set of key-value pairs. The key represents the name of the variable, which you can then use in place of the value in your requests. You can set up multiple environments and switch between them. For example, you can have, the same set of environment variables with different values to use the same requests with your company's sandbox or production SuiteProjects Pro accounts, or with different access tokens obtained for different users with different permissions and access rights. You can create copies of your environments, export them as JSON, or share them with other Postman users.

To define and save environment variables in Postman:

1. Click the Manage Environments button in the top right corner of the main Postman window.

   The Manage Environments window appears.
2. Click **Add**. The Add Environment window appears.
3. Type a name for your environment.
4. Type a **variable** name and **initial value** for each environment variables you want to add. You can use the following example as a model. replace the **companyID** value with your unique account domain identifier, and the **clientID**, **clientSecret**, and the **callbackUrl** values with the client ID, client secret and redirect URI for the application you registered with SuiteProjects Pro.



5. Click **Add** and close the Manage Environments window. The new environment is now available in the environment selection dropdown in the top right corner of the main Postman window.

Creating a Request Collection in Postman

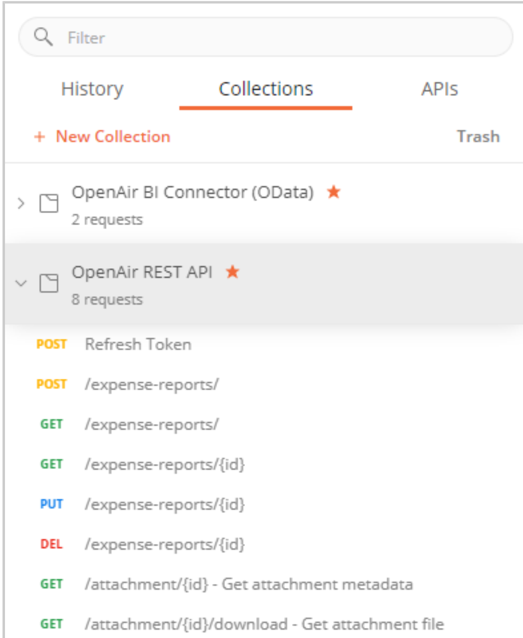
A Postman collection is a set of HTTP requests. You can use collections to save your requests for later use, copy an entire set of requests, export them as JSON, or share them with other users.

To create a collection in Postman:

1. In the left pane of the main Postman window, click the Collections tab and click **New collection**.

   The Create a new collection window appears.

2. Type a name for your collection.
3. (Optional) Add a description. You can also define a default authorization method for your requests and define collection variables, if required. These settings are not set at the collection level in this example.
4. Click **Create**. The new collection is listed in the left pane. You can save the requests you create to this collection.



Creating and Sending API Requests Using Postman

Postman makes it simpler to create and send request and read responses. It spares you the need to get your curl syntax right and analyze requests and responses from the command line.

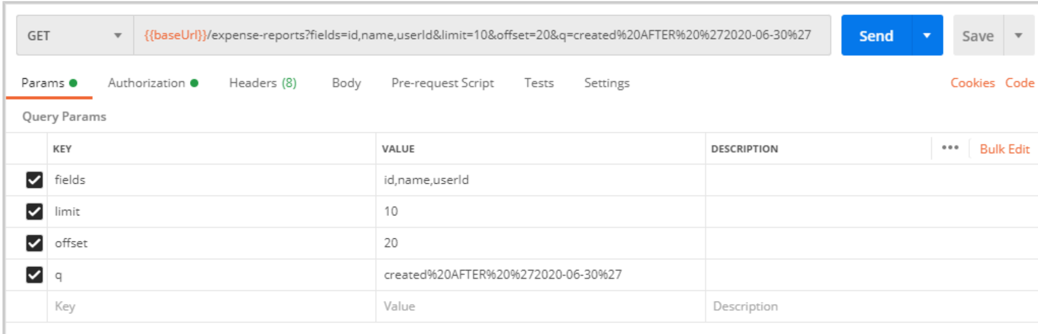
To create and send an API request using Postman:

1. In the right pane of the main Postman window, click the + tab.

   A new untitled request tab appears. New requests use the GET method by default. You can select any other supported method from the dropdown on the left.

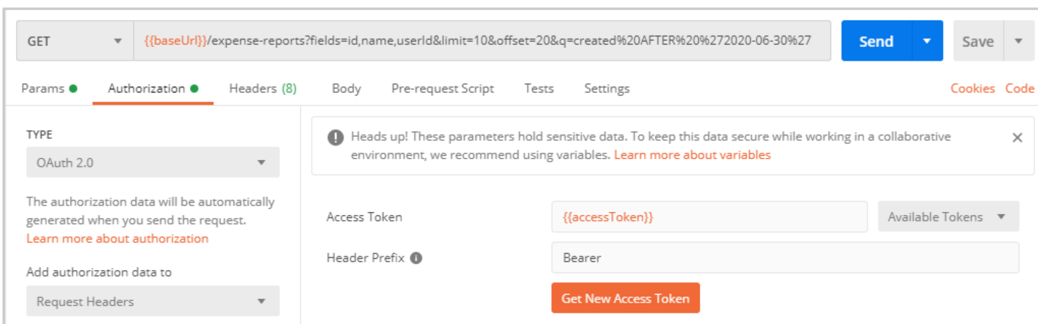
2. Enter the request URL. You can use the environment variable for the base URL and add the relevant resource endpoint path. For example, enter `{{baseUrl}}/expense-reports/`

3. Click the **Params** tab and enter any query parameters as key-value pairs. Notice the query parameters are added to the request URL as you type.



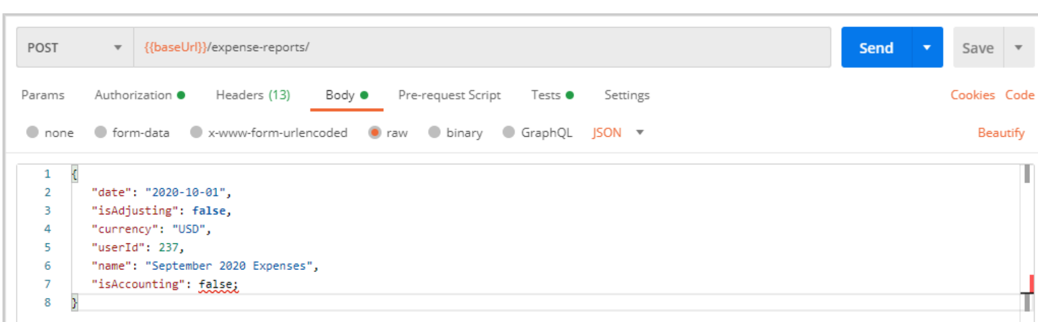
Note: Postman URL-encodes query parameter values. The example above shows a URL-encoded value for the q parameter but it is not necessary to URL-encode the value in the Params tab.

4. Click the **Authorization** tab. Click the **Type** dropdown and select OAuth 2.0. Enter the **Access Token**. You can use the relevant environment variable for the access token — `{{accessToken}}`. Enter the **Header Prefix** `Bearer` and ensure **Add authorization data to** is set to Request Headers.



Note: The first time you send a request or if the refresh token saved in your environment variables is no longer valid, you may need to get a new access token. See Getting Authorization and Obtaining a New Access Token Using Postman.

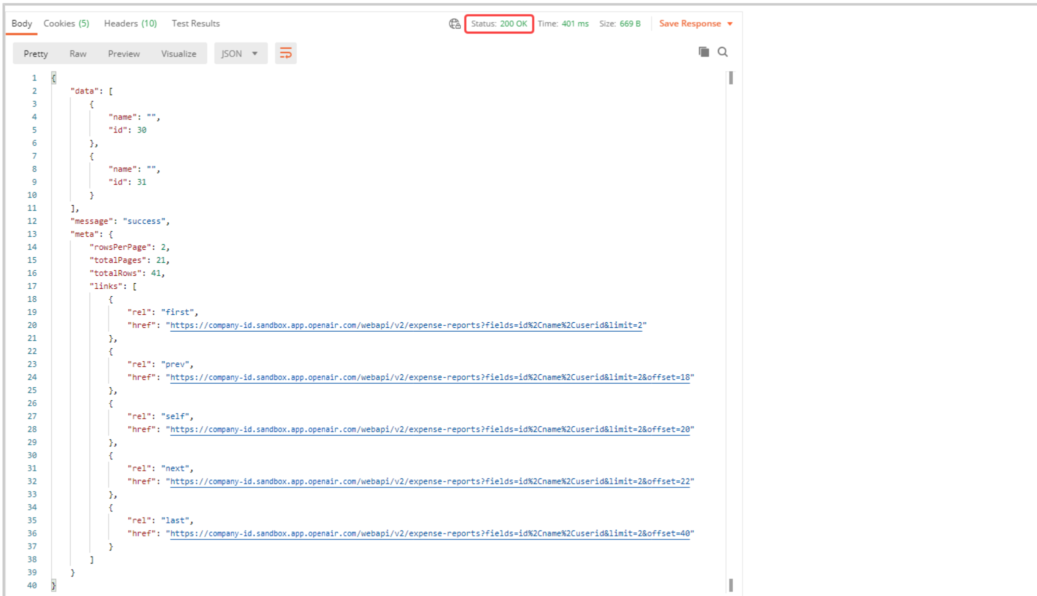
5. If you are creating a POST or PUT request, click the **Body** tab. Select the **raw** option and select **JSON** from the type dropdown on the right of the radio buttons. Enter the JSON object for the resource you want to insert. The Postman editor indicates possible syntax errors with a red line on the right.



6. Click **Save**, Enter or edit the request name, select the collection you want to save this request under, and click **Save to <Collection Name>**.

7. Click **Send** to send the request.

   You can then analyze the response in the bottom pane, which includes the Body and the HTTP Status code.



Getting Authorization and Obtaining a New Access Token Using Postman

Postman lets you use the user interface to obtain and access token using the OAuth 2.0 Authorization code flow. You can use this to simulate the OAuth 2.0 Authorization process and obtain an access token to authenticate your requests.

To get authorization and obtain a new access token using Postman:

1. Open one of your API Requests and click the **Authorization** tab. The Authorization should be set as described in Creating and Sending API Requests Using Postman.
2. Click **Get a New Access Token**. The Get new access token window appears.

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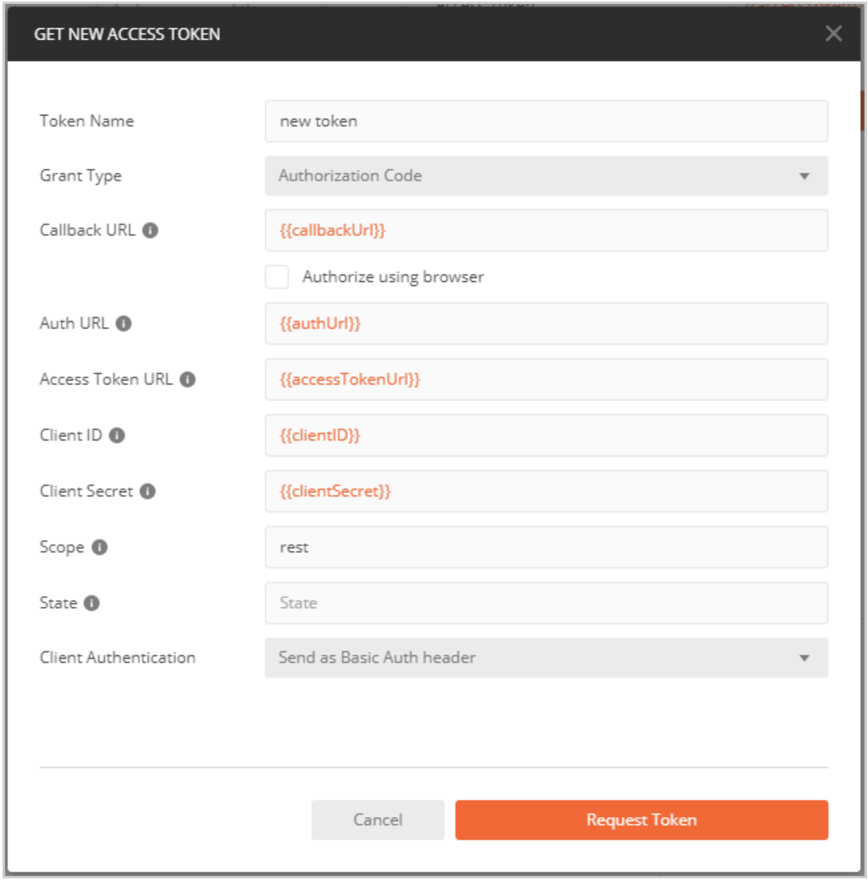


3. Select the **Grant type** (`Authorization Code`), enter the **Callback URL**, **Auth URL**, **Access Token URL**, **Client ID**, **Client Secret**, and **Scope** (`rest`), and select the **Client Authentication** (`Send as Basic Auth header`). Except for the values specified, you can use environment variables as shown in the screenshot above.
4. Click **Request Token**. The SuiteProjects Pro or SSO sign-in page appears in a new window.
5. Enter your sign-in details and submit.

> **Note:** If this is the first time you authorize the application, the Authorization page will appear. Click **Allow**.

The Manage Access Tokens window appears and shows the tokens obtained.

6. Select the **Access token** value making sure you do not select the line break at the end (do not double click to select the entire string). Right click the selected value, point to **Set:<Environment Name>**, and click `accessToken`. Repeat for the **Refresh Token** value and set the `refreshToken` environment variable.

You can now use the `accessToken` environment variable in your requests.

Refreshing Access Tokens Using Postman

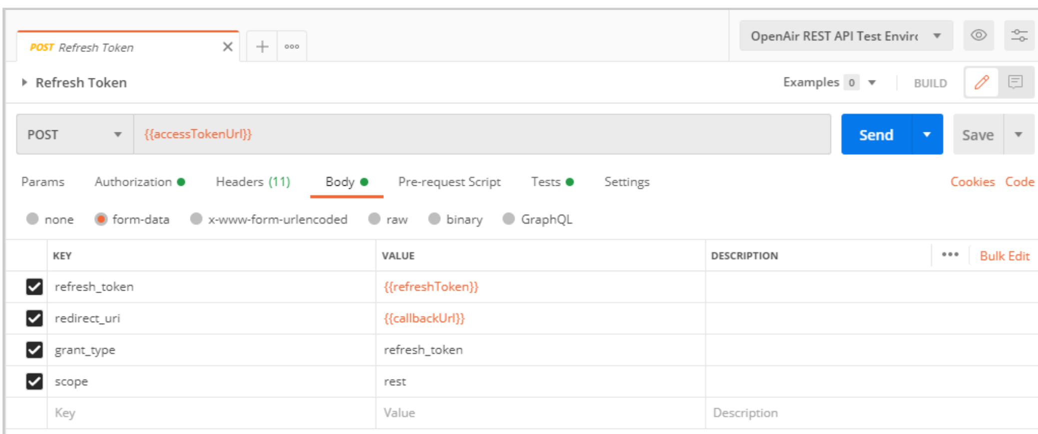
Access token have a short validity period, you can refresh access tokens using a separate request or you can add a pre-request script to your API requests to refresh your access token if it has expired before you send a request.

Creating a Token Refresh Request Using Postman

You can create a request to refresh your access token. For more information about the request used to refresh tokens, see Refreshing an Access Token.

To create a token refresh request in Postman:

1. Create a new request and use the following:
   - Method — `POST`
   - Request URL — `{{accessTokenUrl}}`
   - Body — Select `form-data` and enter the following key-values:
     - `refresh_token` — `{{refreshToken}}`
     - `access_token` — `{{accessToken}}`
     - `grant_type` — `refresh_token`
     - `scope` — `rest`



2. Click the **Tests** tab and paste the following script. This test script will save the new access token and refresh token automatically to your environment variables.

```
pm.test("Status test", function (){pm.response.to.have.status(200)});
if (pm.response.to.have.status(200)) {
    var data = pm.response.json();
    pm.environment.set("accessToken", data.access_token);
    pm.environment.set("refreshToken", data.refresh_token);
}
```

3. Click **Save** and save the request to your collection for later use. You can use this request to refresh your access token when it expires.

Refreshing Tokens Automatically Before Each API Request

You can add a pre-request script to your API requests to refresh your access token if it has expired before you send a request and save the new access token and refresh token automatically to your environment variables.

Open one your API requests, click the **Pre-request Script** tab, paste the following script, and click **Save**.

The first time the script runs, it will create the environment variable `accessTokenExpires`. The variable will be used to save the time the new access token is due to expire. The script compares the current time with the time the current access token is due to expire and only requests a new access token if the current access token has expired.

```
var now = new Date().getTime();
var accessTokenExpires = pm.environment.get("accessTokenExpires");

if (accessTokenExpires === undefined) {
    accessTokenExpires = now;
}

if (accessTokenExpires && now >= accessTokenExpires) {
    var options = {
        method: 'POST',
        url: pm.environment.get("accessTokenUrl"),
        header: {
            "content-type": "application/json"
        },
        auth: {
            "type": "basic",
            "basic": [{
                "key": "username",
                "value": pm.environment.get("clientID")
            }, {
                "key": "password",
                "value": pm.environment.get("clientSecret")
            }]
        },
        body: {
            mode: 'formdata',
            formdata: [{
                key: "refresh_token",
                value: pm.environment.get("refreshToken"),
                disabled: false,
                description: {
                    content: "",
                    type: "text/plain"
                }
            }, {
                key: "redirect_uri",
                value: pm.environment.get("callbackUrl"),
                disabled: false,
                description: {
                    content: "",
                    type: "text/plain"
                }
            }, {
                key: "grant_type",
                value: "refresh_token",
                disabled: false,
                description: {
                    content: "",
                    type: "text/plain"
                }
            }, {
                key: "scope",
                value: "rest",
                disabled: false,
                description: {
                    content: "",
                    type: "text/plain"
                }
            }, ]
        }
    };
    console.log(options);
    pm.sendRequest(options, function(refreshError, refreshResponse) {
        if (refreshError) console.log(refreshError);
        var jsonRefreshResponse = refreshResponse.json();
        if (jsonRefreshResponse.access_token) {
            pm.test("Token refreshed and saved", () => {
```

```
                pm.expect(refreshResponse).to.have.property('code', 200)
            });
            pm.environment.set("accessToken", jsonRefreshResponse.access_token);
            pm.environment.set("refreshToken", jsonRefreshResponse.refresh_token);
            var t = new Date();
            t.setSeconds(t.getSeconds() + jsonRefreshResponse.expires_in);
            pm.environment.set("accessTokenExpires", t.getTime());

        } else {
            pm.test("Refresh token request failed - Get new access and refresh tokens by clicking \"Get New Access Token\" in the
 Authorization tab, save the values in the appropriate environment variables, and try sending the request again", () => {
                pm.expect(refreshResponse).to.have.property('code', 200)
            });
        };
    });
}
```

REST API Endpoint Reference

This section provides reference information for the supported endpoints and methods. The following table lists the available resource collection endpoints, the corresponding table in the SuiteProjects Pro database as documented in the SuiteProjects Pro Data Dictionary, and a summary of methods supported for each resource collection.

REST API resources	Database Table	Supported methods
Attachments	attachment	*Use the endpoints and method specific to the object the attachments are associated with*
Contacts	contact	POST, GET, PUT, DELETE, OPTIONS
Customers	customer	GET, OPTIONS
Expense Reports	envelope	POST, GET, PUT, DELETE, OPTIONS
Job Codes	job_code	POST, GET, PUT, DELETE, OPTIONS
Projects	project	POST, GET, PUT, DELETE, OPTIONS
Project Milestones	project_task (`classification` set to `M` for milestones)	GET
Project Phases	project_task (`classification` set to `P` for phases)	GET
Project Tasks	project_task (`classification` set to `T` for tasks)	POST, GET
Published Reports*	—	GET
Receipts	ticket	POST, GET, PUT, DELETE, OPTIONS
Time Entries	task	POST, GET, DELETE, OPTIONS
Users	user	GET, OPTIONS

Note: * – Published reports are available only if the Business Intelligence (BI) Connector feature is enabled for your account. You can access BI Connector resources even if API access and REST API are not enabled for your account.

Attachments

Attachments are files uploaded and stored in SuiteProjects Pro and associated with records. Each attachment include the attachment file as well as file metadata.

Available methods

None — To work with attachments, use the endpoints and methods specific to the object the attachments are associated with.

Attachment object properties

An attachment is a file uploaded and stored in SuiteProjects Pro and associated with a record. Each attachment includes file metadata as well as the file itself. The `Attachment` object includes the file metadata.

The `Attachment` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`attachmentCategoryId`	The internal ID of the attachment category.	integer($int64)	—	Yes	Yes
`created`	The date the attachment was created.	string($date-time)	Yes	Yes	—
`fileName`	The filename of the attached file.	string	—	Yes	Yes
`fileType`	The file type. This is used for tracking purposes.	string	Yes	Yes	—
`hasThumbnail`	A 1/0 field indicating if a thumbnail image is available for the attachment. Returned only if the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account.	string	Yes	Yes	—
`id`	The unique internal identifier of the attachment.	integer($int64)	Yes	Yes	Yes
`isExcludedFromAlert`	A 1/0 field indicating if the attachment is excluded from the alert system.	Boolean	—	Yes	—
`isFolder`	A 1/0 field indicating if other attachment records have this attachment record as a parent.	Boolean	—	Yes	—
`isLocked`	A 1/0 field indicating if the attachment is locked for editing.	Boolean	—	Yes	—
`isViewable`	A 1/0 field indicating if the attachment is viewable using the Attachment Viewer feature. Returned only if the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account.	Boolean	Yes	Yes	—
`lockedBy`	The internal ID of the employee who uploaded the file. The value is 0 (zero) if unlocked.	integer($int64)	—	Yes	—
`name`	The display name of the attachment.	string	—	Yes	Yes

Property	Description	Type	Read-only	Query allowed	Sorting allowed
notes	Notes about the attachment. This attribute is used for keyword search.	string	—	Yes	—
size	The file size in bytes.	number($float)	Yes	Yes	—
updated	The date the attachment was last updated or modified.	string($date-time)	Yes	Yes	Yes
uploadedBy	The internal ID of the employee who uploaded the file.	integer($int64)	Yes	Yes	—
workspaceId	The internal ID of the workspace associated with the attachment. The value is `0` (zero) if the attachment is not associated with a workspace.	integer($int64)	Yes	Yes	—

> **Note:** Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.
>
> Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Contacts

Contact records contain information about individuals working for, or associated with customers.

Available methods

- **POST** `/contacts/` — Insert a Contact
- **GET** `/contacts/` — Get the List of Contacts
- **GET** `/contacts/{id}` — Get a Contact
- **PUT** `/contacts/{id}` — Update a Contact
- **DELETE** `/contacts/{id}` — Delete a Contact
- **OPTIONS** `/contacts/` — Discover Available Methods and Fetch the Endpoint Reference for Contacts

Contact object properties

A contact is a person working for, or associated with a customer.

The `Contact` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
accountingCode	Optional accounting code that can be used for integration with external accounting systems.	string	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
address1	First line of the contact's address.	string	—	—	—
address2	Second line of the contact's address.	string	—	—	—
address3	Third line of the contact's address.	string	—	—	—
address4	Fourth line of the contact's address.	string	—	—	—
canBill	A 1/0 field indicating if the contact can be used for billing.	Boolean	—	Yes	—
canSell	A 1/0 field indicating if the contact an be used for selling.	Boolean	—	Yes	—
canShip	A 1/0 field indicating if the contact can be used for shipping.	Boolean	—	Yes	—
city	The contact's city.	string	—	—	—
country	The contact's country.	string	—	—	—
created	The date the contact record was created.	string($date-time)	Yes	Yes	—
customerId	**[REQUIRED]** The internal ID of the associated customer.	integer($int64)	—	Yes	Yes
email	The contact's Email address.	string	—	Yes	—
externalId	The unique external ID of the contact, if the record was imported from an external system.	string	—	Yes	Yes
fax	The contact's fax number.	string	—	Yes	—
firstName	The contact's first name.	string	—	Yes	—
id	The unique internal identifier of the contact.	integer($int64)	Yes	Yes	Yes
isActive	A 1/0 field indicating if the contact is active.	Boolean	—	Yes	Yes
jobTitle	The contact's job title.	string	—	Yes	—
lastName	**[REQUIRED]** The contact's last name.	string	—	Yes	—
mobile	The contact's mobile phone number.	string	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`nickname`	The nickname used to identify the contact.	string	—	Yes	—
`notes`	Notes about the contact.	string	—	Yes	—
`phone`	The contact's phone number.	string	—	Yes	—
`state`	The contact's State or Region.	string	—	—	—
`title`	The contact's title.	string	—	Yes	—
`updated`	The date the contact record was last updated or modified.	string($date-time)	Yes	Yes	—
`zip`	The contact's ZIP code or postal code.	string	—	—	—

Note: Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.

Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert a Contact

POST `/contacts/` — Use this method to create a new contact record.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the contact returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal	integer

Path parameter	Required / Optional	Description	Type
		ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	
`return_object`	Optional	If set to 1, the response will return the contact created. Otherwise, the response will include only the internal ID of the contact created.	Boolean

Request body

The `Contact` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `Contact` object model, see Contact object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Contact` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the contact created. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/contacts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "jobTitle": "Head of Finance",
   "email": "jdoe@example.com",
   "lastName": "Doe",
   "firstName": "John",
   "nickname": "J. Doe",
   "isActive": true,
   "customerId": 68,
```

```
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "id": 24
        }
    ],
    "message": "success"
}
```


Get the List of Contacts

GET `/contacts/` — Use this method to retrieve the list of contacts.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each contact returned. See Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string

Path parameter	Required / Optional	Description	Type
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the contacts requested. See Returned Data.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/contacts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success",
   "meta": {
       "rowsPerPage": 100,
       "totalPages": 14,
       "totalRows": 1386,
       "links": [
```

```
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/contacts"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/contacts"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/contacts?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/contacts?limit=100&offset=1300"
            }
        ]
    }
}
```


Get a Contact

GET `/contacts/{id}` — Use this method to retrieve the contact record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the contact.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the contact returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the contact object requested. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Contact #24 not found`".

Sample request

```
GET /rest/v1/contacts/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "jobTitle": "Head of Finance",
            "externalId": "",
            "mobile": "",
            "state": "",
            "email": "jdoe@example.com",
            "city": "",
            "fax": "",
            "updated": "2020-07-30 03:04:58",
            "id": 24,
            "lastName": "Doe",
            "firstName": "John",
            "country": "",
            "nickname": "J. Doe",
            "isActive": true,
            "phone": "",
            "address2": "",
            "created": "2019-05-18 09:51:46",
            "zip": "",
            "customerId": 68,
            "notes": "",
            "address1": "",
            "title": ""
        }
    ],
    "message": "success"
}
```


Update a Contact

PUT `/contacts/{id}` — Use this method to update the contact record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the contact.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the contact returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will include the contact updated. Otherwise, the response will include only the internal ID of the contact updated.	Boolean

Request body

An object including valid key-value pairs for the fields to be updated. The object cannot include key-value pairs for read-only attributes. For information about the `Contact` object model, see Contact object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Contact` object updated, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the ID of the contact updated. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Contact #24 not found`".

Sample request

```
PUT /rest/v1/contacts/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: appplication/json
Authorization: Bearer <OAuth2_access_token>

{
   "jobTitle": "Head of Finance",
   "email": "jdoe@example.com",
   "customerId": 68,
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 24
      }
   ],
   "message": "success"
}
```

Delete a Contact

DELETE `/contacts/{id}` — Use this method to delete the contact record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the contact.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied.	integer

Path parameter	Required / Optional	Description	Type
		■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Contact #24 not found`".

Sample request

```
DELETE /rest/v1/rest/v1/contacts/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 24
      }
   ],
   "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Contacts

OPTIONS `/contacts/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for contacts.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/contacts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Customers

Customers are individuals or companies that buy products or services from your company.

Available methods

- **GET** `/customers/` — Get the List of Customers
- **GET** `/customers/{id}` — Get a Customer

- **OPTIONS** `/customers/` — Discover Available Methods and Fetch the Endpoint Reference for Customers

Customer object properties

A customer is an individual or company that buys a product or service from your company.

The `Customer` object has the following properties:

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
accountingCode	Optional accounting code that can be used for integration with external accounting systems.	string	—	Yes	—
address1	First line of the customer's address.	string	—	Yes	Yes
address2	Second line of the customer's address.	string	—	Yes	Yes
address3	Third line of the customer's address.	string	—	Yes	Yes
address4	Fourth line of the customer's address.	string	—	Yes	Yes
billingCode	The customer's billing code. Used in bulk invoicing.	string	—	Yes	Yes
billingContactId	The internal ID of the customer's billing contact [`Contact`].	integer($int64)	—	Yes	Yes
businessTypeId	The internal ID of the business type associated with the customer.	integer($int64)	—	Yes	Yes
city	The customer's city.	string	—	Yes	Yes
company	**[Required]** The company name.	string	—	Yes	Yes
companySizeId	The internal ID of the company size associated with the customer.	integer($int64)	—	Yes	Yes
costCenterId	The internal ID of the cost center associated with the customer.	integer($int64)	—	Yes	Yes
country	The customer's country.	string	—	Yes	Yes
created	The date and time when the customer record was created.	string($date-time)	Yes	Yes	—
creditInvoiceLayoutId	The internal ID of the credit memo (negative invoice) layout associated with the customer.	integer($int64)	—	Yes	Yes
currency	Currency for the money fields in the record. Also the default currency when an invoice is created.	string	—	Yes	—
customerLocationId	The internal ID of the customer location associated with the customer.	integer($int64)	—	Yes	Yes
email	The customer's Email address.	string	—	Yes	Yes
externalId	The unique external ID of the customer, if the record was imported from an external system.	string	—	Yes	Yes
fax	The customer's fax number.	string	—	Yes	Yes
customerSourceId	The internal ID of the customer source associated with the customer.	integer($int64)	—	Yes	Yes

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
id	The unique internal identifier of the customer.	integer($int64)	Yes	Yes	Yes
invoiceApproval Process	The internal ID of *approval process* for invoices to the customer. Mutually exclusive with `invoiceApprover`.	integer($int64)	—	Yes	—
invoiceApprover	The internal ID of the `User` who approves invoices to the customer, if a single approver process is used. Mutually exclusive with `invoiceApprovalProcess`. Other possible values: ■ -1 — the invoice owner's manager. ■ -2 — the manager of the invoice owner's manager. ■ -5 — the customer owner.	integer($int64)	—	Yes	—
invoiceEmailText	The text to include in the body of invoice Email messages to the customer.	string	—	Yes	—
invoiceLayoutId	The internal ID of the invoice layout associated with the customer.	integer($int64)	—	Yes	Yes
invoicePrefix	The invoice number prefix for all invoices to the customer.	string	—	Yes	—
invoiceText	The text to include on every invoice to the customer.	string	—	Yes	—
isActive	A 1/0 field indicating if the customer is designated as an active customer. Defaults to 1 if not set when adding a customer.	boolean	—	Yes	Yes
name	**[Required]** The customer's nickname. This is the display name for the customer in popup windows and lists.	string	—	Yes	Yes
notes	Notes about the customer.	string	—	Yes	—
phone	The customer's phone number.	string	—	Yes	Yes
primaryContactId	The internal ID of the customer's primary contact [`Contact`].	integer($int64)	—	Yes	Yes
rate	The hourly billing rate for time billed to the customer.	number ($float)	—	Yes	—
shippingContactId	The internal ID of the customer's shipping contact [`Contact`].	integer($int64)	—	Yes	Yes
soldToContactId	The internal ID of the customer's sold to contact [`Contact`].	integer($int64)	—	Yes	Yes
state	The customer's state or region.	string	—	Yes	Yes
statements	A 1/0 field indicating if the customer can view statements.	boolean	—	Yes	—
syncWorkspace	A 1/0 field indicating whether to keep customer resources in sync with linked workspace members.	boolean	—	Yes	—
terms	Standard payment terms for the customer. Textual description like "Net 30". Defaults to the default payment terms if not set when adding a new object.	string	—	Yes	—

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
territoryId	The internal ID of the territory associated with the customer.	integer($int64)	—	Yes	Yes
type	A C/P field indicating whether the customer is Customer [C] or a Prospect [P]. Defaults to `C` if not set when adding a customer.	string	—	Yes	Yes
updated	The date and time when the customer record was last updated or modified.	string($date-time)	Yes	Yes	—
userId	The internal ID of the `User` who owns this customer (customer owner).	integer($int64)	—	Yes	Yes
web	The customer's web address.	string	—	Yes	Yes
zip	The customer's ZIP code or postal code.	string	—	Yes	Yes

Note: Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.

Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Get the List of Customers

GET `/customers/` — Use this method to retrieve the list of customers.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each customer returned. See Response Data Modifiers.	string

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the customers requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/customers/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            ...
        },
            {
            ...
        },
            ...
    ],
    "message": "success",
    "meta": {
        "rowsPerPage": 100,
        "totalPages": 14,
        "totalRows": 1386,
        "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/customers"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/customers"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/customers?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/customers?limit=100&offset=1300"
            }
        ]
    }
}
```


Get a Customer

GET `/customers/{id}` — Use this method to retrieve the customer record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the customer.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
		Note: The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the customer returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the customer object requested. See Returned Data.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Customer #24 not found`".

Sample request

```
GET /rest/v1/customers/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "address3": "",
            "invoiceEmailText": "",
            "companySizeId": 2,
            "state": "TX",
            "email": "",
            "rate": 250,
            "billingContactId": 467,
            "creditInvoiceLayoutId": 26,
            "updated": "2024-07-06 02:18:04",
            "id": 24,
            "territoryId": 0,
            "name": "First Software",
            "invoiceApprover": 56,
            "zip": "78741",
            "costCenterId": 0,
            "billingCode": "",
            "type": "C",
            "invoiceText": "",
            "address1": "2300 Oracle Way",
            "primaryContactId": 467,
            "invoiceLayoutId": 15,
            "statements": false,
            "shippingContactId": 1268,
            "externalId": "",
            "soldToContactId": 1268,
            "terms": "",
            "currency": "USD",
            "web": "",
            "invoiceApprovalProcess": 0,
            "city": "Austin",
            "fax": "603.555.0100",
            "syncWorkspace": false,
            "company": "Example Company",
            "customerLocationId": 12,
            "country": "",
            "customerSourceId": 0,
            "businessTypeId": 0,
            "address4": "",
            "isActive": true,
            "userId": 0,
            "invoicePrefix": "",
            "phone": "603.555.0100",
            "address2": "",
            "accountingCode": "",
            "created": "2008-10-28 09:21:47",
            "notes": ""

        }
    ],
    "message": "success"
}
```


Discover Available Methods and Fetch the Endpoint Reference for Customers

OPTIONS `/customers/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for customers.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/customers/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Expense Reports

Expense reports are collections of expense items (receipts) that employees can use in SuiteProjects Pro to claim reimbursement.

Available methods

- **POST** `/expense-reports/` — Insert an Expense Report
- **POST** `/expense-reports/overlapping/` — Insert an Overlapping Expense Report (Overlapping expense reports are expense reports submitted for overlapping periods).
- **GET** `/expense-reports/` — Get the List of Expense Reports

- **GET** `/expense-reports/{id}` — Get an Expense Report
- **PUT** `/expense-reports/{id}` — Update an Expense Report
- **DELETE** `/expense-reports/{id}` — Delete an Expense Report
- **GET** `/expense-reports/{id}/receipts` — Get the List of Receipts in an Expense Report
- **GET** `/expense-reports/{id}/receipts/{ticket_id}` — Get a Receipt associated with an Expense Report
- **POST** `/expense-reports/{id}/attachments` — Add an Attachment to an Expense Report
- **GET** `/expense-reports/{id}/attachments` — Get the List of Attachments Associated with an Expense Report
- **GET** `/expense-reports/{id}/attachments/{attachment_id}` — Get an Attachment Associated with an Expense Report
- **GET** `/expense-reports/{id}/attachments/{attachment_id}/download` — Get an Attachment File Associated with an Expense Report
- **GET** `/expense-reports/{id}/attachments/{attachment_id}/thumbnail` — Get the Thumbnail for an Attachment Associated with an Expense Report
- **PUT** `/expense-reports/{id}/attachments/{attachment_id}` — Replace an Attachment to an Expense Report
- **DELETE** `/expense-reports/{id}/attachments/{attachment_id}` — Delete an Attachment Associated with an Expense Report
- **DELETE** `/expense-reports/{id}/attachments/{attachment_ids}` — Delete Attachments Associated with an Expense Report
- **OPTIONS** `/expense-reports/` — Discover Available Methods and Fetch the Endpoint Reference for Expense Reports

ExpenseReport object properties

An expense report is a collection of expense items (receipts) that employees can use in SuiteProjects Pro to claim reimbursement.

The `ExpenseReport` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`accountingDate`	The accounting period date of the expense report.	string($date)	—	Yes	Yes
`advance`	The amount of any cash advance on the expense report.	number($float)	—	Yes	—
`approveDate`	The date the expense report was approved.	string($date)	Yes	Yes	—
`attachments`	The attachments associated with this expense report. Array of internal IDs for attachment objects.	Array of `{"id": <integerValue>}` objects.	Yes	—	—
`balance`	The outstanding balance on the expense report.	number($float)	—	Yes	—
`created`	The date the expense report was created.	string($date-time)	Yes	Yes	—
`currency`	The currency for monetary values in the expense report. Three-letter currency code.	string	—	Yes	—
`customerId`	The internal ID of the associated customer.	integer$(int64)	—	Yes	Yes
`date`	The date of the expense report.	string($date)	—	Yes	Yes

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`description`	The description of the expense report (for example, reason for the trip).	string	—	Yes	—
`endDate`	The ending date of the expense report (only used with auto-naming).	string($date)	—	Yes	Yes
`exported`	The date and time the record was marked as "exported".	string($date-time)	—	Yes	—
`externalId`	The unique external ID of the expense report, if the record was imported from an external system.	string	—	Yes	Yes
`id`	The unique internal identifier of the expense report.	integer($int64)	Yes	Yes	Yes
`isAccounting`	A 1/0 field indicating if an envelope was submitted to an accounting partner.	Boolean	Yes	Yes	Yes
`isAdjusting`	A 1/0 field indicating if the expense report is an adjusting expense report.	Boolean	Yes	Yes	—
`isForeignCurrencyExchangeIntolerance`	A 1/0 field indicating if the record is within the specified foreign currency tolerance as defined in database data definitions.	Boolean	Yes	Yes	Yes
`name`	**[REQUIRED]** The name of the expense report.	string	—	Yes	—
`notes`	Notes about the expense report.	string	—	Yes	—
`projectId`	The internal ID of the associated project.	integer($int64)	—	Yes	Yes
`startDate`	The starting date of the expense report (only used with auto-naming).	string($date)	—	Yes	Yes
`status`	The status of the expense report. Possible values: ■ O — open ■ S — submitted ■ A — approved ■ R — rejected	string	—	Yes	Yes
`submitDate`	The date the expense report was submitted.	string($date)	Yes	Yes	—
`taxLocationId`	Default tax location for this expense report.	integer($int64)	—	Yes	Yes
`total`	The total value of all the receipts in the expense report.	number($float)	—	Yes	—
`totalReceipts`	The total number of receipts in the expense report.	integer($int64)	Yes	Yes	—
`totalReimburse`	The total amount of reimbursable expenses in the expense report.	number($float)	Yes	Yes	—
`trackingNumber`	**[REQUIRED]** The expense report tracking number.	string	—	Yes	Yes
`updated`	The date the expense report was last updated or modified.	string ($date-time)	Yes	Yes	—
`userId`	The internal ID of the associated employee.	integer($int64)	Yes	Yes	Yes

> **Note:** Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.
>
> Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert an Expense Report

POST `/expense-reports/` — Use this method to create a new expense report.

> **Note:** You cannot use this method to create an expense report if the start date and end date overlap with another expense report. To insert an overlapping expense report, you must use the dedicated method and endpoint. See Insert an Overlapping Expense Report.
>
> Overlapping expense reports may not be allowed at all or may be restricted depending on the role permissions associated with the access token (The role permissions of the user on behalf of whom the client application is accessing SuiteProjects Pro).

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the expense report returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects	integer

Path parameter	Required / Optional	Description	Type
		Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	
return_object	Optional	If set to any value other than 0 (zero), the response will return the expense report created. Otherwise, the response will include only the internal ID of the expense report created.	Boolean

Request body

The ExpenseReport object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the ExpenseReport object model, see ExpenseReport object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing one of the following: ■ The ExpenseReport object created, if the return_object parameter was set to any value other than 0 (zero) in the request. The object includes all the attributes specified using the fields if included in the request. ■ An object with only the internal ID of the expense report created. See Returned Data.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). Only returned if the return_object parameter was set to any value other than 0 (zero) in the request. See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/expense-reports/ HTTP/1.1
```

```
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "date": "2020-10-01",
   "isAdjusting": false,
   "currency": "USD",
   "userId": 237,
   "name": "September 2020 Expenses",
   "isAccounting": false,
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2689
      }
   ],
   "message": "success"
}
```

Insert an Overlapping Expense Report

POST `/expense-reports/overlapping/` — Use this method to create a new expense report record if the expense report period overlaps with the period covered by an existing expense report. The expense report period is determined by the attributes **startDate** and **endDate**.

> **Note:** Check the account configuration before using this endpoint. Overlapping expense reports may not be allowed at all or may be restricted depending on the role permissions associated with the access token (The role permissions of the user on behalf of whom the client application is accessing SuiteProjects Pro).

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
		Note: The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the expense report returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the expense report created. Otherwise, the response will include only the internal ID of the expense report created.	Boolean

Request body

The `ExpenseReport` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `ExpenseReport` object model, see ExpenseReport object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `ExpenseReport` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the expense report created. See Returned Data.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request.

Property	Description
	See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/expense-reports/overlapping/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "date": "2020-10-10",
   "isAdjusting": false,
   "currency": "USD",
   "userId": 237,
   "name": "September 2020 Additional Expenses ",
   "isAccounting": false,
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2695,
      }
   ],
   "message": "success"
}
```

Get the List of Expense Reports

GET `/expense-reports/` — Use this method to retrieve a list of expense reports.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each expense report returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the expense reports requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about:

Property	Description
	■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/expense-reports/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success"
   "meta": {
       "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 54,
                        "type": "userDisplayName"
                    }
                }
            },
            ...
       ],
       "rowsPerPage": 100,
       "totalPages": 14,
       "totalRows": 1386,
       "links": [
            {
                "rel": "first",
```

```
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports?limit=100&offset=1300"
            }
        ]
    }
}
```

Get an Expense Report

GET `/expense-reports/{id}` — Use this method to retrieve the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the expense report returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The	integer

Path parameter	Required / Optional	Description	Type
		filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the expense report requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/expense-reports/237 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
            "totalReceipts": 2,
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "status": "A",
            "date": "2019-10-01",
            "isAdjusting": false,
            "accountingDate": "2019-09-30",
            "taxLocationId": 0,
            "currency": "USD",
            "updated": "2019-10-21 03:04:57",
```

```
            "totalReimburse": 1260,
            "submitDate": "2019-10-01",
            "id": 237,
            "attachments": [],
            "userId": 54,
            "name": "September Expenses",
            "isAccounting": false,
            "total": 1260,
            "description": "September 2019 Expenses",
            "created": "2019-10-01 14:12:38",
            "balance": 1000,
            "notes": "",
            "endDate": "0000-00-00",
            "approveDate": "2019-10-21",
            "exported": "0000-00-00 00:00:00",
            "trackingNumber": "1113",
            "startDate": "0000-00-00"      }
    ],
    "message": "success"
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 54,
                        "type": "userDisplayName"
                    }
                }
            }
        ]
    }
}
```


Update an Expense Report

PUT `/expense-reports/{id}` — Use this method to update the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
		Note: The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the expense report returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will include the expense report updated. Otherwise, the response will include only the internal ID of the expense report updated.	Boolean

Request body

An object including valid key-value pairs for the fields to be updated. The object cannot include key-value pairs for read-only attributes. For information about the `ExpenseReport` object model, see ExpenseReport object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `ExpenseReport` object updated, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the ID of the expense report updated. See Returned Data.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request.

Property	Description
	See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Expense report #237 not found`".

Sample request

```
PUT /rest/v1/expense-reports/237 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
            "externalId": "568",
            "accountingDate": "2019-10-30",
            "currency": "CAD",
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 237
      }
   ],
   "message": "success"
}
```

Delete an Expense Report

DELETE `/expense-reports/{id}` — Use this method to delete the expense report record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Expense report #237 not found`".

Sample request

```
DELETE /rest/v1/expense-reports/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 24
      }
   ],
   "message": "success"
}
```

Get the List of Receipts in an Expense Report

GET `/expense-reports/{id}/receipts/` — Use this method to retrieve the collection of receipts in the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each receipt returned. Response Data Modifiers. For information about `Receipt` object properties, see Receipt object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the list of receipts in the expense report with the specified internal ID. See Returned Data. For information about `Receipt` object properties, see Receipt object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about:

Property	Description
	■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Expense report #237 not found`”.

Sample request

```
GET /rest/v1/expense-reports/237/receipts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 680,
            "taxLocationId": 0,
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2659,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 680,
            "description": "Miscellaneous",
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "1",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": false,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": [3719],
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:12:50",
            "isReimbursable": true,
            "totalNoTax": 680,
            "notes": ""
```

```
        },
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 580,
            "taxLocationId": 0,
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2674,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 580,
            "description": "Miscellaneous",
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "2",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": true,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": [3745],
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:13:03",
            "isReimbursable": true,
            "totalNoTax": 580,
            "notes": ""
        }
    ],
    "message": "success",
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            3719
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
            },
            {
                "attachments": {
                    "data": {
                        "id": [
                            3745
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
```

```
            }
        ],
        "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports/237/receipts"
            }
        ]
    }
}
```


Get a Receipt associated with an Expense Report

GET `/expense-reports/{id}/receipts/{ticket_id}` — Use this method to retrieve a receipt with the specified receipt ID in the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{ticket_id}`	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each receipt returned. Response Data Modifiers. For information about `Receipt` object properties, see Receipt object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the receipt requested. See Returned Data. For information about `Receipt` object properties, see Receipt object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Expense report #237 not found`”.

Sample request

```
GET /rest/v1/expense-reports/237/receipts/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 580,
            "taxLocationId": 0,
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2674,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 580,
            "description": "Miscellaneous",
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "2",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": true,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
```

```
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": 3719,
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:13:03",
            "isReimbursable": true,
            "totalNoTax": 580,
            "notes": ""
        }
    ],
    "message": "success"
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            3719
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
            }
        ],
    }
}
```

Add an Attachment to an Expense Report

POST `/expense-reports/{id}/attachments` — Use this method to add an attachment to the expense report with the specified internal ID. This method can be used for any of the following cases:

- Create a new attachment and associate it with the expense report.
- Associate a workspace document with the expense report. Workspace documents are `Attachment` objects associated with a custom workspace.

> **Note:** If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or %20 in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If return_object is set to any value other than 0 (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the Attachment object properties, see Attachment object properties.	string
filterSetId	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
return_object	Optional	If set to any value other than 0 (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts either one of the content types described in the following table:

Content-Type header	Body	Use case
multipart/form-data	Form data with the following key-value pair: ■ file — The file to be uploaded. The file and file metadata will be used to create the new Attachment object.	■ Create a new attachment and associate it with the expense report.
application/json	JSON object with the following key-value pair: ■ id — The internal ID of the workspace document to be associated with the expense report.	■ Associate a workspace document with the expense report.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing one of the following: ▪ The Attachment object created, if the return_object parameter was set to any value other than 0 (zero) in the request. The object includes all the attributes specified using the fields if included in the request. ▪ An object with only the internal ID of the attachment created. See Returned Data. For the Attachment object properties, see Attachment object properties.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). Only returned if the return_object parameter was set to any value other than 0 (zero) in the request. See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/expense-reports/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Get the List of Attachments Associated with an Expense Report

GET `/expense-reports/{id}/attachments` — Use this method to retrieve the list of attachments associated with the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each attachment returned. Response Data Modifiers. For information about `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the list of attachments associated with the expense report with the specified internal ID. See Returned Data. For information about `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Expense report #237 not found`”.

Sample request

```
GET /rest/v1/expense-reports/237/attachments/?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
        },
        {
            "fileName": "2020-12-08_14-46-24.png",
            "isLocked": false,
            "id": 56,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 123754
        },
    ],
    "message": "success",
    "meta": {
       "relationships": [
                {
                    "uploadedBy": {
                        "data": { "type": "userDisplayName", "id": 49 }
```

```
                    }
                },
                {
                    "uploadedBy": {
                        "data": { "type": "userDisplayName", "id": 49 }
                    }
                }
            ],
        "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/expense-reports/237/attachments"
            }
        ]
    }
}
```

Get an Attachment Associated with an Expense Report

GET `/expense-reports/{id}/attachments/{attachment_id}` — Use this method to retrieve the attachment record with the specified attachment ID associated with the expense report with the specified internal ID. The response contains the attachment metadata only and not the file.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment metadata returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the attachment metadata requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Attachment #598 not found`".

Sample request

```
GET expense-reports/237/attachments/4982?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
      }
   ],
   "message": "success",
   "meta": {
       "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
               }
           ]
   }
}
```

Get an Attachment File Associated with an Expense Report

GET `/expense-reports/{id}/attachments/{attachment_id}/download` — Use this method to retrieve the file associated with the attachment record with the specified attachment ID associated with the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`".

A successful request also returns the attachment file.

Sample request

```
GET expense-reports/237/attachments/4982/download HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment file.

Get the Thumbnail for an Attachment Associated with an Expense Report

GET `/expense-reports/{id}/attachments/{attachment_id}/thumbnail` — Use this method to retrieve the thumbnail file associated with the attachment record with the specified attachment ID associated with the expense report with the specified internal ID. Available only if the Attachment Thumbnail feature is enabled for your SuiteProjects Pro account.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`" or "`Attachment #213 thumbnail not found`".

A successful request also returns the attachment thumbnail file.

Sample request

```
GET expense-reports/237/attachments/4982/thumbnail HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment thumbnail file.

Replace an Attachment to an Expense Report

PUT `/expense-reports/{id}/attachments/{attachment_id}` — Use this method to replace an attachment to the expense report with the specified internal ID.

> **Important:** This method can only be used to replace an attachment directly associated with the expense report. It cannot be used for workspace document associated with the expense report either to replace the workspace document or to associate a different workspace document in its place.

> **Note:** If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts the following content type:

Content-Type header	Body
`multipart/form-data`	Form data with the following key-value pair: ▪ `file` — The file to be uploaded. The file and file metadata will be used to replace the existing `Attachment` object with a new `Attachment` object.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
PUT /rest/v1/expense-reports/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete an Attachment Associated with an Expense Report

DELETE `/expense-reports/{id}/attachments/{attachment_id}` — Use this method to delete the attachment with the specified attachment ID associated with the expense report with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist	integer

Path parameter	Required / Optional	Description	Type
		and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #4985 not found`".

Sample request

```
DELETE /rest/v1/expense-reports/237/attachments/4982 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete Attachments Associated with an Expense Report

DELETE `/expense-reports/{id}/attachments/{attachment_ids}` — Use this method to delete attachments with the specified attachment IDs associated with the expense report with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the expense report with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the expense report.	integer

Path parameter	Required / Optional	Description	Type
`{attachment_ids}`	Required	A comma-separated list of internal IDs for the attachments. The list must not include more than 1000 attachment IDs.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	If your request includes multiple attachment IDs, both valid and invalid, the request will complete successfully for valid attachment IDs and return an error message for invalid attachment IDs — for example, `"Access to Attachment #693 denied"`. The response status will be `207 Multiple statuses returned`. If your request more than 1,000 attachment IDs, an error is returned — for example, `"Bulk action limit reached, sent 1001 entities of 1000 allowed"`.

Sample request

```
DELETE /rest/v1/expense-reports/237/attachments/4982,4983 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "4982" : {
              "data": [{
                   "id": "4982"
```

```
            }],
            "message": "success"
        },
         "4983" : {
            "data": [{
                "id": "4983"
            }],
            "message": "success"
        }
    }
  ],
  "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Expense Reports

OPTIONS `/expense-reports/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for expense reports.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/expense-reports/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Job Codes

Job code records are general job categories that can be used to classify employees. Each job code can have a generic cost for estimation and billing.

Available methods

- **POST** `/job-codes/` — Insert a Job Code
- **GET** `/job-codes/` — Get the List of Job Codes
- **GET** `/job-codes/{id}` — Get a Job Code
- **PUT** `/job-codes/{id}` — Update a Job Code
- **DELETE** `/job-codes/{id}` — Delete a Job Code
- **OPTIONS** `/job-codes/` — Discover Available Methods and Fetch the Endpoint Reference for Job Codes

JobCode object properties

A job code is a general job category with a generic cost that can be used for estimation and billing.

The `JobCode` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`accountingCode`	Optional accounting code that can be used for integration with external accounting systems.	string	—	Yes	—
`created`	The date the job code was created.	string($date-time)	Yes	Yes	—
`currency`	The currency for monetary values in the job code record. Three-letter currency code.	string	—	Yes	—
`externalId`	The unique external record ID, if the record was imported from an external system.	string	—	Yes	Yes

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`genericResourceId`	The internal ID of the generic resource used in full-time equivalent (FTE) forecasting.	integer($int64)	—	Yes	Yes
`id`	The unique internal identifier of the job code.	integer($int64)	Yes	Yes	Yes
`isActive`	A 1/0 field indicating if the job code is active.	Boolean	—	Yes	Yes
`loadedCost`	The cost per hour.	number($float)	—	Yes	—
`name`	**[REQUIRED]** The display name of the job code.	string	—	Yes	Yes
`notes`	Notes about the job code.	Boolean	—	Yes	—
`updated`	The date the job code was last updated or modified.	string($date-time)	Yes	Yes	—

> **Note:** Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.
>
> Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert a Job Code

POST `/job-codes/` — Use this method to create a new job code record.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the job code returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in	integer

Path parameter	Required / Optional	Description	Type
		SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the job code created. Otherwise, the response will include only the internal ID of the job code created.	Boolean

Request body

The `JobCode` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `JobCode` object model, see JobCode object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `JobCode` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the job code created. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/job-codes/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "loadedCost": 130,
   "isActive": true,
   "genericResourceId": 12,
   "name": "Senior Consultant",
   "currency": "USD"
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 8
      }
   ],
   "message": "success"
}
```

Get the List of Job Codes

GET `/job-codes/` — Use this method to retrieve the list of job codes.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each job code returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the job code objects requested. See Returned Data.
`meta`	An object containing response metadata. The `meta` object may include information about: - The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/job-codes/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success",
   "meta": {
       "rowsPerPage": 100,
       "totalPages": 2,
       "totalRows": 138,
       "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/job-codes"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/job-codes"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/job-codes?limit=100&offset=100"
            },
            {
```

```
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/job-codes?limit=100&offset=100"
            }
        ]
    }
}
```

Get a Job Code

GET `/job-codes/{id}` — Use this method to retrieve the job code record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the job code.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the job code returned. Response Data Modifiers.	`fields`
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the job code object requested. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`JobCode #8 not found`”.

Sample request

```
GET /rest/v1/job-codes/8 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "loadedCost": 130,
            "externalId": "45",
            "isActive": true,
            "genericResourceId": 12,
            "name": "Senior Consultant",
            "accountingCode": "",
            "currency": "USD",
            "created": "2019-02-20 13:42:15",
            "notes": "",
            "updated": "2020-09-30 03:04:57",
            "id": 8
        }
    ],
    "message": "success"
}
```

Update a Job Code

PUT `/job-codes/{id}` — Use this method to update the job code record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the job code.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the job code returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in	integer

Path parameter	Required / Optional	Description	Type
		SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	
`return_object`	Optional	If set to any value other than `0` (zero), the response will include the job code updated. Otherwise, the response will include only the internal ID of the job code updated.	Boolean

Request body

An object including valid key-value pairs for the fields to be updated. The object cannot include key-value pairs for read-only attributes. For information about the `JobCode` object model, see JobCode object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `JobCode` object updated, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the ID of the job code updated. See Returned Data.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`JobCode #8 not found`”.

Sample request

```
PUT /rest/v1/job-codes/8 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>

{
   "loadedCost": 137.5,
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "id": 8
        }
    ],
    "message": "success"
}
```


Delete a Job Code

DELETE `/job-codes/{id}` — Use this method to delete the job code record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the job code.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`JobCode #8 not found`".

Sample request

```
DELETE /rest/v1/job-codes/8 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 8
      }
   ],
   "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Job Codes

OPTIONS `/job-codes/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for job codes.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/job-codes/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Projects

Projects are unique sequences of tasks that must be completed to reach a certain outcome.

Available methods

- **POST** `/projects/` — Insert a Project
- **POST** `/projects/from-template/` — Create a Project from Template
- **POST** `/projects/bulk/` — Insert Multiple Projects
- **GET** `/projects/` — Get the List of Projects
- **GET** `/projects/{id}` — Get a Project
- **PUT** `/projects/{id}` — Update a Project
- **PUT** `/projects/bulk/{ids}` — Update Multiple Projects
- **DELETE** `/projects/{id}` — Delete a Project
- **DELETE** `/projects/bulk/{ids}` —Delete Multiple Projects
- **POST** `/projects/{id}/attachments` — Add an Attachment to a Project
- **GET** `/projects/{id}/attachments` — Get the List of Attachments Associated with a Project
- **GET** `/projects/{id}/attachments/{attachment_id}` — Get an Attachment Associated with a Project
- **GET** `/projects/{id}/attachments/{attachment_id}/download` — Get an Attachment File Associated with a Project
- **GET** `/projects/{id}/attachments/{attachment_id}/thumbnail` — Get the Thumbnail for an Attachment Associated with a Project
- **PUT** `/projects/{id}/attachments/{attachment_id}` — Replace an Attachment to a Project
- **DELETE** `/projects/{id}/attachments/{attachment_id}` — Delete an Attachment Associated with a Project
- **DELETE** `/projects/{id}/attachments/{attachment_ids}` — Delete Attachments Associated with a Project
- **OPTIONS** `/projects/` — Discover Available Methods and Fetch the Endpoint Reference for Projects

Project object properties

A project is a unique sequence of tasks that must be completed to reach a certain outcome.

The `Project` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`accountingCode`	Optional accounting code that can be used for integration with external accounting systems.	string	—	Yes	—
`attachments`	The attachments associated with this project. Array of internal IDs for attachment objects.	Array of `{"id": <integerValue> }` objects.	Yes	—	—
`autoBillCapValue`	The autobilling cap amount, in the currency used for the project.	number($float)	—	Yes	—
`billingCode`	The project billing code. Used in bulk invoicing.	string	—	Yes	Yes
`billingContactId`	The internal ID of the billing *contact*, if different from the designated billing contact for the customer.	integer($int64)	—	Yes	Yes
`bookingApprovalProcess`	The internal ID of the *approval process* for bookings to the project. Mutually exclusive with `bookingApprover`.	integer($int64)	—	Yes	—
`bookingApprover`	The internal ID of the `User` who approves bookings to the project, if a single approver process is used. Mutually exclusive with `bookingApprovalProcess`. Other possible values: ▪ `-1` — the booked resource's manager. ▪ `-2` — the manager of the booked resource's manager. ▪ `-3` — the project owner. ▪ `-4` — self (booked resource). ▪ `-9` — submitter. This option may not be available depending on your SuiteProjects Pro account configuration.	integer($int64)	—	Yes	—
`bookingRequestApprovalProcess`	The internal ID of the *approval process* for booking requests to the project, depending on your SuiteProjects Pro account configuration. Mutually exclusive with `bookingRequestApprover`. The internal ID of the booking request *approval process* for the project. Mutually exclusive with `bookingRequestApprover`.	integer($int64)	—	Yes	—
`bookingRequestApprover`	The internal ID of the `User` who approves booking requests to the project, if a single approver process is used. Mutually exclusive with `bookingApprovalProcess`. The internal ID of the *employee* who approves booking requests to the project, if a single approver process is used. Mutually exclusive with `bookingApprovalProcess`. Other possible values: ▪ `-1` — the requested resource or the requester's manager, depending on your SuiteProjects Pro account configuration. ▪ `-2` — the manager of the booked resource or requester's manager. ▪ `-3` — the project owner. ▪ `-4` — self (booked resource or the requester). ▪ `-9` — submitter (requester). This option may not be available depending on your SuiteProjects Pro account configuration.	integer($int64)	—	Yes	—
`budget`	The budgeted revenue for the project.	number($float)	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`budgetApprovalProcess`	The internal ID of the *approval process* for budget associated with the project. Mutually exclusive with `budgetApprover`.	integer($int64)	—	Yes	—
`budgetApprover`	The internal ID of the `User` who approves budgets for the project, if a single approver process is used. Mutually exclusive with `budgetApprovalProcess`. Other possible values: ■ -1 — the budget owner's manager. ■ -2 — the manager of the budget owner's manager. ■ -3 — the project owner. ■ -4 — self (budget owner).	integer($int64)	—	Yes	—
`budgetCost`	The budgeted cost for the project.	number($float)	—	Yes	—
`budgetTime`	The budgeted amount of time for the project in hours.	number($float)	—	Yes	—
`categoryFilter`	A comma-delimited list of internal IDs of categories (services) against which time can be booked for the project.	string	—	Yes	—
`contactId`	The internal ID of the contact associated with the project.	integer($int64)	—	Yes	Yes
`copyApprovers`	A 1/0 field indicating whether to copy the project approvers associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyBookings`	A 1/0 field indicating whether to copy the bookings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyCpExcludeFilters`	A 1/0 field indicating whether to copy the customers and projects to exclude from denominator when calculating user allocation % from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyCustomFields`	A 1/0 field indicating whether to copy the custom field values from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyDashboardSettings`	A 1/0 field indicating whether to copy the dashboard settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyExpensePolicy`	A 1/0 field indicating whether to copy the expense policy associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyInvoiceLayoutSettings`	A 1/0 field indicating whether to copy the invoice layout settings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyIssues`	A 1/0 field indicating whether to copy the issues associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyLoadedCost`	A 1/0 field indicating whether to copy the loaded costs from the project or project template	Boolean	—	—	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
	specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.				
`copyNotificationSettings`	A 1/0 field indicating whether to copy the notification settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyProjectAssignmentProfiles`	A 1/0 field indicating whether to copy the project assignment profiles associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyProjectBillingAutoSetting`	A 1/0 field indicating whether to copy the automated project autobilling settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyProjectBillingRules`	A 1/0 field indicating whether to copy the project billing rules associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyProjectBudgetGroups`	A 1/0 field indicating whether to copy the project budget groups associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyProjectPricing`	A 1/0 field indicating whether to copy the project pricing associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyRevenueRecognitionAutoSettings`	A 1/0 field indicating whether to copy the project revenue recognition autorun settings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`copyRevenueRecognitionRules`	A 1/0 field indicating whether to copy the project revenue recognition rules associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—	—
`costCenterId`	The internal ID of the cost center associated with the project.	integer($int64)	—	Yes	Yes
`created`	The date the project was created.	string($date-time)	Yes	Yes	—
`creditInvoiceLayoutId`	The internal ID of the credit memo (negative invoice) layout associated with the project.	integer($int64)	—	Yes	Yes
`currency`	The currency for monetary values in the project record. Three-letter currency code.	string	—	Yes	—
`customerId`	The internal ID of the customer associated with the project .	integer($int64)	—	Yes	Yes
`dashboardFrom`	The item that determines if the dashboard is enabled. Possible values: - S — Project stage - P — Project	string	—	Yes	—
`dashboardMessage`	The dashboard message.	string	—	Yes	—
`expenseAllowanceApprovalProcess`	The internal ID of the *approval process* for allowance reports associated with	integer($int64)	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
	the project. Mutually exclusive with `expenseAllowanceApprover`.				
`expenseAllowance Approver`	The internal ID of the `User` who approves allowance reports associated with the project, if a single approver process is used. Mutually exclusive with `expenseAllowanceApproval Process`. Other possible values: ■ -1 — the allowance report owner's manager. ■ -2 — the manager of the allowance report owner's manager. ■ -3 — the project owner. ■ -4 — self (allowance report owner).	integer($int64)	—	Yes	—
`expenseApprovalProcess`	The internal ID of the *approval process* for expense reports associated with the project. Mutually exclusive with `expenseApprover`.	integer($int64)	—	Yes	—
`expenseApprover`	The internal ID of the `User` who approves expense reports associated with the project., if a single approver process is used. Mutually exclusive with `expenseApprovalProcess`. Other possible values: ■ -1 — the expense report owner's manager. ■ -2 — the manager of the expense report owner's manager. ■ -3 — the project owner. ■ -4 — self (expense report owner).	integer($int64)	—	Yes	—
`expenseAuthorization ApprovalProcess`	The internal ID of the *approval process* for expense authorizations associated with the project. Mutually exclusive with `expenseAuthorizationApprover`.	integer($int64)	—	Yes	—
`expenseAuthorization Approver`	The internal ID of the `User` who approves expense authorizations associated with the project, if a single approver process is used. Mutually exclusive with `expenseAuthorization ApprovalProcess`. Other possible values: ■ -1 — the expense authorization owner's manager. ■ -2 — the manager of the expense authorization owner's manager. ■ -3 — the project owner. ■ -4 — self (expense authorization owner).	integer($int64)	—	Yes	—
`externalId`	The unique external ID of the project, if the record was imported from an external system.	string	—	Yes	Yes
`filterSets`	The filter sets associated with this project. Array of internal IDs for filter sets. Users who have access to any of the filter sets associated with the project have accessto the project. Required if the **Require a filter set selection when adding or editing project** box is checked on the filter set settings form in SuiteProjects Pro (Administration > Global Settings > Account > Filter Set Settings).	Array of `{"id": <integerValue> }` objects.	—	Yes	—
`finishDate`	The calculated finish date of the project.	string($date)	Yes	Yes	Yes

Property	Description	Type	Read-only	Query allowed	Sorting allowed
hierarchyNodes	The hierarchy nodes associated with this project. Array of internal IDs for hierarchy nodes. Only hierarchy nodes associated with a hierarchy that is shown on the project property form (**Show this hierarchy when editing projects** box checked on the hierarchy entity form in SuiteProjects Pro) are included.	Array of {"id": <integerValue> } objects.	—	Yes	—
id	The unique internal identifier of the project.	integer($int64)	Yes	—	Yes
invoiceApprovalProcess	The internal ID of the *approval process* for invoices associated with the project. Mutually exclusive with `invoiceApprover`.	integer($int64)	—	Yes	—
invoiceApprover	The internal ID of the `User` who approves invoices associated with the project, if a single approver process is used. Mutually exclusive with `invoiceApprovalProcess`. Other possible values: ▪ `-1` — the invoice owner's manager. ▪ `-2` — the manager of the invoice owner's manager. ▪ `-3` — the project owner. ▪ `-4` — self.	integer($int64)	—	Yes	—
invoiceLayoutId	The internal ID of the invoice layout associated with the project.	integer($int64)	—	Yes	Yes
invoiceText	Text to display on every invoice.	string	—	Yes	—
isActive	A 1/0 field indicating if the project is active.	Boolean	—	Yes	Yes
isAutoBill	A 1/0 field indicating if the project can be billed automatically. Available only if project billing rules are not used.	Boolean	—	Yes	—
isAutoBillCap	A 1/0 field indicating if there is a cap on the amount that can be billed automatically for the project. Available only if project billing rules are not used.	Boolean	—	Yes	—
isAutoBillOverriden	A 1/0 field indicating if the project-specific autobilling settings should be used instead of account-wide autobilling settings. Project-specific autobilling settings are held in the `auto_bill` table. Available only if project billing rules are not used.	Boolean	—	Yes	—
isDashboardEnabled	A 1/0 field indicating if the project dashboard is enabled, when `dashboardFrom` is set to `P`.	Boolean	—	Yes	Yes
isPortfolioProject	A 1/0 field indicating if the project is a portfolio project.	Boolean	—	Yes	—
mspLinkType	The Microsoft Project import status. Possible values: ▪ *Empty value* — Not imported ▪ `I` — Imported and locked for edit ▪ `U` — Imported and open for edit	string	—	Yes	—
name	**[REQUIRED]** The name of the project task.	string	—	Yes	Yes
newsFeedId	The internal ID of the news feed associated with the project.	integer($int64)	—	Yes	Yes
notes	Notes about the project.	string	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`notifyAssignees`	A 1/0 field indicating whether to send notification email to assigned employees when a task associated with the project is added, modified, or deleted.	Boolean	—	Yes	—
`notifyAssignmentCc`	A comma-delimited list of internal IDs of employees to be copied (Cc) into assignment notification email. Other possible listed values: ■ -1 — the assignee's manager. ■ -2 — the manager of the assignee's manager. ■ -3 — the project owner. ■ -5 — the customer owner.	string	—	Yes	—
`notifyIssueAssignedTo`	A 1/0 field indicating whether to send notification email to the assigned employee when an issue is assigned to an employee.	Boolean	—	Yes	—
`notifyIssueClosedAssignedTo`	A 1/0 field indicating whether to send notification email to the assigned employee when an issue is progressed to a closed issue stage.	Boolean	—	Yes	—
`notifyIssueClosedCustomerOwner`	A 1/0 field indicating whether to send notification email to the customer owner when an issue is progressed to a closed issue stage.	Boolean	—	Yes	—
`notifyIssueClosedProjectOwner`	A 1/0 field indicating whether to send notification email to the project owner when an issue is progressed to a closed issue stage.	Boolean	—	Yes	—
`notifyIssueCreatedCustomerOwner`	A 1/0 field indicating whether to send notification email to the customer owner when an issue is created.	Boolean	—	Yes	—
`notifyIssueCreatedProjectOwner`	A 1/0 field indicating whether to send notification email to the project owner when an issue is created.	Boolean	—	Yes	—
`notifyOwner`	A 1/0 field indicating whether to send notification email to the project owner when ownership is changed.	Boolean	—	Yes	—
`notifySrSubmittedProjectOwner`	A 1/0 field indicating whether to send notification email to the project owner when a schedule request is submitted for a user booked or assigned to the project.	Boolean	—	Yes	—
`onlyOwnerCanEdit`	A 1/0 field indicating whether only the project owner can edit this project.	Boolean	—	Yes	—
`payrollTypeFilter`	A comma-delimited list of internal IDs of payroll types against which time can be booked for the project.	string	—	Yes	—
`portfolioProjectId`	The internal ID of the portfolio *project* associated with the project, if the project is a subordinate project.	integer($int64)	—	Yes	Yes
`projectApprover1`	The internal ID of the first project approver [User] that is substituted into the approval processes. Other possible value: ■ -6 — the first additional project approver.	integer($int64)	—	Yes	—
`projectApprover2`	The internal ID of the second project approver [User] that is substituted into the approval processes.	integer($int64)	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
	Other possible value: ■ -7 — the second additional project approver.				
projectApprover3	The internal ID of the third project approver [User] that is substituted into the approval processes. Other possible value: ■ -8 — the third additional project approver.	integer($int64)	—	Yes	—
projectLocationId	The internal ID of the project location associated with the project.	integer($int64)	—	Yes	Yes
projectStageId	The internal ID of the project stage associated with the project.	integer($int64)	—	Yes	Yes
purchaseOrderApproval Process	The internal ID of the *approval process* for purchase orders associated with the project. Mutually exclusive with purchaseOrderApprover.	integer($int64)	—	Yes	—
purchaseOrderApprover	The internal ID of the User who approves purchase orders associated with the project, if a single approver process is used. Mutually exclusive with purchaseOrderApprovalProcess. Other possible values: ■ -1 — the purchase order owner's manager. ■ -2 — the manager of the purchase order owner's manager. ■ -3 — the project owner. ■ -4 — self (purchase order owner).	integer($int64)	—	Yes	—
purchaseRequest ApprovalProcess	The internal ID of the *approval process* for purchase requests associated with the project. Mutually exclusive with purchaseRequestApprover.	integer($int64)	—	Yes	—
purchaseRequest Approver	The internal ID of the User who approves purchase requests associated with the project, if a single approver process is used. Mutually exclusive with purchaseRequestApprovalProcess. Other possible values: ■ -1 — the purchase request owner's manager. ■ -2 — the manager of the purchase request owner's manager. ■ -3 — the project owner. ■ -4 — self (purchase request owner).	integer($int64)	—	Yes	—
rate	The hourly billing rate for the project.	number($float)	—	Yes	—
rateCardId	The rate card to be used for projected billing, if not zero.	integer($int64)	—	Yes	Yes
revenueApprovalProcess	The internal ID of the revenue container *approval process* for the project. Mutually exclusive with revenueApprover.	integer($int64)	—	Yes	—
revenueApprover	The internal ID of the *employee* who approves revenue containers for the project, if a single approver process is used. Mutually exclusive with revenueApprovalProcess. Other possible values: ■ -1 — the revenue container owner's manager. ■ -2 — the manager of the container owner's manager.	integer($int64)	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
	■ -3 — the project owner. ■ -4 — self.				
`sgaLabor`	The allocated cost (SG and A) overhead percentage applied to labor for profitability analysis.	number($float)	—	Yes	—
`shippingContactId`	The internal ID of the shipping *contact* associated with the project, if different from the designated shipping contact for the customer.	integer($int64)	—	Yes	—
`soldToContactId`	The internal ID of the sold to *contact* associated with the project, if different from the designated sold to contact for the customer.	integer($int64)	—	Yes	—
`startDate`	The scheduled start date of the project.	string($date)	—	Yes	Yes
`syncWorkspace`	A 1/0 field indicating whether to synchronize the project resources with membership of the workspace associated with the project.	Boolean	—	Yes	—
`taskBudgetCost`	The total projected cost across all tasks in the project, if task budgeting is enabled.	number($float)	Yes	Yes	—
`taskBudgetRevenue`	The total projected billing across all tasks in the project, if task budgeting is enabled.	number($float)	Yes	Yes	—
`taxLocationId`	The internal ID of the of the tax location associated with the project.	integer($int64)	—	Yes	Yes
`taxRateFederal`	The federal tax rate for the project.	number($float)	—	Yes	—
`taxRateState`	The state/HST tax rate for the project.	number($float)	—	Yes	—
`templateProjectId`	The internal ID of the project or project template to be copied. Used only with **POST** `/projects/from-template/`.	integer($int64)	—	—	—
`timesheetApprovalProcess`	The internal ID of the *approval process* for timesheets associated with the project. Mutually exclusive with `timesheetApprover`.	integer($int64)	—	Yes	—
`timesheetApprover`	The internal ID of the `User` who approves timesheets associated with the project, if a single approver process is used. Mutually exclusive with `timesheetApprovalProcess`. Other possible values: ■ -1 — the timesheet owner's manager. ■ -2 — the manager of the timesheet owner's manager. ■ -3 — the project owner. ■ -4 — self (timesheet owner).	integer($int64)	—	Yes	—
`timetypeFilter`	A comma-delimited list of internal IDs of time types against which time can be booked for the project.	string	—	Yes	—
`updated`	The date the project was last updated or modified.	string($date-time)	Yes	Yes	—
`userFilter`	A comma-delimited list of internal IDs of employees who can edit the project.	string	—	Yes	—
`userId`	The internal ID of the employee associated with the project — the project owner.	integer($int64)	—	Yes	Yes

Note: Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.

Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert a Project

POST `/projects/` — Use this method to create a new project.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the project created. Otherwise, the response will include only the internal ID of the project created.	Boolean

Request body

The `Project` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `Project` object model, see Project object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Project` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the project created. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/projects/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "attachments": [{"id": 6459}],
   "budget": 500000,
   "contactId": 537,
   "currency": "EUR",
   "customerId": 489,
   "finishDate": "2022-12-31",
   "name": "Hardware deployment",
   "userId": 174
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "id": 2689
        }
    ],
    "message": "success"
}
```

Insert Multiple Projects

POST `/projects/bulk/` — Use this method to create new projects.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the project created. Otherwise, the response will include only the internal ID of the project created.	Boolean

Request body

The `Project` objects to be created. Each object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `Project` object model, see Project object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Project` objects created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the project created. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request. If your request includes multiple projects, both valid and invalid, the request will complete successfully for valid projects and return an error message for invalid projects — for example, "`Access to Project #372 denied`". The response status will be `207 Multiple statuses returned`. If your request more than 100 projects, an error is returned — for example, "`Bulk action limit reached, sent 101 entities of 100 allowed`".

Sample request

```
POST /rest/v1/projects/bulk?return_object=1 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "1": {
      "attachments": [{"id": 6459}],
      "budget": 500000,
      "contactId": 537,
      "currency": "EUR",
```

```
        "customerId": 489,
        "name": "Hardware deployment",
        "userId": 174
    },
    "2": {
        "attachments": [{"id": 6475}],
        "budget": 300000,
        "contactId": 537,
        "currency": "EUR",
        "customerId": 489,
        "startDate": "2022-12-31",
        "name": "Software deployment",
        "userId": 174
    }
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "message": "Multiple statuses returned"
    "data": [{
        "1": {
            "message": "Bad data",
            "errorFields": {
                "startDate":[{
                    "type": "required-field",
                    "message": "Required field Start date (DD/MM/YYYY)"
                }]
            }
        },
        "2": {"message": "success", "data": [{"id": 123}]}
    }]
}
```

Create a Project from Template

POST `/projects/from-template/` — Use this method to create a new project from another project or from a project template.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
		Note: The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the project created. Otherwise, the response will include only the internal ID of the project created.	Boolean

Request body

The `Project` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `Project` object model, see Project object properties.

The following properties are specific to the **POST** `/projects/from-template/` method. The internal ID of the template project (`templateProjectId`) must be included.

Property	Description	Type	Optional / Required	Query allowed
`copyApprovers`	A 1/0 field indicating whether to copy the project approvers associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyBookings`	A 1/0 field indicating whether to copy the bookings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyCpExcludeFilters`	A 1/0 field indicating whether to copy the customers and projects to exclude from denominator when calculating user allocation % from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	—	—
`copyCustomFields`	A 1/0 field indicating whether to copy the custom field values from the project or project template	Boolean	Optional	—

Property	Description	Type	Optional / Required	Query allowed
	specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.			
`copyDashboardSettings`	A 1/0 field indicating whether to copy the dashboard settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyExpensePolicy`	A 1/0 field indicating whether to copy the expense policy associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyInvoiceLayoutSettings`	A 1/0 field indicating whether to copy the invoice layout settings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyIssues`	A 1/0 field indicating whether to copy the issues associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyLoadedCost`	A 1/0 field indicating whether to copy the loaded costs from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyNotificationSettings`	A 1/0 field indicating whether to copy the notification settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyProjectAssignmentProfiles`	A 1/0 field indicating whether to copy the project assignment profiles associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyProjectBillingAutoSetting`	A 1/0 field indicating whether to copy the automated project autobilling settings from the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyProjectBillingRules`	A 1/0 field indicating whether to copy the project billing rules associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyProjectBudgetGroups`	A 1/0 field indicating whether to copy the project budget groups associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyProjectPricing`	A 1/0 field indicating whether to copy the project pricing associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyRevenueRecognitionAutoSettings`	A 1/0 field indicating whether to copy the project revenue recognition autorun settings associated with the project or project template specified in `templateProjectId`. Used only with **POST** `/projects/from-template/`.	Boolean	Optional	—
`copyRevenueRecognitionRules`	A 1/0 field indicating whether to copy the project revenue recognition rules associated with the project or project template specified	Boolean	Optional	—

Property	Description	Type	Optional / Required	Query allowed
	in `templateProjectId`. Used only with **POST** / `projects/from-template/`.			
`templateProjectId`	The internal ID of the project or project template to be copied. Used only with **POST** `/projects/from-template/`.	integer ($int64)	Required	—

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `Project` objects created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the project created. See Returned Data.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/projects/from-template?return_object=1 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
  "name": "New project copied from template",
  "customerId": 1,
  "hierarchyNodes": [{"id": 72}],
  "filterSets": [{"id": 2}, {"id": 3}],
  "templateProjectId": 7,
  "startDate": "2022-12-31",
  "copyProjectBillingRules": 1,
  "copyProjectBillingAutoSetting": 1,
  "copyProjectPricing": true,
  "copyCustomFields": true,
  "copyLoadedCost": true,
```

```
 "copyApprovers": true,
 "copyIssues": true,
 "copyNotificationSettings": true,
 "copyDashboardSettings": true,
 "copyInvoiceLayoutSettings": true,
 "copyBookings": true,
 "copyProjectBudgetGroups": true,
 "copyExpensePolicy": true,
 "copyProjectAssignmentProfiles": true,
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "message": "success",
    "data": [{
          "id": 123
    }]
}
```

Get the List of Projects

GET `/projects/` — Use this method to retrieve the list of projects.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Path parameter	Required / Optional	Description	Type
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the projects requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/projects/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
```

```
    "data": [
      {
        ...
      },
        {
        ...
      },
        ...
    ],
    "message": "success"
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 54,
                        "type": "userDisplayName"
                    }
                }
            },
            ...
        ],
        "rowsPerPage": 100,
        "totalPages": 14,
        "totalRows": 1386,
        "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects?limit=100&offset=100"
            },
            {
            "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects?limit=100&offset=1300"
            }
        ]
    }
}
```

Get a Project

GET `/projects/{id}` — Use this method to retrieve the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
{id}	Required	The internal ID of the project.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project task returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the project task requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`ProjectTask #237 not found`". **Note:** The project task record with the internal ID `{id}` must have the **task classification** field set to **Task** in SuiteProjects Pro. If the project task record corresponds to a milestone or a phase, the API return an error with message "`ProjectTask #{id} not found`".

Sample request

```
GET /rest/v1/projects/2438?fields=attachments,budget,contactId,created,currency,customerId,finishDate,id,name,userId HTTP/1.1
```

```
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
     {
            "attachments": [{"id": 6459} ],
            "budget": 500000,
            "contactId": 537,
            "created": "2020-10-22 07:08:36",
            "currency": "EUR",
            "customerId": 489,
            "finishDate": "2022-12-31",
            "id": 2438,
            "name": "Hardware deployment",
            "userId": 174
     }
    ],
    "message": "success"
    "meta": {
       "relationships": [
                  {
                  "attachments": {
                      "data": { "type": "attachments", "id": 6459 }
                  },
                  "userId": {
                      "data": { "type": "userDisplayName", "id": 174 }
                  }
             },
          ],
       "rowsPerPage": 100,
       "totalPages": 1,
       "totalRows": 1,
       "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects/2438?fields=attachments,budget,contac
tId,created,currency,customerId,finishDate,id,name,userId"
            }
       ]
    }
}
```


Update a Project

PUT `/projects/` — Use this method to update the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
{id}	Required	The internal ID of the project.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the project created. Otherwise, the response will include only the internal ID of the project created.	Boolean

Request body

An object including valid key-value pairs for the fields to be updated. The object cannot include key-value pairs for read-only attributes. For information about the `Project` object model, see Project object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `Project` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the project created. See Returned Data.

Property	Description
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
PUT /rest/v1/projects/2689 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "budget": 800000,
   "contactId": 1579,
   "currency": "CAD",
   "customerId": 489,
   "finishDate": "2023-12-31",
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2689
      }
   ],
   "message": "success"
}
```

Update Multiple Projects

PUT `/projects/bulk/{ids}` — Use this method to update projects with the specified internal IDs.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or %20 in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If return_object is set to any value other than 0 (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project returned.	string
filterSetId	Optional	The internal ID of the filter set to be applied. - When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. - Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
return_object	Optional	If set to any value other than 0 (zero), the response will return the project created. Otherwise, the response will include only the internal ID of the project created.	Boolean

Request body

An object with key-value pairs for each project to be updated. For each project, the key is the project internal ID and the value is an object including valid key-value pairs for the fields to be updated. The project objects cannot include key-value pairs for read-only attributes. For information about the Project object model, see Project object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing one of the following: - The Project object created, if the return_object parameter was set to any value other than 0 (zero) in the request. The object includes all the attributes specified using the fields if included in the request. - An object with only the internal ID of the project created.

Property	Description
	See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request. If your request includes multiple projects, both valid and invalid, the request will complete successfully for valid projects and return an error message for invalid projects — for example, "`Access to Project #372 denied`". The response status will be `207 Multiple statuses returned`. If your request more than 100 projects, an error is returned — for example, "`Bulk action limit reached, sent 101 entities of 100 allowed`".

Sample request

```
PUT /rest/v1/projects/bulk?return_object=1 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
  "367" : {
    "name": "Updated project name",
    "customerId": 108,
    "filterSets": [{"id": 2}, {"id": 3}]
  },
  "673": {
    "name": "Another updated project",
    "customerId": 11,
    "startDate": "2023-01-01"
  }
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "message": "Multiple statuses returned"
    "data": [{
        "367": {
            "message": "Bad data",
            "errorFields": {
                "customerId":[{
                     "type": "read-only-value",
                     "message": "Read-only value"
```

```
                }]
            }
        },
        "673": {"message": "success", "data": [{"id": 18}]}
    }]
}
```

Delete a Project

DELETE `/projects/{id}` — Use this method to delete the project record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Project #237 not found`".

Sample request

```
DELETE /rest/v1/projects/237 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 237
      }
   ],
   "message": "success"
}
```

Delete Multiple Projects

DELETE `/projects/bulk/{ids}` — Use this method to delete the project records with the specified internal IDs.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{ids}`	Required	A comma-separated list of internal IDs for projects. The list must not include more than 100 project IDs.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`". If your request includes multiple project IDs, both valid and invalid, the request will complete successfully for valid project IDs and return an error message for invalid project IDs — for example, `"Access to Project #372 denied"`. The response status will be `207 Multiple statuses returned`. If your request more than 100 project IDs, an error is returned — for example, `"Bulk action limit reached, sent 101 entities of 100 allowed"`.

Sample request

```
DELETE /rest/v1/projects/bulk/237,327,372 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "1": {
            "data": [ {"id": "237"}],
            "message": "success"
         },
         "2": {
            "data": [ {"id": "327"}],
            "message": "success"
         },
         "3": {
            "data": [ {"id": "372"}],
            "message": "success"
         }
      }
   ],
   "message": "success"
}
```

Add an Attachment to a Project

POST `/projects/{id}/attachments` — Use this method to add an attachment to the project with the specified internal ID. This method can be used for any of the following cases:

- Create a new attachment and associate it with the project.
- Associate a workspace document with the project. Workspace documents are `Attachment` objects associated with a custom workspace.

> **Note:** If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts either one of the content types described in the following table:

Content-Type header	Body	Use case
`multipart/form-data`	Form data with the following key-value pair: ▪ `file` — The file to be uploaded. The file and file metadata will be used to create the new `Attachment` object.	▪ Create a new attachment and associate it with the project.
`application/json`	JSON object with the following key-value pair: ▪ `id` — The internal ID of the workspace document to be associated with the project.	▪ Associate a workspace document with the project.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/projects/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Get the List of Attachments Associated with a Project

GET `/projects/{id}/attachments` — Use this method to retrieve the list of attachments associated with the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
{id}	Required	The internal ID of the project.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or %20 in the URL encoded string).	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each attachment returned. Response Data Modifiers. For information about Attachment object properties, see Attachment object properties.	string
filterSetId	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
limit	Optional	A limit on the length of the page. See Pagination.	integer
offset	Optional	A cursor for use in pagination. See Pagination.	integer
orderBy	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing the list of attachments associated with the project with the specified internal ID. See Returned Data. For information about Attachment object properties, see Attachment object properties.

Property	Description
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Project #237 not found`".

Sample request

```
GET /rest/v1/projects/237/attachments/?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
        },
        {
            "fileName": "2020-12-08_14-46-24.png",
            "isLocked": false,
            "id": 56,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 123754
        },
    ],
    "message": "success",
    "meta": {
       "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
             },
```

```
            {
                "uploadedBy": {
                    "data": { "type": "userDisplayName", "id": 49 }
                }
            }
        ],
        "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/projects/237/attachments"
            }
        ]
    }
}
```

Get an Attachment Associated with a Project

GET `/projects/{id}/attachments/{attachment_id}` — Use this method to retrieve the attachment record with the specified attachment ID associated with the project with the specified internal ID. The response contains the attachment metadata only and not the file.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment metadata returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing the attachment metadata requested. See Returned Data.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request — for example, "Attachment #598 not found".

Sample request

```
GET projects/237/attachments/4982?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
   "data": [
      {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
      }
   ],
   "message": "success",
   "meta": {
       "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
               }
            ]
   }
```

```
}
```

Get an Attachment File Associated with a Project

GET `/projects/{id}/attachments/{attachment_id}/download` — Use this method to retrieve the file associated with the attachment record with the specified attachment ID associated with the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Success`” or “`Attachment #598 not found`”.

A successful request also returns the attachment file.

Sample request

```
GET projects/237/attachments/4982/download HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment file.

Get the Thumbnail for an Attachment Associated with a Project

GET `/projects/{id}/attachments/{attachment_id}/thumbnail` — Use this method to retrieve the thumbnail file associated with the attachment record with the specified attachment ID associated with the project with the specified internal ID. Available only if the Attachment Thumbnail feature is enabled for your SuiteProjects Pro account.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`" or "`Attachment #213 thumbnail not found`".

A successful request also returns the attachment thumbnail file.

Sample request

```
GET projects/237/attachments/4982/thumbnail HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment thumbnail file.

Replace an Attachment to a Project

PUT `/projects/{id}/attachments/{attachment_id}` — Use this method to replace an attachment to the project with the specified internal ID.

Important: This method can only be used to replace an attachment directly associated with the project. It cannot be used for workspace document associated with the project either to replace the workspace document or to associate a different workspace document in its place.

Note: If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
		Note: The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts the following content type:

Content-Type header	Body
`multipart/form-data`	Form data with the following key-value pair: ■ `file` — The file to be uploaded. The file and file metadata will be used to replace the existing `Attachment` object with a new `Attachment` object.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the attachment created.

Property	Description
	See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
PUT /rest/v1/projects/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete an Attachment Associated with a Project

DELETE `/projects/{id}/attachments/{attachment_id}` — Use this method to delete the attachment with the specified attachment ID associated with the project with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #4985 not found`".

Sample request

```
DELETE /rest/v1/projects/237/attachments/4982 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete Attachments Associated with a Project

DELETE `/projects/{id}/attachments/{attachment_ids}` — Use this method to delete attachments with the specified attachment IDs associated with the project with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the project with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_ids}`	Required	A comma-separated list of internal IDs for the attachments. The list must not include more than 1000 attachment IDs.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	If your request includes multiple attachment IDs, both valid and invalid, the request will complete successfully for valid attachment IDs and return an error message for invalid attachment IDs — for example, "`Access to Attachment #693 denied`". The response status will be `207 Multiple statuses returned`. If your request more than 1,000 attachment IDs, an error is returned — for example, "`Bulk action limit reached, sent 1001 entities of 1000 allowed`".

Sample request

```
DELETE /rest/v1/projects/237/attachments/4982,4983 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
   "data": [
      {
         "4982" : {
              "data": [{
                   "id": "4982"
              }],
              "message": "success"
         },
          "4983" : {
              "data": [{
                   "id": "4983"
              }],
              "message": "success"
         }
      }
   ],
   "message": "success"
}
```


Discover Available Methods and Fetch the Endpoint Reference for Projects

OPTIONS `/projects/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for projects.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/projects/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Project Milestones

Project milestones are reference points in your project life cycle that marks a significant event or goal the to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

> **Note:** The `/project-milestones/` endpoint can only be used for project task records with the **task classification** field set to **Milestone** in SuiteProjects Pro. This is equivalent to records with the `classification` property set to `M` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes.
>
> For Tasks — project task records with zero duration and the **task classification** field set to **Milestone** in SuiteProjects Pro, or the `classification` property set to `T` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Tasks.
>
> For Phases — project task records that have other project tasks nested under and the **task classification** field set to **Phase** in SuiteProjects Pro, or the `classification` property set to `P` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Phases.

Available methods

- **GET** `/project-milestones/` — Get the List of Project Milestones
- **GET** `/project-milestones/{id}` — Get a Project Milestone

ProjectMilestone Object Properties

A project milestone is a reference point in your project life cycle that marks a significant event or goal the to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

The `ProjectMilestone` object has the following properties:

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
`attachments`	The attachments associated with this milestone. Array of internal IDs for attachment objects.	Array of `{"id": <integerValue>}` objects.	Yes	—	—
`calculatedStarts`	Calculated start date of the project milestone. If the use task estimating feature is turned on, this field will have the estimated total time the task will take to complete. If zero, no estimating has occurred so the estimate is the same as the plan.	string($date)	Yes	Yes	—
`created`	Time the record was created.	string($date-time)	Yes	Yes	Yes
`currency`	Currency for the money fields in the record. This should be the same as the project currency.	string	Yes	Yes	Yes
`customerId`	The ID of the associated customer.	integer($int64)	Yes	Yes	Yes
`defaultCategory`	The category to assign to a timesheet entry assigned to this task. The feature has to be enabled for this assignment to work.	string	—	Yes	Yes
`defaultCategory1`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategory2`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategory3`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and	string	—	Yes	Yes

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
	project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.				
`defaultCategory4`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategory5`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`externalId`	If the record was imported from an external system you store the unique external record ID here.	string	—	Yes	Yes
`id`	Unique ID. Automatically assigned by the system	integer($int64)	Yes	Yes	Yes
`idNumber`	User-defined milestone ID.	integer($int64)	—	Yes	Yes
`isClosed`	A 1/0 field indicating if this is closed milestone.	Boolean	—	Yes	Yes
`isNonBillable`	If set to 1, this is not billable. This is only applicable for project billing rules.	Boolean	—	Yes	Yes
`name`	Short description of this milestone.	string	—	Yes	Yes
`notes`	Notes associated with the project milestone.	string	—	Yes	Yes
`parentId`	The ID of our immediate ancestor. If zero or null, this is a project-level (top-level) task or phase.	integer($int64)	—	Yes	Yes
`predecessors`	Comma delimited list of task IDs which must complete before this milestone can start.	string	Yes	Yes	—

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
predecessorsLag	Comma delimited list for task ID:days of lag time for predecessors. Only populated if there is a lag time.	string	Yes	Yes	—
predecessorsType	Comma delimited list of task ID:relationship type for predecessors. Only populated if the relationship type is not finish-to-start.	string	Yes	Yes	—
priority	The priority of the milestone (1 - 9).	integer($int64)	—	Yes	Yes
projectId	The ID of the associated project.	integer($int64)	Yes	Yes	Yes
projectTaskTypeId	The ID of the associated projecttask_type. Not for milestones.	integer($int64)	—	Yes	Yes
seq	The sequence number of this task.	integer($int64)	Yes	Yes	Yes
startDate	Optional scheduled starting date of this task. Overrides computed date Start_date.	string($date)	—	Yes	Yes
updated	Time the record was last updated or modified	string($date-time)	Yes	Yes	Yes
useAllCanAssign	Is everyone able to assign time/expenses to this task.	Boolean	—	Yes	Yes

Get the List of Project Milestones

GET `/project-milestones/` — Use this method to retrieve the list of project milestones.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project milestones returned. Response Data Modifiers.	string

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the project milestones requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/project-milestones/ HTTP/1.1
```

```
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success"
   "meta": {
       "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
            ...
       ],
       "rowsPerPage": 100,
       "totalPages": 14,
       "totalRows": 1386,
       "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-milestones"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-milestones"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-milestones?limit=100&offset=100"
            },
            {
            "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-milestones?limit=100&offset=1300"
            }
       ]
   }
}
```

Get a Project Milestone

GET `/project-milestones/{id}` — Use this method to retrieve the project milestone with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
{id}	Required	The internal ID of the project milestone. **Note:** The project milestone record with the internal ID {id} must have the **task classification** field set to **Milestone** in SuiteProjects Pro.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or %20 in the URL encoded string).	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project milestone returned. Response Data Modifiers.	string
filterSetId	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing the project milestone requested. See Returned Data.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, “Success”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`ProjectMilestone #237 not found`". **Note:** The project milestone record with the internal ID `{id}` must have the **task classification** field set to **Milestone** in SuiteProjects Pro. If the project milestone record corresponds to a task or a phase, the API return an error with message "`ProjectMilestone #{id} not found`".

Sample request

```
GET /rest/v1/project-milestones/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
   "data" : [
      {
         "priority" : 5,
         "defaultCategory2" : "0",
         "defaultCategory1" : "0",
         "predecessorsType" : "",
          "id" : 5272,
         "updated" : "2022-02-10 08:43:29",
         "seq" : 6,
         "defaultCategory" : "6",
         "name" : "End of First Phase",
         "useAllCanAssign" : false,
         "customerId" : 71,
         "customerName" : "Internal",
         "predecessors" : "",
         "startDate" : "",
         "predecessorsLag" : "",
         "calculatedStarts" : "2021-07-01",
         "isNonBillable" : false,
         "projectTaskTypeId" : 0,
         "currency" : "USD",
         "defaultCategory4" : "0",
         "projectId" : 309,
         "defaultCategory5" : "0",
         "isClosed" : false,
         "attachments" : [
            {
               "id" : 486
            },
            {
               "id" : 487
            },
            {
               "id" : 488
            }
         ],
         "created" : "2022-02-03 02:56:19",
         "notes" : "",
         "parentId" : 0,
         "idNumber" : 11,
```

```
        "defaultCategory3" : "0"
      }
   ],
   "message" : "success",
   "meta" : {
      "relationships" : [
         {
            "attachments" : {
               "data" : {
                  "id" : [
                     486,
                     487,
                     488
                  ],
                  "type" : "attachment"
               }
            }
         }
      ]
   }
}
```


Project Phases

Project phases are work packages to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

> **Note:** The `/project-phases/` endpoint can only be used for project task records with the **task classification** field set to **Phase** in SuiteProjects Pro. This is equivalent to records with the `classification` property set to `P` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes.
>
> For Milestones — project task records with zero duration and the **task classification** field set to **Milestone** in SuiteProjects Pro, or the `classification` property set to `M` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Milestones.
>
> For Tasks — project task records that have other project tasks nested under and the **task classification** field set to **Task** in SuiteProjects Pro, or the `classification` property set to `T` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Tasks.

Available methods

- **GET** `/project-phases/` — Get the List of Project Phases
- **GET** `/project-phases/{id}` — Get a Project Phase

ProjectPhase Object Properties

A project phase is a work package to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

The `ProjectPhase` object has the following properties:

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
`attachments`	The attachments associated with this phase. Array of internal IDs for attachment objects.	Array of `{"id": <integerValue>}` objects.	Yes	—	—
`calculatedFinishes`	Calculated finish date.	string($date)	Yes	Yes	—
`calculatedStarts`	Calculated start date of the project phase. If the use task estimating feature is turned on, this field will have the estimated total time the task will take to complete. If zero, no estimating has occurred so the estimate is the same as the plan.	string($date)	Yes	Yes	—
`created`	Time the record was created.	string($date-time)	Yes	Yes	Yes
`currency`	Currency for the money fields in the record. This should be the same as the project currency.	string	Yes	Yes	Yes
`customerId`	The ID of the associated customer.	integer($int64)	Yes	Yes	Yes
`defaultCategoryOnPhase`	The category to assign to a timesheet entry assigned to this task. The feature has to be enabled for this assignment to work.	string	—	Yes	Yes
`defaultCategoryOnPhase1`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategoryOnPhase2`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategoryOnPhase3`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
`defaultCategoryOnPhase4`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
defaultCategoryOnPhase5	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and project work breakdown structure for the first default_category_1 defined.	string	—	Yes	Yes
externalId	If the record was imported from an external system you store the unique external record ID here.	string	—	Yes	Yes
id	Unique ID. Automatically assigned by SuiteProjects Pro	integer($int64)	Yes	Yes	Yes
idNumber	User-defined phase ID.	integer($int64)	—	Yes	Yes
isClosed	A 1/0 field indicating if this is closed phase.	Boolean	—	Yes	Yes
isReadyForRecognition	Flag 1/0 indicating if phase is ready for recognition	Boolean	—	Yes	Yes
name	Short description of this phase.	string	—	Yes	Yes
notes	Notes associated with the project phase.	string	—	Yes	Yes
parentId	The ID of our immediate ancestor. If zero or null, this is a project-level (top-level) task or phase.	integer($int64)	—	Yes	Yes
percentComplete	This field is an estimate of the percentage of planned time which has been completed. It has no relation to the actual time spent on a phase. (A 5-hour phase could consume 50 hours of work but still be only 25% complete.)	integer($int64)	Yes	Yes	Yes
plannedHours	Total number of hours the phase is estimated to require. This is the total amount of time the phase should take if worked on continuously by one person with no interruptions. A task with zero planned hours is also known as a milestone.	integer($int64)	Yes	Yes	Yes
predecessors	Comma delimited list of task IDs which must complete before this phase can start.	string	Yes	Yes	—
predecessorsLag	Comma delimited list for task ID:days of lag time for predecessors. Only populated if there is a lag time.	string	Yes	Yes	—
predecessorsType	Comma delimited list of task ID:relationship type for predecessors. Only populated if the relationship type is not finish-to-start.	string	Yes	Yes	—

Name	Description	Type	Read-Only	Query Allowed	Sorting Allowed
priority	The priority of the phase (1 - 9).	integer($int64)	—	Yes	Yes
projectId	The ID of the associated project.	integer($int64)	Yes	Yes	Yes
seq	The sequence number of this task.	integer($int64)	Yes	Yes	Yes
updated	Time the record was last updated or modified	string($date-time)	Yes	Yes	Yes

Get the List of Project Phases

GET `/project-phases/` — Use this method to retrieve the list of project phases.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project phases returned. Response Data Modifiers.	string
filterSetId	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
limit	Optional	A limit on the length of the page. See Pagination.	integer
offset	Optional	A cursor for use in pagination. See Pagination.	integer
orderBy	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the project phases requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/project-phases/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success"
   "meta": {
       "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
            ...
       ],
       "rowsPerPage": 100,
```

```
        "totalPages": 14,
        "totalRows": 1386,
        "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-phases"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-phases"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-phases?limit=100&offset=100"
            },
            {
            "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-phases?limit=100&offset=1300"
            }
        ]
    }
}
```

Get a Project Phase

GET `/project-phases/{id}` — Use this method to retrieve the project phase with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project phase. **Note:** The project phase record with the internal ID `{id}` must have the **task classification** field set to **Phase** in SuiteProjects Pro.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project phase returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token.	integer

Path parameter	Required / Optional	Description	Type
		■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the project phase requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`ProjectPhase #237 not found`". **Note:** The project task record with the internal ID `{id}` must have the **task classification** field set to **Phase** in SuiteProjects Pro. If the project task record corresponds to a milestone or a phase, the API return an error with message "`ProjectPhase #{id} not found`".

Sample request

```
GET /rest/v1/project-phases/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "priority": 5,
            "defaultCategoryOnPhase5": "5",
            "isReadyForRecognition": false,
            "plannedHours": 121,
            "predecessorsType": "",
            "id": 5232,
            "updated": "2022-01-24 08:23:30",
            "seq": 4,
            "name": "Initiation",
```

```
            "customerId": 71,
            "defaultCategoryOnPhase1": "3",
            "customerName": "Internal",
            "predecessors": "",
            "predecessorsLag": "",
            "calculatedStarts": "2020-09-21",
            "calculatedFinishes": "2020-10-02",
            "currency": "USD",
            "projectId": 299,
            "percentComplete": 0,
            "defaultCategoryOnPhase2": "1",
            "isClosed": false,
            "attachments": [],
            "created": "2022-01-20 09:32:21",
            "defaultCategoryOnPhase4": "3",
            "parentId": 0,
            "idNumber": 5,
            "defaultCategoryOnPhase": "5"
        }
    ],
    "message": "success"
}
```


Project Tasks

Project tasks are work packages to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

Note: The `/project-tasks/` endpoint can only be used for project task records with the **task classification** field set to **Task** in SuiteProjects Pro. This is equivalent to records with the `classification` property set to `T` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes.

For Milestones — project task records with zero duration and the **task classification** field set to **Milestone** in SuiteProjects Pro, or the `classification` property set to `M` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Milestones.

For Phases — project task records that have other project tasks nested under and the **task classification** field set to **Phase** in SuiteProjects Pro, or the `classification` property set to `P` in the `project_task` table, or in the XML API `Projecttask` or SOAP API `oaProjecttask` datatypes — see Project Phases.

Available methods

- **POST** `/project-tasks/` — Insert a Project Task
- **GET** `/project-tasks/` — Get the List of Project Tasks
- **GET** `/project-tasks/{id}` — Get a Project Task
- **POST** `/project-tasks/{id}/attachments` — Add an Attachment to a Project Task
- **GET** `/project-tasks/{id}/attachments` — Get the List of Attachments Associated with a Project Task
- **GET** `/project-tasks/{id}/attachments/{attachment_id}` — Get an Attachment Associated with a Project Task
- **GET** `/project-tasks/{id}/attachments/{attachment_id}/download` — Get an Attachment File Associated with a Project Task

- **GET** /project-tasks/{id}/attachments/{attachment_id}/thumbnail — Get the Thumbnail for an Attachment Associated with a Project Task
- **PUT** /project-tasks/{id}/attachments/{attachment_id} — Replace an Attachment to a Project Task
- **DELETE** /project-tasks/{id}/attachments/{attachment_id} — Delete an Attachment Associated with a Project Task
- **DELETE** /project-tasks/{id}/attachments/{attachment_ids} — Delete Attachments Associated with a Project Task

ProjectTask Object Properties

A project task is a work package to be completed as part of a project. It includes information about the work to be done, when, by whom, and at what cost.

The ProjectTask object has the following properties:

Name	Description	Type	Read-Only	Query Allowed	Sorting allowed
assignmentCc	A comma-delimited list of internal IDs of employees to be copied (Cc) into assignment notification email. Other possible listed values: - -1 — the assignee's manager. - -2 — the manager of the assignee's manager. - -3 — the project owner. - -5 — the customer owner.	string	—	Yes	Yes
assignmentCcEmails	A comma-delimited lists of additional recipient email addresses to be copied (Cc) into assignment notification email. Used for recipients who are not SuiteProjects Pro users.	string	—	Yes	Yes
attachments	The attachments associated with this task. Array of internal IDs for attachment objects.	Array of {"id": <integerValue>} objects.	Yes	—	—
calculatedFinishes	Calculated finish date.	string($date)	Yes	Yes	—
calculatedStarts	Calculated start date of the project task. If the use task estimating feature is turned on, this field will have the estimated total time the task will take to complete. If zero, no estimating has occurred so the estimate is the same as the plan.	string($date)	Yes	Yes	—
costCenterId	The internal ID of the associated cost center.	integer($int64)	—	Yes	Yes
created	Time the record was created.	string($date-time)	Yes	Yes	Yes
currency	Currency for the money fields in the record. This should be the same as the project currency.	string	—	Yes	Yes
customerId	The internal ID of the associated customer.	integer($int64)	—	Yes	Yes

Name	Description	Type	Read-Only	Query Allowed	Sorting allowed
`defaultCategory`	The category to assign to a timesheet entry assigned to this task. The feature has to be enabled for this assignment to work.	integer($int64)	—	Yes	Yes
`defaultCategory1`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and phase work breakdown structure for the first default_category_1 defined.	integer($int64)	—	Yes	Yes
`defaultCategory2`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and phase work breakdown structure for the first default_category_1 defined.	integer($int64)	—	Yes	Yes
`defaultCategory3`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and phase work breakdown structure for the first default_category_1 defined.	integer($int64)	—	Yes	Yes
`defaultCategory4`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and phase work breakdown structure for the first default_category_1 defined.	integer($int64)	—	Yes	Yes
`defaultCategory5`	A feature, if enabled, would assign this default_category_1 to the category_1 for many transactions that have a category_1_id and project_task_id by searching the project_task and phase work breakdown structure for the first default_category_1 defined.	integer($int64)	—	Yes	Yes
`externalId`	If the record was imported from an external system you store the unique external record ID here.	integer($int64)	—	Yes	Yes
`fnltDate`	The finish no later than date of the task. The task must be finished by this date.	string($date)	—	Yes	Yes
`hoursRemainingEstimates`		Array of `{"id": <integerValue>}` objects.	—	Yes	—

Name	Description	Type	Read-Only	Query Allowed	Sorting allowed
id	Unique ID. Automatically assigned by SuiteProjects Pro	Array of {"id":<integerValue>} objects.	Yes	Yes	Yes
idNumber	User-defined phase ID.	Array of {"id":<integerValue>} objects.	—	—	Yes
isClosed	A 1/0 field indicating if this is closed phase.	boolean	—	Yes	Yes
isNonBillable	If set to 1, this is not billable. This is only applicable for project billing rules.	boolean	—	Yes	Yes
isReadyForRecognition	Flag 1/0 indicating if phase is ready for recognition	boolean	—	Yes	Yes
isSignOffRequired		boolean	—	Yes	Yes
isUsingProjectAssignment	Flag set to 1 if they are using the project level user assignment.	boolean	—	Yes	Yes
name	Short description of this task.	string	—	Yes	Yes
notes	Notes associated with the project task.	string	—	Yes	Yes
parentId	The internal ID of the immediate ancestor. If zero or null, this is a project-level (top-level) task or phase.	integer($int64)	—	Yes	Yes
percentComplete	This field is an estimate of the percentage of planned time which has been completed. It has no relation to the real time spent on a phase. (A 5-hour phase could consume 50 hours of work but still be only 25% complete.)	integer($int64)	—	Yes	Yes
plannedHours	Total number of hours the phase is estimated to require. This is the total amount of time the phase should take if worked on continuously by one person with no interruptions. A phase with zero planned hours is also known as a milestone.	number($float)	—	Yes	Yes
predecessors	Comma delimited list of task IDs which must complete before this phase can start.	string	—	Yes	—
predecessorsLag	Comma delimited list for task ID:days of lag time for predecessors. Only populated if there is a lag time.	string	—	Yes	—
predecessorsType	Comma delimited list of task ID:relationship type for predecessors. Only populated if the relationship type is not finish-to-start.	string	—	Yes	—

Name	Description	Type	Read-Only	Query Allowed	Sorting allowed
`priority`	The priority of the phase (1 - 9).	integer($int64)	—	Yes	Yes
`projectId`	The internal ID of the associated project.	integer($int64)	—	Yes	Yes
`projectTaskTypeId`	The internal ID of the associated project task type. Not for phases.	integer($int64)	—	Yes	Yes
`seq`	The sequence number of this task.	integer($int64)	—	Yes	Yes
`startDate`	Optional scheduled starting date of this task. Overrides computed start date.	string($date)	—	Yes	Yes
`taskBudgetCost`	If task budgeting is enabled this is the total cost of the task.	number($float)	—	Yes	Yes
`taskBudgetRevenue`	If task budgeting is enabled this is the total projected billing for the task.	number($float)	—	Yes	Yes
`taskSplits`		Array of `{"id": <integerValue>}` objects.	—	—	—
`timetypeFilter`	A timetype filter. This will hold a list of the timetypes that are allowed to book time to this task.	Array of `{"id": <integerValue>}` objects.	—	—	—
`updated`	Time the record was last updated or modified	string($date)	Yes	Yes	Yes
`useAllCanAssign`	Is everyone able to assign time/ expenses to this task.	boolean	—	Yes	Yes
`useManualTaskBudget`	If set to 1 then the task budget is manually entered rather than calculated by SuiteProjects Pro	boolean	—	Yes	Yes
`userAssignments`	A comma separated list of user nicknames to assign this task to. (project_task_assign can also be used.)	Array of `{"id": <integerValue>}` objects.	—	—	—

Insert a Project Task

POST `/project-tasks/` — Use this method to create a new project task.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project task returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the project task created. Otherwise, the response will include only the internal ID of the project task created.	Boolean

Request body

The `ProjectTask` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `ProjectTask` object model, see ProjectTask Object Properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `ProjectTask` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the project task created.

Property	Description
	See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/project-tasks/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "attachments": [{"id": 6459}],
   "budget": 500000,
   "contactId": 537,
   "currency": "EUR",
   "customerId": 489,
   "finishDate": "2022-12-31",
   "name": "Hardware deployment",
   "userId": 174
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2689
      }
   ],
   "message": "success"
}
```

Get the List of Project Tasks

GET `/project-tasks/` — Use this method to retrieve the list of project tasks.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project tasks returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the project tasks requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination.

Property	Description
	■ Objects referenced by internal ID in the data array (object type and internal ID). See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, “Success”.

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/project-tasks/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success"
   "meta": {
       "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            43
                        ],
                        "type": "attachment"
                    }
                },
            ...
       ],
       "rowsPerPage": 100,
       "totalPages": 14,
       "totalRows": 1386,
       "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-tasks"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-tasks"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-tasks?limit=100&offset=100"
```

```
            },
            {
            "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-tasks?limit=100&offset=1300"
            }
        ]
    }
}
```

Get a Project Task

GET `/project-tasks/{id}` — Use this method to retrieve the project task with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task. **Note:** The project task record with the internal ID `{id}` must have the **task classification** field set to **Task** in SuiteProjects Pro.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the project task returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing the project task requested. See Returned Data.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request — for example, "ProjectTask #237 not found". **Note:** The project task record with the internal ID {id} must have the **task classification** field set to **Task** in SuiteProjects Pro. If the project task record corresponds to a milestone or a phase, the API return an error with message "ProjectTask #{id} not found".

Sample request

```
GET /rest/v1/project-tasks/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "priority": 0,
            "defaultCategory2": "0",
            "defaultCategory1": "0",
            "isReadyForRecognition": false,
            "plannedHours": 64,
            "assignmentCcEmails": "",
            "timetypeFilter": [],
            "predecessorsType": "",
            "isSignOffRequired": false,
            "taskSplits": [],
            "updated": "2020-06-18 08:34:51",
            "id": 438,
            "seq": 0,
            "defaultCategory": "1",
            "fnltDate": "0000-00-00",
            "useAllCanAssign": false,
            "name": "Alignment workshop",
            "customerId": 3,
            "customerName": "Damus Inc.",
            "costCenterId": 0,
```

```
            "predecessors": "437",
            "isUsingProjectAssignment": false,
            "classification": "T",
            "startDate": "",
            "predecessorsLag": "",
            "useManualTaskBudget": false,
            "externalId": "",
            "calculatedStarts": "2021-10-09",
            "isNonBillable": false,
            "cfHoursPercentageToCloseTask": "",
            "taskBudgetRevenue": 15680,
            "projectTaskTypeId": 1,
            "taskBudgetCost": 2741.44,
            "calculatedFinishes": "2021-10-15",
            "currency": "USD",
            "isAPhase": false,
            "defaultCategory4": "0",
            "projectId": 27,
            "assignmentCc": "",
            "hoursRemainingEstimates": [],
            "percentComplete": 100,
            "isClosed": false,
            "defaultCategory5": "0",
            "created": "2020-04-21 13:14:14",
            "userAssignments": [
                18,
                19
            ],
            "parentId": 431,
            "notes": "",
            "idNumber": 5,
            "defaultCategory3": "0"
        }
    ],
    "message": "success"
}
```

Add an Attachment to a Project Task

POST `/project-tasks/{id}/attachments` — Use this method to add an attachment to the project task with the specified internal ID. This method can be used for any of the following cases:

- Create a new attachment and associate it with the project task.
- Associate a workspace document with the project task. Workspace documents are `Attachment` objects associated with a custom workspace.

> **Note:** If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or %20 in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If return_object is set to any value other than 0 (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
fields	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the Attachment object properties, see Attachment object properties.	string
filterSetId	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
return_object	Optional	If set to any value other than 0 (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts either one of the content types described in the following table:

Content-Type header	Body	Use case
multipart/form-data	Form data with the following key-value pair: ■ file — The file to be uploaded. The file and file metadata will be used to create the new Attachment object.	■ Create a new attachment and associate it with the project task.
application/json	JSON object with the following key-value pair: ■ id — The internal ID of the workspace document to be associated with the project task.	■ Associate a workspace document with the project task.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/project-tasks/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Get the List of Attachments Associated with a Project Task

GET `/project-tasks/{id}/attachments` — Use this method to retrieve the list of attachments associated with the project task with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each attachment returned. Response Data Modifiers. For information about `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. - When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. - Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the list of attachments associated with the project task with the specified internal ID. See Returned Data. For information about `Attachment` object properties, see Attachment object properties.

Property	Description
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`ProjectTask #237 not found`".

Sample request

```
GET /rest/v1/project-tasks/237/attachments/?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
        },
        {
            "fileName": "2020-12-08_14-46-24.png",
            "isLocked": false,
            "id": 56,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 123754
        },
    ],
    "message": "success",
    "meta": {
       "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
             },
```

```
            {
                "uploadedBy": {
                    "data": { "type": "userDisplayName", "id": 49 }
                }
            }
        ],
        "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/project-tasks/237/attachments"
            }
        ]
    }
}
```


Get an Attachment Associated with a Project Task

GET `/project-tasks/{id}/attachments/{attachment_id}` — Use this method to retrieve the attachment record with the specified attachment ID associated with the project task with the specified internal ID. The response contains the attachment metadata only and not the file.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment metadata returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
data	An array containing the attachment metadata requested. See Returned Data.
included	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
meta	An object containing information about objects referenced by internal ID in the data array (object type and internal ID). See Referenced Objects and Expansion.
message	A string containing a brief message about the status of your request — for example, "Success".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request — for example, "Attachment #598 not found".

Sample request

```
GET project-tasks/237/attachments/4982?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4982,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
      }
   ],
   "message": "success",
   "meta": {
       "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
               }
           ]
   }
}
```

Get an Attachment File Associated with a Project Task

GET `/project-tasks/{id}/attachments/{attachment_id}/download` — Use this method to retrieve the file associated with the attachment record with the specified attachment ID associated with the project task with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`".

A successful request also returns the attachment file.

Sample request

```
GET project-tasks/237/attachments/4982/download HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment file.

Get the Thumbnail for an Attachment Associated with a Project Task

GET `/project-tasks/{id}/attachments/{attachment_id}/thumbnail` — Use this method to retrieve the thumbnail file associated with the attachment record with the specified attachment ID associated with the project task with the specified internal ID. Available only if the Attachment Thumbnail feature is enabled for your SuiteProjects Pro account.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`" or "`Attachment #213 thumbnail not found`".

A successful request also returns the attachment thumbnail file.

Sample request

```
GET project-tasks/237/attachments/4982/thumbnail HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment thumbnail file.

Replace an Attachment to a Project Task

PUT `/project-tasks/{id}/attachments/{attachment_id}` — Use this method to replace an attachment to the project task with the specified internal ID.

Important: This method can only be used to replace an attachment directly associated with the project task. It cannot be used for workspace document associated with the project task either to replace the workspace document or to associate a different workspace document in its place.

Note: If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts the following content type:

Content-Type header	Body
`multipart/form-data`	Form data with the following key-value pair: ■ `file` — The file to be uploaded. The file and file metadata will be used to replace the existing `Attachment` object with a new `Attachment` object.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
PUT /rest/v1/project-tasks/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete an Attachment Associated with a Project Task

DELETE `/project-tasks/{id}/attachments/{attachment_id}` — Use this method to delete the attachment with the specified attachment ID associated with the project task with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the project task with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist	integer

Path parameter	Required / Optional	Description	Type
		and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #4985 not found`".

Sample request

```
DELETE /rest/v1/project-tasks/237/attachments/4982 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete Attachments Associated with a Project Task

DELETE `/project-tasks/{id}/attachments/{attachment_ids}` — Use this method to delete attachments with the specified attachment IDs associated with the project task with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the project task with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the project task.	integer

Path parameter	Required / Optional	Description	Type
`{attachment_ids}`	Required	A comma-separated list of internal IDs for the attachments. The list must not include more than 1000 attachment IDs.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	If your request includes multiple attachment IDs, both valid and invalid, the request will complete successfully for valid attachment IDs and return an error message for invalid attachment IDs — for example, `"Access to Attachment #693 denied"`. The response status will be `207 Multiple statuses returned`. If your request more than 1,000 attachment IDs, an error is returned — for example, `"Bulk action limit reached, sent 1001 entities of 1000 allowed"`.

Sample request

```
DELETE /rest/v1/project-tasks/237/attachments/4982,4983 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "4982" : {
              "data": [{
                   "id": "4982"
```

```
            }],
            "message": "success"
        },
        "4983" : {
            "data": [{
                "id": "4983"
            }],
            "message": "success"
        }
    }
  ],
  "message": "success"
}
```

Published Reports

> **Note:** The endpoint and methods described in this help topic are available only if the Business Intelligence (BI) Connector feature is enabled for your SuiteProjects Pro account. You can access the `published-reports` endpoint even if API access and REST API are not enabled for your account.
>
> To enable the BI Connector feature, contact your SuiteProjects Pro account manager.
>
> For more information about Business Intelligence Connector, see the help topic Business Intelligence Connector Overview.

Published reports are saved reports that have been published for access through the Business Intelligence (BI) Connector feature.

Accessing published reports using the REST API does not use any of your API request entitlement. It is only subject to BI Connector request frequency limits. Each API call using one of the following methods uses at least one BI Connector request. See the help topic BI Connector Request Limits.

Available methods

- **GET** `/published-reports/` — Use this method to retrieve the list of published reports with general information about each published report in the list. See Get the List of Published Reports
- **GET** `/published-reports/{id}` — Use this method to retrieve the data in the published report with the specified internal ID. Get a Published Report

Get the List of Published Reports

GET `/published-reports/` — Use this method to retrieve the list of reports published to the Business Intelligence (BI) Connector, with general information about each published report in the list.

This method does not return any published report data. It only returns general information about each report. For information about reading published report data, see Get a Published Report.

Reading the list of published reports using the REST API does not use any of your API request entitlement. It is only subject to BI Connector request frequency limits. Each API call using one of the following methods uses at least one BI Connector request. See the help topic BI Connector Request Limits.

Important: The following conditions are required to access the `/published-reports/` endpoint:

- The Business Intelligence (BI) Connector feature is enabled for your SuiteProjects Pro account. To enable the BI Connector feature, contact your SuiteProjects Pro account manager.

  For more information about the BI Connector, see the help topic Business Intelligence Connector Overview.
- You must used an access token issued for the relevant scope (the scope must include `bi`). For more information, see Authentication and OAuth 2.0 Authorization Code Flow.

You can access the `published-reports` endpoint even if API access and REST API are not enabled for your account.

Parameters

Path parameters

None

Query string parameter

None

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing objects with general information about each published report in the list requested. See Returned Data and Published report information object properties.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request. If the BI Connector feature is not enabled for your company's SuiteProjects Pro account, the REST API returns a HTTP Status `404 Not Found` and the message `"Page not found"`.

Published report information object properties

A published report is a saved reports that have been published for access through the Business Intelligence (BI) Connector feature. When retrieving the list of published reports, the response includes general information about each report in the list (one object per published report).

The published report information object has the following properties:

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
id	The unique internal identifier for the published report.	integer($int64)	Yes	—	—
lastPublished	The date and time when the published report was last published or refreshed.	string($date-time)	Yes	—	—
name	The name of the published report.	string	Yes	—	—
totalRows	The number of rows of data in the published report.	integer($int64)	Yes	—	—

Sample request

```
GET /rest/v1/published-reports/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to BI Connector resources and issued for the relevant scope (the scope must include `bi`). See Authentication.

Sample response

```
{
   "data": [
        {
            "lastPublished": "2024-07-11 08:57:14",
            "totalRows": 467,
            "name": "Employee Rate and Cost",
            "id": 1
        },
        {
            "lastPublished": "2024-07-11 08:57:44",
            "totalRows": 245,
            "name": "Example of Report",
            "id": 10
        },
        {
            "lastPublished": "2024-07-11 08:56:57",
            "totalRows": 2456,
            "name": "Project - User report",
            "id": 7
        }
   ],
   "message": "success
}
```

Get a Published Report

GET `/published-reports/{id}` — Use this method to retrieve the data in the published report with the specified internal ID.

This method does not return general information about the published report such as the report name and publication date and time. It only returns the published report data. To retrieve general information about this and other published reports, get the list of published reports. See Get the List of Published Reports.

Reading published report data using the REST API does not use any of your API request entitlement. It is only subject to BI Connector request frequency limits. Each API call using one of the following methods uses at least one BI Connector request. See the help topic BI Connector Request Limits.

Important: The following conditions are required to access the `/published-reports/` endpoint:

- The Business Intelligence (BI) Connector feature is enabled for your SuiteProjects Pro account. To enable the BI Connector feature, contact your SuiteProjects Pro account manager.

  For more information about the BI Connector, see the help topic Business Intelligence Connector Overview.

- You must used an access token issued for the relevant scope (the scope must include `bi`). For more information, see Authentication and OAuth 2.0 Authorization Code Flow.

You can access the `published-reports` endpoint even if API access and REST API are not enabled for your account.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the published report.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the published report data requested. See Returned Data. Each object in the array corresponds to a row in the published report. The published report data object properties are the same as the report columns. There is an object property for each column in the report.

Property	Description
meta	An object containing response metadata. The `meta` object may include information about: - The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination.
message	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
message	A string containing a brief message about the status of your request — for example, "`Report 24 not found`". If the BI Connector feature is not enabled for your company's SuiteProjects Pro account, the REST API returns a HTTP Status `404 Not Found` and the message "`Page not found`".

Sample request

```
GET /rest/v1/published-reports/1?limit=100 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to BI Connector resources and issued for the relevant scope (the scope must include `bi`). See Authentication.

Sample response

```
{
    "data": [
        {
            "Column1": "Value1onRow1",
            "Column2": "Value2onRow1",
            "Column3": "Value3onRow1",
            "Column4": "Value4onRow1",
            "Column5": "Value5onRow1",
            "Column6": "Value6onRow1",
            "Column7": "Value7onRow1"
        },
        {
            "Column1": "Value1onRow2",
            "Column2": "Value2onRow2",
            "Column3": "Value3onRow2",
            "Column4": "Value4onRow2",
            "Column5": "Value5onRow2",
            "Column6": "Value6onRow2",
            "Column7": "Value7onRow2"
        },
        {
                ...

        },
        {
            "Column1": "Value1onRow467",
            "Column2": "Value2onRow467",
            "Column3": "Value3onRow467",
            "Column4": "Value4onRow467",
            "Column5": "Value5onRow467",
            "Column6": "Value6onRow467",
            "Column7": "Value7onRow467"
        }
```

```
    ],
    "message": "success",
    "meta": {
        "rowsPerPage": 100,
        "totalPages": 5,
        "totalRows": 467,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/published-reports/1?limit=100"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/published-reports/1?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/published-reports/1?limit=100&offset=400"
            }
        ]
    }
}
```

Receipts

Receipts are expense items that contain information about costs incurred by employees and collected in expense reports.

Available methods

- **POST** `/receipts/` — Insert a Receipt
- **GET** `/receipts/` — Get the List of Receipts
- **GET** `/receipts/{id}` — Get a Receipt
- **PUT** `/receipts/{id}` — Update a Receipt
- **DELETE** `/receipts/{id}` — Delete a Receipt
- **POST** `/receipts/{id}/attachments` — Add an Attachment to a Receipt
- **GET** `/receipts/{id}/attachments` — Get the List of Attachments Associated with a Receipt
- **GET** `/receipts/{id}/attachments/{attachment_id}` — Get an Attachment Associated with a Receipt
- **GET** `/receipts/{id}/attachments/{attachment_id}/download` — Get an Attachment File Associated with a Receipt
- **GET** `/receipts/{id}/attachments/{attachment_id}/thumbnail` — Get the Thumbnail for an Attachment Associated with a Receipt
- **PUT** `/receipts/{id}/attachments/{attachment_id}` — Replace an Attachment to a Receipt
- **DELETE** `/receipts/{id}/attachments/{attachment_id}` — Delete an Attachment Associated with a Receipt
- **DELETE** `/receipts/{id}/attachments/{attachment_ids}` — Delete Attachments Associated with a Receipt
- **OPTIONS** `/receipts/` — Discover Available Methods and Fetch the Endpoint Reference for Receipts

Receipt object properties

A receipt is an expense items that contains information about cost incurred by an employee and collected in an expense report.

The `Receipt` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`accountingDate`	The accounting period date of the receipt.	string($date)	—	Yes	Yes
`attachments`	The attachments associated with the receipt. Array of internal IDs for attachment objects.	Array of `{"id": <integerValue>}` objects.	Yes	—	—
`costCenterId`	The internal ID of the cost center associated with the receipt.	integer($int64)	Yes	Yes	Yes
`costPerUnit`	The cost per unit of measure.	number($float)	—	Yes	—
`created`	The date the receipt was created.	string($date-time)	Yes	Yes	—
`currency`	The currency for monetary values in the receipt record. Three-letter currency code.	string	—	Yes	—
`customerId`	The internal ID of the customer associated with the receipt.	integer($int64)	—	Yes	Yes
`date`	**[REQUIRED]** The date of the receipt.	string ($date)	—	Yes	Yes
`description`	The description of the receipt.	string	—	Yes	—
`expenseReportId`	**[REQUIRED]** The internal ID of the expense report associated with the receipt.	integer($int64)	—	Yes	Yes
`externalId`	The unique external ID of the receipt, if the record was imported from an external system.	string	—	Yes	Yes
`federalTax`	The total federal tax for the receipt.	number($float)	—	—	—
`federalTaxRate`	The federal tax rate for the receipt.	number($float)	—	—	—
`foreignCurrencyCost`	The cost per unit of measure in the selected foreign currency, if this is a foreign currency receipt.	number($float)	—	Yes	—
`foreignCurrencyRate`	The foreign currency conversion rate, if this is a foreign currency receipt.	number($float)	Yes	Yes	—
`foreignCurrencySymbol`	The foreign currency, if this is a foreign currency receipt. Three-letter currency code.	string	—	Yes	—
`foreignCurrencyTotalTaxPaid`	The tax paid in the foreign currency, if this is a foreign currency receipt.	number($float)	—	Yes	—
`gst`	The total GST tax for the receipt.	number($float)	—	—	—
`gstRate`	The GST tax rate for the receipt.	number($float)	—	—	—
`hst`	The total HST tax for the receipt.	number($float)	—	—	—
`hstRate`	The HST tax rate for the receipt.	number($float)	—	—	—
`id`	The unique internal identifier of the receipt.	integer($int64)	Yes	Yes	Yes
`isForeignCurrencyExchangeIntolerance`	A 1/0 field indicating if the record is within the specified foreign currency tolerance.	Boolean	—	Yes	—
`isMissingPaperReceipt`	A 1/0 field indicating if the paper receipt is missing for this receipt.	Boolean	—	Yes	—
`isNonBillable`	A 1/0 field indicating if the receipt is not billable.	Boolean	—	Yes	—
`isReimbursable`	A 1/0 field indicating if the receipt is reimbursable.	Boolean	—	Yes	—
`isTaxIncludedInCost`	A 1/0 field indicating if the cost includes the tax.	Boolean	—	Yes	—

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`itemId`	The internal ID of the item associated with the receipt. The type of item can be used to determine the receipt subtype.	integer($int64)	—	Yes	Yes
`notes`	Notes about the receipt.	string	—	Yes	—
`paymentTypeId`	The internal ID of the payment type associated with the receipt. The payment type indicates how the payment was made and may determine if the receipt is reimbursable.	integer($int64)	—	Yes	Yes
`projectId`	The internal ID of the project associated with the receipt.	integer($int64)	—	Yes	Yes
`projectTaskId`	The internal ID of the project task associated with the receipt. Requires an option to be enabled in SuiteProjects Pro (Administration > Application Settings > Expenses > Other settings).	integer($int64)	—	Yes	Yes
`pst`	The total PST tax for the receipt.	number($float)	—	—	—
`pstRate`	The PST tax rate for the receipt.	number($float)	—	—	—
`quantity`	**[REQUIRED]** The quantity (number of units of measure).	integer($int64)	—	Yes	—
`receiptLocation`	The city or location where the cost was incurred.	string	—	Yes	—
`slipId`	The internal ID of the slip associated with the receipt, if the expense was billed.	integer($int64)	Yes	Yes	Yes
`stateTax`	The total state tax for the receipt.	number($float)	—	—	—
`stateTaxRate`	The state tax rate for the receipt.	number($float)	—	—	—
`taxLocationId`	The internal ID of the tax location associated with the receipt.	integer($int64)	—	—	—
`total`	The total value of the receipt.	number($float)	—	Yes	—
`totalNoTax`	The total value of the receipt excluding tax.	number($float)	—	—	—
`totalTaxPaid`	The total tax paid.	number($float)	—	Yes	—
`trackingNumber`	**[REQUIRED]** The unique reference number of the receipt within the associated expense report. This attribute is used to cross-reference digital receipts with paper receipts.	string	—	Yes	Yes
`updated`	The date the receipt was last updated or modified.	string ($date-time)	Yes	Yes	—
`userId`	**[REQUIRED]** The internal ID of the employee associated with the receipt.	integer($int64)	Yes	Yes	Yes
`userLocationId`	The internal ID of the employee location associated with the receipt.	integer($int64)	—	Yes	Yes
`vehicleId`	The internal ID of the vehicle associated with the receipt.	integer($int64)	—	Yes	Yes
`vendorId`	The internal ID of the vendor associated with the receipt.	integer($int64)	—	Yes	Yes

> **Note:** Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.
>
> Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert a Receipt

POST `/receipts/` — Use this method to create a new receipt.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the receipt returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. - When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. - Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the receipt created. Otherwise, the response will include only the internal ID of the receipt created.	Boolean

Request body

The `Receipt` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `Receipt` object model, see Receipt object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `Receipt` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the receipt created. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/receipts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
   "foreignCurrencySymbol": "",
    "expenseReportId": 237,
   "date": "2019-10-01",
   "costPerUnit": 580,
   "total": 580,
   "description": "Miscellaneous",
   "itemId": 7,
   "customerId": 50,
   "isForeignCurrencyExchangeIntolerance": false,
   "isNonBillable": true,
   "currency": "USD",
   "projectId": 54,
   "isTaxIncludedInCost": false,
   "quantity": 1,
   "isReimbursable": true,
   "totalNoTax": 580
```

```
  "trackingNumber": 2
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
  "data": [
    {
      "id": 2674
    }
  ],
  "message": "success"
}
```

Get the List of Receipts

GET `/receipts/` — Use this method to retrieve a list of receipts.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each receipt returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string

Path parameter	Required / Optional	Description	Type
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the receipts requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/receipts/q=expenseReportId EQUAL 237 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 680,
            "taxLocationId": 0,
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2659,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 680,
            "description": "Miscellaneous",
```

```
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "1",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": false,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": [3719],
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:12:50",
            "isReimbursable": true,
            "totalNoTax": 680,
            "notes": ""
        },
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 580,
            "taxLocationId": 0,
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2674,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 580,
            "description": "Miscellaneous",
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "2",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": true,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": [3745],
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:13:03",
            "isReimbursable": true,
            "totalNoTax": 580,
            "notes": ""
        }
    ],
    "message": "success",
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            3719
                        ],
                        "type": "attachment"
                    }
                },
```

```
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
            },
            {
                "attachments": {
                    "data": {
                        "id": [
                            3745
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
            }
        ],
        "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts/q=expenseReportId%20EQUAL%20237"
            }
        ]
    }
}
```


Get a Receipt

GET `/receipts/{id}` — Use this method to retrieve a receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the receipt returned. Response Data Modifiers.	string

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the receipt requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`ExpenseReport #237 not found`".

Sample request

```
GET /rest/v1/receipts/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "foreignCurrencySymbol": "",
            "expenseReportId": 237,
            "date": "2019-10-01",
            "costPerUnit": 580,
            "taxLocationId": 0,
```

```
            "foreignCurrencyRate": 0,
            "projectTaskId": 0,
            "updated": "2019-10-21 03:04:58",
            "id": 2674,
            "slipId": 0,
            "paymentTypeId": 0,
            "total": 580,
            "description": "Miscellaneous",
            "itemId": 7,
            "customerId": 50,
            "totalTaxPaid": 0,
            "costCenterId": 0,
            "trackingNumber": "2",
            "isForeignCurrencyExchangeIntolerance": false,
            "externalId": "",
            "userLocationId": 0,
            "isNonBillable": true,
            "accountingDate": "0000-00-00",
            "foreignCurrencyCost": 0,
            "currency": "USD",
            "foreignCurrencyTotalTaxPaid": 0,
            "projectId": 54,
            "isTaxIncludedInCost": false,
            "attachments": [3719],
            "userId": 49,
            "quantity": 1,
            "created": "2019-10-01 14:13:03",
            "isReimbursable": true,
            "totalNoTax": 580,
            "notes": ""
        }
    ],
    "message": "success"
    "meta": {
        "relationships": [
            {
                "attachments": {
                    "data": {
                        "id": [
                            3719
                        ],
                        "type": "attachment"
                    }
                },
                "userId": {
                    "data": {
                        "id": 49,
                        "type": "userDisplayName"
                    }
                }
            }
        ]
    }
}
```


Update a Receipt

PUT `/receipts/{id}` — Use this method to update the receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
{id}	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the receipt returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will include the receipt updated. Otherwise, the response will include only the internal ID of the receipt updated.	Boolean

Request body

An object including valid key-value pairs for the fields to be updated. The object cannot include key-value pairs for read-only attributes. For information about the `Receipt` object model, see Receipt object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ▪ The `Receipt` object updated, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the ID of the receipt updated. See Returned Data.

Property	Description
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Receipt #2675 not found`".

Sample request

```
PUT /rest/v1/receipts/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
            "externalId": "4823",
            "accountingDate": "2019-10-30",
            "currency": "CAD",
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2674
      }
   ],
   "message": "success"
}
```

Delete a Receipt

DELETE `/receipts/{id}` — Use this method to delete the receipt record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Receipt #2675 not found`".

Sample request

```
DELETE /rest/v1/receipts/2674 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 2674
      }
   ],
   "message": "success"
}
```

Add an Attachment to a Receipt

POST `/receipts/{id}/attachments` — Use this method to add an attachment to the receipt with the specified internal ID. This method can be used for any of the following cases:

- Create a new attachment and associate it with the receipt.
- Associate a workspace document with the receipt. Workspace documents are `Attachment` objects associated with a custom workspace.

Note: If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts either one of the content types described in the following table:

Content-Type header	Body	Use case
`multipart/form-data`	Form data with the following key-value pair: ■ `file` — The file to be uploaded. The file and file metadata will be used to create the new `Attachment` object.	■ Create a new attachment and associate it with the receipt.
`application/json`	JSON object with the following key-value pair: ■ `id` — The internal ID of the workspace document to be associated with the receipt.	■ Associate a workspace document with the receipt.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/receipts/2674/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response


```
{
    "data": [
        {
            "id": 4985
        }
    ],
    "message": "success"
}
```


Get the List of Attachments Associated with a Receipt

GET `/receipts/{id}/attachments` — Use this method to retrieve the list of attachments associated with the receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each attachment returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or	string

Path parameter	Required / Optional	Description	Type
		descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the list of attachments associated with the receipt with the specified internal ID. See Returned Data.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Receipt #237 not found`”.

Sample request

```
GET /rest/v1/receipts/2674/attachments/?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4985,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
```

```
            "size": 114659
        },
        {
            "fileName": "2020-12-08_14-46-24.png",
            "isLocked": false,
            "id": 5016,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 123754
        },
    ],
    "message": "success",
    "meta": {
        "relationships": [
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
             },
               {
                  "uploadedBy": {
                      "data": { "type": "userDisplayName", "id": 49 }
                  }
             }
          ],
       "rowsPerPage": 100,
        "totalPages": 1,
        "totalRows": 2,
        "links": [
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/receipts/2674/attachments"
            }
        ]
    }
}
```


Get an Attachment Associated with a Receipt

GET `/receipts/{id}/attachments/{attachment_id}` — Use this method to retrieve the attachment record with the specified attachment ID associated with the receipt with the specified internal ID. The response contains the attachment metadata only and not the file.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
expand	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string).	string

Path parameter	Required / Optional	Description	Type
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment metadata returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the attachment metadata requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Attachment #598 not found`".

Sample request

```
GET receipts/2674/attachments/4985?fields=fileName,isLocked,uploadedBy,size,id,fileType HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
```

```
    "data": [
      {
            "fileName": "2020-11-20_13-25-06.png",
            "isLocked": false,
            "id": 4985,
            "uploadedBy": 49,
            "fileType": "PNG image data, 1250 x 800, 8-bit/color RGBA, non-interlaced",
            "size": 114659
      }
    ],
    "message": "success",
    "meta": {
        "relationships": [
                {
                    "uploadedBy": {
                        "data": { "type": "userDisplayName", "id": 49 }
                    }
                }
            ]
    }
}
```


Get an Attachment File Associated with a Receipt

GET `/expense-reports/{id}/attachments/{attachment_id}/download` — Use this method to retrieve the file associated with the attachment record with the specified attachment ID associated with the receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`".

A successful request also returns the attachment file.

Sample request

```
GET receipts/2674/attachments/4985/download HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment file.

Get the Thumbnail for an Attachment Associated with a Receipt

GET `/expense-reports/{id}/attachments/{attachment_id}/thumbnail` — Use this method to retrieve the thumbnail file associated with the attachment record with the specified attachment ID associated with the receipt with the specified internal ID. Available only if the Attachment Thumbnail feature is enabled for your SuiteProjects Pro account.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`Attachment #598 not found`" or "`Attachment #213 thumbnail not found`".

A successful request also returns the attachment thumbnail file.

Sample request

```
GET receipts/2674/attachments/4985/thumbnail HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The attachment thumbnail file.

Replace an Attachment to a Receipt

PUT `/receipts/{id}/attachments/{attachment_id}` — Use this method to replace an attachment to the receipt with the specified internal ID.

Important: This method can only be used to replace an attachment directly associated with the receipt. It cannot be used for workspace document associated with the receipt either to replace the workspace document or to associate a different workspace document in its place.

Note: If the Attachment Thumbnail and Attachment Viewer feature is enabled for your SuiteProjects Pro account, a thumbnail is generated automatically when you add an attachment of a supported format. The `file_name` must be included in the request and must include a supported file extension. For more information about the Attachment Thumbnail feature, including supported file format and filename extensions, see Optional Features.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the attachment returned. For the `Attachment` object properties, see Attachment object properties.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to any value other than `0` (zero), the response will return the attachment created. Otherwise, the response will include only the internal ID of the attachment created.	Boolean

Request body

This method accepts the following content type:

Content-Type header	Body
`multipart/form-data`	Form data with the following key-value pair: ▪ `file` — The file to be uploaded. The file and file metadata will be used to replace the existing `Attachment` object with a new `Attachment` object.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following:

Property	Description
	▪ The `Attachment` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ▪ An object with only the internal ID of the attachment created. See Returned Data. For the `Attachment` object properties, see Attachment object properties.
`included`	An array of expanded objects, if the expand parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
PUT /rest/v1/receipts/237/attachments/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: multipart/form-data boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW
Authorization: Bearer <OAuth2_access_token>

----WebKitFormBoundary7MA4YWxkTrZu0gW
Content-Disposition: form-data; name="file"

@C:\Users\mcollins\Desktop\2020-12-08_18-47-31.png
----WebKitFormBoundary7MA4YWxkTrZu0gW
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 4982
      }
   ],
   "message": "success"
}
```

Delete an Attachment Associated with a Receipt

DELETE `receipts/{id}/attachments/{attachment_id}` — Use this method to delete the attachment with the specified attachment ID associated with the receipt with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_id}`	Required	The internal ID of the attachment.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`Success`” or “`Attachment #4985 not found`”.

Sample request

```
DELETE receipts/2674/attachments/4985 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
```

```
    "data": [
        {
            "id": 4985
        }
    ],
    "message": "success"
}
```

Delete Attachments Associated with a Receipt

DELETE `/receipts/{id}/attachments/{attachment_ids}` — Use this method to delete attachments with the specified attachment IDs associated with the receipt with the specified internal ID, or clear the association between the workspace document with the specified attachment ID and the receipt with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the receipt.	integer
`{attachment_ids}`	Required	A comma-separated list of internal IDs for the attachments. The list must not include more than 1000 attachment IDs.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	If your request includes multiple attachment IDs, both valid and invalid, the request will complete successfully for valid attachment IDs and return an error message for invalid attachment IDs — for

Property	Description
	example, `"Access to Attachment #693 denied"`. The response status will be `207 Multiple statuses returned`. If your request more than 1,000 attachment IDs, an error is returned — for example, `"Bulk action limit reached, sent 1001 entities of 1000 allowed"`.

Sample request

```
DELETE receipts/2674/attachments/4985,4987 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "4985" : {
              "data": [{
                   "id": "4985"
              }],
              "message": "success"
         },
          "4987" : {
              "data": [{
                   "id": "4987"
              }],
              "message": "success"
         }
      }
   ],
   "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Receipts

OPTIONS `/receipts/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for receipts.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the

Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/receipts/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Time Entries

Time entry records contain information about time worked by an employee on a work package.

Available methods

- **POST** `/time-entries/` — Insert a Time Entry
- **GET** `/time-entries/` — Get the List of Time Entries
- **GET** `/time-entries/{id}` — Get a Time Entry
- **DELETE** `/time-entries/{id}` — Delete a Time Entry
- **OPTIONS** `/time-entries/` — Discover Available Methods and Fetch the Endpoint Reference for Time Entries

Time entry object properties

A time entry is a time slot worked by an employee on a work package.

The `TimeEntry` object has the following properties:

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`accountingDate`	The accounting period date of the time entry.	string($date-time)	—	Yes	Yes
`categoryId`	The internal ID of the associated service (category).	integer($int64)	—	Yes	Yes
`category<N>Id` where <N> is an integer from 1 to 5	The internal ID of the associated service line <N> (`category_<N>`).	integer($int64)	Yes	Yes	Yes
`costCenterId`	The internal ID of the associated cost center.	integer($int64)	Yes	Yes	Yes
`created`	Time the record was created.	string($date-time)	Yes	Yes	—
`customerId`	The internal ID of the associated customer.	integer($int64)	—	Yes	Yes
`date`	The date of the time entry.	string($date-time)	—	Yes	Yes
`decimalHours`	The number of decimal hours for the time entry. Decimal time entry for the number of hours is supported if the feature Use Days Instead of Hours for All Time Entries is disabled for your account. You should not use the features Enable Start and End Tme Entry on Timesheets and Use Days Instead of Hours for All Time Entries in conjunction. When Enable Start and End Tme Entry on Timesheets is enabled and a user enters a start time and end time in SuiteProjects Pro, the duration is calculated in hours and not converted to days. When using the API and both features are enabled, passing decimal_hours and minutes but not hours in the API call will result in an error (error code 1407).	number($float)	—	Yes	—
`description`	The description of the time entry.	string	—	Yes	—
`endTime`	The time entry end time.	string($date-time)	—	Yes	—
`exported`	Date and time the time entry was marked as "exported".	string($date-time)	—	Yes	—
`hour`	The number of hours for the time entry.	number($float)	—	Yes	—
`hoursRemaining`	The number of hours remaining of the associated project task.	number($float)	—	—	—
`id`	The unique internal identifier of the time entry. Assigned by SuiteProjects Pro.	integer($int64)	Yes	Yes	Yes

Property	Description	Type	Read-only	Query allowed	Sorting allowed
`jobCodeId`	The internal ID of the associated job code.	integer($int64)	—	Yes	Yes
`minute`	The number of minutes for the time entry. Must be an integer.	integer($int64)	—	Yes	—
`notes`	Notes about this time entry.	string	—	Yes	—
`payrollTypeId`	The internal ID of the associated payroll type.	integer($int64)	—	Yes	Yes
`projectId`	The internal ID of the associated project.	integer($int64)	—	Yes	Yes
`projectTaskId`	The internal ID of the task within the associated project.	integer($int64)	—	Yes	Yes
`projectTaskTypeId`	The internal ID of the project task type of the associated project task.	integer($int64)	—	Yes	Yes
`scheduleRequestItemId`	The internal ID of the schedule change item from a schedule request	integer($int64)	Yes	Yes	Yes
`slipId`	The internal ID of the associated slip if this time entry was billed.	integer($int64)	Yes	Yes	Yes
`startTime`	The time entry start time.	string($date-time)	—	Yes	—
`thinClientId`	Used by thin clients to reconcile imported records.	string	Yes	Yes	Yes
`timesheetId`	**[REQUIRED]** The internal ID of the associated timesheet.	integer($int64)	—	Yes	Yes
`timeTypeId`	The internal ID of the associated time type.	integer($int64)	—	Yes	Yes
`updated`	The date the time entry was last updated or modified.	string($date-time)	Yes	Yes	Yes
`userId`	The internal ID of the associated employee.	integer($int64)	Yes	Yes	Yes

Note: Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.

Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Insert a Time Entry

POST `/time-entries/` — Use this method to create a new time entry record.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the time entry returned.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`return_object`	Optional	If set to 1, the response will return the time entry created. Otherwise, the response will include only the internal ID of the time entry created.	Boolean

Request body

The `TimeEntry` object to be created. The object must include valid key-value pairs for all required attributes and cannot include key-value pairs for read-only attributes. For information about the `TimeEntry` object model, see Contact object properties.

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing one of the following: ■ The `TimeEntry` object created, if the `return_object` parameter was set to any value other than `0` (zero) in the request. The object includes all the attributes specified using the `fields` if included in the request. ■ An object with only the internal ID of the time entry created. See Returned Data.

Property	Description
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). Only returned if the `return_object` parameter was set to any value other than `0` (zero) in the request. See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
POST /rest/v1/time-entries/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Content-Type: application/json
Authorization: Bearer <OAuth2_access_token>

{
  "hour": 8,
  "categoryId": 2,
  "timeTypeId": 1,
  "date": "2023-03-05",
  "projectTaskId": 502,
  "jobCodeId": 1,
  "timesheetId": 497,
  "customerId": 13,
  "costCenterId": 1,
  "projectId": 312,
  "userId": 68
}
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 45681
      }
   ],
   "message": "success"
}
```

Get the List of Time Entries

GET `/time-entries/` — Use this method to retrieve the list of time entries.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each time entry returned. See Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. - When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. - Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending (-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	string
`q`	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the time entries requested. See Returned Data.

Property	Description
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ▪ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ▪ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/time-entries/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success",
   "meta": {
       "rowsPerPage": 100,
       "totalPages": 14,
        "relationships": [
            {
                ...
            },
            {
                ...
            },
         ...
        ],
       "totalRows": 1386,
       "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/time-entries"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/time-entries"
```

```
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/time-entries?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/time-entries?limit=100&offset=1300"
            }
        ]
    }
}
```

Get a Time Entry

GET `/time-entries/{id}` — Use this method to retrieve the time entry record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the time entry.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the time entry returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the time entry object requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, "`Success`".

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Time Entry #24 not found`".

Sample request

```
GET /rest/v1/time-entries/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "hour": 8,
            "categoryId": 2,
            "timeTypeId": 1,
            "date": "2012-03-05",
            "endTime": "00:00:00",
            "timesheetRowId": 0,
            "category4Id": 0,
            "decimalHours": 0,
            "projectTaskId": 502,
            "updated": "2013-11-16 08:49:03",
            "startTime": "00:00:00",
            "id": 1,
            "slipId": 0,
            "accountDate": "0000-00-00",
            "autoBillCode": "",
            "jobCodeId": 1,
            "timesheetId": 1,
            "description": "",
            "minute": 0,
            "customerId": 13,
```

```
            "costCenterId": 1,
            "scheduleRequestItemId": 0,
            "projectTaskTypeId": 1,
            "thinClientId": 0,
            "projectId": 31,
            "category3Id": 0,
            "category5Id": 0,
            "payrollTypeId": 0,
            "userId": 2,
            "category2Id": 0,
            "created": "2013-11-01 14:46:07",
            "category1Id": 0,
            "notes": "",
            "exported": "0000-00-00 00:00:00"
        }
    ],
    "meta": {
        "relationships": [
            {
                "userId": {
                    "data": {
                        "id": 2,
                        "type": "userDisplayName"
                    }
                }
            }
        ]
    },
    "message": "success"
}
```

Delete a Time Entry

DELETE `/time-entries/{id}` — Use this method to delete the time entry record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the time entry.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`filterSetId`	Optional	The internal ID of the filter set to be applied. ▪ When specified, the request is successful only if the action is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ▪ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer

Response definitions

A successful or failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, "`Success`" or "`TimeEntry #24 not found`".

Sample request

```
DELETE /rest/v1/rest/v1/time-entries/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         "id": 24
      }
   ],
   "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Time Entries

OPTIONS `/time-entries/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for time entries.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/time-entries/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Users

Users are either:

- Employees. These are employees working for your company or subcontractors that can sign in to your company's SuiteProjects Pro account. These are also named resources that can be booked to projects and tasks.
- Guest users. These are customers that can sign in to your company's SuiteProjects Pro account and view information that is associated with them and the projects that your company delivers to them.
- Generic resources. These are virtual or placeholder resources that represent a staffing need. They can be booked to projects and tasks but they do not represent physical persons or companies that can sign in to your company's SuiteProjects Pro account.

Available methods

- **GET** `/users/` — Get the List of Users
- **GET** `/users/{id}` — Get a User
- **OPTIONS** `/users/` — Discover Available Methods and Fetch the Endpoint Reference for Users

User object properties

A user is either an employee (an employee working for your company or a subcontractor), a generic resource (virtual or placeholder resource that represents a staffing need) or a guest user (a customer that can sign in to your SuiteProjects Pro account and view information that is associated with them and the projects that your company delivers to them). Employees and guest users can sign into your company's SuiteProjects Pro account. Employees (named resources) and generic resources can be booked to projects and tasks.

The `User` object has the following properties:

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
accountingCode	Optional accounting code that can be used for integration with external accounting systems.	string	—	Yes	—
address1	First line of the user's address.	string	—	Yes	Yes
address2	Second line of the user's address.	string	—	Yes	Yes
address3	Third line of the user's address.	string	—	Yes	Yes
address4	Fourth line of the user's address.	string	—	Yes	Yes
attachments	The attachments associated with this user. Array of internal IDs for `Attachment` objects.	array	—	—	—
bccSelf	A 1/0 field indicating whether the user should be blind copied (Bcc) into emails sent from SuiteProjects Pro.	boolean	—	Yes	Yes
bookingApproval Process	The internal ID of the *approval process* for bookings for the resource (user). Mutually exclusive with `bookingApprover`.	integer ($int64)	—	Yes	—
bookingApprover	The internal ID of the `User` who approves bookings for the user (resource), if a single approver process is used. Mutually exclusive with `bookingApprovalProcess`. Other possible values: ▪ `-1` — the booked resource's manager. ▪ `-2` — the manager of the booked resource's manager. ▪ `-4` — self (booked resource). ▪ `-9` — submitter. This option may not be available depending on your SuiteProjects Pro account configuration.	integer ($int64)	—	Yes	—
bookingRequest ApprovalProcess	The internal ID of the *approval process* for booking requests for the user (requested resource) or for booking requests submitted by the user, depending on your SuiteProjects Pro account configuration. Mutually exclusive with `bookingRequestApprover`.	integer ($int64)	—	Yes	—
bookingRequest Approver	The internal ID of the `User` who approves booking requests for the user (requested resource) or booking requests submitted by the user, depending on your SuiteProjects Pro account configuration, if a single approver process is used. Mutually exclusive with `bookingApprovalProcess`. Other possible values: ▪ `-1` — the requested resource or the requester's manager. ▪ `-2` — the manager of the booked resource or requester's manager. ▪ `-4` — self (booked resource or the requester). ▪ `-9` — submitter (requester). This option may not be available depending on your SuiteProjects Pro account configuration.	integer ($int64)	—	Yes	—
budgetApproval Process	The internal ID of the *approval process* for budgets submitted by the user. Mutually exclusive with `budgetApprover`.	integer ($int64)	—	Yes	—

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
budgetApprover	The internal ID of the `User` who approves budgets submitted by the user (budget owner), if a single approver process is used. Mutually exclusive with `budgetApprovalProcess`. Other possible values: ■ `-1` — the budget owner's manager. ■ `-2` — the manager of the budget owner's manager. ■ `-4` — self (budget owner).	integer ($int64)	—	Yes	—
city	The user's city.	string	—	Yes	Yes
costCenterId	The internal ID of the cost center associated with the user.	integer ($int64)	—	Yes	Yes
country	The user's country.	string	—	Yes	Yes
created	The date and time when the user record was created.	string($date-time)	Yes	Yes	—
currency	The user's currency. Three-letter currency code.	string	—	Yes	—
customerId	The internal ID of the customer [`Customer`] associated with the user if the user is a guest user.	integer ($int64)	—	Yes	Yes
dealBookingRequest ApprovalProcess	The internal ID of the *approval process* for deal booking requests for the user (requested resource) or for deal booking requests submitted by the user, depending on your SuiteProjects Pro account configuration. Mutually exclusive with `dealBookingRequestApprover`.	integer ($int64)	—	Yes	—
dealBookingRequest Approver	The internal ID of the `User` who approves deal booking requests for the user (requested resource) or deal booking requests submitted by the user, depending on your SuiteProjects Pro account configuration, if a single approver process is used. Mutually exclusive with `dealBookingRequest ApprovalProcess`. Other possible values: ■ `-1` — the requested resource or the requester's manager. ■ `-2` — the manager of the booked resource or the requester's manager. ■ `-4` — self (booked resource or the requester). ■ `-9` — submitter (requester). This option may not be available depending on your SuiteProjects Pro account configuration.	integer ($int64)	—	Yes	—
defaultSamlSettings Name	Name of the identity provider profile used for service provider initiated SAML single sign-on.	string	—	Yes	Yes
departmentId	The internal ID of the department associated with the user.	integer ($int64)	—	Yes	Yes
email	**[Required]** The user's Email address.	string	—	Yes	Yes
expenseAllowance ApprovalProcess	The internal ID of the *approval process* for allowance reports submitted by the user. Mutually exclusive with `expenseAllowanceApprover`.	integer ($int64)	—	Yes	—
expenseAllowance Approver	The internal ID of the `User` who approves allowance reports submitted by the user (allowance report owner), if a single approver process is used. Mutually exclusive with `expenseAllowanceApproval Process`. Other possible values:	integer ($int64)	—	Yes	—

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
	- `-1` — the allowance report owner's manager. - `-2` — the manager of the allowance report owner's manager. - `-4` — self (allowance report owner).				
expenseApproval Process	The internal ID of the *approval process* for expense reports submitted by the user. Mutually exclusive with `expenseApprover`.	integer ($int64)	—	Yes	—
expenseApprover	The internal ID of the `User` who approves expense reports submitted by the user (expense report owner), if a single approver process is used. Mutually exclusive with `expenseApprovalProcess`. Other possible values: - `-1` — the expense report owner's manager. - `-2` — the manager of the expense report owner's manager. - `-4` — self (expense report owner).	integer ($int64)	—	Yes	—
expenseAuthorization ApprovalProcess	The internal ID of the *approval process* for expense authorizations submitted by the user. Mutually exclusive with `expenseAuthorizationApprover`.	integer ($int64)	—	Yes	—
expenseAuthorization Approver	The internal ID of the `User` who approves expense authorizations submitted by the user (expense authorization owner), if a single approver process is used. Mutually exclusive with `expenseAuthorization ApprovalProcess`. Other possible values: - `-1` — the expense authorization owner's manager. - `-2` — the manager of the expense authorization owner's manager. - `-4` — self (expense authorization owner).	integer ($int64)	—	Yes	—
expensesFilterSet	The internal ID of the filter set override for the Expenses application (module).	integer ($int64)	—	Yes	Yes
externalId	The unique external ID of the user, if the record was imported from an external system.	string	—	Yes	Yes
fax	The user's fax number.	string	—	Yes	Yes
firstName	The user's first name.	string	—	Yes	Yes
generic	A 1/0 field indicating whether this is a generic resource. Cannot be modified.	boolean	—	Yes	Yes
id	The unique internal identifier of the user.	integer ($int64)	Yes	Yes	Yes
invoicesFilterSet	The internal ID of the filter set override for the Invoices application (module).	integer ($int64)	—	Yes	Yes
isActive	A 1/0 field indicating if the user is designated as an active user.	boolean	—	Yes	Yes
isLocked	A 1/0 field indicating if the user is locked out of your company's SuiteProjects Pro account.	boolean	—	Yes	Yes
jobCodeId	The internal ID of the job code [`JobCode`] associated with the user.	integer ($int64)	—	Yes	Yes
lastName	The user's last name.	string	—	Yes	Yes
lineManagerId	The internal ID of the user's line manager (internal ID of another `User`).	integer ($int64)	—	Yes	Yes

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
mfaSetupDate	The deadline when the user must set up two-factor authentication (2FA) by.	string($date-time)	—	Yes	Yes
mfaStatus	The user's two-factor authentication (2FA) status. The property is read-only if two-factor authentication is not enabled for your company's SuiteProjects Pro account. Possible values: ■ `0` – 2FA is not required. ■ 1 – 2FA is required and the user must set up 2FA. ■ 2 – 2FA is required and the user has paired an authenticator app with SuiteProjects Pro. ■ 7 – 2FA is required and the user has completed the 2FA setup.	integer ($int64)	—	Yes	Yes
middleName	The user's middle name.	string	—	Yes	Yes
mobile	The user's mobile number.	string	—	Yes	Yes
myAccountFilterSet	The internal ID of the filter set override for the My Account application (module).	integer ($int64)	—	Yes	Yes
name	The display name for the user in lists. This is generated automatically if not set.	string	—	Yes	Yes
nickname	**[Required]** The user's nickname. This must be unique.	string	—	Yes	Yes
opportuntiesFilterSet	The internal ID of the filter set override for the Opportunities application (module).	integer ($int64)	—	Yes	Yes
passwordForced Change	A 1/0 field indicating if the user must change password on next sign in.	boolean	—	Yes	Yes
payrollCode	The user's payroll code.	string	—	Yes	Yes
phone	The user's phone number.	string	—	Yes	Yes
primaryFilterSet	The internal ID of the user's primary filter set. Defaults to the default primary filter set if not set when adding a user.	integer ($int64)	—	Yes	Yes
projectAccessNodes	Comma delimited list of hierarchy node internal IDs for project level access control.	string	—	Yes	Yes
projectsFilterSet	The internal ID of the filter set override for the Projects application (module).	integer ($int64)	—	Yes	Yes
proposalApproval Process	The internal ID of the *approval process* for proposals submitted by the user. Mutually exclusive with `proposalApprover`.	integer ($int64)	—	Yes	—
proposalApprover	The internal ID of the `User` who approves proposals submitted by the user (proposal owner), if a single approver process is used. Mutually exclusive with `proposalApprovalProcess`. Other possible values: ■ `-1` — the proposal owner's manager. ■ `-2` — the manager of the proposal owner's manager. ■ `-4` — self (proposal owner).	integer ($int64)	—	Yes	—
purchaseOrder ApprovalProcess	The internal ID of the *approval process* for purchase orders submitted by the user. Mutually exclusive with `purchaseOrderApprover`.	integer ($int64)	—	Yes	—
purchaseOrder Approver	The internal ID of the `User` who approves purchase orders submitted by the user	integer ($int64)	—	Yes	—

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
	(purchase order owner), if a single approver process is used. Mutually exclusive with `purchaseOrderApprovalProcess`. Other possible values: - `-1` — the purchase order owner’s manager. - `-2` — the manager of the purchase order owner’s manager. - `-4` — self (purchase order owner).				
purchaseRequest ApprovalProcess	The internal ID of the *approval process* for purchase requests submitted by the user. Mutually exclusive with `purchaseRequestApprover`.	integer ($int64)	—	Yes	—
purchaseRequest Approver	The internal ID of the `User` who approves purchase requests submitted by the user (purchase request owner), if a single approver process is used. Mutually exclusive with `purchaseRequestApprovalProcess`. Other possible values: - `-1` — the purchase request owner’s manager. - `-2` — the manager of the purchase request owner’s manager. - `-4` — self (purchase request owner).	integer ($int64)	—	Yes	—
purchasesFilterSet	The internal ID of the filter set override for the Purchases application (module).	integer ($int64)	—	Yes	Yes
rate	The hourly billing rate for the user's time.	number ($float)	—	Yes	—
reportsFilterSet	The internal ID of the filter set override for the Reports application (module).	integer ($int64)	—	Yes	Yes
resourceProfile ApprovalProcess	The internal ID of *approval process* for resource profile submitted by the user. Mutually exclusive with `resourceProfileApprover`.	integer ($int64)	—	Yes	—
resourceProfile Approver	The internal ID of the `User` who approves resource profile items for the user, if a single approver process is used. Mutually exclusive with `resourceProfileApprovalProcess`. Other possible values: - `-1` — the purchase order owner’s manager. - `-2` — the manager of the purchase order owner’s manager. - `-4` — self.	integer ($int64)	—	Yes	—
resourcesFilterSet	The internal ID of the filter set override for the Resources application (module).	integer ($int64)	—	Yes	Yes
roleId	The internal ID of the role associated with the user. Defaults to the default role if not set when adding a user.	integer ($int64)	—	Yes	Yes
rpcApiUpdated	The date and time when the user's resource profile was last updated using SuiteProjects Pro API.	string($date-time)	—	Yes	Yes
rpcUpdatedBy	The internal ID of the `User` who last updated the user's resource profile.	integer ($int64)	—	Yes	Yes
rpcUserUpdated	The date and time when the user's resource profile was last updated using SuiteProjects Pro UI.	string($date-time)	—	Yes	Yes
salutation	The user's salutation.	string	—	Yes	Yes

Property	Description	Type	Read-Only	Query allowed	Sorting allowed
scheduleRequest ApprovalProcess	The internal ID of *approval process* for schedule requests (time-off requests) submitted by the user. Mutually exclusive with `scheduleRequestApprover`.	integer ($int64)	—	Yes	—
scheduleRequest Approver	The internal ID of the `User` who approves schedule requests (time-off requests) for the user (schedule request owner), if a single approver process is used. Mutually exclusive with `scheduleRequestApprovalProcess`. Other possible values: ▪ `-1` — the schedule request owner's manager. ▪ `-2` — the manager of the schedule request owner's manager. ▪ `-4` — self (schedule request owner).	integer ($int64)	—	Yes	—
ssn	The user's social security number.	string	—	Yes	Yes
state	The user's state or region.	string	—	Yes	Yes
territoryId	The internal ID of the territory associated with the user	integer ($int64)	—	Yes	Yes
timesheetApproval Process	The internal ID of the *approval process* for timesheets submitted by the user. Mutually exclusive with `timesheetApprover`.	integer ($int64)	—	Yes	—
timesheetApprover	The internal ID of the `User` who approves timesheets submitted by the user (timesheet owner), if a single approver process is used. Mutually exclusive with `timesheetApprovalProcess`. Other possible values: ▪ `-1` — the timesheet owner's manager. ▪ `-2` — the manager of the timesheet owner's manager. ▪ `-4` — self (timesheet owner).	integer ($int64)	—	Yes	—
timesheetsFilterSet	The internal ID of the filter set override for the Timesheets application (module).	integer ($int64)	—	Yes	Yes
timezone	The user's timezone. Defaults to the time zone for the company's account if not set when adding a user.	string	—	Yes	Yes
updated	Date and time when the record was last updated or modified.	string($date-time)	Yes	Yes	—
userLocationId	The internal ID of the user location associated with the user.	integer ($int64)	—	Yes	Yes
weekStarts	The first day of the week for the user: ▪ `0` – Monday ▪ `6` – Sunday Defaults to the first day of the week for the company's account if not set when adding a user.	integer ($int64)	—	Yes	Yes
workScheduleId	The internal ID of the user's work schedule.	integer ($int64)	—	Yes	Yes
workspacesFilterSet	The internal ID of the filter set override for the Workspaces application (module).	integer ($int64)	—	Yes	Yes
zip	The user's ZIP code or postal code.	string	—	Yes	Yes

> **Note:** Access to certain object types and object attributes depend on the business logic configured for your SuiteProjects Pro account. It may vary depending on the role and access privileges associated with the access token and with the user who authorized the application.
>
> Required and read-only attributes also depend on the business logic configured for each specific SuiteProjects Pro account. Some fields such as `id`, `created`, and `updated` are system-generated and always read-only.

Get the List of Users

GET `/users/` — Use this method to retrieve the list of users.

Parameters

Path parameters

None

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The `expand` value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for each user returned. See Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied. ■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	integer
`limit`	Optional	A limit on the length of the page. See Pagination.	integer
`offset`	Optional	A cursor for use in pagination. See Pagination.	integer
`orderBy`	Optional	The attribute to sort the list by. Use a plus sign (+) or minus sign (-) before the attribute name to specify an ascending (+) or descending	string

Path parameter	Required / Optional	Description	Type
		(-) sort order. An ascending sort order is used if the sort order is not specified. See Sorting.	
q	Optional	A URL-encoded query expression used to filter the resource collection and return the objects matching the specified search criteria. See Filtering.	string

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the users requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing response metadata. The `meta` object may include information about: ■ The page returned, the number of objects per page, the total number of pages and objects in the list, and links to other pages. See Pagination. ■ Objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request.

Sample request

```
GET /rest/v1/users/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
   "data": [
      {
         ...
      },
         {
         ...
      },
         ...
   ],
   "message": "success",
   "meta": {
```

```
        "rowsPerPage": 100,
        "totalPages": 14,
        "totalRows": 1386,
        "links": [
            {
                "rel": "first",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/users"
            },
            {
                "rel": "self",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/users"
            },
            {
                "rel": "next",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/users?limit=100&offset=100"
            },
            {
                "rel": "last",
                "href": "https://company-id.app.netsuitesuiteprojectspro.com/rest/v1/users?limit=100&offset=1300"
            }
        ]
    }
}
```

Get a User

GET `/users/{id}` — Use this method to retrieve the user record with the specified internal ID.

Parameters

Path parameters

Path parameter	Required / Optional	Description	Type
`{id}`	Required	The internal ID of the user.	integer

Query string parameter

Path parameter	Required / Optional	Description	Type
`expand`	Optional	A comma-separated list of attributes available for expansion. The comma-separated list may include spaces (or `%20` in the URL encoded string). **Note:** The expand value must contain only attributes referencing a supported object type. If `return_object` is set to any value other than `0` (zero), and the comma-separated list includes at least one attribute that is not available for expansion, the request fails — an error is returned and the object is not added or updated. For more information about attributes available for expansion and supported object types, see Available Expansions and Supported Object Types.	string
`fields`	Optional	A comma-separated list of attributes to include in the response. If not specified, the response includes all attributes for the user returned. Response Data Modifiers.	string
`filterSetId`	Optional	The internal ID of the filter set to be applied.	integer

Path parameter	Required / Optional	Description	Type
		■ When specified, the response includes only data that is available when the specified filter set is active in SuiteProjects Pro. The filter set with the specified internal ID must exist and must be associated with the user who authorized the application as per the access token. ■ Otherwise and by default, the primary filter set associated with the user who authorized the application is applied.	

Response definitions

A successful request returns a JSON object with the following properties:

Property	Description
`data`	An array containing the user object requested. See Returned Data.
`included`	An array of expanded objects, if the `expand` parameter was set in the request. See Referenced Objects and Expansion.
`meta`	An object containing information about objects referenced by internal ID in the `data` array (object type and internal ID). See Referenced Objects and Expansion.
`message`	A string containing a brief message about the status of your request — for example, “`Success`”.

A failed request returns a JSON object with the following properties:

Property	Description
`message`	A string containing a brief message about the status of your request — for example, “`User #24 not found`”.

Sample request

```
GET /rest/v1/users/24 HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

```
{
    "data": [
        {
            "defaultSamlSettingsName": "",
            "address3": "",
            "budgetApprovalProcess": 0,
            "workScheduleId": 3,
            "email": "john.smith@example.com",
            "expensesFilterSet": 0,
            "rate": 205,
            "userLocationId": 0,
            "dealBookingRequestApprover": 1,
            "weekStarts": 0,
```

```
            "scheduleRequestApprover": 1,
            "resourcesFilterSet": 0,
            "lineManagerId": 0,
            "expenseApprovalProcess": 0,
            "name": "Smith, John",
            "expenseApprover": 1,
            "scheduleRequestApprovalProcess": 0,
            "projectsFilterSet": 0,
            "middleName": "",
            "timesheetsFilterSet": 0,
            "purchaseOrderApprovalProcess": 0,
            "costCenterId": 0,
            "bookingApprover": 1,
            "salutation": "Mr",
            "expenseAllowanceApprover": 0,
            "mobile": "",
            "currency": "USD",
            "fax": "603.555.0100",
            "lastName": "Smith",
            "resourceProfileApprover": 1,
            "country": "US",
            "address4": "",
            "bookingApprovalProcess": 0,
            "expenseAuthorizationApprovalProcess": 0,
            "address2": "",
            "accountingCode": "",
            "bookingRequestApprover": 1,
            "proposalApprover": 1,
            "projectAccessNodes": "",
            "purchasesFilterSet": 0,
            "myAccountFilterSet": 0,
            "departmentId": 1,
            "mfaSetupDate": "0000-00-00 00:00:00",
            "timesheetApprover": -4,
            "payrollCode": "",
            "state": "TX",
            "roleId": 1,
            "timesheetApprovalProcess": 0,
            "id": 24,
            "updated": "2024-07-06 02:18:07",
            "budgetApprover": 1,
            "firstName": "John",
            "territoryId": 0,
            "invoicesFilterSet": 0,
            "jobCodeId": 3,
            "bookingRequestApprovalProcess": 0,
            "proposalApprovalProcess": 0,
            "expenseAuthorizationApprover": 1,
            "isLocked": false,
            "rpcUpdatedBy": 0,
            "purchaseOrderApprover": 1,
            "purchaseRequestApprovalProcess": 0,
            "zip": "78741",
            "customerId": 0,
            "generic": false,
            "address1": "2300 Oracle Way",
            "mfaStatus": 0,
            "externalId": "AB0000-1048291019",
            "resourceProfileApprovalProcess": 0,
            "city": "Austin",
            "ssn": "",
            "purchaseRequestApprover": 1,
            "opportuntiesFilterSet": 0,
            "reportsFilterSet": 0,
            "workspacesFilterSet": 0,
            "attachments": 0,
            "primaryFilterSet": 4,
            "nickname": "jadmin",
            "isActive": true,
            "passwordForcedChange": false,
            "phone": "603.555.0100",
            "created": "2003-03-24 16:48:24",
            "timezone": 6,
```

```
            "rpcUserUpdated": "2022-06-14 12:50:58",
            "expenseAllowanceApprovalProcess": 0,
            "bccSelf": false,
            "rpcApiUpdated": "2022-06-14 12:50:58",
            "dealBookingRequestApprovalProcess": 0
        }
    ],
    "message": "success"
}
```

Discover Available Methods and Fetch the Endpoint Reference for Users

OPTIONS `/users/` — Use this method to discover the methods available and fetch the OpenAPI 3.0 JSON endpoint reference for users.

Parameters

None

Response definitions

A successful request returns the OpenAPI 3.0 JSON endpoint reference in the response body. The JSON object returned contains metadata information about the resource endpoint. It is similar to the Generated API Documentation JSON, only it is restricted to the resource endpoint path specified in the request.

The response also includes the following header:

Header	Description
`Access-Control-Allow-Methods`	A comma-separated list of HTTP methods available for the requested resource collection endpoint.

Sample request

```
OPTIONS /rest/v1/users/ HTTP/1.1
Host: company-id.app.netsuitesuiteprojectspro.com
Authorization: Bearer <OAuth2_access_token>
```

In the example, *<OAuth2_access_token>* is the OAuth 2.0 access token obtained for the client application connecting to SuiteProjects Pro. See Authentication.

Sample response

The response includes the OpenAPI 3.0 endpoint reference for the resource endpoint as a JSON object in the response body, as well as the following headers:

```
Content-Type: application/json; charset=utf-8
Content-Length: 6955
Connection: keep-alive
Cache-control: no-cache, no-store, pre-check=0, post-check=0, must-revalidate, max-age=0, s-max-age=0
Pragma: no-cache
```

```
Expires: 0
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Access-Control-Allow-Headers: Content-Type
Access-Control-Max-Age: 86400
Vary: Accept-Encoding,User-Agent
Content-Encoding: gzip
```

Release History

October 12, 2024

- Added the following resources:
  - `Customer` — See Customers and Customer object properties.
  - `PublishedReport` — See Published Reports.
  - `User` — See Users and User object properties.
- Added the following endpoints and methods:
  - **GET** `/customers/` — See Get the List of Customers
  - **GET** `/customers/{id}` — See Get a Customer
  - **OPTIONS** `/customers/` — See Discover Available Methods and Fetch the Endpoint Reference for Customers
  - **GET** `/published-reports/` — See Get the List of Published Reports
  - **GET** `/published-reports/{id}` — See Get a Published Report
  - **GET** `/users/` — See Get the List of Users
  - **GET** `/users/{id}` — See Get a User
  - **OPTIONS** `/users/` — See Discover Available Methods and Fetch the Endpoint Reference for Users
- The Referenced Objects and Expansion feature can be used to expand the name of the referenced project stage when reading projects. The `expand` parameter now supports the `Project` attribute `projectStageId`. The response includes `projectStageName` objects expanded object, which are available only as an expanded object. See Referenced Objects and Expansion.

April 13, 2024

No changes in this release.

October 7, 2023

- Added the following resource:

  `TimeEntry` — See Time Entries and Time entry object properties.
- Added the following endpoints and methods:
  - **PUT** `/expense-reports/{id}/attachments/{attachment_id}` — See Replace an Attachment to an Expense Report
  - **PUT** `/projects/{id}/attachments/{attachment_id}` — See Replace an Attachment to a Project
  - **GET** `/project-tasks/{id}/attachments/{attachment_id}/thumbnail` — See Get the Thumbnail for an Attachment Associated with a Project Task
  - **PUT** `/project-tasks/{id}/attachments/{attachment_id}` — See Replace an Attachment to a Project Task
  - **PUT** `/receipts/{id}/attachments/{attachment_id}` — See Replace an Attachment to a Receipt
  - **POST** `/time-entries/` — See Insert a Time Entry

- **GET** `/time-entries/` — See Get the List of Time Entries
- **GET** `/time-entries/{id}` — See Get a Time Entry
- **DELETE** `/time-entries/{id}` — See Delete a Time Entry
- **OPTIONS** `/time-entries/` — See Discover Available Methods and Fetch the Endpoint Reference for Time Entries

- The following methods also support the Sorting feature:
  - **GET** `/expense-reports/{id}/attachments/` — See Get the List of Attachments Associated with an Expense Report.
  - **GET** `/projects/{id}/attachments` — See Get the List of Attachments Associated with a Project
  - **GET** `/project-tasks/{id}/attachments` — See Get the List of Attachments Associated with a Project Task
  - **GET** `/receipts/{id}/attachments/` — See Get the List of Attachments Associated with a Receipt.

April 15, 2023

- Support for automatically generated thumbnail image when adding an attachment (Attachment Thumbnail feature). See Add an Attachment to an Expense Report, Add an Attachment to a Project, Add an Attachment to a Project Task, Add an Attachment to a Receipt.
- Added the following endpoints and methods:
  - **GET** `/expense-reports/{id}/attachments/{attachment_id}/thumbnail` — See Get the Thumbnail for an Attachment Associated with an Expense Report
  - **GET** `/projects/{id}/attachments/{attachment_id}/thumbnail` — See Get the Thumbnail for an Attachment Associated with a Project
  - **GET** `/receipts/{id}/attachments/{attachment_id}/thumbnail` — See Get the Thumbnail for an Attachment Associated with a Receipt
- Added support for sorting returned list of resources in ascending or descending sort order (single sorting level). The Sorting feature supports the following methods:
  - **GET** `/contacts/` — See Get the List of Contacts
  - **GET** `/expense-reports/` — See Get the List of Expense Reports
  - **GET** `/expense-reports/{id}/receipts` — See Get the List of Receipts in an Expense Report
  - **GET** `/job-codes/` — See Get the List of Job Codes
  - **GET** `/projects/` — See Get the List of Projects
  - **GET** `/project-milestones/` — See Get the List of Project Milestones
  - **GET** `/project-phases/` — See Get the List of Project Phases
  - **GET** `/project-tasks/` — See Get the List of Project Tasks
  - **GET** `/receipts/` — See Get the List of Receipts
- Added Attachment object property `isViewable` indicating if the attachment is viewable in the Attachment Viewer feature — See Attachments.

October 8, 2022

- Added the following resources:
  - `ProjectMilestone` — See ProjectMilestone Object Properties.

  - `ProjectPhase` — See ProjectPhase Object Properties.
  - `ProjectTask` — See ProjectTask Object Properties.
- Added the following endpoints and methods:
  - **POST** `/projects/from-template/` — See Create a Project from Template
  - **POST** `/projects/{id}/attachments` — See Add an Attachment to a Project
  - **GET** `/projects/{id}/attachments` — See Get the List of Attachments Associated with a Project
  - **GET** `/projects/{id}/attachments/{attachment_id}` — See Get an Attachment Associated with a Project
  - **GET** `/projects/{id}/attachments/{attachment_id}/download` — See Get an Attachment File Associated with a Project
  - **DELETE** `/projects/{id}/attachments/{attachment_id}` — See Delete an Attachment Associated with a Project
  - **DELETE** `/projects/{id}/attachments/{attachment_ids}` — See Delete Attachments Associated with a Project
  - **GET** `/project-milestones/` — See Get the List of Project Milestones
  - **GET** `/project-milestones/{id}` — See Get a Project Milestone
  - **GET** `/project-phases/` — See Get the List of Project Phases
  - **GET** `/project-phases/{id}` — See Get a Project Phase
  - **POST** `/project-tasks/` — See Insert a Project Task
  - **GET** `/project-tasks/` — See Get the List of Project Tasks
  - **GET** `/project-tasks/{id}` — See Get a Project Task
  - **POST** `/project-tasks/{id}/attachments` — See Add an Attachment to a Project Task
  - **GET** `/project-tasks/{id}/attachments` — See Get the List of Attachments Associated with a Project Task
  - **GET** `/project-tasks/{id}/attachments/{attachment_id}` — See Get an Attachment Associated with a Project Task
  - **GET** `/project-tasks/{id}/attachments/{attachment_id}/download` — See Get an Attachment File Associated with a Project Task
  - **DELETE** `/project-tasks/{id}/attachments/{attachment_id}` — See Delete an Attachment Associated with a Project Task
  - **DELETE** `/project-tasks/{id}/attachments/{attachment_ids}` — See Delete Attachments Associated with a Project Task
- The `filterSetId` query string parameter can be used to specify the internal ID of the filter set to be applied when inserting or updating objects using a POST or PUT method or deleting an object using the DELETE method. All available REST API resources and CRUD methods now support the parameter. See Active Filter Set, Errors and all **POST**, **PUT**, and **DELETE** methods in REST API Endpoint Reference.
- The Filtering and Pagination features are supported when working with Contacts and Job Codes using the REST API. See Supported Resources, Methods and API Features.

April 9, 2022

- Added the following endpoints and methods:
  - **POST** `/projects/` — See Insert a Project
  - **POST** `/projects/bulk/` — See Insert Multiple Projects

- **PUT** `/projects/{id}` — See Update a Project
- **PUT** `/projects/bulk/{ids}` — See Update Multiple Projects
- **DELETE** `/projects/{id}` — See Delete a Project
- **DELETE** `/projects/bulk/{ids}` — See Delete Multiple Projects

- Added request query string parameter `filterSetId` to specify the internal ID of the filter set to be applied when retrieving data using a GET method. See Active Filter Set, Errors and all **GET** methods in REST API Endpoint Reference.
- Changes to Project object properties:
  - Added properties `filterSetIds` (filter sets the project is included in) and `hierarchyNodes` (project hierarchy nodes, available when reading, updating or creating projects).
  - Removed properties `costTypeFilter`, `customerExcludeFilter`, `projectExcludeFilter` — These fields are part of a feature that is not supported by the REST API.
- Changes to Referenced Objects and Expansion:
  - The number of expanded objects that can be returned in the `included` array is limited to 1,000 objects by default.
  - If expanded objects are referenced by metavalues (negative integers) instead of internal IDs in the main response element (`data` array), the response substitutes the object internal IDs for metavalue references in the `relationships` array.

October 9, 2021

- Added the following endpoints and methods:
  - **GET** `/projects/` — See Get the List of Projects
  - **GET** `/projects/{id}` — See Get a Project
  - **OPTIONS** `/projects/` — See Discover Available Methods and Fetch the Endpoint Reference for Projects
  - **DELETE** `/receipts/{id}` — See Delete a Receipt
- Added support for deleting multiple expense attachments. Updated the following methods:
  - **DELETE** `/expense-reports/{id}/attachments/{attachment_ids}` — See Delete Attachments Associated with an Expense Report.
  - **DELETE** `/receipts/{id}/attachments/{attachment_ids}` — See Delete Attachments Associated with a Receipt.
- The `/attachments/{id}` and `/attachments/{id}/download` endpoints were removed from the REST API. To work with attachments, use the endpoints and methods specific to the object the attachments are associated with. See Attachments.
- OAuth 2.0 access token validity period cannot be greater than session timeout — See Application Configuration.
- OAuth 2.0 refresh token validity period can be between 1 and 31 days in one–day increments — sSee Application Configuration.

April 10, 2021

- The service path for the REST API is `/rest/v1/` instead of `/webapi/v2/` — See Request URL.
- Added the following methods:

- **OPTIONS** `/contacts/` — See Discover Available Methods and Fetch the Endpoint Reference for Contacts.
- **POST** `/expense-reports/{id}/attachments/` — See Add an Attachment to an Expense Report.
- **GET** `/expense-reports/{id}/attachments/` — See Get the List of Attachments Associated with an Expense Report.
- **GET** `/expense-reports/{id}/attachments/{attachment_id}` — See Get an Attachment Associated with an Expense Report.
- **GET** `/expense-reports/{id}/attachments/{attachment_id}/download` — See Get an Attachment File Associated with an Expense Report.
- **DELETE** `/expense-reports/{id}/attachments/{attachment_id}` — See Delete Attachments Associated with an Expense Report.
- **OPTIONS** `/expense-reports/` — See Discover Available Methods and Fetch the Endpoint Reference for Expense Reports.
- **OPTIONS** `/job-codes/` — See Discover Available Methods and Fetch the Endpoint Reference for Job Codes.
- **POST** `/receipts/{id}/attachments/` — See Add an Attachment to a Receipt.
- **GET** `/receipts/{id}/attachments/` — See Get the List of Attachments Associated with a Receipt.
- **GET** `/receipts/{id}/attachments/{attachment_id}` — See Get an Attachment Associated with a Receipt.
- **GET** `/receipts/{id}/attachments/{attachment_id}/download` — See Get an Attachment File Associated with a Receipt.
- **DELETE** `/receipts/{id}/attachments/{attachment_id}` — See Delete Attachments Associated with a Receipt.
- **OPTIONS** `/receipts/` — See Discover Available Methods and Fetch the Endpoint Reference for Receipts.

- Added the following resource object attributes:

  `Attachment` — Added the `workspaceId` attribute, the internal ID of the workspace associated with the attachment. The value is `0` (zero) if the attachment is not associated with a workspace. See Attachment object properties.
- Added support for expanding objects referenced by internal ID in the main response elements (`data` array) — If there are any attributes available for expansion, the response automatically includes a `relationships` property in the response metadata (`meta` object) with information about the attributes available for expansion and the referenced objects. The `expand` query parameter can be used to return expanded objects of type `attachment`, `userDisplayName`, and `workspace` in the `included` response property without the need for separate requests. Some of this additional data is only available when using expansion. See Referenced Objects and Expansion.
- Added Auditing and Managing OAuth 2.0 Authorizations under OAuth 2.0 Authorization — Account administrators can use web services reports to audit and revoke authorizations granted by SuiteProjects Pro users to integration applications.

October 10, 2020

- Initial version of REST API released.