NetSuite 2019.2 Release Notes

Revision Date: October 9, 2019
PDF File Version: v13

Important: This document summarizes the changes to NetSuite between 2019.2 and the previous release.

These release notes are subject to change every week.

Ensure you review the release notes section of the Help Center Weekly Updates for a list of the changes made in this build of the release notes.

The 2019.2 enhancements and changes listed in this document are not available to customers until they are upgraded to NetSuite 2019.2. Please check the version number at the bottom of your Home page if you are unsure which NetSuite version you are using. The features and SuiteApps described here may not be available in your NetSuite account. Your access to these features and SuiteApps is subject to the terms of service in your NetSuite contract. Some features may require extra purchase.

Click links below for details about product changes:

NetSuite

Accounting

NetSuite 2019.2 includes the following enhancements to accounting features:

- New Rule-Based Recognition Treatment Feature
- Create Budgets for Adjustment-Only Books
- Enhancement to Transaction Emails
- General Ledger Impact Printing
- Changes to Multi-Book and Adjustment-Only Book Setup
- Enhancements to Memorized Transactions

- Include or Exclude Transaction Numbers in Global Search
- CSV Import Support for Foreign Currency Variance Posting Rules
- Advanced Revenue Management Enhancement
- Transaction Details Workbook (Beta) in SuiteAnalytics Workbook
- Mass Merge and Duplication Detection Enhancements
- New Fields Available for Transaction Search
- Currency Exchange Rate Record Enhancement
- Fixed Assets Management Enhancements
- SuiteApprovals Version 2019.2
- New SuiteApp for Mexico Localization

New Rule-Based Recognition Treatment Feature

The Rule-Based Recognition Treatment feature adds flexibility to Advanced Revenue Management. This feature enables you to define recognition attributes for revenue elements based on specified criteria.

Rule-Based Recognition Treatment adds two records to the Setup > Accounting menu under Revenue:

- **Recognition Treatment** – a collection of values for recognition attributes. The Recognition Treatment permission, under Lists, controls access to this record.
- **Recognition Treatment Rule** – the criteria that determine whether NetSuite applies a recognition treatment. The Recognition Treatment Rule permission, under Lists, controls access to this record.

The Revenue Recognition/Amortization subtab on the item record contains the default values for the recognition attributes of a revenue element. With rule-based recognition treatments, you can specify different values for the following recognition attributes when an item is included in a revenue element under different circumstances:

- Create Revenue Plans On
- Revenue Recognition Rule
- Rev Rec Forecast Rule
- Allocation Type
- Revenue Allocation Group

For details about the recognition attributes on the item record, see the help topic Revenue Recognition/ Amortization Subtab.

For example, you may want the values of Create Plans On and Revenue Recognition Rule for return transactions to be different from sales transactions. With this feature, you can create a recognition treatment rule that uses the Transaction Type criterion with return transaction types. The recognition treatment you associate with your rule contains the attribute values for Create Plans On and Revenue Recognition Rule to use for returns. You do not need to edit the revenue arrangement for the return transaction to change the attribute values. NetSuite automatically applies the correct recognition treatment as a result of the recognition treatment rule lookup process.

The recognition treatment rule lookup process occurs automatically as part of the revenue arrangement creation process. NetSuite also automatically runs the lookup process with revenue arrangement updates that add revenue elements and when you merge revenue arrangements. You can also start the process from a revenue arrangement to apply a new recognition treatment.

For details, see Rule-Based Recognition Treatment.

Create Budgets for Adjustment-Only Books

As of 2019.2 you can create budgets for adjustment-only books. This functionality was previously available only for full multi-book accounting secondary books. This feature also includes support for budget exchange rates, as well as budget reports, such as the Budget vs. Actual report and Budget Income Statement.

For more information on creating budgets, including budgets for adjustment-only books, see the help topics Setting Up a Budget, Budgets for Secondary Accounting Books Overview.

Enhancement to Transaction Emails

In 2019.2, users with the Email Templates and Custom Transaction Forms permissions can select which transaction email template to use for each transaction type when they send transaction emails with PDF attachments. Email templates can be selected in two locations:

- Open a transaction, go to Customize > Customize Form, and select the template from the new **Email Message Template** dropdown list.
- Go to Customization > Forms > Transaction Forms and click the Customize link for the transaction type to add a template to. Select the template from the new **Email Message Template** dropdown list.

To use a custom email template, you must first customize a transaction form. This feature does not support standard transaction forms, and all email sent from standard transaction forms use NetSuite's default email template. To use the template in your transaction emails, you must select Transaction in the Record Type field or clear the Record Type field in the template form at Documents > Templates > Email Templates > [select a template].

You can control access to email templates with permissions that control access to transaction types, the Email Template, and Custom Transaction Forms permissions. You can use SuiteScript to select which email templates to use with all supported transaction types except GL Impact.

Access to email templates can be controlled using permissions. Users who do not have permission to view email templates cannot view or select them in the Email Message Template dropdown list.

For more information, see Assigning an Email Template to a Transaction Type.

General Ledger Impact Printing

NetSuite 2019.2 includes the ability to print statements for transactions that impact the general ledger. You can also customize the printing template.

If you enable the Advanced PDF/HTML Templates feature, NetSuite enables this feature automatically. To enable the Advanced PDF/HTML Templates feature, go to Setup > Company > Enable Features, and click the SuiteCloud subtab. Check the Advanced PDF/HTML Templates box in the SuiteBuilder section.

When you enable the feature, NetSuite adds a Standard GL Impact PDF/HTML Template to the Advanced PDF/HTML Templates list at Customization > Forms > Advanced PDF/HTML Templates. Click **Customize** next to the template name to customize the template.

When the feature is enabled, a Print button appears on the GL Impact form for each transaction in Actions > GL Impact. To print multiple GL impact statements, go to Transactions > Management > Print Checks and Forms and click GL Impact. You can filter what types of transactions to print, and to select specific transactions to print.

You can print GL Impact Statements for the primary accounting book. They also respect user permissions and restrictions for the general ledger, so you can only print what you have access to.

For more information, see Printing a Transaction's GL Impact.

Changes to Multi-Book and Adjustment-Only Book Setup

The following changes have been made to the Multi-Book and Adjustment-Only Book features in 2019.2 to improve the setup process:

- You no longer have to enable the Multi-Book feature to use the Adjustment-Only Book feature.
- The Adjustment-Only Book feature is now available for all OneWorld accounts, and you do not need to provision the feature through NetSuite Support. The feature is visible to administrators at Setup > Company > Enable Features > Multi-Book Accounting.

You must still provision the Full Multi-Book Accounting feature through NetSuite Support. When you have provisioned the Full Multi-Book Accounting feature, it is available at Setup > Company > Enable Features > Multi-Book Accounting. If you provisioned or enabled the Multi-Book Accounting feature in your account prior to the 2019.2 release, NetSuite provisions or enables the Full Multi-Book Accounting feature automatically with the new release.

For more information, see the help topics Multi-Book Accounting Overview and Adjustment-Only Books Overview.

Enhancements to Memorized Transactions

NetSuite 2019.2 includes enhancements that streamline the setup and expand the usability of memorized transactions.

To improve the workflow, this feature includes a redesigned user interface and new field names. The following fields have been renamed:

Field Name	New Field Name
Type	Transaction Type
Override Posting Date	Override Transaction Date

In addition, the following fields have been removed:

- Frequency dropdown list
- Every
- Unit

On the new Recurring subtab, you can set the date of the next recurrence, how often the transaction should repeat, the number of remaining transactions, and other options.

On the new Custom Dates subtab, you can set memorized transactions to occur on specific dates.

The Remind Me and Automatic radio buttons are now a new Action dropdown list. In this list, you can select one of the following options:

- **Template Only** – Creates a template of the memorized transaction, but not create any transactions.
- **Automatic** – Your transaction recurs automatically, so you do not have to manually submit it.
- **Reminder** – You are reminded when your transaction is due, so you can view or edit it before you submit it.

In addition to the changes to the user interface, you can now create memorized transactions from custom transactions.

For more information, see the help topic Memorizing a Transaction.

Include or Exclude Transaction Numbers in Global Search

New role- and user-level Global Search preferences enable you to include or exclude transaction numbers from your global searches.

To include or exclude transaction numbers at the role level, administrators go to Setup > Users/Roles > Manage Roles, and then click the Customize link next to a role. Then, go to the Preferences subtab and add Global Search Includes Transaction Numbers in the Preferences list.

To include or exclude transaction numbers at the user level, go to Home > Set Preferences > Analytics > Search and select Global Search Includes Transaction Numbers.

The functionality for Global Search by Document Number is no longer part of the Show Transaction Numbering Setup preference. Global Search now only includes results by document number by default.

For more information, see the help topic Global Search by Document Number Only.

CSV Import Support for Foreign Currency Variance Posting Rules

You can now import foreign currency variance posting rules using the CSV Import Assistant. For information, see Newly Supported Record Types for CSV Import.

Advanced Revenue Management Enhancement

Creation of a prospective change order now has fewer conditions. Previously, you received an error message if the following conditions were not met:

- All revenue recognition plans have been updated.
- All revenue recognition journal entries have been generated and approved for all periods prior to the effective date of the change order.
- All reclassification journal entries have been generated and approved for all periods prior to the effective date of the change order.
- No revenue recognition or reclassification journal entries have been posted in the effective date period or any future periods.

Now the only condition that blocks prospective change order creation is posting of revenue recognition or reclassification journal entries in future periods, including the effective date period.

The effective date of the change order remains the first day of the first open period that is not an adjustment period.

For more information, see the help topic Prospective Change Orders.

Transaction Details Workbook (Beta) in SuiteAnalytics Workbook

NetSuite 2019.2 includes a new Transaction Details beta workbook in SuiteAnalytics Workbook. This workbook provides the same information as the Transaction Details report but with the full capabilities of the SuiteAnalytics Workbook tool.

For more information, see the help topics Standard Workbooks and Transaction Detail Workbook (Beta).

Mass Merge and Duplication Detection Enhancements

NetSuite 2019.2 includes several additions to the mass merge and duplicate detection tools.

First, you can now detect duplicate customer and vendor entities across subsidiaries with the Detect Duplicates Across Subsidiaries feature in Setup > Company > Company Management > Duplicate Detection.

You can also manage vendor and customer duplicates across subsidiaries on the Manage Customer Duplicates page at Lists > Mass Update > Entity Duplicate Resolution. In addition, to identify duplicates, search for a customer or vendor on the Mass Updates page at Lists > Mass Update > Mass Updates.

NetSuite 2019.2 also includes expanded merging behavior across subsidiaries:

- You can now merge duplicate Customer and Vendor entities across subsidiaries, resulting in a single multi-subsidiary entity.
- Merging two individual entities from different subsidiaries results in the following:
  - The primary subsidiary becomes the Master Entity subsidiary.
  - The Duplicate Entity subsidiary becomes a secondary subsidiary for each individual entity.
  - The Contact from the primary subsidiary is linked and synchronized with the Master Entity.

Warning: Merging duplicates can result in irrevocable changes to your data and you should test the procedure in a sandbox account before you apply merges to your account. In addition, when you merge duplicates with many linked records, it can take a significant amount of time to process. The Master Entity should therefore have more linked records than the potential duplicates.

For more information, see the help topics Duplicate Record Detection, Setting Up Duplicate Detection, and Merging Different Types of Records.

New Fields Available for Transaction Search

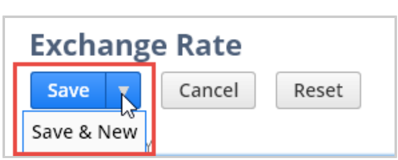
In 2019.2, new fields are available in Transaction searches for foreign currency debit and credit amounts. The names of these fields are as follows:

- Amount (Credit) (Foreign Currency)
- Amount (Debit) (Foreign Currency)

In results, these fields include the symbol of the foreign currency.

Currency Exchange Rate Record Enhancement

The Save button on the currency Exchange Rate record now includes a Save & New option. Previously, when you added new rates, your only option was to save and return to the list page to create a new record.



For more information, see the help topic Currency Exchange Rates.

Administration

NetSuite 2019.2 includes the following enhancements to Administration features:

- Subsidiary Settings Manager
- OpenID Connect Single Sign-on Now Available
- Introducing a Redirection-Based TBA Authorization Flow
- New User Access Reset Tool for Administrators
- Password Changes Are Now Logged in System Notes
- Administrators: Revisit the Settings for 2FA Roles in Your Account
- New Sent Email List Provides Detailed Information
- Introducing Account-Specific Domains for NetSuite Email Addresses
- Third-Party SMTP Servers No Longer Permitted in NetSuite
- Translation Management Enhancements
- Personal Information Removal for Administrators
- Plan to Deprecate the Full Access Role
- System Notes v2 (Limited Release) for Custom Transaction Type Configuration
- Multi-Subsidiary Entity Support for Intercompany Processes
- Keys Storage for SFTP Authentication
- Internal Tags Displayed in Translated Record and Transaction Names
- Change to Subsidiary Record Restriction Logic
- Measuring the Performance of SCIS Customizations

Subsidiary Settings Manager

View the Subsidiary Settings Manager New Feature training.

The Subsidiary Settings Manager page enables you to manage subsidiary-specific features that require additional setup before you can use them. After you enable a subsidiary-specific feature on the Enable Features page, that feature is available on the Subsidiary Settings Manager page. From the Subsidiary Settings Manager page you can enable features and define their additional settings for one or more subsidiaries. You can also view the state of subsidiary-specific features relative to the list of subsidiaries.

To access the Subsidiary Settings Manager page, go to Setup > Company > Setup Tasks > Subsidiary Settings Manager. To ensure you have permission to access the Subsidiary Settings Manager page, see Subsidiary Settings Manager Permissions.

Tip: If you have permission to enable features, you can also access the Subsidiary Settings Manager page from the Enable Features page at Setup > Company > Enable Features. At the top of the page is a message about subsidiary–specific features. This message includes a link to the Subsidiary Settings Manager page.

For more information about the Subsidiary Settings Manager page, see Subsidiary Settings Manager.

Subsidiary Settings Manager 2019.2 Limitation

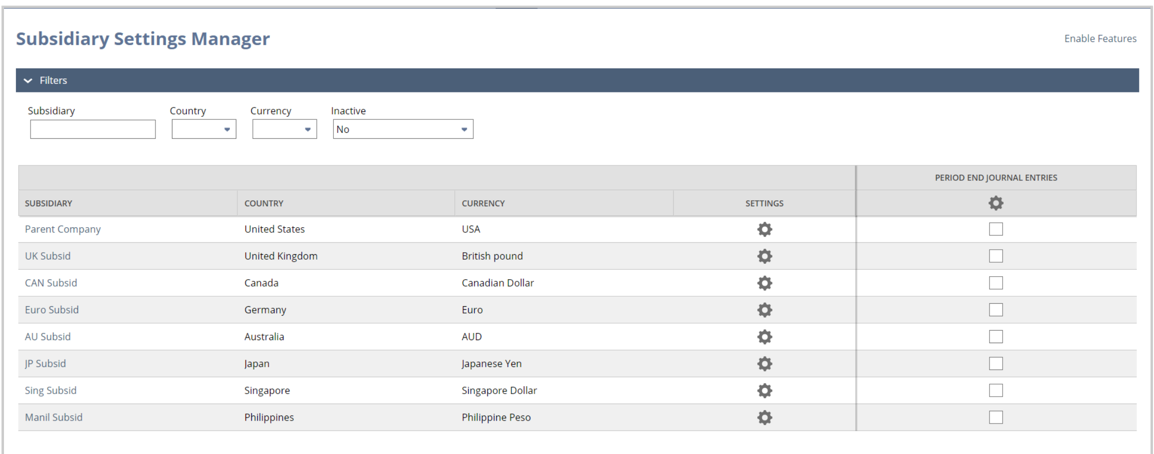
In 2019.2, the Subsidiary Settings Manager page supports only the Period End Journal Entries feature. Prior to 2019.2, you defined the additional settings for the Period End Journal Entries feature on the record for each subsidiary approved to use the feature. Now, you define the additional setup for one or more subsidiaries through the Subsidiary Settings Manager page.

For details about the new user interface, see:

- Subsidiary Settings Manager Page
- Subsidiary Settings Page for a Subsidiary
- Subsidiary Settings for Period End Journal Entries Page

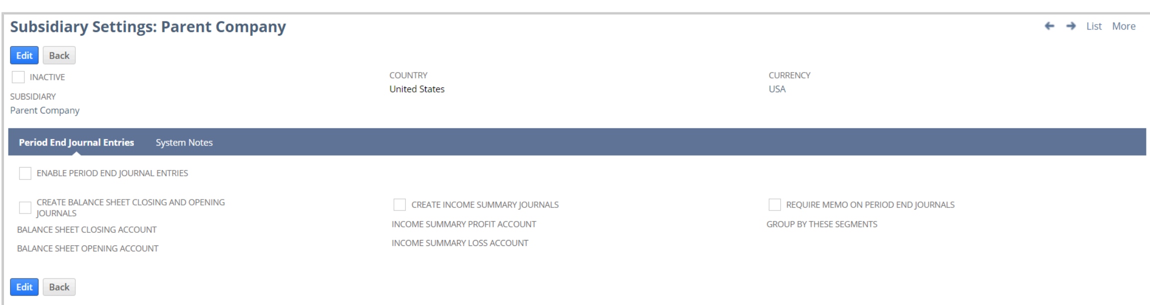
Subsidiary Settings Manager Page

The Subsidiary Settings Manager page lists the active and inactive subsidiaries to which you have access, and their respective country and currency. You can filter the subsidiaries that display in the list by searching for a subsidiary name in the Subsidiary field. You can also filter the subsidiaries list by selecting a country, currency, and whether the subsidiary is inactive.



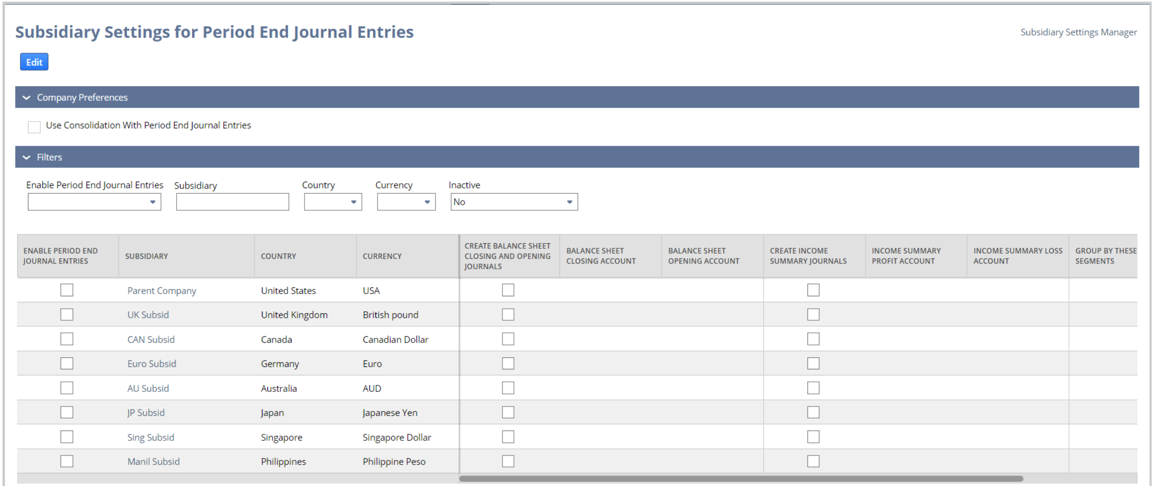
Subsidiary Settings Page for a Subsidiary

On the Subsidiary Settings page, the Settings column displays a settings icon for each subsidiary. When you click a settings icon, the Subsidiary Settings page for that subsidiary opens. Each subsidiary-specific feature appears on its own subtab where you can enable the feature and define its additional settings.



Subsidiary Settings for Period End Journal Entries Page

Subsidiary-specific features are listed in individual columns. The feature columns display a settings icon in the column header. When you click a feature's settings icon, the Subsidiary Settings page for that feature opens. You can enable that feature for one or more subsidiaries, and then define unique settings for each selected subsidiary.



OpenID Connect Single Sign-on Now Available

OpenID Connect (OIDC) is now available as another inbound single sign-on (SSO) method for accessing the NetSuite UI. OIDC is a good alternative to the following current inbound SSO methods:

- SAML SSO
- Inbound Single Sign-on (SSO) from NetSuite
- Google OpenID

> **Note:** The NetSuite Inbound SSO and Google OpenID SSO features are targeted for deprecation. The deprecation schedule is as follows:
>
> - In 2020.1, customers will no longer be permitted to create new solutions using the NetSuite Inbound SSO feature. Existing customers using this Inbound SSO feature should adapt their solutions to use a different SSO method before the 2021.1 release.
> - In 2020.1, customers will no longer be permitted to use the Google OpenID feature to create new solutions. Existing customers should migrate their solutions to use the OpenID Connect (OIDC) Single Sign-on feature, or an alternative method, such as SAML SSO, before the 2020.2 release.

As of 2019.2, your choice of OpenID Connect providers (OP) is not limited to Google. To find a certified OP, go to https://openid.net/certification.

After you log in to your chosen OP, it is not necessary to complete credentials for every application. Users' credentials, two-factor authentication, provisioning, and user management are all handled by your OP. When a single OIDC configuration is shared between accounts, users can switch between roles in different accounts without requiring an additional login.

You can trust your OP and provision users in NetSuite in advance. Virtual mapping is automatic, based on email address matching.

As with other SSO implementations, users in an Administrator role will not be able to access the NetSuite UI using OIDC. This restriction ensures that administrators will always be able to log in to NetSuite, even if the OP is temporarily unavailable. Access to SuiteCommerce websites using OIDC is currently not supported.

To enable OIDC in NetSuite, go to Setup > Company > Setup Tasks > Enable Features and click the SuiteCloud tab. Under the Manage Authentication section, check the **OpenID Connect (OIDC) Single Sign-on** box. Click **I Agree** on the SuiteCloud Terms of Service, and click **Save**.

The following are OIDC technical details:

- OIDC uses JSON Web Tokens (JWT) to transfer claims between parties.
- OIDC is an identity layer on top of the OAuth 2.0 protocol.
- OIDC uses JavaScript Object Notation (JSON) as the data format.

For more information, see OpenID Connect (OIDC) Single Sign-on.

Introducing a Redirection-Based TBA Authorization Flow

Token-based authentication (TBA) is a robust, industry standard-based mechanism that increases overall system security. This authentication mechanism enables client applications to use a token to access NetSuite through APIs, eliminating the need for RESTlets or web services integrations to store user credentials. A standard and secure method for obtaining access tokens is to use a three-step authorization flow.

- Step 1: Obtain an unauthorized request token on the request token URL.
- Step 2: Authorize the request token on the user authorization URL.

  Any authentication procedure relevant to a user (for example, a second-factor verification step) is included in this authorization flow step.
- Step 3: Exchange the request token for an access token on the access token URL.

> **Note:** If you are not currently using token-based authentication in your NetSuite account, see the help topic Getting Started with Token-based Authentication.

User credentials are not stored or entered into the application forms. User credentials are entered by a user into a trusted NetSuite login form as a part of the authorization flow.

With this Authorization Flow feature, integration developers begin the process to grant access tokens in their application. The request token URL generates an intermediate unauthorized request token. A user, for whom an access token is to be granted, authorizes the request token and explicitly consents that the application is allowed access to NetSuite data. If this step succeeds, the application exchanges the request token for the access token to be used for authentication.

This three-step authorization flow should be used for all new integrations. Developers of existing integrations currently using the issuetoken endpoint should consider migrating the integration to the three-step authorization flow.

To create an Integration record, go to Setup > Integration > Manage Integrations > New. On the Integration record, the **Token-based Authentication (TBA)** and **TBA: Authorization Flow** boxes are checked by default. The administrator should enter the callback URL on the Integration record. The underlying application must have the ability to open a browser and must be able to handle callback URLs. If the application does not have the ability to do these two things, developers should continue to use the issuetoken endpoint. (The issuetoken endpoint has been available in NetSuite for the last several releases.)

For more information, see The Three-Step Authorization Flow.

New User Access Reset Tool for Administrators

The User Access Reset tool lets administrators perform routine tasks to assist users with access to NetSuite. The User Access Reset tool replaces the current Reset 2FA Settings tool. Administrators no longer have to follow the procedure previously required to reset a user’s password.

Administrators can go to Setup > Users/Roles > User Management > User Access Reset Tool to perform the following tasks:

- Initiate a password reset for a user.
- Clear security questions.
- Unlock access to NetSuite after six incorrect attempts by a user to enter a password.
- Reset a user's 2FA settings.

The administrator enters the email address of the user, selects the desired actions to perform, and clicks Save.

> **Note:** If a user has roles in multiple NetSuite accounts, the administrator must also have access to those accounts to perform these actions for the user.

See User Access Reset Tool.

Password Changes Are Now Logged in System Notes

Requests to change a password are now logged in system notes on an entity record. Changes are logged no matter who or what initiates the request. System notes now capture successful changes requested through the UI, web services, or RESTlets. Administrators can view the password change information in the system notes for the following entity records: Employee, Customer (including Prospect records), Partner, and Vendor.

System notes include information about who or what initiated the password change. The following entities can initiate password changes:

- User (from the Change Password or Forgot Your Password links)
- Administrators (by manual assignment or by using the **New User Access Notification Email** to set user passwords)
- NetSuite Customer Support (using internal tools)
- Automated processes (such as when an employee is terminated and access is withdrawn)

For more information, see Password Changes Are Logged in System Notes on Entity Records.

> **Note:** If a user has access to multiple accounts, and the password is changed in an account that is still on 2019.1, the password change entry may not be recorded in System Notes. This feature is only available in accounts that are on 2019.2.

Administrators: Revisit the Settings for 2FA Roles in Your Account

Account administrators are encouraged to review mandatory 2FA roles in your NetSuite accounts. Exemptions for integrations from mandatory 2FA ended in April 2019. The exemption was for integrations that used highly privileged roles and user credentials for authentication for access to NetSuite. With the end of the exemption, NetSuite changed the default trusted devices value for mandatory 2FA roles from 14 days to 30 days. If you wish to change the value of the **Duration of Trusted Devices** field to a value other than 30 days, perform the following procedure.

To change the value in the Duration of Trusted Devices field:

1. In your account, go to Setup > Users/Roles > Two-Factor Authentication Roles.

2. For each role that NetSuite has marked as Mandatory 2FA Required (denoted by the check mark in the **Mandatory 2FA** column):
    a. Evaluate the role and determine if 30 days is an acceptable value.
    b. If 30 days is not the desired value, change the value in the **Two-Factor Authentication Required** column from **Not required** to **2FA Required**.
    c. Change the **Duration of Trusted Devices** value as desired. Otherwise, the value defaults to **30 days**.

    > **Note:** Until you change the value of Two-Factor Authentication Required from Not Required to 2FA required, you cannot change the duration of trusted devices to any value. When you change the value to 2FA required, the trusted devices value defaults to 30 days. Ensure that you also update the value for trusted devices to your desired value.

3. After reviewing and making any necessary changes to all mandatory 2FA required roles and associated durations of trust, click **Submit**.

When a user logs in to the NetSuite UI with a Mandatory 2FA role, the user can check the **Trust this device for 30 days** box. When users log in with this role, they will not be prompted to provide a verification code again until 30 days has elapsed.

For more information, see the help topic Designate Two-Factor Authentication Roles. See also Users and Trusted Devices for Two-Factor Authentication.

New Sent Email List Provides Detailed Information

In previous releases, administrators could only view undelivered email through the Undelivered Email list and search capabilities. Administrators were not able to view information for all outgoing email sent from their accounts. With the new Sent Email List, administrators can view all email that results in errors, as well as all email successfully sent to the recipient. This ability is important for administrators auditing account activity.

By default, the Sent Email List and saved search capabilities are only accessible to users in the Administrator role. Administrators can assign the **Sent Email** permission to other roles, enabling users with those roles to use the feature.

The Sent Email List and Undelivered Email are both available in 2019.2. However, the Sent Email List will replace Undelivered Email. You should begin the transition to using the Sent Email List instead of relying on the Undelivered Email page and saved searches.

To view the new Sent Email List or to incorporate new saved searches in your account:

- Go to Setup > Company > Communication > Sent Email List.
- Go to Setup > Company > Communication > Sent Email List > Search. On the Sent Email List Search page, you can click **Personalize Search** or **Create Saved Search**.
- An alternative way to create a saved search is to go to Lists > Search > Saved Searches and click **New Saved Search**. In the list, click **Sent Email List**. Customize the search as desired, and click **Save**.

No matter how you create them, all saved searches in an account are accessible from Lists > Search > Saved Searches. The Sent Email List provides the same capabilities as Undelivered Email, but the Sent Email List provides information on all outbound email sent from an account. Sent Email List saved searches can be scheduled in the same way that Undelivered Email saved searches were scheduled.

The Sent Email List includes the following details for all outbound email:

- Send date and sender (From)

- Recipients (To/Cc/Bcc), message ID, subject
- Email delivery status per recipient

The schedule for deprecation of Undelivered Email is as follows:

- Beginning in early January 2020, no new data will be populated to the Undelivered Email page and saved searches. At that point, all data will only be recorded in the Sent Email List and saved searches.
- The retention period for the Undelivered Email feature is 100 days. During this retention period, you will still be able to access the old records from the Undelivered Email page and saved searches.
- After the 100-day retention period has elapsed, the Undelivered Email feature will be removed from the NetSuite UI. The removal of the Undelivered Email feature is targeted for an e-fix in early April 2020. After that date, Undelivered Email data will no longer be accessible.

For more information, see Using the Sent Email List.

Introducing Account-Specific Domains for NetSuite Email Addresses

NetSuite email addresses are used in your NetSuite account for various features, and are also used for replies by recipients to your email messages. In the past, all NetSuite email address domains were specific to the data center where your account was hosted. If your account was moved to a different hosting location, you were required to make changes. You had to make updates in your NetSuite account, to your company's internal email infrastructure, and in some cases, inform third parties of the change.

The Email Case Capture feature and Email Capture Plug-in are examples of features containing an internal NetSuite email address. This is the email address you assign to a case profile. Currently, a case capture email address includes a data center-specific identifier in the domain, such as .na1, or .eu2. An example of the current data center-specific format of the email domain is `@cases.na1.netsuite.com`. NetSuite email addresses are also used when you set up case profiles.

As of this release, you can use your new account-specific domain email address for the Email Case Capture feature and the Email Capture Plug-in. You can be assured that your case capture email addresses remain the same, even when your account is moved to a different hosting location. An example of the new account-specific email domain format for case capture is `@<accountID>.email.netsuite.com`, where `<accountID>` is a variable representing your NetSuite account ID. To begin using your new account-specific email address, you must update the email address in your NetSuite account and in your company's internal email infrastructure. In cases where integrations rely on this NetSuite email address, you must inform third parties of the change. If you create case profiles, you must also update the email addresses in the profiles.

Also as of this release, NetSuite automatically populates the Reply-To address in the header with the appropriate account-specific email address. This automatic address update occurs for any email you send where a reply can be expected. There is nothing you must do to begin using the account-specific email address for the Reply-To address. If your account is moved to a different hosting location, you do not have to make any changes. Replies to your email are automatically sent to your NetSuite account, no matter where in the cloud your account resides.

Third-Party SMTP Servers No Longer Permitted in NetSuite

Improvements to the email delivery infrastructure over the past few years mean that customers no longer have to use SMTP servers for NetSuite email campaigns or to send bulk email. Currently, no NetSuite customers are using a third-party SMTP server. In this release, setup and configuration of a third-party SMTP server is no longer permitted. Support for creating a third-party SMTP server has been removed from the UI. All corresponding references in documentation have been removed from the Help Center and SuiteAnswers.

Translation Management Enhancements

NetSuite 2019.2 includes the following enhancements to translation management:

- Manage Translations (Beta) Feature Enhancements
- SDF Support for Translation Collections

Manage Translations (Beta) Feature Enhancements

> **Warning:** Manage Translations is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

NetSuite 2019.1 introduces the Manage Translations (Beta) feature. You can work with the Manage Translations (Beta) feature on the Manage Translations page in the NetSuite UI. You can access the Manage Translations (Beta) page at Customization > Translations > Manage Translations (Beta). The Manage Translations (Beta) feature supports the management of translations into multiple languages through Translation Collections. A Translation Collection is a customization object that stores translation strings.

To access the Manage Translations (Beta) page and work with the Manage Translations (Beta) feature, the following must be true:

- The Multi-Language feature must be enabled in your NetSuite account. For information, see the help topic Enable Localization Features.
- The Manage Translation permission must be granted to your role. For information about setting permissions for a role, see the help topic Set Permissions.
- The languages that you want to provide translations for must be added to the list of supported languages for your company. For more information, see the help topic Enabling the Entry of Translation Strings for a Specific Language.

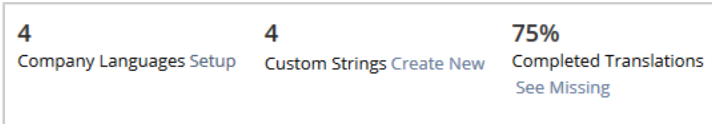
Updates to the Manage Translations (Beta) Page

NetSuite 2019.2 introduces multiple enhancements to the Manage Translations page in the NetSuite UI. The enhancements include the following:

- Translation statistics
- Ability to expand the view of each collection
- Export to XML option on the Collections subtab
- Enhanced Strings subtab
- Ability to import strings from an XLIFF file to a Translation Collection

Translation Statistics

As of 2019.2, statistics have been added to the top-right corner of the Manage Translations page. This statistics module shows up-to-date information about languages, strings, and collections.



Company Languages represent the number of company languages set for your company. To set up languages for your company, on the Manage Translations (Beta) page, click **Setup**.

The number of Custom Strings includes all strings in all collections owned by your company. To create custom strings, click **Create New**. Note that the **Source String**, **ID**, and **Collection** fields are mandatory.

The percentage of Completed Translations refers to all strings in all collections. When you click **See Missing**, you are redirected to the Strings subtab of the Manage Translations (Beta) page, with the filter set to Missing Translations. This filtering causes the subtab to show only strings that are missing some translations. For more information, see Manage Translations Page Statistics.

Expanded Collection View

As of 2019.2, to expand a Translation Collection, click **Expand**. Expand the collection menu to view:

- The completeness percentage for all strings in the collection
- An overview of the languages set for your company
- The number of missing strings in the given languages

Enhanced Strings Subtab

As of 2019.2, the Manage Translations (Beta) page includes an enhanced Strings subtab. On this subtab, you can click **Import Translations** to import strings from an XLIFF file into a Translation Collection. On the Strings subtab, a new Translations column provides information about the number of available translations for a string and the total number of company languages. You can use the information in this column to check for missing translations.

The Strings subtab also contains a new filtering system. You can use menus to filter your results. When you choose an option in the **Collection**, **Translation Status**, or **Language** menu, an X appears on the right side of the menu. To delete the value in this menu, click **X** or **Reset** to delete all the filtering values. For more information, see the help topic Manage Translations Page Strings Subtab. After you filter your results, you can click a source string to bring up the Edit String window, where you can directly edit your strings. This method replaces the earlier option for inline string editing.

SDF Support for Translation Collections

SDF now supports the inclusion of Translation Collections in SuiteApp projects. Each Translation Collection contains an **App ID** field. An application ID is a unique descriptor for each SuiteApp containing Translation Collections.

SDF support for Translation Collections enables you to provide translated versions of your SuiteApps to customers in different locales. When a SuiteApp containing a Translation Collection is installed in a target account, the translated strings for that account’s locale are used. This applies as long as the Translation Collection that contains these translated strings is included in the SuiteApp.

When you use Translation Collections in SDF, you also can:

- Download the contents of a Translation Collection to an XML file on the Collections subtab. To download the contents of a Translation Collection, click the ellipsis next to the selected collection, and select **Download to XML**.
- Copy a Translation Collection from one account to another account for which you are the administrator using the Copy to Account feature. To access the Copy to Account feature, click the

ellipsis next to the selected collection in the Collections subtab, and select **Copy to Account**. You can use the NetSuite UI to export the translation object from the NetSuite account and then add it into your SDF project. However, the XLIFF files do not contain target tag values when exported, so there are no translated strings included when you use Copy to Account. For more information about this feature, see the help topic Copy to Account Overview.

For more information about SDF support of Translation Collections, see SDF Now Supports Translation Collections.

Personal Information Removal for Administrators

In 2019.2, depending on your permissions, you can use the new Personal Information (PI) Removal feature to remove personal information about an individual from:

- System notes
- Workflow history
- Field values

Administrators or users with the Remove Personal Information Create permission can create, edit, and delete requests. Administrators or users with the Remove Personal Information Run permission can approve, run, and delete requests.

The main purpose of the PI Removal feature is to help customers comply with the General Data Protection Regulation (GDPR), specifically the right to be forgotten (keep your personal information private).

The Personal Information Removal feature:

- Supports removing PI data from record field values, system notes, and workflow history.
- Permits a privileged user to remove PI data through the UI or SuiteScript.
- Does not remove the logs. Instead, it replaces the audit trail history value with a user-defined value.

Personal information can include names, phone numbers, addresses, health or economic data, or any personal data that could potentially identify the individual directly or indirectly. Personal information removal is available for entity records, transactions, and custom records. Administrators can use PI Removal to replace the information in system notes, workflow history, and record field values with user-defined values.

An API is available to provide this functionality in SuiteScript. For more information, see the Remove Personal Information Using SuiteScript release note.

For more information, see Personal Information (PI) Removal.

Plan to Deprecate the Full Access Role

The following changes were made to the Full Access role as of 2019.1:

- The Full Access role has been renamed to **Full Access (deprecated)**.
- You cannot assign the Full Access role to new users.
- When users log in with the Full Access role, they see a notification indicating that the Full Access role is being deprecated.
- A permission called Core Administration Permissions is available. This permission provides access to some of the same functions that are currently available to users with the Full Access role. You may be able to use Core Administration Permissions as an alternative to the Full Access role.

If you have not yet done so, you should review the users in your account to whom the Full Access role is assigned. Determine which users need the Full Access role for their job functions and consider the following:

- If any users do not need the Full Access role, assign them another role and encourage them to start using it as soon as possible.
- For users who do require this role, analyze their needs to determine the access granted by this role that is not available through a different role. Develop a strategy to configure the desired access for these users by assigning them a different role or additional global permissions.

For more information, see the help topics Customizing or Creating NetSuite Roles and Core Administration Permissions.

System Notes v2 (Limited Release) for Custom Transaction Type Configuration

NetSuite 2019.2 introduces System Notes v2 (limited release). System Notes v2 is now enabled on custom transaction type configuration. Custom transaction type configuration log is used to demonstrate the new System Notes functionality. System Notes v2 tracks changes on custom transaction type configuration, including sublist level changes, which was not possible previously.

Use the new standard workbook in SuiteAnalytics Workbook to see the System Notes v2 information for the custom transaction type configuration log. The System Notes v2 (Beta) workbook provides administrators and compliance managers a view of the change history on the custom transaction type configuration. The workbook provides information about what changed, who made the change, and when the change was made. You can also create your own workbook using System Notes Version v2 (Beta) as the root record.

System Notes v2 will replace the current System Notes in upcoming releases.

For more information about SuiteAnalytics Workbook, see the help topic SuiteAnalytics Workbook.

Multi-Subsidiary Entity Support for Intercompany Processes

NetSuite 2019.2 includes multi-subsidiary entity support for the Automated Intercompany Management feature. Now, you can select any subsidiary assigned to a customer or vendor record when you create intercompany transactions. With multi-subsidiary entity support for intercompany transactions, you can now reduce the number of entities in your system through entity record merges.

Multi-subsidiary entities now support the following intercompany transactions:

- Purchase Order
- Sales Order
- Item Fulfillment
- Item Receipt
- Customer Invoice
- Customer Payment
- Vendor Bill
- Vendor Payment
- Vendor Return Authorization
- Return Authorization

For information about the Automated Intercompany Management feature, see the help topic Automated Intercompany Management.

For information about multi-subsidiary customers, see the help topic Assigning Subsidiaries to a Customer.

For information about multi-subsidiary vendors, see the help topic Assigning Subsidiaries to a Vendor.

Keys Storage for SFTP Authentication

As of 2019.2, a new Keys menu item is available to administrators. You can upload and manage your keys in this menu. To access the Keys menu, go to Setup > Company > Preferences > Keys.

The Keys page offers storage for keys that are used to authenticate your SFTP connections. A new SuiteScript 2.0 KeyControl API is supported for this purpose.

For more information, see SSH Keys for SFTP.

Internal Tags Displayed in Translated Record and Transaction Names

You may see internal tags in translated record and transaction names in the user interface. For example, instead of Record you may see {#Record#}. If you find such tags displayed in the user interface, please contact NetSuite Customer Support so that we can make a correction in a future release.

For information about renaming records, see the help topic Renaming Records and Transactions.

Change to Subsidiary Record Restriction Logic

We modified the restriction logic on the subsidiary record for user roles with Allow Cross-Subsidiary Record Viewing. In 2019.2, if your user role has Allow Cross-Subsidiary Record Viewing, you can view all subsidiary records.

Banking

NetSuite 2019.2 includes the following enhancements to banking features:

- New Advanced Banking Data Import
- Bank Statement Parser SuiteApp
- Bank Connectivity SuiteApp

New Advanced Banking Data Import

In 2019.2, the bank import process is now more reliable because it gives you the ability to:

- Import in more file formats from more financial institutions
- Automate the file upload process through an sFTP connection
- Create format profiles for your financial institutions, which contain custom file formats along with mappings and configurations required for import

To improve the import process, this feature includes the following enhancements:

- New Import Method

- Direct Bank Connectivity
- Asynchronous Importing
- More Informative Import Status and Results
- New Financial Institution Records
- Ability to Exclude Bank Transaction Codes

New Import Method

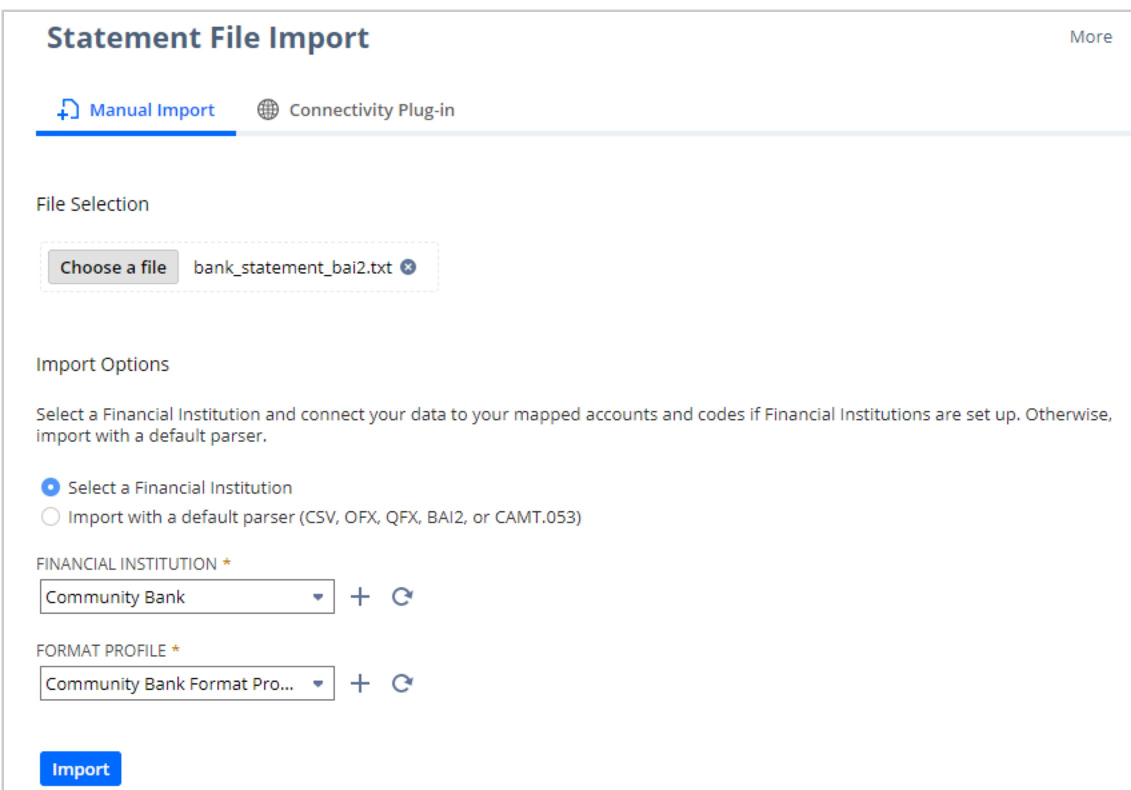
Previously, you downloaded a bank statement from your financial institution and then imported the statement into your NetSuite account using NetSuite’s default parser behavior. If the imported statement was in a file format that NetSuite's default parsers supported, the import was successful. A parser receives raw data, finds the relevant information, and reorders it into account statements or transactions that NetSuite can understand and use.

Now, there are two new ways to read data:

- Use standard parsers that are made available in a financial institution record by the new Bank Statement Parsers SuiteApp bundle. Rather than having to create and configure a plug-in, the SuiteApp provides out-of-the-box parsers that can read data and import it into NetSuite. For details, see Bank Statement Parsers SuiteApp.
- Develop a Parser plug-in to create and upload your own parsers. Using the plug-in, administrators can implement parsers for different bank and credit card statement formats and store them in NetSuite. For details on the Parser plug-in, see Parser Plug-in.

For details on financial institution records, see Financial Institution Records.

The Statement File Import page (previously called Online Banking Data Upload) at Transactions > Bank > Import Online Banking Data includes a new **Manual Import** subtab that offers different import options. The following illustration shows the new Manual Import subtab:



After you click **Choose a file** or use the new drag-and-drop feature to upload a file, you can process data using the settings in that financial institution record. Choose one of the following radio buttons:

- **Select a Financial Institution** – If you have a configured financial institution record, you can use it to import data. This option is selected by default. From the **Financial Institution** and **Format Profile** dropdown lists, choose an existing financial institution and a corresponding format profile. The format profile record includes account and transaction code mapping, along with a custom parser installed by an administrator. Unlike default parsers, you do not need to select more configurations, because these are stored in the format profile record. If you are an administrator, you can create a new financial institution or format profile record. Click the plus icon next to each respective field. For more details on this import method, see Importing a Statement Using a Financial Institution Record.
- **Import with a default parser (CSV, OFX, QFX, BAI2, or CAMT.053)** – If you do not have a configured financial institution record, you must import data using the built-in NetSuite parsers. Select the bank or credit card account for the import. If required, select more configurations for the file format. If you want to use the CSV format with the default parser option, you can download a template. Click **Download the CSV template**. For details, see Importing a Statement Using Default Parsers.

The Submit button is now called Import.

To import banking data into NetSuite, you need the Import Online Banking File permission. To set up a financial institution record, you need the Financial Institution Records permission with a Full Access permission level. This is normally added to an administrator role.

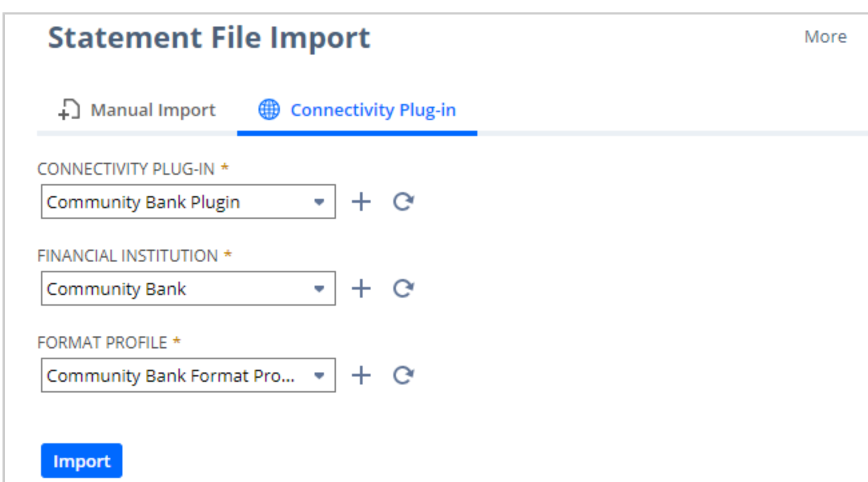
For general information about importing bank statements, see the help topic Importing Online Bank Statements.

Direct Bank Connectivity

In 2019.2, you can use a bank connectivity plug-in to forgo manual uploads of bank statement files and automate the bank connectivity process. You can use either a standard plug-in made available through the new Bank Connectivity SuiteApp or a custom plug-in installed and activated by an administrator. Provided that your financial institution can generate a file to a specific location, like a Secure File Transfer Protocol (sFTP) server, the plug-in can get the file and upload it to NetSuite.

For details on the standard plug-in, see Bank Connectivity SuiteApp. For details on creating a custom plug-in outside of NetSuite, see Bank Connectivity Plug-in.

On the Statement File Import page (Transactions > Bank > Import Online Banking Data), go to the **Connectivity Plug-in** subtab. The following illustration shows the new Connectivity Plug-in subtab:



Select a bank connectivity plug-in that has been configured by an administrator or is available through the SuiteApp, as well as a financial institution and format profile record. If you are an administrator, you can create a new financial institution, format profile, or connectivity plug-in. Click the plus icon next to the appropriate field. Click Import to initiate the import process. Clicking Import triggers the plug-in to retrieve the file and upload it to NetSuite. For details, see Automating File Uploads with the Bank Connectivity Plug-In.

To use the Connectivity Plug-in subtab, you need the following:

- Import Online Banking File permission
- Bank Connectivity plug-in
- Financial institution and associated format profile (requires the Financial Institution Records permission with a Full Access permission level)

For general information about importing bank statements, see the help topic Importing Online Bank Statements.

Asynchronous Importing

Previously, the import process was synchronous, which means that you had to keep the Statement File Import page open and wait for the import to complete before you could perform another action. Also, the import process failed if it exceeded the configured time-out settings. Now, the import process is asynchronous, which means you no longer need to wait on the page until the import is done and can perform other actions.

You can import multiple bank statements at the same time, but the number of simultaneous imports is limited depending on your NetSuite Service Tier. Also, with the implementation of asynchronous processing, the import process no longer fails if it exceeds the configured time-out settings.

After you click Import, NetSuite now displays a progress message that states that the upload completed and that NetSuite is importing your statement. The message also includes a **Track your status** link, which you can click to view the processing status of your import on the Imported Statement List page. To get to this page, you can also go to Transactions > Bank > Import Online Banking Data > List.

For details, see Importing a Statement Using a Financial Institution Record and Importing a Statement Using Default Parsers.

More Informative Import Status and Results

In 2019.2, there is more information about imports, which enables you to distinguish between files. You can determine the import status, results, and what to do next. The Imported Statement List (previously called Statement Import List) and Import Details page contain the following enhancements:

- **Additional import status** – NetSuite provides the number of duplicate transactions. Before, NetSuite only provided the number of imported transactions and automatic matches for a single file, which was displayed on the Statement File Import page. This information, along with the number of duplicates, is now on both the Imported Statement List and Import Details page. This saves you from having to flip between pages for import results.
- **Improved next steps** – The Next Steps field and column on the Imported Statement List and Import Details page now provide more specific and useful information. Previously, if the import was successful, you clicked the Confirm and Reconcile link to go to the Confirm Transaction Matches page. Now, NetSuite displays either the confirm or reconcile step, according to the specific scenario. Click Confirm Matches to go to the Confirm Transaction Matches page. However, if all the transactions are cleared but not all are reconciled, click Reconcile Account Statement to go to the Reconcile Account Statement page. If there are no next steps required, the Next Steps field or column is blank.

- **Error messages** – After import failures, there was a link on the Imported Statement List page that took you to the import page without any explanation of the error. Now, you can click View next to the file on the Imported Statement List page to see the error message and possible action items to take.
- **New bank import status filters** – Previously, you could only filter the bank import status by transactions that were completed, deleted, or failed. Now, the Imported Statement List includes Importing and Matching filters. These enable you to identify in-progress imports and imported transactions that are being matched.
- **Refresh button** – Previously, you had to refresh the browser to refresh the list of imported statements. Now, you can click the Refresh button to refresh the list. Also, you can see the date and time of the last refresh.
- **Statement Date field** – If the file format supports the statement date and it is available, the Import Details page now includes the statement date from the file. Otherwise, NetSuite displays the date of the most recent transaction in the file.
- **Format Profile field** – If you have a format profile record configured, the Import Details page specifies the format profile selected for the import. This value is important because it determines the transaction code mapping and account mapping for the file format.
- **Hyperlinked accounts** – Previously, the Account column (now called NetSuite Account) in the import details table displayed each account as static text. Now, each account name is a link that redirects you to the Confirm Transaction Matches page with the account already selected. This is useful when you are viewing import details of a statement that includes multiple NetSuite accounts (for example, BAI2).

To track your import status after uploading a statement on the Statement File Import page, click **Track your status** or point to the More link and click Imported Statement List. Alternatively, you can go to Transactions > Bank > Import Online Banking Data > List. For more information about viewing the details of your imported statements, see the help topic Viewing Imported Account Statements.

> **Note:** In addition to the Imported Statement List page, if you enable email notifications, NetSuite also notifies you that the import is complete or has failed. You can configure email notifications by clicking Edit next to an employee's name on the Employee page (Lists > Employees > Employees).

New Financial Institution Records

As of 2019.2, NetSuite includes the new financial institution and format profile record. Previously, you set account mappings on each Account page, and you could not set bank transaction codes. Now, you can map accounts and custom bank transaction codes for multiple accounts in a format profile of a financial institution record. You can open a financial institution record from the Financial Institutions page (Setup > Accounting > Financial Institution > List). Format profiles contain custom file formats, along with all the bank transaction code and account mappings you have set up for import.

If your NetSuite role has the Financial Institution Records permission with a Full Access permission level, you can do the following:

- **Create financial institution records** – Go to Setup > Accounting > Financial Institution. For more information, see Creating Financial Institution Records.
- **Create format profile records** – After you save a financial institution record, click Add on the Financial Institution page to add one or more format profiles to it. To record information specific to your business needs, you can add custom fields to the format profile record, depending on your NetSuite role. For details on custom fields, see the help topic Custom Fields. For information on how to set up a format profile, see Creating Format Profiles.
- **Associate a Parser plug-in with a format profile** – Choose a Parser plug-in from the **Transaction Parser** dropdown list. This is a required field. For a Parser plug-in to be available in the list, you must do one of the following:

- Install the Bank Statement Parsers SuiteApp. For details, see Bank Statement Parsers SuiteApp.
- Install and activate a Parser plug-in. For details, see Parser Plug-in.

  Ensure that you have selected the correct plug-in, because after you save, you cannot change your selection.

- **Map accounts in the bank statements to corresponding NetSuite accounts** – In the **Account Mapping** subtab of the Format Profile page, enter one or more account mappings. An account mapping includes an account mapping key and description, mapped to the NetSuite account. Restriction preferences do not apply to the list of NetSuite accounts, so the accounts available are not restricted by any classifications.

  To inactivate the account mapping, you can check the Inactive box. However, you need at least one active account mapping to save a format profile record.

  For more information, see Mapping Bank Accounts.

- **Map custom bank transaction codes to corresponding bank data types** – In the **Transaction Code Mapping** subtab of the Format Profile page, enter the following information:
  - Bank Transaction Code
  - Description
  - Bank Data Type
  - Credit/Debit

  For more information, see Mapping Bank Transaction Codes.

- **Configure your transaction parser** – If the Bank Statement Parsers SuiteApp is installed, the **Parser Configuration** subtab appears on the Format Profile page. After you save, any configuration information (if available) appears in this subtab. For details on configuring transaction parsers in general, see Configuring Transaction Parsers. For details on configuring standard parsers available through the SuiteApp, see Configuring Standard Bank Transaction Parsers.

For information about financial institution records, see the following help topics:

- Modifying Financial Institutions
- Modifying Format Profiles
- Deleting Financial Institution Records
- Deleting a Format Profile
- Viewing the List of Financial Institution Records

Ability to Exclude Bank Transaction Codes

You may need to exclude certain bank account transactions included in bank statement file imports from the statement import. For example, in the BAI2 format, the transaction code “890” does not contain useful monetary information for imported transactions. Previously, you could not exclude transaction codes, which meant that unwanted transactions were processed. Now, you can exclude any transaction codes from the file import.

In the Transaction Code Mapping subtab on a format profile record, check the Exclude box next to a transaction code to exclude transaction codes. When you check this box, NetSuite does not process those transactions. Excluded transactions do not count toward the number of imported transactions and do not appear on the Import Details page.

To open a format profile, go to Setup > Accounting > Financial Institution > List, click View next to a financial institution, and then select a format profile in the Format Profile subtab.

For more details about excluding bank account transactions, see Mapping Bank Transaction Codes.

Customer Relationship Management (CRM)

NetSuite 2019.2 includes the following enhancements to CRM features:

- Antivirus Scanning in File Cabinet

Antivirus Scanning in File Cabinet

As of 2019.2 antivirus screening of all files stored in the File Cabinet is mandatory. This includes uploads through the user interface, SuiteScript and Web Services. Previously, customers could opt-in by enabling the Antivirus Scanning on File Cabinet (Beta) feature. This option has now been removed. Accounts will be upgraded, independent of phasing, throughout the 2019.2 release. No account setup is required, the service runs seamlessly in the background. If a suspicious file is detected, the upload is blocked and the following error is displayed either in the UI or console: "The file '{1:filename} was not saved to the File Cabinet. An Unexpected error has occurred."

Employee Management

NetSuite 2019.2 includes the following enhancements to Employee Management features:

- Employee Change Requests
- Employee Timeline
- Employee Change Reasons Enhancement for Effective Dating
- Lock Timesheet Period
- SuiteAnalytics Workbooks for SuitePeople Features
- Paycheck Enhancements in Payroll
- Time Entry Modification
- Hourly Accruals Calculated for Approved Time Entries
- Hourly Accruals Included on Time-Off Balance Details Report
- Enhanced Access to Employee Reports
- HR Dashboard Components
- Employee Directory and Org Browser Enhancements

Employee Change Requests

> **Important:** This release note describes a feature that is currently available only in some customer accounts. For information on the availability of this feature for your account, please contact your NetSuite account manager.

In 2019.2, the new Employee Change Requests feature enables managers to initiate requests for changes to their employees in NetSuite. Managers can initiate an employee change request for their direct reports in the Employee Center and have it go through an approval process which you can define in SuiteFlow. Approvers can approve or decline employee change requests, and approved requests are reflected in the employee's record on a proposed future date.

To use the Employee Change Requests feature, you must complete the following:

- Enable the Effective Dating feature. For more information, see the help topic Effective Dating for Employee Information.
- Set up employee change request types. For more information, see Setting Up Employee Change Request Types.
- Enable the Advanced Employee Permissions feature and assign permissions to all requesters and approvers. For more information, see Setting Up Advanced Employee Permissions.
- Set up an approval workflow in SuiteFlow. To set up a workflow, you must enable the SuiteFlow feature. For more information, see Setting Up an Approval Workflow.

Requesters can create employee change requests from a custom Employee Center role on the Manager tab in the My Team portlet. If you want managers to create employee change requests in the employee center, you must enable Employee Center Dashboard Publishing. For more information, see the help topic Employee Center Dashboard Publishing. Alternatively, requesters can create employee change requests from employee records if their role has the Employee Record permission access level at Edit or Full, and at least one Advanced Employee Permission.

Approvers can approve or decline employee change requests from a custom Employee Center role in NetSuite. They can approve or decline requests on the Employee tab in the Home Links portlet. For more information, see Employee Change Requests in the Employee Center.

HR Administrators or other users with appropriate permission can go to Lists > Employees > Employees to create employee change requests from an employee's record. They can also go to Setup > HR Information System > Employee Change Requests to view and edit existing employee change requests. For more information, see Employee Change Requests Management.

Employee Timeline

In 2019.2, the new employee timeline enables Human Resources to view key employee milestones and career changes in chronological order. To access the employee timeline, you must enabled the Effective Dating feature. The permissions on your role determine the information you can see on the timeline. To view the employee timeline, select Actions > View Timeline from the employee record. For details, see Viewing an Employee's Timeline.

Employee Change Reasons Enhancement for Effective Dating

In 2019.2, the following employee change reasons are available by default for new and existing accounts:

- Base Pay Change
- Correction
- Employee Status Change
- Profile Update
- Promotion
- Termination
- Transfer

If you deleted Profile Update or Correction from your employee change reasons prior to 2019.2, NetSuite restores them to your list with this release.

Lock Timesheet Period

In NetSuite 2019.2, you can now disable employees’ ability to submit, edit, or add a time entry within a specific time period. You can choose to lock time entries for closed fiscal periods or on a weekly or monthly basis. To set a timesheet lock, go to Setup > Accounting > Accounting Preferences and click Time & Expenses. Under Time Tracking, in the Lock Timesheet Period field, select the time period after which you want time entries to be locked. If you select Weekly or Monthly, you can also enter a number in the Grace Period field to specify the number of days time entries remain open after the selected period. Timesheet locking is dependent on which day of the week your timesheets begin. For example, if you close timesheets every week, enter two in the Grace Period field, and your timesheets begin on Monday, they lock on Wednesday each week.

> **Note:** You must enable the Weekly Timesheets feature to use timesheet locking. For more information, see the help topic Enabling Weekly Timesheets.

Administrators can unlock timesheets for a specific employee. Administrators can also edit or create time entries for a locked timesheet. You can allow other roles to manage locked timesheet periods by adding the Unlock Time Period permission to a custom role. For more information, see the help topic Customizing or Creating NetSuite Roles.

For more information, see Locking Timesheet Periods.

SuiteAnalytics Workbooks for SuitePeople Features

NetSuite 2019.2 introduces three standard workbooks for SuitePeople:

- **Time-Off Analytics workbook** – If you use the Time-Off Management feature, this workbook includes a data set based on time-off change records and two main pivot tables:
  - **Time-Off Balance** – Details employees' time-off balances by time-off type.
  - **Time-Off Activity Summary** – Shows a summary of employees' time-off activity by time-off type, with breakdowns for year-end expiry, carryovers, accruals, usage, and manual adjustments.
- **Employee Tax Jurisdictions workbook** – Shows the workplace address and corresponding tax jurisdiction for each employee who is included in SuitePeople US Payroll.
- **Workplace Tax Jurisdictions workbook** – If you use SuitePeople US Payroll, this workbook shows the tax jurisdictions associated with each of your workplaces.

You can customize these standard workbooks to show you the insights you need into your employee and workplace data. For more information, see the help topic SuiteAnalytics Workbook.

Paycheck Enhancements in Payroll

The 2019.2 release includes the following enhancements related to the information on paychecks and how you view paychecks:

- **Descriptions for payroll items** – Employees can now see descriptions of payroll items on the Summary subtab of their paychecks. To show descriptions, first define descriptions on the payroll item record. Then, at Setup > Payroll > Set Up Payroll, check the Show Payroll Item Descriptions on Summary Tab box. For more information, see the help topic Creating Payroll Items.
- **Control of paycheck visibility** – You can now set when employees can view their paychecks in the Employee Center. Previously, employees could see their paychecks as soon as the payroll batch was committed. Now, by default, employees can see paychecks on the check date. You can also choose to make paychecks visible when the batch is committed, one day before the check date, or two days

before the check date. To set your preference for when employees can view paychecks, go to Setup > Payroll > Set Up Payroll, and click the Preferences subtab. From the Paychecks Visible to Employees list, select an option. For more information, see .

- **Paycheck navigation** – When you view a list of paychecks, to navigate to the next or previous paycheck, you can now use arrows at the top right of the page.
- **Show only vacation and sick payroll items in the PTO Hours subtab** – Previously, any payroll item that was associated with a time-off pay code was included on the PTO Hours subtab of employee paychecks. Now, you can specify that only vacation and sick payroll items are included on the PTO Hours subtab. For more information, see the help topic Setting General Payroll Preferences.

Time Entry Modification

In NetSuite 2019.2, you can now update and transfer multiple time entries between projects. Previously, you had to update time entries individually.

To update time entries in bulk, you must enable the Time Tracking and Project Management features. Administrators can use time modification to change the customer, project, or task. You can update the service item, location, department, class, or if the entry is billable. You can transfer some or all of the hours on a time entry to a different project. This enables administrators to correct time entries or change how time is billed to their customers.

Note: Billed or posted time is not yet available for modification.

To update or transfer time entries, go to Transactions > Employees > Update Time Entries. You can filter the time entries you want to see and select multiple entries to change. After choosing your time entries, you select the new information you want to change in the available fields. You can see a preview of your changes before clicking Submit.

Hourly Accruals Calculated for Approved Time Entries

In the previous release, for time-off types that accrued by number of hours worked, accruals were calculated only for time entries that a manager or supervisor manually approved. In 2019.2, the system can calculate accruals based on hours worked for any approved time entry, whether it is approved manually or automatically. This includes time entries that are imported from third-party time-clock systems, automatically approved through the Projects feature, or automatically approved using workflows or SuiteScripts.

Hourly Accruals Included on Time-Off Balance Details Report

The Time-Off Balance Details report (Reports > Employees/HR > Time-Off Balance Details) now includes the accrual rate and number of hours worked for hourly employees. This provides you with a detailed audit of how hourly accruals are earned. For more information, see the help topic Time-Off Balance Details Report.

Advanced Employee Permissions Enhancements

In 2019.2, when the Advanced Employee Permissions feature is enabled it now includes the Employee Compensation permission. A role with this permission can access compensation information for their direct reports and below. For more information, see Employee Compensation Permission Overview.

The Employee Access permission, introduced in the previous release, is now called the Employee System Access permission. The name change was introduced to avoid confusion. This permission, intended for IT administrators, functions as it previously did. Users assigned a role with this permission can give access and assign roles to employees. For details, see Employee System Access Permission Overview.

Previously, many of the Advanced Employee Permissions had hard-coded restrictions. For example, the Employee Public permission had the hard-coded restriction of giving access to only all non-terminated, active employees. In 2019.2, you can now select the restrictions to apply to employee access from the Employee Access subtab on the Setup > Users/Roles > Manage Roles Role page. For more information, see the help topic Setting Employee Access for Advanced Employee Permissions.

Item Record Management

NetSuite 2019.2 includes the following enhancement to Item Record Management features:

- Allergen Statements
- Effective Date Pricing Now Available

Inventory Management

NetSuite 2019.2 includes the following enhancements to Inventory Management features:

- Supply Allocation
- Supply Chain Control Tower Enhancements
- Inventory SuiteAnalytics Workbook (Beta)
- Releasing Orders to the Warehouse
- NetSuite WMS
- Quality Management
- Warranty and Repairs Management Version 2019.2

Supply Allocation

Previously, item commitment considered only stock currently on hand to fulfill demand. Now, you can enable the Supply Allocation feature to expand inventory commitment to consider future inventory as well as current inventory.

Allocate quantities on planned inventory supply orders to cover demand for inventory. Identify a Supply Required By Date on lines of customer or transfer demand transactions to specify the date that demand must be met. Then, each time supply allocation is calculated, the demand requirement is met, when possible. Define Allocation Strategies and assign them on order lines for additional flexibility when allocating inventory for particular types of orders.

Because Supply Allocation includes future supply orders in addition to on-hand inventory, you can match demand orders with future ship dates to supply orders with future receipt dates. On-hand inventory remains available for immediate demand orders. Allocate demand orders in real time as well as reallocating on a schedule for precise insight into availability dates. Demand not met by a previous allocation calculation can be periodically re-evaluated to assess supply to meet the Supply Required By Date for demand orders.

Supply orders display all related demand orders that have been allocated from the incoming supply. This enables you to know which demand orders are impacted if that supply order is received earlier or later than anticipated. You can identify a specific supply order that causes a demand order to miss its Supply Required By Date, or determine if part of an order line can be shipped early.

To enable the Supply Allocation feature, go to Setup > Company > Enable Features , and then enable these features:

- Supply Allocation
- Multi-Location Inventory
- Advanced Inventory Management

> **Note:** The Supply Allocation feature requires a data check to be performed in your account. Check the Supply Allocation feature box and click Save to initiate the data check. Prompts guide you through the process. If the data check is successful, you must go back and check the Supply Allocation feature box again and click Save again. If the data check is unsuccessful, a message will indicate that you need to contact Customer Support.

Supply Chain Control Tower Enhancements

The following updates enhance the Supply Chain Control Tower feature.

- Vendor Records
- Preferences
- Location Records
- Supply Chain Control Tower Dashboard
- Supply Chain Snapshot Simulations
- Inventory Status Feature

Vendor Records

Vendor records now include a User Entry Predicted Risks section that enables you to avoid inventory shortages. The Days Late field can define a number of days past the expected date that an item is likely to be received. The Confidence field records the percentage of confidence you have that the Days Late prediction is accurate. The values in the Predicted Risks portlet are sourced from these vendor fields. For new vendor records, these fields default to 0 Days Late and 100% Confidence.

Preferences

Previously, you set the following Supply Chain Control Tower preferences on the Inventory Management Preferences page: Default Supply Chain Past Order Horizon and Default Supply Chain Future Horizon. Now, you set these preferences at Setup > Accounting > Control Tower Preferences.

Additionally, use the Control Tower Preferences page to define the default values for fields on vendor records:

- **Vendor Predicted Days Late** – Default value is 0 days
- **Vendor Predicted Confidence Level** – Default value is 100.0%

Location Records

When you enable the Supply Chain Control Tower feature, location records now display a checkbox to Include in Control Tower. Check this box to include the location in Supply Chain Control Tower snapshots. Clear the box to exclude the location from snapshots. Navigate to location records at Setup > Company > Enable Features.

Supply Chain Control Tower Dashboard

Now, when the Supply Chain Control Tower feature is enabled, your account displays a Supply Chain Control Tower dashboard. Navigate to the new Supply Chain Control Tower dashboard at Setup > Company > Enable Features This dashboard enables you to assess the state of your supply chain by displaying a complete view of your supply chain, including the following:

- **KPI Portlet** – Displays the current state of the supply chain based on the Inventory Asset Account, including inventory values, costs, and turnover.
- **Alerts Portlet** – Displays the actions you should take immediately based on the snapshot. This can include receipts past due, shipments past due, work order builds past due.
- **Predicted Risks Portlet** – Displays risks you should address to prevent potential problems in the future based on the User Entry Predicted Risks fields on vendor records. Select a card to drill down to more information about the risks and the recommended action to be taken. Add the recommendations to the snapshot to generate a simulation. You can also create snapshots from simulations for purchase orders, sales orders, transfer orders, and work orders.

Supply Chain Snapshot Simulations

You can create standalone simulations for an item at Control Tower Dashboard > Supply Chain Snapshot Simulation. The simulation record is available in SuiteScript.

Read the help topic Generating a Supply Chain Snapshot.

Inventory Status Feature

When the Inventory Status feature is enabled, supply chain snapshots do not consider all inventory. The system considers inventory only when it has a status of Good or when the Make Inventory Available for Commitment preference is enabled on the item record.

Inventory SuiteAnalytics Workbook (Beta)

> **Warning:** Inventory SuiteAnalytics Workbook is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

NetSuite 2019.2 provides inventory workbooks that give you access to key inventory metrics and analytics. Within each workbook, you can generate the standard pivot tables and charts, or customize them according to your business requirements.

> **Note:** Access to inventory workbooks, standard pivot tables, and charts depends on the features enabled in your account. For example, you can access Inventory Counts to Approve if you use the Inventory Count feature.

The following workbooks are available to users of Basic or Advanced Inventory Management:

- **Warehouse Inventory: Inbound Workbook (Beta)**

  Displays inbound transactions for receiving, including purchase orders, transfer orders, and customer returns. Includes the following pivot tables:
  - Purchase Orders to Receive
  - Transfer Orders to Receive
  - Customer Returns to Receive
- **Warehouse Inventory: Counts & Adjustments Workbook (Beta)**

  Displays open inventory counts and completed counts for approval. Includes the following pivot tables:
  - Open Inventory Counts
  - Inventory Counts to Approve
- **Warehouse Inventory: Outbound Workbook (Beta)**

  Displays unfulfilled or partially fulfilled/billed sales orders. Includes the following pivot table: Sales Orders to Fulfill.

To view the inventory workbooks, go to Analytics to open the Workbook listing page, and then expand Standard Workbooks.

> **Note:** If you do not see the Analytics tab in the navigation menu, verify that the SuiteAnalytics Workbook feature has been enabled in your account. Go to Setup > Company > Enable Features , and then click the Analytics subtab. For more information, see the help topic SuiteAnalytics Workbook Overview.

Manufacturing

NetSuite 2019.2 includes the following enhancements to Manufacturing features:

- Consumption Units of Measure
- Extended Item Name Fields
- Manufacturing Production Workbook
- Advanced Manufacturing

Consumption Units of Measure

NetSuite 2019.2 enables you to consume components on Work Orders and Assembly Builds in units of measure other than base units. The Item Record Consumption Unit field defaults to the base unit, but the operator can select a different consumption unit that better suits the shop floor needs. For example, enter 2.3 inches instead of using the base unit 0.19166667 feet. This makes Bill of Materials (BOM) quantities more easy to use.

Work Orders and Assembly Builds inherit the quantity and unit from the BOM. You can change the component unit on the Work Order. The changes are also available in other NetSuite features when BOM components display quantities and units.

For example:

- BOM Inquiries
- Material Where User Inquiry
- Inventory Detail
- Standard Cost Rollup

Extended Item Name Fields

NetSuite 2019.2 extends the length of item names. This enables you to better define their Search Engine Optimization details, create more accurate matrix item names, name matrix child items, and more. The following fields will extend to 250 characters, unless otherwise noted:

- Item Name/Number
- Display Name/Code
- Vendor Name/Code
- Web Store Display Name
- Vendor Sublist (Multiple Vendors feature)
- Item Full Name (500 characters)

Manufacturing Production Workbook

NetSuite 2019.2 adds support for the Manufacturing SuiteAnalytics workbook. The Manufacturing Production workbook enables customers to leverage the new analytics framework to achieve better insight into an organization's production using trends, charts, and pivot tables.

This workbook enables managers to track production trends in real time without having to export spreadsheets when production is complete.

The Manufacturing Production workbook displays production quantity and cost analytics. By default, the workbook displays data for the last two years, but you can change the filter to suit your organization's requirements. Within the workbook, you can view pivot tables and charts that sort each cost by assembly, month, quarter, quantity, and location. To access the Manufacturing workbook, in the expand the Standard Workbooks list on the Workbook Listing page.

The Manufacturing Production workbook is limited to Assembly Items.

Mobile

NetSuite for iOS version 9.1 and NetSuite for Android 8.5 includes the following enhancements:

iOS

- Offline Time and Expenses Logging
- Call Logging from Dashboard
- Password Reset

Android

- Time Sheet Approvals

- Enhancements to the My Approvals Portlet

Offline Time and Expenses Logging

You can now log expenses and time offline, without being logged into the application. Expense and time logs are stored locally on the device and remain there until they are submitted to NetSuite. This makes it particularly useful during downtimes, such as air travel, when you want to catch up on admin tasks, but have no internet connection. Both Expense and Time Log for offline use are accessible from the login screen. Users can capture the logs and convert them to Expense Reports and Time Entries once back online.

When editing logs offline, you can edit image or file attachments, date, amount and memo fields, or delete the log. You can also edit category and currency fields if you are editing a log that was originally created online.

Call Logging from Dashboard

The Phone Call Logging feature is now enabled by default and the Phone Calls portlet has been added to the dashboard. For more information on Phone Call Logging, see the help topics Configuring Phone Call Logging and Tracking Calls with Phone Call Logging.

Password Reset

It is now possible to request a password reset by tapping the **Forgot?** button in the password field on the login screen. Enter the registered email for the account whose password you want to reset, and tap the **Request Reset Link** button. An email message containing a link to the NetSuite password reset form will be sent to this address.

Time Sheet Approvals

Managers can now approve time sheets from the My Approvals portlet in NetSuite for Android.

The home screen portlet provides a running count of pending approvals. Tapping the **Time Sheets** button opens the list of pending approvals from which approval of time sheets can be managed.

Approval and Rejection can be done individually by tapping the overflow menu and selecting Approve or Reject, or by bulk approval or reject by tapping the multiple select button on the top right corner.

For more information, see the help topic The Approvals Portlet in NetSuite for Android.

Enhancements to the My Approvals Portlet

The following enhancements have been added to the My Approvals Portlet.

- Similar to bulk approvals, the **Bulk Reject** feature allows you to multi-select time entries and time sheets to reject.
- **My Approvals List Reordering** allows users who have permissions to more than three supported record types to access and reorder the Approvals List. The reorder functionality is indicated by drag and drop icon on every line and the reorder mode is activated by a long tap gesture.

- **Contextual Search** adds a search bar to all Approvals lists, which allows for records in lists to be easily filtered. This is useful when you want to filter, for example, multiple time sheets submitted by a single employee.

Order Management

NetSuite 2019.2 includes the following enhancements to order management features:

- Installments Reporting
- Proration By Month
- Receiving Items on an Inbound Shipment
- Automatic Location Assignment Works with Supply Allocation
- Macro for Automatic Location Assignment
- Advanced Order Management Features Are Now Free
- Improvements to Standard Sales Workbooks
- Customer Center Portal
- Electronic Bank Payments Enhancements
- Electronic Invoicing Enhancements
- Proration by Month in Subscription Billing Enhanced UI
- New SuiteApp for Mexico Localization
- Support for Additional Singapore Electronic Payment File Formats
- Order Guides
- Enhanced Validations and Defaulting Now Available
- Availability and Multi-Language Support for Customer Lifetime Value
- Return Authorization from Case Now Available
- Grid Order Management Enhancements

Installments Reporting

The Open Invoices report now includes installments. After you enable the Installments feature, NetSuite automatically includes the following extra columns in the report:

- **Installment Number** – The order in which the installments become due.
- **Installment Amount** – The Initial amount of the installment at creation time.

To enable the Installments feature, go to Setup > Company > Enable Features. On the Accounting subtab, ensure that the **Installments** box is checked. To access the Open Invoices Report, go to Reports > Sales > Open Invoices.

For more information, see the help topic Open Invoices Report.

Proration By Month

For SuiteBilling subscriptions, proration is enhanced to provide the option of prorating charges by month. This option applies to subscriptions with charge frequencies greater than one month, and is particularly useful for customers with an annual billing cycle. The original daily proration option is still available for all recurring subscription lines, regardless of the charge frequency.

To set proration options for a price book, on the saved subscription plan record, select the Price Books subtab, and then click the **New Price Book** button. In the Prorate By column, the options are Month and Day.

Monthly proration makes it possible to prorate charges by month instead of by day over the length of the term. For example, a 6-month contract for $6,000, billed in advance, terminates one month early. With monthly proration, the customer is entitled to receive an even amount of $1,000 as a refund. The amount is the same no matter how many days are in the cancelled month. Without monthly proration, the customer refund would vary depending on the number of days in the month, as shown in the following table.

	January	February	March	April	May	June
Days in Month	31	28	31	30	31	30
Monthly Charge with Prorate By Day Enabled	1,019.18	920.55	1,019.18	986.30	1,019.18	986.30
Monthly Charge with Prorate By Month Enabled	1,000	1,000	1,000	1,000	1,000	1,000

For more information and another example, see the help topic Proration Options.

Receiving Items on an Inbound Shipment

NetSuite Inbound Shipping 2019.2 adds Inventory Detail categories to the Receive Inbound Shipment page and the Item Receipt.

When you receive an inbound shipment, you can enter inventory details on purchase orders and selected purchase order lines. Purchase orders in the Receive Inbound Shipment page display the inventory details.

The following inventory details are available in the following transactions and pages:

- **Lot Numbers** – purchase orders, receive inbound shipment, item receipt
- **Serial Numbers** – purchase orders, receive inbound shipment, item receipt
- **Bins** – receive inbound shipment, item receipt
- **Inventory Status** – receive inbound shipment, item receipt

The Inventory Details feature is available for the following item types:

Serial Numbered Items	Serial numbers, bins, and inventory status
Lot Numbered Items	Lot numbers, bins, and inventory status
Inventory Items	Bins and inventory status

The Inbound Shipping Inventory Details feature does not support assembly items and work orders.

You can only receive items when the inbound shipment status is set to In-Transit or Partially Received.

To learn more, see the help topic Using Inbound Shipment Management.

Automatic Location Assignment Works with Supply Allocation

The Supply Allocation feature takes both current and future inventory into account when allocating inventory to sales order lines. The Automatic Location Assignment (ALA) feature has been updated in 2019.2 to work seamlessly with supply allocation. When you have both features enabled in your account, supply allocation first calculates what inventory is available for an order, and at which locations the inventory is available. Automatic location assignment then assigns a fulfillment location according to the ALA configurations and rules. Use these features together to speed up and enhance your order fulfillment processes.

Macro for Automatic Location Assignment

You can already configure Automatic Location Assignment to run in response to one or more predefined business events in your account. NetSuite 2019.2 now includes a new macro for automatic location assignment. It lets you run the automatic location assignment engine in NetSuite based on your own business processes. You can run the macro in a script (with SuiteScript 2.0). You must enable and properly configure the Automatic Location Assignment feature to use the macro. The name of the macro is: `autoAssignLocations`.

Advanced Order Management Features Are Now Free

In NetSuite 2019.2, the Automatic Location Assignment, Fulfillment Request, and Store Pickup features are now available in all accounts (except CRM and CRM+) without any additional charge. Prior to NetSuite 2019.2, you had to pay additional fees to use the features.

These features have automation capabilities on the sales order record, which enable you to optimize your order fulfillment workflow. When automation occurs on a sales order, a new box called **AOM Automated** is now checked to indicate the sales order was automated. The AOM Automated field is a read-only field that is hidden by default on all sales order forms. To determine if a sales order was automated, make this field visible on a sales order form.

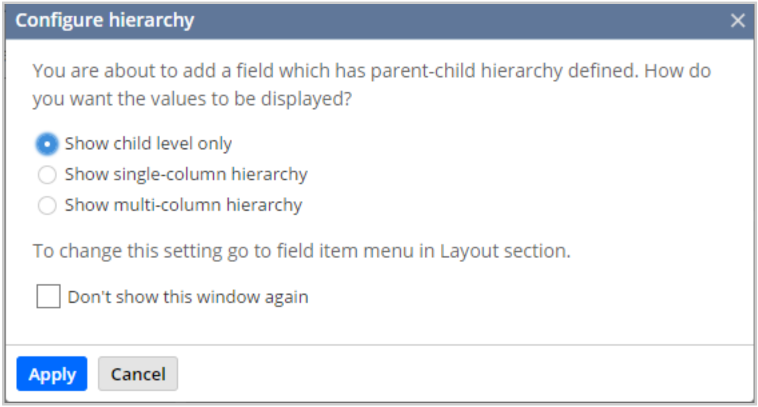
Your NetSuite account includes 5,000 automated sales orders free of charge on an annual basis. You can purchase additional automation capacity by contacting your NetSuite representative.

For more information about automation, see the help topic Order Fulfillment Automation.

Improvements to Standard Sales Workbooks

The Sales (Ordered) and Sales (Invoiced) workbooks released in 2019.1 include the following enhancements for 2019.2:

- The following fields are new:
  - **Amount (Net)** – There are now separate fields for Amount (before discounts) and Net Amount (after discounts).
  - **Promotion Combinations** – A comma-separated list of all applied promotions. To view this field, enable the SuitePromotions feature.
- The **Classification** field is now called **Class**.
- **Configure hierarchy** is enabled for all fields that support it, including **Class**. To display the Configure hierarchy window, double-click any field name identified by the icon.



For more information, see the help topic Standard Workbooks.

Customer Center Portal

In the Customer Center portal, users with subscription permission can view the following subscription-related information from their customer record:

- Subscription
- Subscription line
- Subscription change order
- Price plan
- Change order forms

Users may also be given permission to create or edit these subscription-related records in the Customer Center portal. Users in the Customer Center portal cannot delete subscription-related records.

Projects

NetSuite 2019.2 includes the following enhancements to Projects features:

- Advanced Project Budgets
- Activity Codes
- Project Work Back Schedule
- Project Resource Utilization Target
- Rate Card Enhancements
- Select a Project Manager on Project Records
- Custom Segment Support for Resource Allocation Chart/Grid

Advanced Project Budgets

In NetSuite 2019.2, the Advanced Project Budgets feature increases the capability, configurability, and usability of project budgets. For example, a network service provider company that makes infrastructure design, analyses, installations, and hardware, invoices most of their projects using fixed fees. They can enter all of the fixed fees as revenue budgets. They can create a cost budget based on the expected work. They can then invoice for part of the overall amount. You can collect the remaining revenue at the project's completion. Advanced Project Budgets gives this company the flexibility to ensure they stay on track with both cost and revenue budgets for each project.

With Advanced Project Budgets, you can:

- Create a work breakdown structure on your project and assign estimated amounts to cost or revenue.
- Report across multiple projects or customers using activity codes.
- See actual amounts from real transactions, which are useful for budget evaluation.
- Structure the budgets with a hierarchy.

For details, see the help topic Budget vs. Actual Report.

Activity Codes

You can now use activity codes to automatically classify project time entries and transactions for use with the Advanced Project Budgets feature. You can enable this feature at Setup > Company > Enable Features. On the Company subtab, under Projects, check the Activity Codes box. When you enable Advanced Project Budgets, you automatically enable the Activity Codes feature. The Project Management, Custom Segments, and Advanced Project Budgets features are required to use activity codes. You can set up activity codes at Setup > Accounting > Activity Codes.

You can name every part of each project differently. Mapping can connect a budget or its parts with transactions. If you add activity codes to transactions and time entries, the corresponding amounts are being used in the work breakdown structure.

With activity codes, you can:

- Categorize activities into logical groups.
- Create a global activity codes to organize project activities.
- Enable classification of transactions related to projects.
- Enable classification of time entries.
- Enable matching of classified actuals to work breakdown structure or budget lines.

With the Advanced Project Budgets feature, activity codes provide accurate cost and revenue matching in the work breakdown structure even when project tasks are missing.

Project Work Back Schedule

You can now plan a project schedule backwards from a set end date. For projects with a hard deadline, you can now create your project plan in NetSuite backwards from your intended end date. When creating a project, in the Scheduling Method field, select Backward and enter a scheduled end date.

After you have created all the project tasks, NetSuite uses the defined task information and the scheduled end date to calculate the appropriate start date for the project.

For more information, see Project Scheduling Methods.

Project Resource Utilization Target

In NetSuite 2019.2, a new Target Utilization field is available on the Lists > Employees > Employees > View Employee Record > Human Resources subtab when employee is marked as project resources. The

Available Hours column on utilization reports now considers the entered target on the employee record. For example, if the Target Utilization value is 75 percentage, NetSuite multiplies the total hours on the employee's defined work calendar by 0.75 to determine the available hours. The Total Hours column now reports the total number of hours from the defined work calendar.

> **Note:** This field is initially set to 100 percentage as the default utilization target. The Available Hours and Total Hours values on utilization reports remain the same unless you update the Target Utilization field.

Updated standard reports:

- Actual Utilization by Resource
- Planned Utilization by Resource
- Actual Utilization by Project
- Planned Utilization by Project
- Allocated Utilization by Resource
- Allocated Utilization by Project

Custom reports that use the Available Hours field reflect hours based on the new calculation of the values. The Total Hours field is also available for custom forms.

For more information see the help topic Utilization.

Rate Card Enhancements

In NetSuite 2019.2, when you create a new billing rate card for projects, you can specify a customer on the Billing Rate Card record. The new rate card is only available for projects associated with the defined customer. New customer records now include a Billing Rate Card field to define a default rate card for each customer. Previously, the Billing Rate Card field was hidden by default and could be exposed using form customization.

Implemented updates:

- A Billing Rate Card field is now available on new charge-based billing projects. You can select a customer-specific rate card or a generally-available rate card with which to bill your project.
- When you create a new charge-based project with a rate card, you can check the Create Charge Rule box to automatically create time-based charge rules based on the selected rate card.
- A Related Records subtab lists all related projects to the rate card.
- When you assign resource groups to project tasks, you can automatically source the service item from the associated rate card. Just check the Source Service Item from Rate Card box.

For more information see the help topic Using Billing Rate Cards.

Select a Project Manager on Project Records

You can now select a project resource as the project manager on your project records. The Project Manager field is available in the Primary Information section of the default project entry form. You must designate the project resource as a project manager on the employee record before the project record is updated. You can designate any project resource as a project manager when you check the Project Manager box on the Human Resource subtab of the employee's record.

For more information see the help topic Project Records as a Workspace.

Actual Time Analysis Workbook

NetSuite 2019.2 introduces a standard workbook for Projects — Actual Time Analysis. This workbook is intended to demonstrate how to build your own “time by" workbooks using the following Time and Billables reports:

- Time by Customer
- Time by Item

From within the workbook you can view pivot tables and charts which break down billable time across customers and items, as well as showing time usage and the proportion of billable to non-billable time.

To access the workbook, click the Actual Time Analysis link from the Standard Workbooks list on the Workbook Listing Page.

For more information see Actual Time Analysis Workbook.

Vendors, Purchasing, and Receiving

NetSuite 2019.2 includes the following enhancements to the vendors, purchasing, and receiving features:

- Vendor Prepayments
- Purchases Workbooks

Vendor Prepayments

Prior to NetSuite 2019.2, vendor deposits were tracked manually. Now, you can manage vendor deposits using the Vendor Prepayments feature. Vendor prepayment records track deposit amounts paid to vendors before they accept a purchase order for a good or service. Then, you apply these prepayment amounts against open bills for the vendor. This feature enables you to record and track multiple prepayments and prepayment applications for all vendors.

After you make a prepayment to a vendor, you can either apply the full prepayment amount to one bill or split the prepayment amount across several bills from the same vendor. For example, you negotiate an order of $50,000 with your vendor. The vendor requests an initial deposit of $20,000 to cover the production of goods. Using the Vendor Prepayments feature in NetSuite, you record this deposit as a vendor prepayment. Later, you receive two vendor bills for $25,000 each. From your initial prepayment amount, you decide to apply $15,000 to one bill and the remaining $5,000 to the other bill. These applications decrease the total amount you must pay to your vendor.

The vendor prepayment is a posting transaction that impacts the general ledger without offsetting the Accounts Payable account. When you apply the vendor prepayment, the Accounts Payable account is offset.

Enable the Vendors Prepayment feature at Setup > Company > Setup Tasks > Enable Features. Click the Accounting tab, check the Vendor Prepayments box under the Advanced Features section, and then click Save. To enable the Vendors Prepayment feature, you must also enable the Accounts Payable feature.

For more information, see Vendor Prepayments.

Purchases Workbooks

NetSuite 2019.2 introduces two standard SuiteAnalytics workbooks to analyze your purchase operations:

- **Purchases (Billed) Workbook** – This workbook provides the status of bills received during the last month, giving an overview of the expenses your company have incurred. The workbook includes a data set, which is based on bills, and two pivot reports:
  - Pivot by Item
  - Pivot by Vendor
- **Purchases (Ordered) Workbook** – This workbook provides an overview of the purchase orders from the last month. The workbook includes a data set, which is based on purchase orders, and two pivot reports:
  - Pivot by Item
  - Pivot by Vendor

From within the workbooks, you access the data sets and pivots. You can also customize these data sets and pivots to uncover trends in your operations with vendors. Additionally, you can create charts to graphically display trends and comparisons.

These standard workbooks represent a central point of analysis for your purchase operations.

For more information, see Purchases Workbooks.

Taxation

NetSuite 2019.2 includes the following enhancements to taxation features:

- Tax Audit Files Enhancements
  - Mexico Declaración Informativa de Operaciones con Terceros (DIOT) Enhancement
  - France Fichier d'Ecritures Comptables (FEC) Enhancement
  - Mexico Tax Audit Files Field Mapping Update
- International Tax Report Enhancements
  - UK Making Tax Digital (MTD) Submission Headers
  - Malaysia Sales and Service Tax (SST-02) Return Updates
  - Germany Annual VAT Return Updates
  - Enhancements to Making Tax Digital for UK VAT
- Enhancements to US Tax Engine
- Support for New Japan Tax Requirements

User Interface

NetSuite 2019.2 includes the following enhancements to the NetSuite User Interface:

- Enhancements to Dashboard Portlets
- Help Center Available in Chinese

Enhancements to Dashboard Portlets

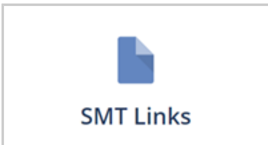
As of 2019.2, a number of enhancements have been made to NetSuite dashboards. The changes include the following:

- New SMT Links Portlet

- Feature Enhancements to Specific Portlets
- Full Screen View

New SMT Links Portlet

A new Site Management Tools portlet enables you to see all of your available websites and domains from your administrator account in NetSuite on your home dashboard.



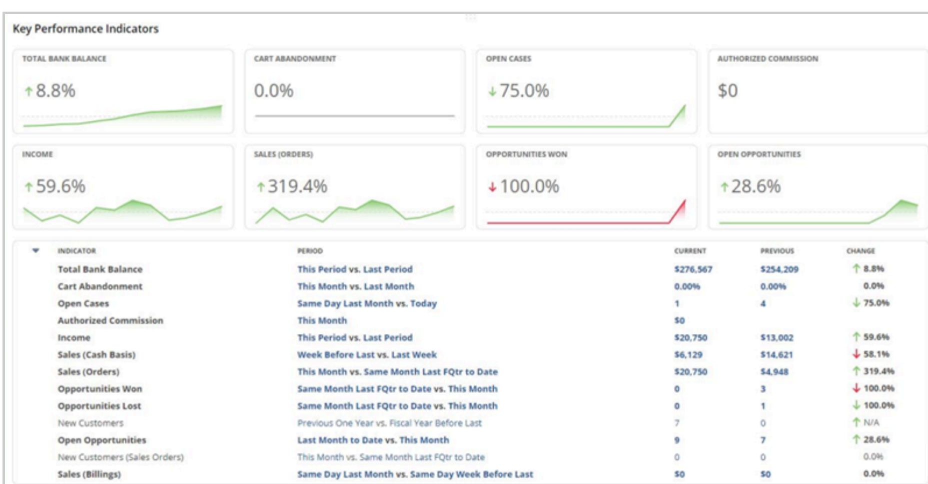
For more information about this portlet, see SMT Links Portlet.

Feature Enhancements to Specific Portlets

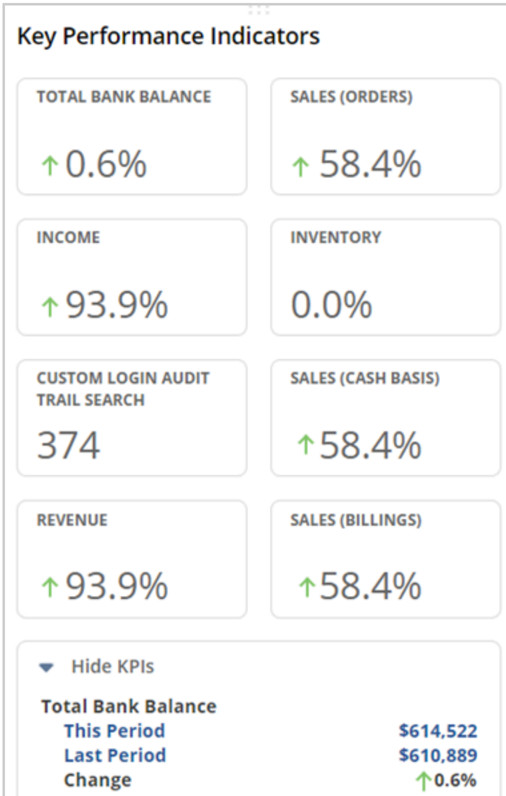
As of 2019.2, the following portlets include enhancements:

- **Analytics portlet**
  - **Pivot tables** – Prior to 2019.2, you could view chart-based workbook data on your home dashboard only. As of 2019.2, the Analytics Portlets supports pivot tables. You can also see your pivot-based workbook data on your dashboard.
  - **Increased number of Analytics portlets** - Prior to 2019.2, you could add up to five Analytics portlets. As of 2019.2, you can now add up to 10 Analytics portlets.

  For more information about the Analytics portlet, see Analytics Portlet Now Supports Workbook Pivot Tables.
- **Key Performance Indicator portlet**
  - **Increased number of KPI headlines** - Prior to 2019.2, you could view four KPIs as headlines in the Key Performance Indicator portlet. As of 2019.2, the Key Performance Indicator portlet supports up to eight KPIs to be displayed as headlines. This enhancement enables you to view up to eight KPIs that you consider relevant.

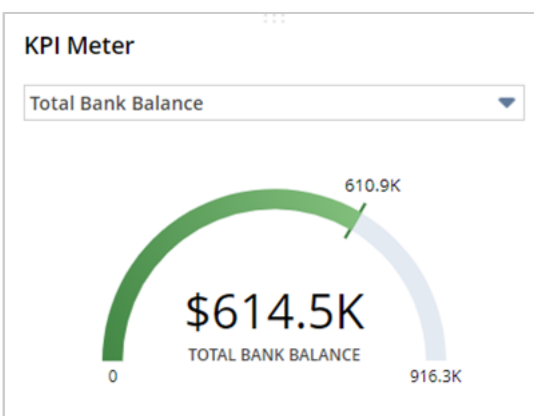


  - **Enhancements to the narrow dashboard column** - Prior to 2019.2, the KPI portlet supported more display options in the wide column than in the narrow column. In 2019.1, you could not see the KPIs displayed as headlines and there was no expand/collapse setting available for the list of KPIs. As of 2019.2, you can now collapse and expand the list of KPIs as needed. Additionally, you can also see the KPIs displayed as headlines. Note that trend graphs are not displayed for KPI headlines due to the compact format of the narrow column. However, to view a popup trend graph, you can click the Trend Graph icon next to a KPI in the list of KPIs, if available. This option is enabled by default.



For more information about setting up this portlet, see the help topic Setting Up the Key Performance Indicators Portlet.

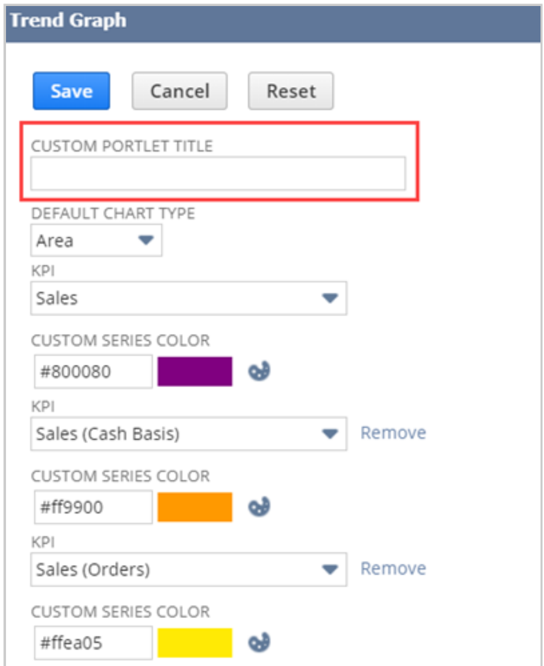
- **KPI Meter portlet**
  - **Currency symbol** - As of 2019.2, the KPI meter displays the currency symbol of the data for values represented by currencies.



For more information about KPI Meter portlets, see the help topic KPI Meter Portlets.

- **Trend Graph portlet**

- **Portlet title** - Prior to 2019.2, the portlet displayed the name of the first KPI and the time period selected (such as monthly and weekly). As of 2019.2, you can now enter a title for your portlet to quickly identify it.



For more information about setting up Trend Graph portlets, see the help topic Setting Up Trend Graph Portlets.

Full Screen View

You can now expand the portlet to full screen view by clicking the double arrow icon in the upper-right corner of the portlet. As of 2019.2, the full screen icon is now available for Trend Graph, Report Snapshots, List, Custom Search, Tasks, and Phone Calls portlets.

The full screen view of the portlet displays more columns and rows in the search results for List, Custom Search, Tasks, and Phone Calls portlets. This capability enables you to see all data at a glance.

For more information about portlets, see the help topic Portlet Types Table.

Help Center Available in Chinese

In addition to German, English (U.S.), Japanese, and Spanish (Latinoamérica), the Help Center is now also available in Chinese.

To change the Help Center language, in the upper-right corner of the Help Center page, click the current language. Select a language from the list of available languages.

> **Note:** The language preference for the Help Center is independent of the language preference specified for the NetSuite user interface.

PDF Export for Highchart Graphs

As of 2019.2 release, Microsoft Edge and Internet Explorer browsers do not support direct PDF export for highchart graphs, such as Trend Graph portlet.

Commerce Applications

The latest version of SuiteCommerce, **2019.2**, includes the following enhancements:

> **Important:** SuiteCommerce Advanced releases are available as unmanaged bundles. Accounts are not automatically upgraded to the latest version during the standard NetSuite phased release process. For existing implementations, taking advantage of enhancements in a given SuiteCommerce Advanced release requires you to migrate changes into your existing code base. For details, see the help topic Update SuiteCommerce Advanced.

- Target Versions for Themes and Extensions
- Configuration Changes
- Page Types Enhancements
- Source Migration to TypeScript
- Source Code Migration to a SuiteScript 2.0
- Source Code Structure Changes
- Extensibility API Enhancements
- Code Changes to Support APM
- Node.js Requirements
- Third-Party Library Updates

Complete release notes are available here: 2019.2 Release of SuiteCommerce and SuiteCommerce Advanced.

SuiteCommerce Extensions

SuiteCommerce Extensions provide additional functionalities to your SuiteCommerce web store.

> **Important:** SuiteCommerce Extensions are only available if they are provisioned and set up in your account. For more information, see the help topic NetSuite SuiteCommerce Extensions.

Complete release notes are found here: Extensions Release Notes.

Site Management Tools

This version of SuiteCommerce Site Management Tools includes the following enhancements:

- SMT Link to NetSuite
- SMT Expired Content
- SMT Enhanced Tags
- SMT Pages List Enhancements
- CCT Enhancements
- Published Assets renamed to Published Content

- Page Types Domain Level Data
- SMT Pages List Enhancements
- SMT Advanced Preview
- Landing Page Layout Selector
- Theme Customizer Skin Saver

SMT Link to NetSuite

Previously, when logged into Site Management Tools, to access NetSuite you had to open a new tab or window, manually log in, and choose your role. With this release of Site Management Tools, we provide a seamless and integrated way for accessing NetSuite with your site administrator role.

When logged in to Site Management Tools, click the Oracle NetSuite image in the upper-left corner of the header. This opens a new window or tab, that is automatically logged in to NetSuite with the same role used to log in to SMT .

There is related, new functionality in the NS administration account to log you into Site Management Tools for the chosen domain. See, New SMT Links Portlet.

SMT Expired Content

Expired content is any content such as text, image, or landing page with an end date and time in the past. Expired content is no longer visible to website visitors. In some instances, you may want to restore a piece of expired content or landing page. For example, you want to reuse text for an end-of-season sale, restore a banner image, or reuse a landing page for a marketing promotion.

Previously, the only way to manage expired content was to edit the CMS Content or CMS page record in NetSuite. You had to change the start and end dates for the expired content to a future date and time. This release of Site Management Tools brings you Expired Content Management. This feature enables you to view expired content and to edit its start and end dates and times.

You can filter expired content by:

- Content Type – This lets you filter by HTML, text, page, image or other types of content.
- Path – This lets you filter by the URL of your content.
- Tag – You can filter by any tags you have associated with your content.

To view expired content, click **Overview Mode**, then click **Expired Content**.

After you make changes to expired content, you must publish the changes for them to go into effect.

See SMT Expired Content.

SMT Enhanced Tags

The enhancement of the tags feature adds functionality to what is currently in place, but your existing tags will continue to function as intended. This enhancement adds the ability to use tags when you are doing a CSV import, including those for commerce categories, pages, and content.

See the help topic Content Tags and Filter Tools.

SMT Pages List Enhancements

Sort and filter tools now include pagination for lists of more than fifty items. This includes grouping pages and their content by the specific URL.

On the **Pages** tab, you can filter by:

- Tag – You can filter by any tags you have associated with pieces of your content.
- Path – This lets you filter by URL .
- Page Type – This lets you filter by page type.

You can sort these columns in ascending or descending alphabetical order:

- **Name/Tags**
- **Path**
- **Page Type**

Click any column heading to sort the column in ascending alphabetical order. Click the column heading again to sort the column in descending alphabetical order. Click the column heading again to return it to its default order.

On the **Published Content** tab, you can filter by:

- Visibility – This indicates when certain elements are available to visitors to your site.
- Content Type – This lets you filter by HTML, text, page, image or other types of content.
- Path – This lets you filter by the URL of your content.
- Tag – This lets you filter by any tags you have associated with pieces of your content.

On the **Expired Content tab**, you can filter by:

- Content Type – This lets you filter by HTML, text, page, image or other types of content.
- Path – This lets you filter by the URL of your content.
- Tag – This lets you filter by any tags you have associated with pieces of your content.

See the help topic Pages.

CCT Enhancements

This release enhances Custom Content Type to bring provide greater capability and flexibility . Through the use of child-parent record associations, more complex data sets can be used. For example, let's say you create a **Custom Record Type** named blog. Next, you create a new **CMS Page Type** named blog. Finally, you use the **Custom Record Type** dropdown menu to select which record type you want to associate to your page type.

Using this method to create new page types introduces the ability to apply specific templates to your page type, add headers or footers, and many other options.

You must use SuiteScript or NetSuite to add, edit, or delete the custom records. Site Management Tools will only manage the page types you have associated to the custom record. SMT lets you manage the fields created in your custom record. When you create a new page in SMT, the pop out menu will render your custom fields when you click **Landing Page** and you can manage the content in your fields there.

See CCT Enhancements.

Published Assets renamed to Published Content

In the newest release of Site Management Tools, Published Assets has been renamed to Published Content. HTML, images, and landing pages are all types of content. The behavior of **Edit Tags**, **Edit Visibility**, and **Apply Filter** has not changed.

Additionally, two enhancements have been made to published content :

- You can filter your published content using Tags, in addition to Visibility, Content Type, and Path.
- Pagination is now supported with sort and filter tools. This addresses performance and discoverability problems if you have a large quantity of pages.

Page Types Domain Level Data

This enhances the page type record to include support of the template selector and extension activations. It also includes the ability for the page type record to be associated at the domain level instead of only at the account level. This lets you setup page types with unique templates, or extensions, and gives you the ability to have multiple page types that are only associated with one domain.

See Page Types Domain Level Data.

SMT Advanced Preview

This release of Site Management Tools introduces Advanced Preview. When you have enabled Personalized Catalog Views, you can use SMT Advanced Preview to verify which items are displayed for selected customer segments. See Using SMT Advanced Preview to Verify Personalized Catalog Views.

Advanced Preview is available in the SMT Administrator view only when Personalized Catalog Views feature is enabled.

Landing Page Layout Selector

This expansion of the Layout Selector enables the web store manager to individually choose the layout for individual landing pages, all landing pages of the same type, or override an individual landing page layout. Even if the landing page is associated with a certain page type, with a template already selected, the manager can override this. And if there is no specific template associated with a page type, it will use the default template.

See Override Existing Page Type Layout.

Theme Customizer Skin Saver

The skin saver adds the ability to create and save multiple skins for themes you have activated for use on your web store. Using Site Management Tools, you can copy default skins and then save, preview, edit, delete, and set to active any of your available skins. This enables you to create multiple skins and save them, without losing the default look of your current theme.

See Theme Skin Manager.

Commerce Merchandising

NetSuite 2019.2 includes the following enhancements to commerce merchandising features:

- Analyze Top Search Queries with Commerce Search Analytics
- Merchandise Hierarchy Attributes
- Merchandise Hierarchy Fields Added to Standard Sales Workbooks
- Merchandise Hierarchy Support for Additional Item Types
- SuitePromotions Qualifying Item Quantity
- SuitePromotions Fields Added to Standard Sales Workbooks

Analyze Top Search Queries with Commerce Search Analytics

With the Commerce Search Analytics feature, you can view standard reports showing the top search queries your shoppers used to find products on your website. Because they reveal the exact search queries that your shoppers use, these reports provide valuable insight into the shoppers that visit your website.

Commerce Search Analytics uses the SuiteAnalytics Workbook feature to generate two standard workbooks:

- SuiteCommerce Top Searches (Beta)
- SuiteCommerce Top Searches with No Results (Beta)

These workbooks show the top searches in your website and top searches that returned zero items in the search results. For more information, see Search Analytics.

> **Note:** To use this feature, you must have the SuiteAnalytics Workbook feature enabled. For more information, see the help topic SuiteAnalytics Workbook Overview.

Merchandise Hierarchy Attributes

NetSuite 19.2 now offers you the ability to apply new or existing attributes to items assigned to a merchandise hierarchy. Merchandise hierarchy attributes provide further organization of items by custom-defined characteristics. The process has been simplified to ensure users can quickly apply and view attributes from the Hierarchy Manager.

Merchandise Hierarchy Fields Added to Standard Sales Workbooks

From NetSuite 19.2, users can analyze sales performance sliced by Merchandise Hierarchy elements using standard SuiteAnalytics Sales workbooks. Custom Merchandise Hierarchy fields are now added to all standard Sales workbooks. Users no longer need to add Merchandise Hierarchy fields manually to standard Sales workbooks.

Merchandise Hierarchy Support for Additional Item Types

Prior to NetSuite 19.2, Merchandise Hierarchy supported only inventory item types. Now, Merchandise Hierarchy supports these additional item types:

- Non-Inventory
- Kit
- Service
- Assembly
- Item Groups
- Other Charge

SuitePromotions Qualifying Item Quantity

SuitePromotions Qualifying Item Quantity allows users to specify promotion eligibility based on a minimum item quantity with or without discount repetition. Furthermore, users can now specify minimum item quantity eligibility on all SuitePromotion types.

For more information, see the help topic What the Customer Needs to Buy.

SuitePromotions Fields Added to Standard Sales Workbooks

From NetSuite 19.2, users can analyze promotion usage and performance on transactions using standard SuiteAnalytics Sales workbooks. In addition, SuitePromotion fields are now available for inclusion in any promotion-related SuiteAnalytics workbook.

Commerce Platform

Commerce Platform includes platform capabilities that you can use to build and deploy a more interactive and engaging shopping experience for customers. NetSuite 2019.2 includes the following enhancements:

- Grouping Items using Item Collections
- Personalized Catalog Views
- Website Inactivation
- Mandatory Migration from Web Store Email Templates and Customized Text Groups to System Email Templates
- Separation of Commerce Offerings
- SuiteScript 2.x – N/commerce/recordView Module

- Browser Cache Management
- Site Builder and SuiteTax
- CCT Enhancements
- SMT Links Portlet
- Exclude Empty Commerce Categories

Grouping Items using Item Collections

Item collections are a new, flexible way of grouping catalog items. Item collections let you:

- Add an item to multiple item collections
- Include items in item collections based on whichever criteria you choose (for example, vendor, location, product type, price)
- Select the items in the collection manually or using mass updates

NetSuite has other methods of grouping catalog items, such as commerce categories and merchandise hierarchies. These methods have specific purposes and are limited by their intended use. In contrast, item collections are a general purpose way of grouping catalog items. Some key ways they differ from existing grouping methods are:

- Unlike commerce categories, item collections do not have a hierarchical structure, do not affect navigation menus on web stores, and can be used in NetSuite as well as on web stores
- Unlike merchandise hierarchies, an item can be added to multiple item collections
- Unlike item groups, item collections cannot define a count of component items and cannot be used to sell multiple items as one item

See Defining Item Segments for more information about item collections. In 2019.2, the Personalized Catalog View feature uses item collections to provide personalized catalog views to different customer segments. See Personalized Catalog Views for more information.

Personalized Catalog Views

> **Note:** Personalized Catalog Views (PCV) requires the 19.2 release of SuiteCommerce or SuiteCommerce Advanced. Enable this feature only after your site has been upgraded to the 19.2 or greater release.

The PCV feature enables businesses to provide different customers with access to different items. You can divide customers into groups and provide each group with access to a tailored selection of catalog items. This is useful in many scenarios, particularly for B2B websites. For example:

- Businesses can grant VIP customers exclusive access to specific catalog items
- Retailers that are licensed to sell certain products in limited geographies can prevent customers in other geographic locations from seeing those items
- Manufacturers that require customers to be certified to purchase certain items can ensure only certified customers have access to those items

To implement PCV:

- Enable the Personalized Catalog Views feature on the Enable Features page
- Segment your customers into groups
- Segment inventory items into groups
- Make item segments visible to customer segments

> **Note:** When you enable the feature, nothing changes on the website and all items remain available to all customers. Different item catalogs are visible to different customer segments only after you define which item segments should be visible to which customer segments.

Customer Segmentation

In PCV, groups of customers are called customer segments. PCV supports the following customer segments:

- **Customer Groups** - these segments are created using the existing entity groups feature. For more information, see the help topic Working with Groups
- **Anonymous Users** - this segment comprises those website visitors who are not logged in and whom the website cannot recognize in any way, for example, through active or expired session data or browser cookies
- **Recognized and Logged In Users** – this segment comprises those website visitors who are either logged in or visitors whom the website can recognize, for example, by using session data or browser cookies
- **All Users** – this segment comprises all visitors to the website, regardless of whether the visitors belong to another customer segment or not. By default, all items are visible to all users

Item Segmentation

Similar to customer segments, in PCV, groups of items are called item segments. PCV supports the following item segments:

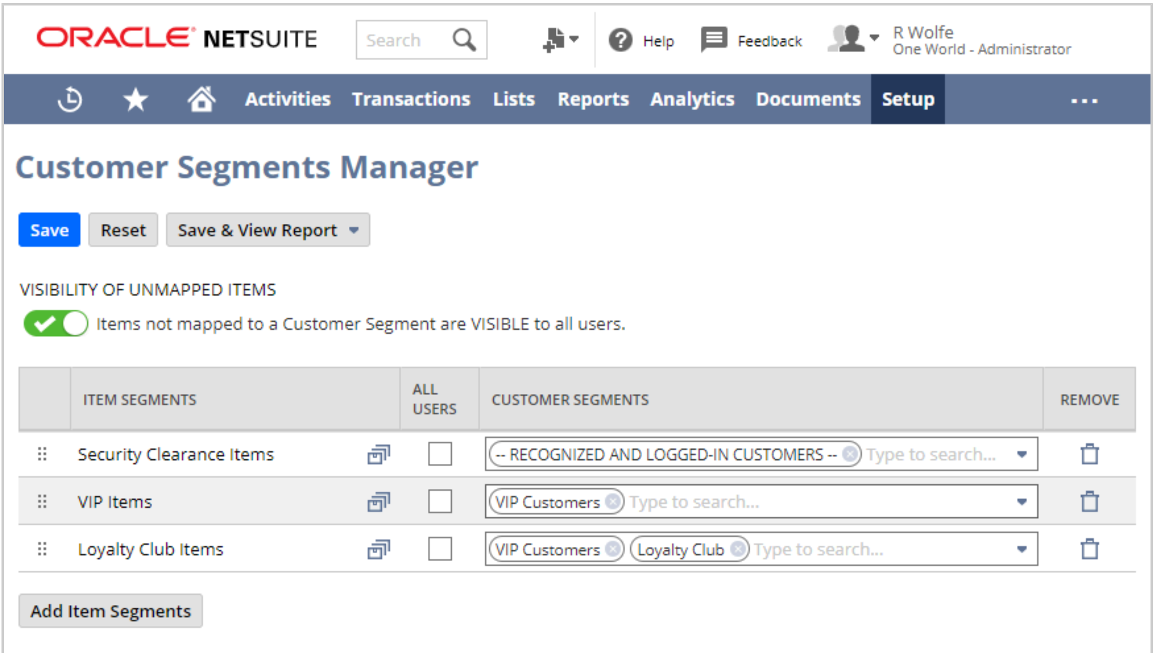
- **Item Collections** - you can add specific items to an item collection either manually or by using a mass update. Using item collections does not affect the navigation menu on your website. For more information, see Grouping Items using Item Collections
- **Commerce Categories** - these enable you to create a hierarchical structure of product categories, subcategories, and products for display on your website. If you use commerce categories to organize and display products on your website, you can also use them in PCV to display specific commerce categories to selected customer segments. Commerce categories used in PCV are automatically hidden from a customer segment if none of the items in the commerce category (or its sub-categories) should be available to that customer segment

  For more information on how PCV can affect the display of commerce categories, see Conditional Category Display.

Commerce categories are not always a good fit for PCV because they are not necessarily tailored to individual customers or customer segments. For example, if you have a clothing website, you may want your website visitors to see products organized into Men’s, Women’s, and Accessories categories. But you may want VIP customers to view a VIP Items item segment, which contains products from all three categories. In this scenario, where the hierarchical item groupings are distinct from the customer-focused item groupings, it would be much better to create VIP Items as an item collection.

Defining Item Segment Visibility

After you have defined the customer segments and item segments, you then need to define which item segments are visible to which customer segments. The Customer Segments Manager enables you to define these mappings in a single location. You can also define item segment visibility from a customer group record or an item collection record.



The Customer Segments Manager gives you an overview of all the item segments you have mapped to different customer segments. You can create and edit the mappings on this page. You can also use the Customer Segments Manager to define whether items not mapped to any of the selected customer segments should be visible to or hidden from all users.

Verifying Item Segment Visibility

There are two methods to verify that the correct items are visible to the correct customers:

- **Reports** – the following SuiteAnalytics Workbooks let you view:
  - Items by Customer – select a customer and view all items they can access
  - Customers by Item – select an item and view all customers who can access it

  You can also set up your own SuiteAnalytics workbooks if you need a different view of the data
- **Preview** - Website administrators can use Site Management Tools to preview which categories and items are visible to different customer segments

  For more information, see SMT Advanced Preview

For more information on PCV, including how to create customer and item segments and how to define and verify item segment visibility, see Personalized Catalog Views.

Support for PCV in the Item Search API

To support the PCV feature, the following Item Search API Input Parameters have been introduced in the 2019.2 release:

- `use_pcv`
- `pcv_entity`
- `pcv_groups`

For information on detailed usage of these PCV parameters, see the help topic Item Search API Input Parameters.

Website Inactivation

Website administrators sometimes need to make a website permanently inaccessible. However, other NetSuite records may be dependent on that website, making the website record impossible to delete. It may also be necessary to keep all database references to the unused website. From 2019.2 onwards, it is possible to inactivate a website without deleting the website record. An inactive website is no longer accessible to users but retains its internal references to other areas of NetSuite.

Inactivating a website:

- Makes all website domains inaccessible
- Deletes the website search index and clears all caches, including CDN caches
- Reduces the number of active websites, thereby freeing up a site licence
- Removes inactive sites from all related dropdowns and lists. Inactive sites can only be found using saved searches and filters

Website inactivation is possible for all Commerce websites, including SuiteCommerce, SuiteCommerce Advanced, and Site Builder.

You can reactivate an inactive site provided the site limit in your NetSuite license has not been reached. Note that if SuiteTax is enabled, inactive Site Builder websites can only be reactivated if their Web Site Scope is set to either of the following:

- Information and Catalog
- Information Only

See Making a Website Inactive for more information.

Mandatory Migration from Web Store Email Templates and Customized Text Groups to System Email Templates

In 2018.2, System Email Templates were introduced for web store email with the intention of replacing the less flexible and customizable Web Store Email Templates and Customized Text Groups for emails. A conversion tool was provided to assist in the conversion of legacy email templates to system email templates.

As of 2019.2, use of System Email Templates is mandatory for web store emails. It is no longer possible to use Web Store Email Templates and Customized Text Groups for emails.

If either of these legacy email template types are still selected in your Web Site Setup record at the time of the 2019.2 upgrade, custom system email templates will be created for you automatically using your existing selections. These custom system email templates will then be automatically selected on the Web Site Setup record to ensure that templates are available for your web store emails. To minimize any disruption, it is advised that you verify that the converted templates are working as expected as soon as possible.

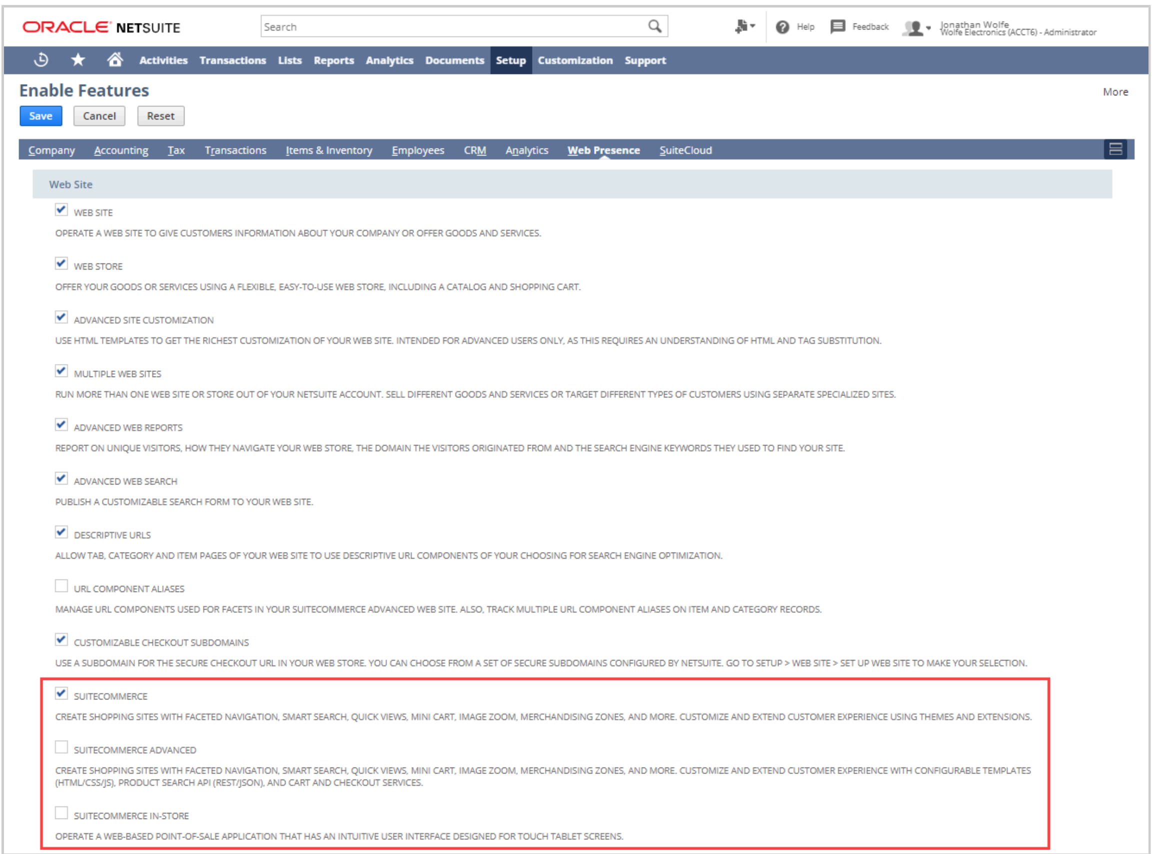
For more information about system email templates, see the help topic Templates for Website Email Messages.

Note: Legacy Web Store Email Templates support only one language. If you choose to use a system email template that has been converted from a Web Store Email Template, you should ensure that, at a minimum, the template has text available in your company default language.

Separation of Commerce Offerings

From 2019.2 onwards, it is possible for you to enable one or more of the following Commerce offerings from the Enable Features page. Only Commerce offerings available in your account are shown on the page.

- SuiteCommerce
- SuiteCommerce Advanced
- SuiteCommerce InStore



If you are already using any of these products, the corresponding features will be automatically enabled in your account as part of the 2019.2 upgrade.

For more information about these features, see the help topic Ecommerce Features.

SuiteScript 2.x – N/commerce/recordView Module

2019.2 adds the first Commerce-related SuiteScript 2.x module. Commerce modules enable developers to interact with various aspects of Commerce web stores. The first Commerce module to be available is recordView. The recordView module provides fast, cached, and public access to the web store item fields and website settings.

The recordView module has the following methods:

- recordView.viewItems - use this method to retrieve one or more items with requested item fields from an Item Record.
- recordView.viewWebsite – use this method to retrieve requested website fields for one or more websites.

For more information about the recordView module and Commerce modules in general, see N/commerce/recordView and Commerce Modules.

Browser Cache Management

Note: This feature applies only to websites that use Content Delivery Network (CDN) Caching.

In 2019.1 and earlier, browser caches would retain data for 7 days, which meant that returning website visitors would continue to see old content even if the CDN cache had been refreshed.

The introduction of browser cache management in 2019.2 improves the likelihood that website visitors see the latest website content. This feature ensures that website visitors retain website data in their browser caches for a maximum of two hours. After two hours, the website data in the browser cache automatically expires. Visitors who return to the website more than two hours after their last visit must therefore request fresh data from the CDN cache. If the static data in the CDN cache has been manually or automatically refreshed within these two hours, the visitors receive the new website content from the CDN cache.

For more information about caching, see the help topic CDN Caching.

Site Builder and SuiteTax

Site Builder websites that display prices are incompatible with SuiteTax. If SuiteTax is enabled, Site Builder websites must have the Web Site Scope set to either:

- Information and Catalog
- Information Only

See the help topic Multi-Site Settings for more information.

CCT Enhancements

CCT Enhancements enables sub-record management for your content types and extensions. Each extension must be updated individually to gain this capability.

SMT Links Portlet

A new Site Management Tools Portlet enables you to see all your available websites and domains from your administrator account in NetSuite on your home dashboard. For more information about this portlet, see SMT Links Portlet.

Exclude Empty Commerce Categories

This release brings a new feature to Commerce Categories, Exclude Empty Categories. When enabled, the site category navigation is automatically updated to omit any categories that have no items available for purchase. This could be because no items have been assigned to the category or item configuration prevents any items in the category from displaying. If you have implemented Personalized Catalog Views, the Exclude Empty Categories feature, adjusts the category navigation to reflect the items that the logged-in customer may purchase. This is determined by the Item Segments made available to the customer segment assignment. See Personalized Catalog Views.

By default, Exclude Empty Categories is disabled. You can enable it for a site and domain in the SuiteCommerce configuration. For more information on this feature and how to enable it, see Exclude Empty Commerce Categories.

SuiteCommerce InStore

SuiteCommerce InStore (SCIS) uses a phased release process. Each phase consists of a different group of customers upgraded to the newest version of SCIS 2019.2. All administrators receive an email notification with information about when each upgrade is scheduled for an account.

> **Note:** Contact your account representative or Customer Support if you have questions about availability of SCIS 2019.2.

This release of SCIS includes features that you can use to improve performance during checkout.

Performance Tips Announcement

The SCIS team is pleased to announce a new chapter in the SCIS Administrator Guide titled Performance Monitoring and Tips for SCIS.

These tips guide you through streamlining the performance of your SCIS implementation within NetSuite and at each point of sale (POS) device. We also include tips for enhancing network resources, improving script and workflow performance, and for ensuring performance when using third-party applications.

We believe that by applying these tips and guidelines to your environment, you will see performance improvements throughout your SCIS processes. Give them a try today!

Source Receipts from Local Session

This SCIS 2019.2 performance feature sets the source for rendering receipts when a payment or refund occurs through an SCIS-supported payment device with Optimize EMV enabled. By default, SCIS now uses records from the local session as the source for receipts from these transactions.

Using local-session sourcing for receipts can reduce the time that customers who use a payment device must wait before they are released.

Using the local session is also the default for receipts from transactions that include an Invoice record. This invoice default means that most retailers will experience optimal receipt performance even if they do not use Optimize EMV with payment devices.

Payment types such as cash will continue using records transmitted to and received from the NetSuite database as the source for receipts.

Although we include steps in the Administrator Guide to disable using the local-session as the source for receipts, that should only be done if you are experiencing issues with your receipts. For more information, see the help topic Receipts for SCIS.

Context Filtering to Exclude Processing for Scripts and Workflow

SCIS 2019.2 introduces a new performance tip to exclude scripts and workflows from processing in contexts where they are not needed. The exclusions reduce the system time required to complete a transaction.

The procedure to set up exclusions uses a NetSuite 2019.2 method for Analytics filtering using the context in which a script or workflow executes.

You can set exclusions for user event scripts, client scripts, and workflows. The contexts available for exclusion are the Web Application used by SCIS to submit records and Payment PostBacks used with payment devices.

For more information, see Exclude unneeded Script and Workflow Execution via Context.

Asynchronous Method for Adjusting the POS Status

When a payment or refund is made through a payment device, the transaction creates an Invoice record and changes the **POS Status** to **Closed**.

Previously the status was adjusted before rendering the receipt. Now, to improve performance, SCIS uses an asynchronous method to change the POS Status after the receipt becomes available. This method means that saved searches that include the POS Status might show a temporary status of **Tendering** for some transactions.

To ensure the POS Status is correct, an asynchronous job runs every hour to adjust transactions that were not changed to **Closed** automatically. Support can set the job to run more frequently for your account, but be aware that additional job runs can have a negative impact on performance.

Note that the asynchronous method was first introduced in SCIS 2019.1, but it applied to payments only. The SCIS 2019.2 update enhances the method to include refunds. Cash and other tenders that do not use a payment device are not affected by the asynchronous method.

Measuring the Performance of SCIS Customizations

NetSuite 2019.2 introduces the SuiteCommerce InStore Application Performance Management (APM) SuiteApp version 1.01.

SuiteCommerce InStore APM measures the performance of a subset of actions SCIS. You can use the SuiteApp to view detailed statistics, a timeline, and the performance history of each action. With this information, you can optimize long—running user event scripts and Workflows and improve the performance of your daily SCIS operations.

SuiteCommerce InStore APM includes the following pages:

- **SuiteCommerce InStore Performance Diagnostics** – This page shows tiles for each action in SCIS, each of which narrows down to show a timeline and the history of the action's performance.
- **SuiteCommerce InStore Action History Detail** – This page can be accessed from the diagnostics page, and it shows the details about a performance log you are interested in.

> **Note:** Some tables found in SuiteCommerce InStore Action History Detail includes links to the APM pages Profiler Details and SuiteScript Analysis. To open these pages, you must first install the APM SuiteApp. For more information, read Application Performance Management.

- **SuiteCommerce InStore Performance Setup** – This page lets you provide access for specific roles or employees to use SuiteCommerce InStore APM.

SuiteCommerce InStore APM is a managed SuiteApp, installed separately from the APM SuiteApp. After you install SuiteCommerce InStore APM, updates for fixes and enhancements to the SuiteApp are automatically posted to your account without any need to update manually.

For more information, read the help topic Application Performance Management (APM) for SCIS.

SuiteApp Distribution

SuiteApp distribution includes SuiteBundler and SuiteApp Listing capabilities that you can use to distribute customizations to accounts.

View the SuiteApp Distribution Mechanism 2019.2 New Feature Training.

NetSuite 2019.2 includes the following changes:

- Bundle Support During Release Phasing
- New SuiteApp Control Center Available for Distributing SDF SuiteApps (Beta)
- Ability to Upgrade SuiteApps on the SDF SuiteApp Listings Page
- Script Execution Context Supported in Bundles

Bundle Support During Release Phasing

Bundle support during phasing of 2019.2 is consistent with the support provided during previous releases. During phasing of 2019.2, some accounts continue to use 2019.1 at the time that other accounts are upgraded to 2019.2. Therefore, you may be using a different version than some of the accounts where your bundles are installed.

Review the descriptions below for a reminder of how bundles from different versions are handled during release phasing.

- Bundles developed with 2019.1 can be installed into accounts that are already using 2019.2.
- Bundles developed with 2019.2 can be installed into accounts that are still using 2019.1, but note the following limitations:
  - When a user in a 2019.1 account installs a bundle from a 2019.2 account, the bundle installation stops if there are object types in the bundle that are not supported in 2019.1.
  - A bundle with a SuiteScript that uses a new API available only in 2019.2 can be installed into a 2019.1 account, but the script may not function correctly because 2019.1 does not support the API.

New SuiteApp Control Center Available for Distributing SDF SuiteApps (Beta)

Warning: SuiteApp Control Center is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

As of 2019.2, the new SuiteApp Control Center is available for defining and managing your SDF SuiteApp distribution process in a single location. You can upload SuiteApp projects to SuiteApp Control Center, and distribute them to users as SuiteApp releases in the SuiteApp Listings page.

You can set the SuiteApp Listing page access for the SuiteApp to one of the following:

- **Public** – All NetSuite customers can install the SuiteApp. For more information, see Public SuiteApps.
- **Shared** – Specific companies can install the SuiteApp. For more information, see Shared SuiteApps.

For more information about setting your SuiteApp's availability, see Setting SuiteApp Listing Access.

> **Note:** Access to SuiteApp Control Center requires the SuiteApp Release Manager role. The role requires the SuiteApp Control Center feature to be enabled for your account.

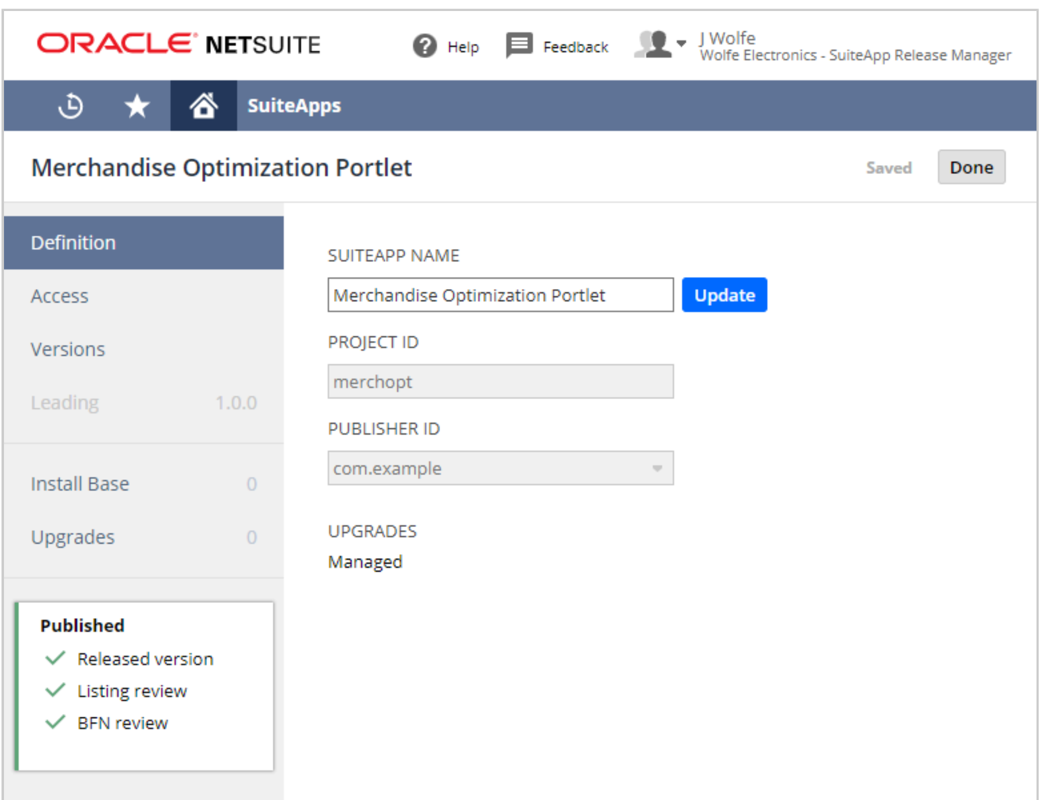
There are two upgrade types for SuiteApps:

- **Unmanaged** – Only SuiteApp users can manually upgrade the SuiteApp in their NetSuite account from the SuiteApp Listing page.
- **Managed** – Only Release Managers can push SuiteApp upgrades to customer accounts. You can view the upgrade status for each customer account and resolve errors.

You can make your SuiteApp available for installation to users on the SuiteApp Listing page by meeting the following requirements:

- **Released version** – Release at least one version of the SuiteApp as an SDF ZIP file. To release a version, see Releasing a SuiteApp Version. For more information about SuiteApp ZIP archive, see Creating a SuiteApp Version.
- **Listing review** – Complete a SuiteApp listing review to obtain SuiteCloud Development Network (SDN) approval. For more information about completing a listing review, contact SDN.
- **BFN review** – Complete a Built for NetSuite (BFN) review for the SuiteApp. For more information about completing a BFN review, see Built for NetSuite Overview and BFN Verification Process.

The following example shows when you have met all the required actions in the SuiteApp Publishing Requirements List, and your SuiteApp is published on the SuiteApp Listing page:



For information about SuiteApp publishing requirements, see Requirements for SuiteApp Listing Availability.

You can perform the following actions in SuiteApp Control Center:

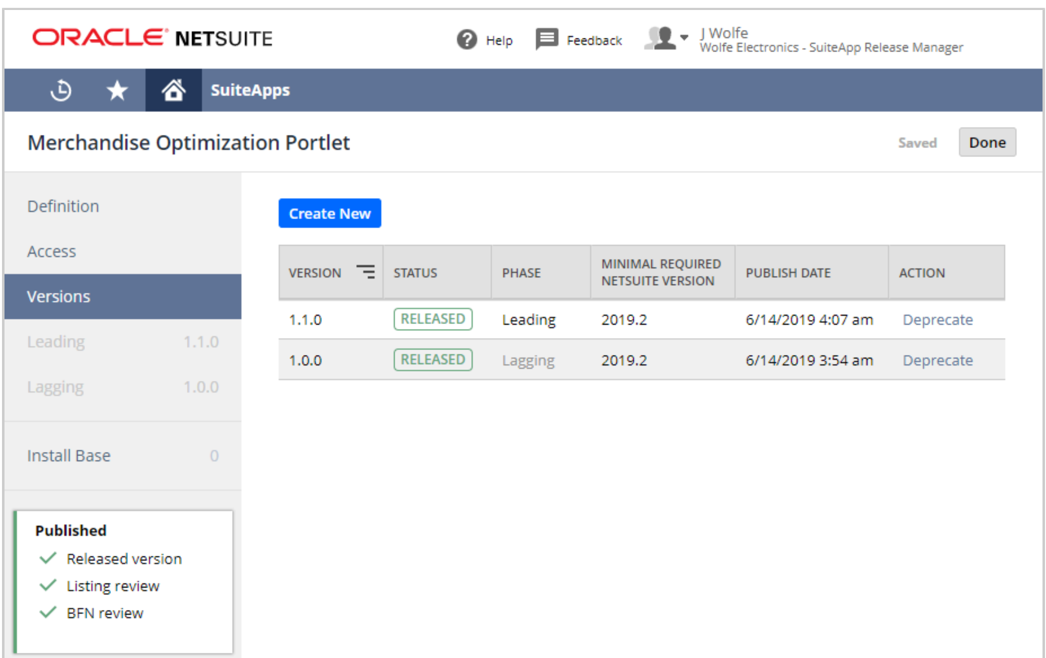
- **Create a SuiteApp definition** – You can set properties and control the availability of SuiteApps for your users using SuiteApp definition in SuiteApp Control Center, which contains the properties for each SuiteApp. For more information, see Creating a SuiteApp Definition. You can also view your SuiteApp's properties and change its name. For more information, see Editing a SuiteApp Definition.

> **Note:** Advanced Partner Center (APC) synchronizes information data partners fill in to SuiteApp Control Center. Your SuiteApp name in SDF SuiteApp Listing is extracted from the APC, which is approved by SDN. It is not the name located in SuiteApp Control Center.

- **Create new release versions of the SuiteApp** – Each SuiteApp version is a ZIP file of the SDF project. You can plan your SuiteApp distribution by defining your release versions as one of the following:
  - **Leading version** – The latest released version of the SuiteApp for the user's version of NetSuite that is displayed on the SuiteApp Listing page.
  - **Lagging version** – The pre-existing release version of the SuiteApp for the user's version of NetSuite that will subsequently be replaced by the leading version.

> **Note:** Users with unmanaged SuiteApps can maintain their lagging version and upgrade to the leading version later.

The following example shows when you have the available leading and lagging versions for your unmanaged SuiteApp:



For information about leading and lagging versions, see SuiteApp Version Phases and Releasing a SuiteApp Version.

> **Note:** If the NetSuite version for the user's account does not meet the minimum version required for your SuiteApp version, the latest SuiteApp version is displayed on the SuiteApp Listing page and labeled **Not compatible**. For more information, see Installing Managed SuiteApps from the SuiteApp Listing Page.

- **Push SuiteApp version upgrades to users** – If you push a SuiteApp version upgrade to accounts, it replaces the previously existing version. Advanced Partner Center (APC) synchronizes information data partners fill in to SuiteApp Control Center to SDF SuiteApp Listings. For more information, see Pushing a SuiteApp Version Upgrade to Users.

- **View SuiteApp upgrades** – You can view information about the upgrades that are currently in progress on the **Upgrades** tab of the SuiteApp details. The status of each push upgrade operation and the upgrade status of individual accounts are available. For more information, see Viewing SuiteApp Upgrades.
- **View SuiteApp installation status** – You can view the SuiteApp status from the **Install Base** tab of the SuiteApp details. For more information, see Viewing SuiteApp Installation Status.
- **View the SuiteApp install base** – All company accounts that have installed a SuiteApp can be viewed from a central location in the SuiteApp details. For more information, see Viewing the Managed SuiteApp Install Base.
- **Deprecate released SuiteApp versions** – If the SuiteApp version you released is no longer supported, you can deprecate a release version. For more information, see Deprecating a SuiteApp Version.
- **Delete pending SuiteApp versions** – You can delete release versions that are in the Pending state and have not previously been published from the release history. For more information, see Deleting a SuiteApp Version.
- **Set a minimal required NetSuite version** – You can specify the minimum NetSuite version required to install the version of your SuiteApp.

For more information about distributing SDF SuiteApps, see the following topics:

- SuiteApp Control Center Overview
- SuiteApp Creation and Listing Access
- SuiteApp Versions
- Managed SuiteApps

Ability to Upgrade SuiteApps on the SDF SuiteApp Listings Page

As of 2019.2, you have the ability to upgrade SuiteApps on the SDF SuiteApp Listings page. In the SuiteApps list, find your SuiteApp in the **SuiteApp Name** column, and click **Upgrade** in the **Action** column.

To view the SuiteApp Listings page, go to Customization > SuiteCloud Development > SuiteApp Listing. This page lists all SDF SuiteApps, including:

- SuiteApps that can be installed
- SuiteApps that are available for upgrade in your account
- SuiteApps that cannot be installed

Only the SuiteApp publisher can control your SuiteApp upgrade method, which is either an automatic upgrade or a manual upgrade.

The following options are available when you manually upgrade a SuiteApp:

- **One available upgrade version** – You can upgrade your SuiteApp to the latest available version. This occurs when there is only one released SuiteApp version that meets the following criteria:
  - The SuiteApp version supports your current NetSuite version.
  - The SuiteApp version is newer than the current SuiteApp version you have installed.

- **Two available upgrade versions** – You can maintain the lagging version and upgrade your SuiteApp to the leading version later. This occurs when the following criteria are met:
  - Both SuiteApp versions support your current NetSuite version.
  - Both available versions are newer than the current SuiteApp version you have installed.

For more information about upgrading SDF SuiteApps, see the following topics:

- SuiteApp Listings in NetSuite
- SuiteApp Installation

Script Execution Context Supported in Bundles

You can include script execution context in bundles by selecting SuiteScript objects in the Bundle Builder. In NetSuite, the script execution context controls the contexts in which user event and client scripts can run. The script execution context is stored in the Execution Context field on the Context Filtering subtab in the Script Deployment record for the SuiteScript object.

For more information about the new script execution context value for 19.2, see the Context Filtering for User Event and Client Script Execution release note. For information about using Bundle Builder to bundle SuiteScript objects, see the help topic Objects Available in Customization Bundles.

SuiteBuilder - Customization

View the SuiteBuilder 2019.2 New Feature Training.

NetSuite 2019.2 includes the following enhancements to SuiteBuilder features:

- Personal Information Removal
- Custom Transaction Types No Longer Available from New Workbook Page
- Template Editor Enhancements
- FreeMarker Enhancements
- System Notes v2 (Limited Release)
- Changes to Advanced Templates that Reference Payee Address Data

Personal Information Removal

In 2019.2, depending on your permissions, you can use the new Personal Information (PI) Removal feature to remove personal information about an individual from:

- System notes
- Workflow history
- Field values

Permissions:

- Administrators or users with the Remove Personal Information Create permission can create, edit, and delete requests.

- Administrators or users with the Remove Personal Information Run permission can approve, run, and delete requests.

The main purpose of the PI Removal feature is to help customers comply with General Data Protection Regulation (GDPR) regulations, specifically the right to be forgotten (keep personal information private).

For more information, see the Personal Information Removal for Administrators release note.

Custom Transaction Types No Longer Available from New Workbook Page

Custom transaction types are no longer available for use as the root record type in custom SuiteAnalytics workbooks. To query data from custom transaction types in SuiteAnalytics Workbook, use the generic Transaction record type and add criteria filters using the Type field. For more information, see Custom Transaction Types No Longer Available in SuiteAnalytics Workbook.

Template Editor Enhancements

Address Subrecords Can Be Included in Advanced Templates

Previously, Address subrecord fields were not exposed to Advanced PDF/HTML Templates. Therefore, you could not use the fields selector of the Template Editor to add subrecords or individual fields from a subrecord. Also, you could not add subrecords to a template directly in the source code editor using FreeMarker syntax. You could access some standard subrecord fields directly from the record itself, but custom fields could not be included.

As of 2019.2, Advanced PDF/HTML Templates directly support the address subrecord. You can now:

- Use the field selector to directly select subrecord address fields, like City and Street, when you customize advanced PDF printing templates (if you have the advanced printing permission)
- Select any custom fields created on the address
- Add and remove individual address fields (previously you could only add and remove the complete address)
- Use text formatting (font, font size, color) to control the layout and appearance of the address in printed content
- Base template logic on address fields (for example, you can use template logic to determine output based on city, state, or zip code)
- Use the available address fields to translate addresses, and then print the translated labels of individual address fields

For more information, see the help topic Adding and Removing Fields in Advanced Templates.

File Cabinet Enhancements in Advanced Printing Templates

> **Note:** The changes described in this release note apply to embedded images in a PDF only.

Advanced printing templates are commonly customized to include images stored in the NetSuite File Cabinet. The file cabinet enhancements simplify how files used in a PDF are referenced from templates, and improves security, reliability, and performance.

The NetSuite File Cabinet is typically used to store images, fonts, and CSS scripts that are used in advanced printing templates. Previously, you had to reference files by their public URLs if you wanted to include them in a PDF document. An image was only available for printing when you checked the **Available Without Login** box. However, checking this box exposed the image file to the general public, causing a potential security issue.

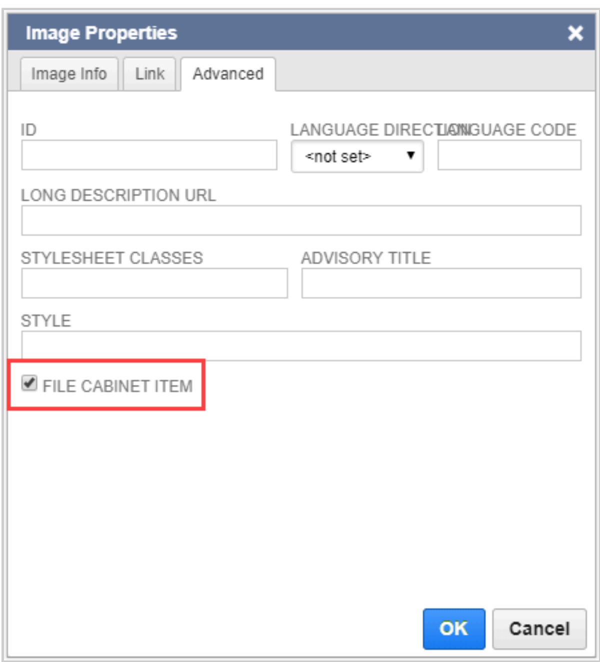
With this change, you can make the file available company-wide without exposing it to the general public. This change applies to both source code and the template editor.

The changes apply automatically to existing templates.

File Cabinet Item

A new File Cabinet Item box has been added to the Image Properties window in the Advanced Template Editor. Accessing images directly from the file cabinet instead of through a public URL improves reliability and performance. The File Cabinet Item box resolves the issue of some images not appearing in printouts due to lost requests, images not loading, and so on. Because the images are not being read through a public URL, load times are much faster.

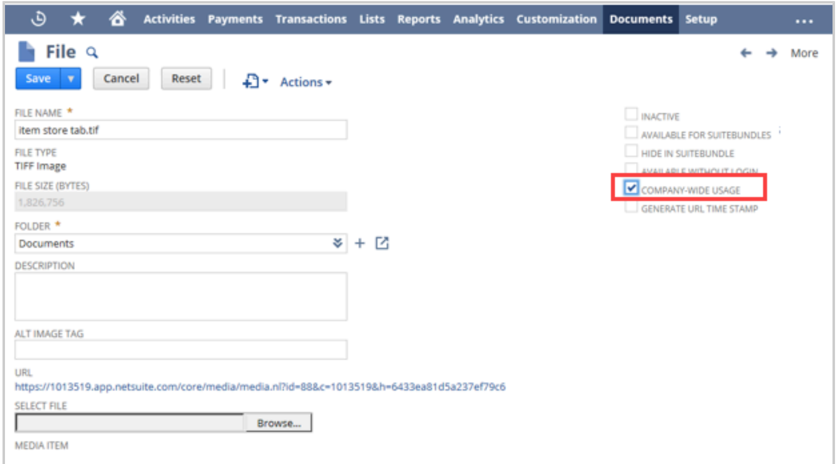
To add an image to a template, in the **Advanced Template Editor**, click the image button to open the Image Properties window. Add the URL from the file cabinet record, and then click the **Advanced** tab. To access the image directly from the file cabinet, check the **File Cabinet Item** box. Note that a URL is always required, even if you use the File Cabinet Item box.



Company-Wide Usage

A new Company-Wide Usage box has been added to the file cabinet record. The Company-Wide Usage option controls the level of permission given to a specific file in the file cabinet. For example, check the Company-Wide Usage box to make an image available in a printing template while preventing unauthorized access to the image file through the internet. The Company-Wide Usage option is available on the file record page.

To make a file available for company-wide usage, edit the file cabinet record and check the **Company-Wide Usage** box.



File Cabinet FreeMarker Directive

If you edit templates in source code, a new filecabinet FreeMarker directive is now available to reference files directly from the file cabinet. You can use this directive to embed text, images, and fonts that are stored in the file cabinet into the template.

For example:

```
<@filecabinet nstype="image" scr="https://system.netsuite.com/core/media/media.nl?
id=21&c=4130331&h=fb3b8b4ac4f67b2c369b" />
```

For more information, see the help topic Syntax for Advanced Template Fields.

When you add an image to a template and check the File Cabinet Item box, the `<@filecabinet />` directive is used in the source code.

For more information about the file cabinet, see the help topic Working with the File Cabinet.

For more information about using images in advanced templates, see the help topic Including Images in Advanced Templates.

Advanced Printing Support for GL Impact

Release 2019.2 includes the ability to print statements for transactions that impact the general ledger. You can also customize the printing template. If you enable the Advanced PDF/HTML Templates feature, NetSuite enables this feature automatically. You can also customize the printing template.

For more information, see the General Ledger Impact Printing release note.

For more information about customizing advanced templates, see the help topic Customizing Advanced Templates in the Template Editor.

Advanced PDF/HTML Templates New Save & Edit Option

The Advanced PDF/HTML Template Editor Save button now includes a third option: **Save & Edit**.

The new Save & Edit option saves your edits and remains in edit mode where you can continue customizing the template. Save & Edit can reduce the time you spend customizing templates by eliminating the need to navigate back to the template you are working on.

After you click **Save & Edit**:

- If your template is successfully saved, a message appears informing you that the template was saved successfully.
- If your template contains errors, an error message appears, and you are asked if you want to submit anyway. Note that this is the same behavior as the existing Save option. Choose from the following options:
  - To override the error and save the template anyway, click **Save**. The template is saved. Note that there are valid cases when the template works in production but fails the validation.
  - To cancel the save and fix the error, click **Cancel**. The template is not saved.

For more information about the Save button, see the help topic Using Buttons in NetSuite.

FreeMarker Enhancements

Translation Collection API Now Supported in Advanced Templates

With the Translation Collection API support, you can use FreeMarker code to add translated content in advanced printouts. For example, you could access the Translation Collection to display a localized disclaimer or a greeting. Currently, you can only do this in source code mode.

For more information about Translation Collections, see the help topic Translation Collection Overview.

For more information about translation API in SuiteScript, see the help topic N/translation Module.

FreeMarker Custom Values Formatting Now Consistent with Standard Field Formatting

In Advanced PDF/HTML Templates, FreeMarker now formats custom variables the same way that NetSuite formats standard fields. Previously, when a standard field was customized to use a FreeMarker variable (for example, in a math expression), it lost its original standard field formatting. The nsformat_* methods provide consistency in how fields are formatted in both FreeMarker and NetSuite. A user's or customer's NetSuite preferences determine default formatting for standard fields and makes it possible for one template to serve the needs of multiple countries.

New `nsformat_*( )` formatting methods are now available to use when editing the template source code. This method formats the specific string, number, date, or amount results in the same format used on a standard NetSuite field. This formatting method extends the current localization possibilities to custom variables, ensuring consistent output.

System Notes v2 (Limited Release)

2019.2 introduces System Notes v2 (limited release). System Notes v2 is now enabled on custom transaction type configuration.

Use the new standard workbook in SuiteAnalytics Workbook to see the System Notes v2 information for the custom transaction type configuration log.

System Notes v2 will replace the current System Notes in coming releases.

For more information, see the System Notes v2 (Limited Release) for Custom Transaction Type Configuration release note.

Changes to Advanced Templates that Reference Payee Address Data

As of 2019.2, payee address is stored in a subrecord instead of a text field for the check, customer refund, and vendor payment transaction types. If you have custom printing templates for any of these transaction types, you may need to update them to use the address subrecord.

SuiteScript includes specialized APIs that you must use to script with subrecord data. You should use these subrecord APIs to script with payee address data.

For details about scripting subrecords with SuiteScript 2.0, see Change to Scripting with Payee Address Data.

For more information, see the help topic SuiteScript 2.0 Scripting Subrecords.

SuiteAnalytics

NetSuite 2019.2 includes the following enhancements to SuiteAnalytics:

- Enhancements to SuiteAnalytics Workbook
- New Version for SuiteAnalytics Connect ODBC and JDBC Drivers
- Enhancements to SuiteAnalytics Connect
- Enhancements to Dashboards
- Changes to Saved Searches that Reference Payee Address Data
- Change to Entity Saved Search
- Change to Subsidiary Saved Search
- Multi-Language Support for Dashboard Tiles
- Multi-Language Support for Navigation Portlet

Enhancements to SuiteAnalytics Workbook

As of 2019.2, NetSuite includes the following enhancements to SuiteAnalytics Workbook:

- New DataSet Tab and Enhanced Fields List in SuiteAnalytics Workbook
- Additional Filter and Sort Options for SuiteAnalytics Workbook Pivot Tables and Charts
- Categories Now Included on Record Type Selection Page in SuiteAnalytics Workbook
- Updated Data Refresh Tool in SuiteAnalytics Workbook
- Numeric Formatting Options Now Available in SuiteAnalytics Workbook Charts
- Custom Transaction Types No Longer Available in SuiteAnalytics Workbook

New DataSet Tab and Enhanced Fields List in SuiteAnalytics Workbook

In 2019.1, users would frequently have to switch between tabs to author their workbooks, especially when creating and applying filters to the Data tab from the Criteria tab. Additionally, users would have to manually search for and join related record types in a workbook. This caused confusion among users who were not familiar with the new data source. When opening a saved or shared workbook, users also had difficulty identifying which record types and fields were used to construct the workbook source data.

In 2019.2, the Data and Criteria tabs have been merged into the DataSet tab. On the DataSet tab, you can apply criteria filters to your workbook source data without having to switch tabs and view immediate results on the Data Grid. The Fields list on the DataSet tab has also been redesigned as the Records and Fields lists. The Records and Fields lists include the following enhancements so that you can quickly locate, identify, and join related record types and fields in a workbook:

- All related record types are automatically listed in the Records list, including record types that are multiple joins apart.
- Record types that have been joined in a workbook are highlighted in the Records list with a number denoting the number of fields used within the workbook.
- Fields that have been added to the Data Grid are highlighted and appear at the top of the Fields list.
- If you do not know which record type a field on the Data Grid belongs to, the new **Show Location in Field List** option enables you to locate the field in the Records and Fields lists. You can access the **Show Location in Field List** option from the Field menu in the Data Grid.

For information about how to define your workbook source data using the new DataSet tab, see the help topic Defining Workbook Source Data.

Additional Filter and Sort Options for SuiteAnalytics Workbook Pivot Tables and Charts

Prior to 19.2, workbook pivot tables and charts had limited filtering options. For example, you could apply measure-based and value-based filters to pivot tables, but there were no filtering options for charts. Additionally, both pivot tables and charts lacked sorting options. These limitations made it difficult for users to visualize their workbook source data.

Beginning in 19.2, you can apply filters to both pivot tables and charts. On workbook pivot tables, you can also apply filters to view the top and bottom results based on a specific measure. Sorting options based on dimension and measure-based values are also available, enabling you to better customize and present your pivot tables and charts.

For more information about pivot table filters and sorting options, see Pivot Table Filters.

Categories Now Included on Record Type Selection Page in SuiteAnalytics Workbook

Before 2019.1, when you created a new workbook, you were prompted to select a root record type for the workbook. On the record type selection page, there was no way to distinguish between standard, custom, and analytical record types. This caused confusion among users who did not know which record type to choose for their workbooks.

As of 2019.2, the record type selection page includes the category for each record type. Additionally, the unique record ID for each record type is also listed. These enhancements ensure that you select the correct record type for the custom workbook you want to create.

For information about how to create custom workbooks in SuiteAnalytics Workbook, see the help topic Custom Workbooks. To follow a tutorial that walks you through the authoring process for a sample Transaction workbook, see the help topic SuiteAnalytics Workbook Tutorial.

Updated Data Refresh Tool in SuiteAnalytics Workbook

By default, the data presented in pivot tables and charts in SuiteAnalytics Workbook is cached every 60 minutes. This caching process provides better performance by returning results faster.

Prior to 2019.2, you could manually refresh the data in pivot tables and charts, but there was no way to clear the cached data that was used for the refresh. Consequently, in some cases pivot tables and charts displayed cached data instead of the most current data.

As of 2019.2, the new caching process enables you to clear the cache and verify that pivot tables and charts show the most current data. To clear the cache, click the **Menu** icon next to the **Last updated** date displayed in the upper-right corner of the Viewer. A popup message appears asking if you want to clear the cache.

> **Note:** Cached data is cleared for the entire workbook but data is not automatically refreshed in all pivot tables and charts.

After clearing the cache, you can verify if a pivot table or chart is displaying the most current data by checking the icon next to the Viewer. There are three possible icons:

- **Warning icon** – The data displayed in the results are not current according to the date and time shown in the **Last updated** field. To show the most current results, click the refresh icon.
- **Loading icon** – The data is currently being updated according to the date and time shown in the **Last updated** field. After the refresh is completed, the icon changes to either the pivot or chart icons.
- **Pivot andChart icons** – The data displayed in the results corresponds to the time and date shown in the **Last updated** field.

For more information on how data is refreshed, see Data Refresh in SuiteAnalytics Workbook.

Numeric Formatting Options Now Available in SuiteAnalytics Workbook Charts

In 2019.1, you could only customize numeric values presented in SuiteAnalytics Workbook pivot tables. Beginning in 2019.2, you can also customize the numeric values presented in SuiteAnalytics Workbook charts.

Custom Transaction Types No Longer Available in SuiteAnalytics Workbook

To improve performance, custom transaction types are no longer available for use as the root record type in custom workbooks. Effective immediately, any workbooks in your account based on custom transaction types are no longer available.

To query data from custom transaction types in SuiteAnalytics Workbook, create a new workbook using the generic Transaction record type and add criteria filters using the Type field. For example, assume you have a custom transaction type named Unordered in your account. To include data from Unordered records in a workbook, you can add the following criteria on the DataSet tab: Type is Unordered.

For more information about adding criteria filters to custom workbooks, see the help topic Workbook Criteria Filters.

Enhancements to SuiteAnalytics Connect

As of NetSuite 2019.2, NetSuite includes the following enhancements to SuiteAnalytics Connect:

- New Version for SuiteAnalytics Connect ODBC and JDBC Drivers

- New Data Source for SuiteAnalytics Connect Generally Available
- Account-Specific Domains Required to Access the New Data Source
- SuiteQL Now Available
- 2019.2 Connect Browser

New Version for SuiteAnalytics Connect ODBC and JDBC Drivers

As of September 23, 2019, new versions of the SuiteAnalytics Connect ODBC and JDBC drivers are available for download. If you are using an ODBC driver, you must upgrade to the latest version before November 15, 2019.

We recommend that you upgrade to the latest version of the drivers as soon as possible. As of November 15, 2019, ODBC driver versions prior to 8.10.89.0 will no longer be supported. If you do not upgrade to the latest ODBC driver versions before this date, you will be unable to access the Connect Service. See the following table for the latest driver versions:

Driver Type	Driver Version	Action Required
Windows ODBC	8.10.92.0	Upgrade to this version is mandatory.
Linux ODBC	8.10.89.0	Upgrade to this version is mandatory.
JDBC	8.10.85.0	Upgrade to this version is optional.

> **Note:** If you use an ADO.NET driver to access the Connect Service, no action is required.

To download the latest driver version, go to your NetSuite home page and click **Set Up SuiteAnalytics Connect** in the Settings portlet.

Depending on your operating system and the version of the driver you install, you may also need to update your connection attributes. See the following table for more information:

Driver	Action Required
Windows ODBC 8.10.92.0	No update required. The installer automatically updates your data sources to use the generic system trust store and account-specific domains.
Windows ODBC 8.10.92.0 (DSN-less connections)	Update required. Set the value of the trust store parameter to **system**.
Linux ODBC 8.10.89.0	Update required. Linux ODBC driver version 8.10.89.0 does not include ca.cer and ca2.cer files. If you are upgrading from a previous version, you must update the trust store parameter or connection string. You must remove the ca.cer and ca2.cer files and ensure that the ca3.cer file is included.

For more information about upgrading ODBC drivers, see the following topics:

- Upgrading an ODBC Driver
- Downloading and Installing the ODBC Driver for Windows
- Downloading and Installing the ODBC Driver for Linux

- Authentication Using Server Certificates for ODBC

For more information about upgrading JDBC drivers, see the following topics:

- Accessing the Connect Service Using a JDBC Driver
- JDBC Connection Properties

For more information about account-specific domains, see the help topic URLs for Account-Specific Domains.

New Data Source for SuiteAnalytics Connect Generally Available

As of 2019.2, the new data source for SuiteAnalytics Connect is no longer considered a beta feature and is now generally available. The new data source supports the NetSuite phased release cycle. Therefore, when your production account is upgraded to the new NetSuite release, the new data source is also upgraded. The access to the new data source requires account-specific domains.

The new data source is designed to display consistent data across SuiteAnalytics Workbook, which solves some previous inconsistencies in data exposure between saved searches and reports.

To access the new data source, you must modify the following connection attributes of the driver you use for SuiteAnalytics Connect:

- **Service Host** – Change the Connect Service host name to your account-specific domain. The host name you should use for your connection is displayed in the **Service Host** field on the SuiteAnalytics Connect Driver Download page, under **Your Configuration**.
- **Data Source** – Change the attribute to **NetSuite2.com**.

When you access the new data source, you need to consider the following:

- **Role-based access restrictions** – Users can only query data that they can access in the SuiteAnalytics Workbook user interface, which contributes to improved security. The new data source is not accessible for the following roles:
  - Administrator
  - Full Access (Deprecated)
  - Roles requiring Two-Factor Authentication (2FA)
  - Roles accessing the Connect Service with IP restrictions
- **SuiteQL** – SuiteAnalytics Connect supports SuiteQL query language. When you run queries, syntax for both SQL-92 and Oracle are supported, but you cannot use them in the same query. You can retrieve information about the schema of the new data source using the OA_COLUMNS, OA_TABLES, and OA_FKEYS tables. Additionally, you must consider some syntax requirements when you create a query, such as supported operators, functions, expressions, and number of arguments.

> **Note:** To access the new data source, the role you use must be granted the SuiteAnalytics Connect permission.

For more information about account-specific domains, see Account-Specific Domains Required to Access the New Data Source.

For more information about the new data source, see the following topics:

- SuiteAnalytics Workbook Data Source Overview

- Selecting a Data Source

For more information about SuiteQL and best practices for querying the Connect Service, see the following topics:

- SuiteQL Now Available
- Using SuiteQL with the Connect Service
- SQL Compliance

Account-Specific Domains Required to Access the New Data Source

As of June 19, 2019, account-specific domains are supported by SuiteAnalytics Connect. An account-specific domain is a domain that is unique for each NetSuite account, because the account ID is a part of the domain. This means that the Connect Service host name displayed on the SuiteAnalytics Driver Download page now contains the account ID. The format of an account-specific domain for SuiteAnalytics connect is <*accountID*>.connect.api.netsuite.com, where <*accountID*> is a variable representing the account ID of your account. For example, if your production account ID is 123456, the host name would be 123456.connect.api.netsuite.com.

As of 2019.2, account-specific domains are required to access the new data source through the Connect Service. The Connect Service host name in the connection attributes of the driver must match the host name displayed on the SuiteAnalytics Driver Download page.

Note: For Release Preview accounts, account-specific domains are required to access both data sources: NetSuite.com and NetSuite2.com.

Additionally, the ODBC domain (odbcserver.netsuite.com) will be deprecated in an upcoming release. If you do not change the connection attributes before this deprecation, you will no longer be able to log in to the Connect Service.

For more information about account-specific domains, see the help topic URLs for Account-Specific Domains.

For information about setting up connections, see the following topics:

- ODBC driver, see the help topic Connection Attributes.
- JDBC driver, see the help topic JDBC Connection Properties.
- ADO.NET driver, see the help topic ADO.NET Connection Options.

SuiteQL Now Available

SuiteQL is a query language based on the SQL-92 revision of the SQL database query language. It provides advanced query capabilities you can use to access your NetSuite records and data.

SuiteQL is currently available for querying the new data source through SuiteAnalytics Connect only. The new data source is the schema shared with SuiteAnalytics Workbook, saved searches and reports, and it is designed to display consistent data across NetSuite analytical tools.

Some benefits of using SuiteQL include the following:

- **Support for the New Data Source** – SuiteQL lets you query the new data source. The new data source enhances the capabilities of querying your NetSuite data. The exposed data is consistent with

SuiteAnalytics Workbook, which resolves previous data exposure inconsistencies in saved searches and reports. For more information about the new data source, see New Data Source for SuiteAnalytics Connect Generally Available.

- **Improved Security** – SuiteQL lets you query the same data that you can access in the SuiteAnalytics Workbook user interface, which contributes to improved security. To run queries with SuiteQL, you can use a list of supported functions only, which prevents SQL injection.

> **Note:** SuiteQL supports syntax for both SQL-92 and Oracle SQL, but you cannot use them in the same query.

When using SuiteQL with the Connect Service, you must consider some syntax requirements. For more information, see Using SuiteQL with the Connect Service.

For more information about SuiteQL, see SuiteQL.

2019.2 Connect Browser

The 2019.2 version of the Connect Browser is now available. You can find the links to the Connect Browser in the Connect Schema topic.

The following is a list of the newly exposed tables:

- Addresses
- Bill of Materials
- Bill of Materials Revision
- Bill of Materials Revision Components
- Employee Currency Map
- Inbound Shipments
- Item Price History
- Location Costing Groups
- Location Costing Groups - Locations
- Purchase Charge Rules
- Resource Group Entity Map
- Resource Groups
- Transaction History

For more information about how to work with the Connect Browser, see the help topic Working with the SuiteAnalytics Connect Browser.

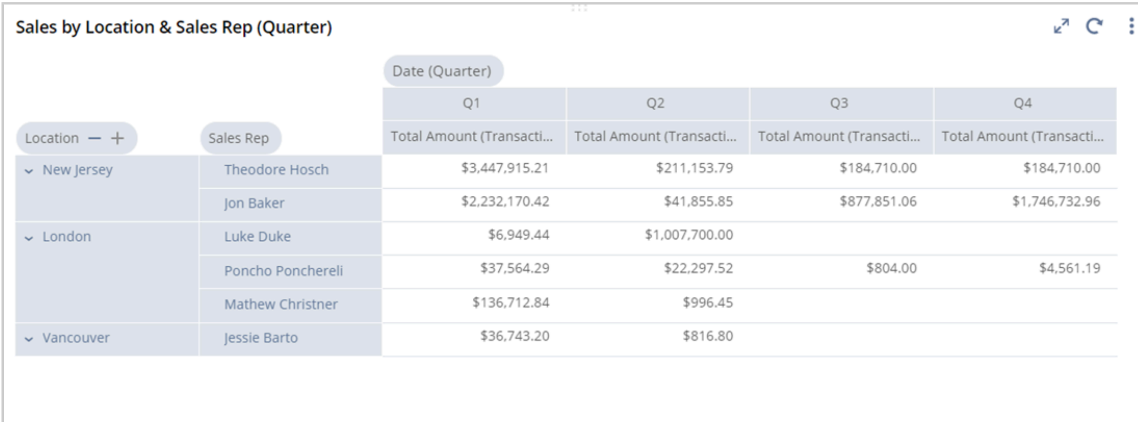
Enhancements to Dashboards

As of 2019.2, NetSuite includes the following enhancements to Dashboards:

- Analytics Portlet Now Supports Workbook Pivot Tables
- Increased Number of Analytics Portlets
- User Interface Enhancements to Dashboards

Analytics Portlet Now Supports Workbook Pivot Tables

Prior to 2019.2, you could view your chart-based workbook data on the Analytics portlet. As of 2019.2, you can also view your pivot-based workbook data on your home dashboard.



Sales by Location & Sales Rep (Quarter)

Location	Sales Rep	Q1 Total Amount (Transacti...	Q2 Total Amount (Transacti...	Q3 Total Amount (Transacti...	Q4 Total Amount (Transacti...
New Jersey	Theodore Hosch	$3,447,915.21	$211,153.79	$184,710.00	$184,710.00
	Jon Baker	$2,232,170.42	$41,855.85	$877,851.06	$1,746,732.96
London	Luke Duke	$6,949.44	$1,007,700.00		
	Poncho Ponchereli	$37,564.29	$22,297.52	$804.00	$4,561.19
	Mathew Christner	$136,712.84	$996.45		
Vancouver	Jessie Barto	$36,743.20	$816.80		

After adding the Analytics portlet to your dashboard, to select which chart or pivot table you want to view, click the **Menu** icon , and then click **Set Up**. The Analytics popup window lists the workbooks available in your account that have at least one chart or pivot table defined. Charts are represented by the **Chart** icon and pivot tables are represented by the **Pivot** icon .

To quickly identify the chart or pivot table that you want to view, in the Portlet type drop-down list, select the pivot tables or charts options. The list displays the workbooks available according to the portlet type you selected. In the **Search** field, you can also enter part of the name of the workbook, chart, or pivot table that you want to view.

For pivot-based portlets, you can set layout options, such as the portlet title and the number of visible rows in the portlet. The portlet height is automatically resized to fit the number of rows entered. If the result rows exceed the number entered, a scroll bar appears in the right that you can use to see all results.

> **Note:** The number of rows displayed corresponds to header rows and result rows. For example, if your pivot table includes two header rows and you want to display five result rows, you need to enter **7** in the **Number of visible rows** field. By default, the portlet displays ten rows.

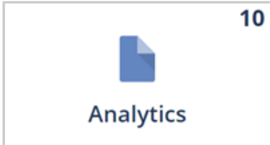
As with chart-based portlets, you can also access your workbooks through pivot-based portlets. To view and edit a workbook, click the **Menu** icon , and then click **Open in Workbook**. To expand the pivot-based portlet to full screen view, click the double arrow icon .

> **Note:** To set up Analytics portlets on your dashboard, the SuiteAnalytics Workbook feature must be enabled.

For more information about setting up the portlet, see the help topics Setting Up the Analytics Portlet and Workbook-based Portlets.

Increased Number of Analytics Portlets

Prior to 2019.2, you could add up to five Analytics portlets to a dashboard. As of 2019.2, you can now add up to 10 Analytics portlets. This enhancement enables you to give visibility to the workbook data for up to 10 pivot tables and charts on your home dashboard.



For more information on how to add Analytics portlets, see the help topic Adding an Analytics Portlet.

User Interface Enhancements to Dashboards

NetSuite 2019.2 includes new enhancements to Dashboard Portlets. For more information, see Enhancements to Dashboard Portlets.

Changes to Saved Searches that Reference Payee Address Data

As of 2019.2, payee address data for the check, customer refund, and vendor payment transactions types is stored in a subrecord instead of a text field. If you have saved searches that reference payee address data from these transaction types, you might need to update the saved search definition.

For more information about subrecords, see the help topics Understanding Subrecords and Understanding the Address Subrecord.

For information about defining a saved search, see the help topic Defining a Saved Search.

Change to Entity Saved Search

We modified the Entity saved search when searching customer-vendor relationship entities. Prior to 2019.2, when the customer and vendor shared the same subsidiary, the Entity search returned only one instance of that subsidiary. In 2019.2, the search logic returns two instances of the shared subsidiary, enabling you to quickly identify the subsidiary that is shared.

This change applies to searches run through the user interface and through existing scripts. You are not required to change scripts.

The returned results adhere to your user role restrictions, and respects roles with Allow Cross-Subsidiary Record Viewing.

Change to Subsidiary Saved Search

We modified the Subsidiary saved search to include subsidiary restriction logic. In 2019.2, search results adhere to your user role restrictions, and respects roles with Allow Cross-Subsidiary Record Viewing.

This change applies to searches run through the user interface and through existing scripts. You are not required to change scripts.

CSV Import

NetSuite 2019.2 includes the following enhancement to CSV Import:

Newly Supported Record Types for CSV Import

View the CSV import new feature training video.

Record Type	Notes
Foreign Currency Variance Posting Rule	Each foreign currency variance posting rule specifies the account into which NetSuite posts gains or losses resulting from foreign currency variances. To use foreign currency variance posting rules, you must enable the Foreign Currency Variance Mapping feature on the Accounting subtab at Setup > Company > Setup Tasks > Enable Features. To import foreign currency variance posting rules in the Import Assistant, set the **Import Type** to **Rules Setup**, and the **Record Type** to **Foreign Currency Variance Posting Rule**. For more information, see Foreign Currency Variance Posting Rule Import.
CMS Page	The CMS page record enables you to create different pages for hosting content on your website. The CMS page CSV import enables you to use specific pages on your imports along with items and categories. To use CMS pages, you must enable the Site Management Tools feature on the Web Presence subtab at Setup > Company > Setup Tasks > Enable Features. To import CMS page data, in the Import Assistant, set the **Import Type** to **Website**, and the **Record Type** to **CMS Page**. For more information, see CMS Page Import.

SuiteFlow (Workflow Manager)

NetSuite 2019.2 includes the following enhancements to SuiteFlow features:

- Workflow Actions and Sublists
- Translation Support for Workflow Names and States
- Mode Switching in Workflow Manager

Workflow Actions and Sublists

As of 2019.2, you can set the following workflow actions to execute on supported sublists:

- Return User Error
- Set Field Value
- Set Field Display Type

This enhancement increases the functionality on sublists and allows for greater customization of workflows. For an overview of SuiteFlow actions, including action properties, triggers, and conditions, see the help topic Workflow Actions.

To set an action to execute on a sublist, in a workflow, select the state that you want to add the action to. Click the New Action icon in the context panel. In the New Action window, click an action. In the Triggering Client Fields section of the Workflow Action window, choose Sublist, and complete the parameters and conditions section of the action. When you are done entering the action details, click Save. For more information, see the help topic Creating an Action.

> **Note:** Currently, SuiteFlow only supports the Items sublist on transaction record types.

Return User Error Action

The Return User Error action has been enhanced to support client triggers on supported sublists. Now you can provide real-time feedback to users when they interact with fields on supported sublists. You can also include the values from the current sublist in the error message if the workflow action was triggered by the sublist field.

You can trigger the Return User Error action on a sublist by using one of the following client triggers:

- After Field Edit
- After Field Sourcing

For more information about the Return User Error action, see the help topic Return User Error Action.

Set Field Value Action

The Set Field Value action has been enhanced to support client triggers on supported sublists. You can use the Set Field Value action on supported sublists to do the following:

- Insert data into a body field.
- Implement form calculations and automatically insert calculated values.
- Insert a value into a sublist field.
- Read the value in the sublist field and insert it into a body field.

For more information about the Set Field Value action, see the help topic Set Field Value Action.

Set Field Display Type Action

The Set Field Display Type action has been enhanced to support client triggers on supported sublists. You can use this enhancement to further customize workflows, creating workflows that meet specific user needs. You can use the Set Field Display Type action to do the following on custom fields on supported sublists:

- Show columns
- Hide columns
- Disable columns
- Make columns read-only
- Make columns editable

You can use any server trigger to complete all of the actions listed above. You can only use client triggers to complete the following actions:

- Disable columns
- Make columns read-only
- Make columns editable

> **Note:** Built-in fields or columns do not support this feature.

For more information about the Set Field Display Type action, see the help topic Set Field Display Type Action.

Translation Support for Workflow Names and States

As of 2019.2, if multi-language support is enabled on your account, you can enter translated strings for workflow names and states. You can enter translations for every active language on the account. This enhancement allows you to easily develop international customizations without having to create language-specific workflows.

To enter translated strings for workflow names and states, the Multi-Language feature must be enabled on your account and you need to be logged in using a role that has the Workflow permission assigned. For more information about enabling the multi-language feature, see the help topic General Company Features. On the General Preferences page, select the languages for which you want to translate the workflow names and states. For more information, see the help topic Configuring Multiple Languages.

Workflow Names

When you create new workflows, you can enter translated strings for workflow names on the Workflow Definition page. In the Translation column, enter the translated string next to the appropriate language. To enter translated strings for existing workflows, on the Workflow list page, click Edit next to the workflow that you want to revise. In edit mode in the Workflow Manager, click the edit icon on the Context Panel. Click the Translation subtab and enter the translated strings in the Translation column. By default, if you leave the Translation column blank for a language, the workflow name is displayed in the company language.

The translated workflow name appears in numerous places in the UI, including in saved searches, on the Workflow History subtab, and on the state record.

Even if you enter a translated string for a workflow name, the workflow name is displayed in the company language in the following locations:

- Workflow execution logs (the translated string is used in the header of the workflow log contents)
- Deleted record

Workflow State Names

You can enter translated strings for workflow state names in the Workflow Diagrammer. In Edit mode in the Workflow Manager, highlight a state, and click the edit icon on the Context Panel. On the Workflow State popup window, click the Translation subtab, and enter the translated strings in the Translation column. By default, if you leave the Translation column blank for a language, the workflow state name is displayed in the company language.

The translated workflow state name appears in numerous places in the UI, including on the workflow record, on the Workflow History subtab, and conditions in saved searches.

Even if you enter a translated string for a workflow state name, the workflow state name is displayed in the company language in the following locations:

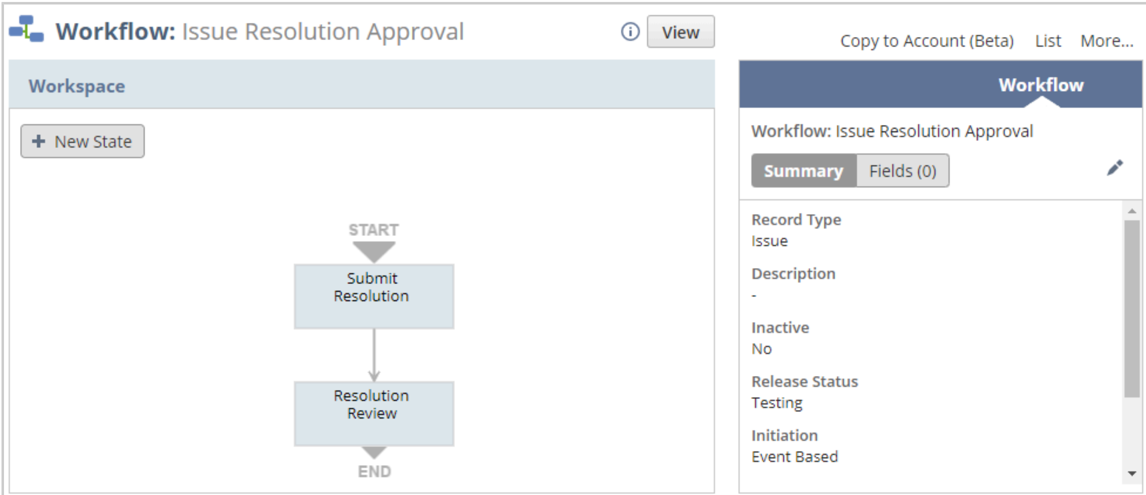
- Workflow execution logs (the translated string is used in the header of the workflow log contents)
- Deleted record

Mode Switching in Workflow Manager

As of 2019.2, the Workflow Manager interface was improved to make it more intuitive to switch between view and edit mode in the Workflow Manager.

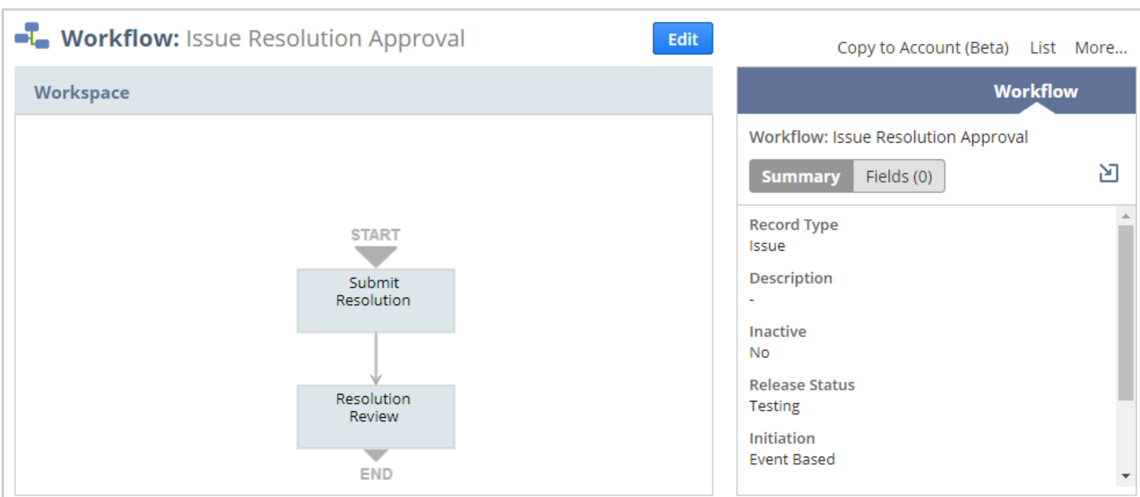
Previously, to switch to view mode in the Workflow Manager, you clicked Done Editing. As of 2019.2, to switch to view mode in the Workflow Manager, you click View.

The following screenshot shows the location of the View button in the Workflow Manager:



The method used to switch to edit mode in the Workflow Manager has not changed. To switch to edit mode, click Edit.

The following screenshot shows the location of the Edit button to switch modes in the Workflow Manager:



For more information, see the help topic Workflow Manager Interface.

SuiteScript

Refer to the following sections for details on SuiteScript updates for NetSuite 2019.2:

- New Feature Previews in SuiteAnswers
- Introducing SuiteScript 2.1 (Beta) and ES.Next Support
- Change in Response Type in SuiteScript 2.1 RESTlets
- Context Filtering for User Event and Client Script Execution

- Enhancements for the N/sftp Module
- Enhancements for the N/format/i18n Module
- Merge Revenue Arrangements Using SuiteScript
- Remove Personal Information Using SuiteScript
- New TemplateRenderer.addQuery Method for N/render Module
- Translations for Button Labels
- Support for Mapped Results in the N/query Module
- Enhancements to Digital Certificate Management
- New N/commerce/recordView Module
- Bulk Actions API Now Generally Available
- Support for Package ID in the N/search Module
- Support for Relative File Paths in the N/file Module
- Seamless Login to the SuiteScript Debugger
- New Payment Postback Context for Script Execution
- Change to Scripting with Payee Address Data
- Upcoming Change to Scripts on the Subsidiary Record Currency Field
- Suitelet External URLs Now Use Account-Specific Domains
- URL APIs Now Return Account-Specific Domains
- 2019.2 SuiteScript Record Exposures
- 2019.2 SuiteScript Records Browser
- SuiteCloud IDE Plug-ins are Now Part of SuiteCloud SDK

New Feature Previews in SuiteAnswers

You can watch a New Feature Preview video to learn about the major SuiteScript features introduced in 2019.2. To access the video, visit the following link:

SuiteCloud: SuiteScript

SuiteAnswers includes New Feature Previews for other NetSuite features introduced in 2019.2. For a full list, do the following:

1. Visit SuiteAnswers.
2. At the top of the main SuiteAnswers page, click **Videos**.
3. On the left, click **2019.2 New Feature Previews**.

For more information about SuiteAnswers, see the help topic SuiteAnswers Overview.

Introducing SuiteScript 2.1 (Beta) and ES.Next Support

> **Warning:** SuiteScript 2.1 is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. The documentation for this feature is also considered a beta version and is subject to revision.

In 2019.2, a new version of SuiteScript is available as a beta feature. This new version, SuiteScript 2.1, is based on the ECMAScript 2018 (ES2018) edition of the ECMAScript specification. It includes new language capabilities and functionality, and it supports all server-side script types (such as user event scripts, scheduled scripts, and Suitelets). The supported version of ECMAScript for client scripts depends on the web browser you use. For more information, see ECMAScript compatibility table. SuiteScript 2.1 and future versions of SuiteScript will also support features planned for future editions of the ECMAScript specification using ES.Next.

SuiteScript 2.0 is based on the ECMAScript 5.1 (ES5.1) edition of the specification, and it does not support the language capabilities included in ES2018 or future editions using ES.Next. For more information about ES2018, see JavaScript language resources.

> **Important:** In 2019.2, you cannot debug SuiteScript 2.1 scripts using the SuiteScript Debugger. You can use logging to debug these scripts. Support for debugging SuiteScript 2.1 scripts will be available in a future release of NetSuite.

To learn more about SuiteScript 2.1, see the following sections:

- New SuiteScript Version
- Opt-in for SuiteScript 2.1 Beta
- Support for ES2018 and ES.Next

New SuiteScript Version

SuiteScript 2.1 represents the latest version of SuiteScript, and it is being released as a beta feature in 2019.2. This version is separate from previous SuiteScript versions (1.0 and 2.0), and you can create and run SuiteScript 2.1 scripts alongside SuiteScript 1.0 and 2.0 scripts in your account. Your existing scripts are not affected. SuiteScript 2.1 is backward compatible with SuiteScript 2.0, which means that SuiteScript 2.0 scripts work as expected when they are run using SuiteScript 2.1. For more information, see the help topic SuiteScript Versioning Guidelines.

The **`@NApiVersion`** JSDoc tag specifies which version of SuiteScript your script uses. As of this release, there are three supported values for the **`@NApiVersion`** tag:

- 2.0
- 2.1
- 2.x

The 2.0 and 2.1 values indicate that the script uses the corresponding version of SuiteScript. The 2.x value always represents the latest version of SuiteScript that is generally available. It does not represent any versions that are released as beta features. Because SuiteScript 2.1 is being released as a beta feature in 2019.2, the 2.x value indicates that a script uses SuiteScript 2.0. When SuiteScript 2.1 is generally available in a future release, the 2.x value will indicate that a script uses SuiteScript 2.1.

> **Important:** If your existing scripts use the 2.x value, you should evaluate these scripts to determine if this value is appropriate. When SuiteScript 2.1 is generally available in a future release, your 2.x scripts will automatically use SuiteScript 2.1.

Opt-in for SuiteScript 2.1 Beta

In 2019.2, your existing scripts continue to work as expected. To use SuiteScript 2.1, you must explicitly opt in to the beta. You can opt in by specifying an **`@NApiVersion`** of 2.1 in the JSDoc tag comment block of your script:

```
            /**
* @NApiVersion 2.1
*/
```

For more information about the `@NApiVersion` JSDoc tag, see the help topic SuiteScript 2.0 JSDoc Validation.

Support for ES2018 and ES.Next

SuiteScript 2.1 supports ES2018, which is the latest published edition of the ECMAScript specification (SuiteScript 2.0 supports ES5.1 only). ES2018 includes many improvements to previous editions of ECMAScript, as well as new language features. For example, ES2018 adds support for constants, block-scoped variables and functions, customizable iterator behavior, typed arrays, and more. You can take advantage of these features when you write SuiteScript 2.1 scripts. You can also consider converting your existing SuiteScript 2.0 scripts to SuiteScript 2.1, since some of these new features may help you improve performance or refactor your code.

In future releases, SuiteScript will continue to support the latest published edition of ECMAScript using ES.Next. ES.Next does not represent a published edition of the ECMAScript specification. Instead, ES.Next refers to future editions of ECMAScript that have not been released yet. ES.Next includes proposed features that have not been approved for inclusion in an official edition. When one of these features is approved, it will be included in the next published edition of the ECMAScript specification. SuiteScript supports all future published editions of ECMAScript. Future minor versions of SuiteScript will also be backward compatible with previous versions. For more information, see ECMAScript Support.

Here is an example of using an ES2018 feature in SuiteScript 2.1. ES2018 lets you spread the values from two Objects into a new Object:

```
const createDynamicRecord = (options) => {
    const defaultOptions = {
        isDynamic: true
    };

    // ES2018 Spread Syntax
    // Spread values from two Objects into a new Object, and create a new record
    return record.create({
        ...defaultOptions,
        ...options
    });
}

const cashSale = createDynamicRecord({
    type: record.Type.CASH_SALE,
    defaultValues: {
        'subsidiary' : '1'
    }
});
```

In this example, an arrow function called `createDynamicRecord()` is created. This function uses a set of default parameter values (represented by `defaultOptions`) that apply to all records created using this function. When this function is called, additional parameter values can be specified, and these additional values are merged with the default parameter values when record.create(options) is called.

Change in Response Type in SuiteScript 2.1 RESTlets

In 2019.2, SuiteScript 2.1 is being released as a beta feature. SuiteScript 2.1 changes the way that RESTlet responses are formatted for certain content types. When the `Content-Type` in the RESTlet header does not match the actual type that the RESTlet is returning, the result returned may not be what you are expecting.

Read the following sections to learn about the current SuiteScript 2.0 behavior, the changed behavior in SuiteScript 2.1, and what you need to do to make sure your RESTlets continue to work as expected after SuiteScript 2.1 becomes generally available.

SuiteScript 2.0 Behavior

In SuiteScript 2.0, if the `Content-Type` in the RESTlet header is `application/json`, the response is automatically converted to a string and that string is returned instead of a JavaScript object.

SuiteScript 2.1 Behavior

In SuiteScript 2.1, the behavior has been corrected. If the `Content-Type` in the RESTlet header is `application/json`, the response will not be converted to a string if the value is already a string. In this case, the return type for JSON will be an object, not a string.

What You Need To Do

When SuiteScript 2.1 is generally available in a future release, RESTlets that specify an @NApiVersion value of 2.x will run automatically as SuiteScript 2.1 scripts. If your RESTlet includes a content type mismatch as described above, your script may not work as expected. For more information about the SuiteScript 2.1 beta feature and its impact, see Introducing SuiteScript 2.1 (Beta) and ES.Next Support.

Review all of your RESTlet scripts and your client code that sends requests to the RESTlet URLs generated by NetSuite, and correct the mismatch between the `Content-Type` header and the return type. If the types do not match, perform one of the following options to ensure your RESTlets work correctly:

- Set the `Content-Type` header to `application/text` only for the RESTlets that return text.
- Set the `Content-Type` header to `application/json` if your RESTlet returns a JavaScript object, and remove the `JSON.stringify()` call from your RESTlet response return statement. For example, change

  ```
  return JSON.stringify(obj)
  ```

  to

  ```
  return obj
  ```

You should do this before SuiteScript 2.1 becomes generally available to avoid any issues with your RESTlets.

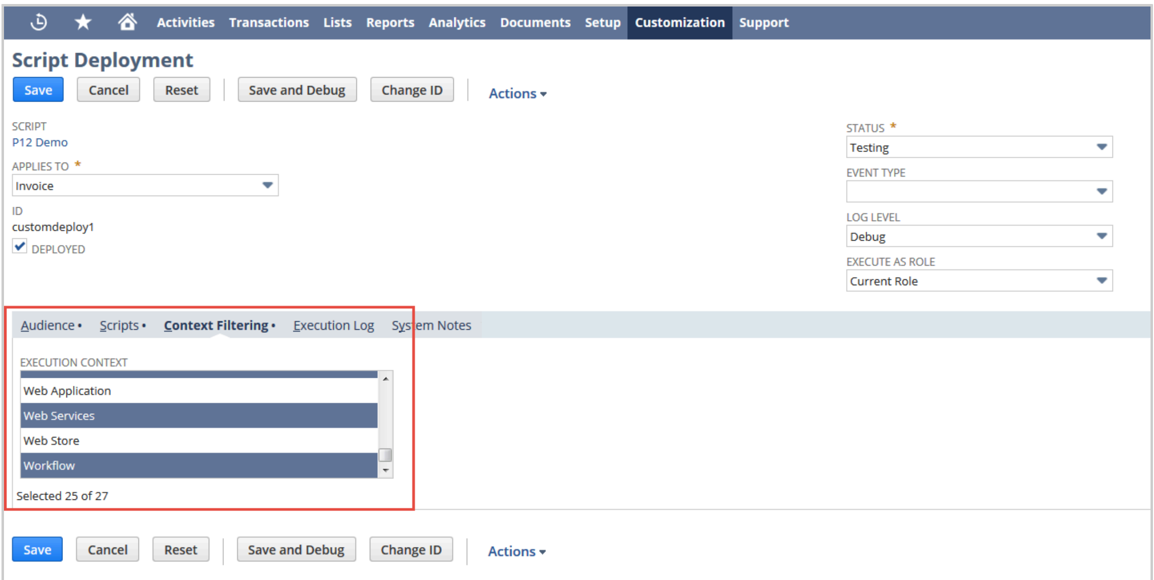
Context Filtering for User Event and Client Script Execution

As of 2019.2, you can define the contexts in which a user event script or client script can execute. You can disable script execution for specific contexts programmatically or in the UI. This capability is supported for both SuiteScript 1.0 and 2.0 scripts.

Disabling script execution for certain contexts eliminates unnecessary performance overhead in contexts where the script is not needed. Consequently, performance may improve in these contexts. For example, if a script does not apply to data changes resulting from CSV import or web services, you can disable these contexts for that script's deployments. Performance for CSV imports and web services integrations may improve when scripts are set not to run in those contexts. To enhance Commerce performance, script execution is disabled by default in Commerce contexts. You can enable execution of specific scripts in these contexts as needed.

Context Filtering on the Script Deployment Record

The **Context Filtering** subtab has been added to script deployment records for user event scripts and client scripts.



The **Execution Context** field lists values for contexts that can trigger scripts to execute. Most context values are enabled by default. For each deployment, you can make changes to these default settings by selecting one or more context values.

Only two context values are disabled by default: Web Application, the context value for SuiteCommerce and SuiteCommerce Advanced, and Web Store, the context value for SCIS. These Commerce contexts are disabled to reproduce the default settings for the **Execute in Commerce Context** box. This box was previously available on script deployment records and was disabled by default. As of 2019.2, the new **Execution Context** field replaces the **Execute in Commerce Context** box. Each script deployment's setting for **Execute in Commerce Context** has been migrated to the new field.

Setting Execution Context Value Programmatically

You do not have to filter script execution contexts in the UI. This capability is fully scriptable. You can use the N/query Module to programmatically search for script deployments, as shown in the following sample code. For the selected deployments, you can set the Execution Context field value programmatically as needed to disable script execution in certain contexts.

```
require(['N/query'], function(query) {
      var q = query.create({type: "scriptdeployment"});
      var contexts = q.join({fieldId: "executioncontext"});
      q.condition = contexts.createCondition({
            fieldId: "id",
            operator: "ANY_OF",
```

```
            values:["WEBSERVICES", "RESTLET"] // Contexts list
      });
      q.columns = [
            q.createColumn({fieldId: "primarykey", groupBy: true})
      ];

      var res = q.run();
      log.debug("# of script deployments found: " + res.results.length);
})
```

SuiteApps Support for Context Filtering

SDF and SuiteBundler support execution context settings on script deployment records. This support means that, for scripts included in a SuiteApp, these settings are reproduced in accounts where the SuiteApp is installed. For information, see SDF Now Supports Script Execution Context and Script Execution Context Supported in Bundles.

Enhancements for the N/sftp Module

2019.2 includes full functionality of the SFTP API. New methods for file handling are included.

The SFTP API includes the following functionalities:

- Connection.makeDirectory(options) creates an empty directory.
- Connection.removeDirectory(options) removes an empty directory.
- Connection.removeFile(options) removes a file in a directory.
- Connection.move(options) moves a file or directory from one location to another.
- Connection.list(options) lists the remote directory.

For more information, see N/sftp Module.

In addition, you can now use SSH keys and certificates to authenticate your connection. For more information on uploading SSH keys, see SSH Keys for SFTP. To support using SuiteScript 2.0 to access SSH Keys, a new N/keyControl Module is now available.

Enhancements for the N/format/i18n Module

2019.2 includes enhancements for the N/format/i18n module. New methods that allow you to format numbers to currency or number strings are included.

The N/format/i18n module now includes the following methods:

- format.getCurrencyFormatter(options) can format numbers to currency strings.
- format.getNumberFormatter(options) can format numbers to number strings.

The N/format/i18n module has the following new objects:

- format.CurrencyFormatter encapsulates the currency formatter object.
- format.NumberFormatter encapsulates the number formatter object.

For more information, see the N/format/i18n Module.

Merge Revenue Arrangements Using SuiteScript

In 2019.2, you can use SuiteScript to merge revenue arrangements or revenue elements. A revenue arrangement is a transaction that records the details of a sale for the purposes of revenue allocation and recognition. A new SuiteScript 2.0 module, N/task/accounting/recognition, lets you combine revenue arrangements or revenue elements from multiple sources to represent a single contract for revenue allocation and recognition. In previous releases, you could merge revenue arrangements or revenue elements only in the NetSuite UI.

Using the N/task/accounting/recognition module, you can do the following:

- Create a merge task that combines entire revenue arrangements or individual revenue elements using recognition.create(options). This method returns a recognition.MergeArrangementsTask object (when merging revenue arrangements) or recognition.MergeElementsTask object (when merging revenue elements) that represents the merge task. After you obtain one of these objects, you can set its properties (such as the list of arrangements or elements to merge, the date on the merged revenue arrangement, whether to prospectively merge arrangements, and so on) and submit the task for processing.
- Check the status of a submitted merge task using recognition.checkStatus(options). This method returns a recognition.MergeArrangementsTaskStatus object that describes the current status of the merge task (pending, processing, complete, or failed). If the task completes successfully, this object includes the ID of the merged revenue arrangement record that was created. If the task fails, this object includes an error message that describes the failure.

For more information about revenue arrangements, see the following help topics:

- Revenue Arrangement Management: This topic describes revenue arrangements in general.
- Combination and Modification of Performance Obligations: This topic describes the different types of merge results (combined revenue arrangements and prospective change orders).
- Revenue Arrangement: This topic describes the revenue arrangement record type, including scripting considerations, supported script types, and sublist fields.

Remove Personal Information Using SuiteScript

A Personal Information (PI) Removal API is now available to remove personal information from system notes, workflow history, and specific field values.

The N/piremoval module methods let you create, load, or delete a PI removal task. The PiRemovalTaskStatus object provides the task status, and the PiRemovalTaskLogItem object provides a log of the field values, system notes, and workflow history records processed.

For more information about removing personal information in the UI, see Personal Information (PI) Removal.

For more information about using the API, see N/piremoval Module.

New TemplateRenderer.addQuery Method for N/render Module

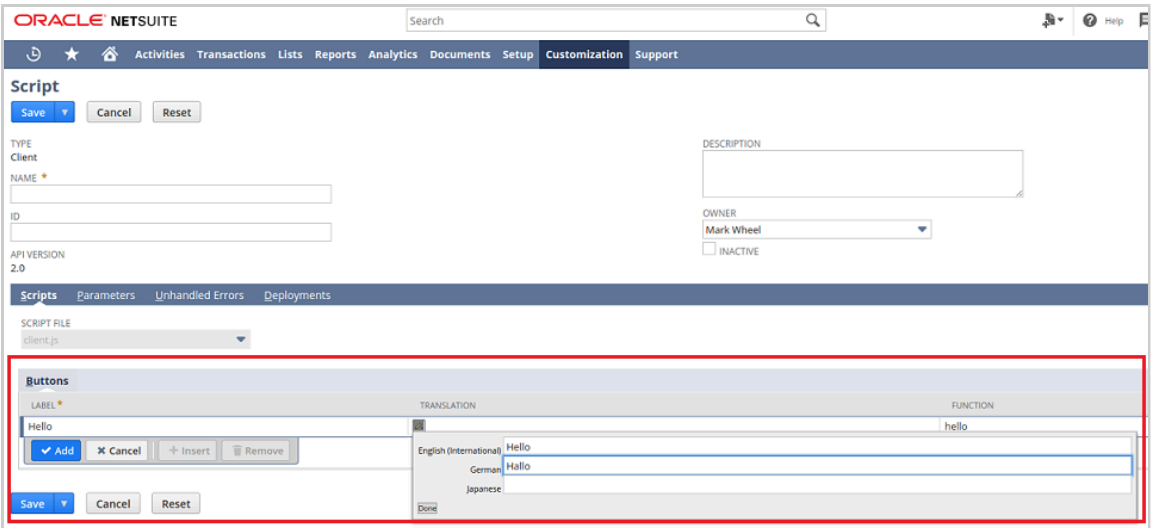
The 2019.2 release provides a new TemplateRenderer.addQuery(options) method to print SuiteAnalytics Workbook queries. You can specify the entire query in the script, or use the ID of an existing query as the renderer's data source.

For more information about the render.TemplateRenderer object, see the help topics render.TemplateRenderer and TemplateRenderer.addQuery(options).

Translations for Button Labels

As of 2019.2, you can write translations for button labels when you create buttons on client script records.

All languages are supported but only those available in your account are displayed. If you leave the Translation field empty, the translation defaults to what is set in the Label field.



The feature for adding translations is only available in accounts with the Multi-Language feature enabled. To enable multiple languages, see the help topic Setting Language Preferences.

For more information, see the help topic Script Record Creation.

Support for Mapped Results in the N/query Module

In 2019.2, you can obtain query results as mapped results. A new optional property, Column.alias, represents an alias for a query.Column object. An alias is an alternate name for a column, and the alias is used in mapped results. You must specify an alias for a column when the column uses a formula. You must also specify an alias when two columns in a joined query use the same field ID. For example, many record types include the `entity` field ID. If you join two record types that use the `entity` field ID, and you use the `entity` field ID to create result columns for both record types, you must specify an alias for one of the columns. This alias distinguishes the two columns that have the same field ID.

A new method, Result.asMap(), returns a query result as a JavaScript object with key-value pairs. In this returned object, the key is either the field ID or the alias that was used for the corresponding query.Column object. A new method, ResultSet.asMappedResults(), returns an array of JavaScript objects, each of which represents a mapped result. When you call ResultSet.asMappedResults(), the Result.asMap() method is called on each query.Result object in the result set.

For more information, see the help topic N/query Module.

Enhancements to Digital Certificate Management

NetSuite 2019.2 brings additional enhancements to digital certificate management, allowing full control of the digital certificate life cycle through SuiteScript 2.0. The N/certificateControl module now includes methods to upload digital certificates, edit the certificate record details, and delete digital certificates. The N/https/clientCertificate Module now includes methods for get, put, delete, and request. For more information, see the help topics N/certificateControl Module and N/https/clientCertificate Module.

When you upload or edit digital certificate details in the UI, the Certificate popup has a new Audience tab. The Subsidiaries and Expiration Reminders fields are relocated from the Details tab to the Audience tab. The Audience tab also includes two new fields:

- **Restrict to Employees** – Select specific employees who should have access to the certificate. Employees must also have the Administrator role or a role with the Certificate Access permission.
- **Copy Employees** – Select employees to copy on email reminders about certificates that will expire soon.

In addition, NetSuite provides support for PEM certificate types as of version 19.2. These updates enable you to build custom applications better for localized markets where digital document signing is required.

For more information on Digital Certificates and Digital Signing, see the help topics Uploading Digital Certificates and Digital Signing.

New N/commerce/recordView Module

NetSuite 2019.2 adds the first Commerce-related SuiteScript 2.x module. The N/commerce/recordView Module provides fast, cached, and public access to the web store item fields and website settings. See SuiteScript 2.x – N/commerce/recordView Module for more details.

Bulk Actions API Now Generally Available

As of 2019.2, the bulk actions APIs are generally available.

Use SuiteScript 2.0 bulk action APIs to execute an action on multiple record instances of the same type, either with the same or different parameters.

The bulk action API has the following N/action Module APIs:

- Action.executeBulk(options) (Beta) executes an asynchronous bulk record action and returns its task ID for status queries with Action.executeBulk(options) (Beta).
- action.getBulkStatus(options) (Beta) returns the current status of action.executeBulk(options) for the specified task ID. The bulk execution status is returned in a status object.
- action.executeBulk(options) (Beta) executes an asynchronous bulk record action and returns its task ID for status queries with Action.executeBulk(options) (Beta).

Use the N/task Module to create record action tasks and place them in the internal NetSuite scheduling or task queue.

For more information about SuiteScript 2.0 actions, see the help topic Overview of Record Action and Macro APIs.

Support for Package ID in the N/search Module

In 2019.2, a new property, Search.packageId, is available in the N/search module. This property represents the application ID for a saved search. An application ID identifies a SuiteApp project and is a fully qualified name with the following notation: `<publisherid>.<projectid>` (for example, `com.netsuite.mysuiteapp` or `org.mycompany.helloworld`). In previous releases, when you saved a search using Search.save(), the application ID for the search was not populated. If the application ID was previously specified for the saved search in the NetSuite UI, saving the search using Search.save() removed the application ID. Now, the application ID is preserved when you save a search.

When you create a search using search.create(options), you can specify the application ID using the new `options.packageId` parameter.

To use this feature, the Show App ID Field preference must be enabled in your NetSuite account. For more information, see the help topic SDF Account Preferences (SDF Developers Only). For more information about saved searches in SuiteScript, see the help topic N/search Module.

Support for Relative File Paths in the N/file Module

In 2019.2, you can specify a relative file path when you load a file using the file.load(options) method in the N/file module. Relative paths always start with `./` or `../`. Previously, you could load a file only by specifying the internal ID of the file or the absolute file path to the file in the File Cabinet. For more information, see the help topic N/file Module.

Seamless Login to the SuiteScript Debugger

In 2019.2, you do not need to enter your NetSuite credentials to access the SuiteScript Debugger when you are already logged in to NetSuite. Previously, when you logged in to NetSuite and opened the SuiteScript Debugger, you needed to enter your NetSuite credentials again. Now, you are logged in to the debugger automatically.

When you access the SuiteScript Debugger, you are logged out of your current NetSuite session. This behavior has not changed in this release. If you log in to the NetSuite UI again, you are logged out of your debugger session.

For more information, see the help topic SuiteScript Debugger.

New Payment Postback Context for Script Execution

NetSuite 2019.2 introduces the `paymentpostback` context.

The previously used `userevent` context was not specific enough. Consequently, some scripts were executing when a payment gateway updated payment processing status to success or reject. In this case, no transaction changes occur, so no recalculations are required and the execution of most scripts is unnecessary.

With NetSuite 2019.2, the `paymentpostback` context is distinguished from the `userevent` context when an asynchronous payment gateway update occurs. Script execution occurs only if it is required for this specific context.

- For scripts that handle payment processing, use the `paymentpostback` context instead of `userevent`. Otherwise, the script will not be executed after your account is upgraded to 2019.2.
- To improve performance of asynchronous gateway updates, use the `paymentpostback` context to execute only necessary scripts.
- In any payment processing scripts that use contexts in `if.else` statements, use the `paymentpostback` return value.
  - In SuiteScript 2.0: `if (runtime.executionContext === runtime.ContextType.PAYMENTPOSTBACK)`
  - In SuiteScript 1.0: `if (nlapiGetContext().getExecutionContext() == 'paymentpostback')`

You can use the new script execution context filtering capability to disable user event and client script execution in specific contexts. See Context Filtering for User Event and Client Script Execution.

Change to Scripting with Payee Address Data

As of 2019.2, payee address data is stored in a subrecord instead of a text field for the check, customer refund, and vendor payment transactions. On UI forms for these transactions, the address information is now displayed in a sublist instead of a single field. SuiteScript includes specialized APIs that you must use to script with subrecord data. You should use these subrecord APIs to script with payee address data.

For details about scripting subrecords with SuiteScript 2.0, see:

- SuiteScript 2.0 Scripting Subrecords
- Record Object Members
- CurrentRecord Object Members
- Understanding the Address Subrecord

For details about scripting subrecords with SuiteScript 1.0, see:

- Working with Subrecords in SuiteScript
- Subrecord APIs
- Using SuiteScript with Address Subrecords

Warning: This change may impact existing scripts that reference payee address data for check, customer refund, or vendor payment transactions. You should review these scripts to determine whether updates are needed.

Upcoming Change to Scripts on the Subsidiary Record Currency Field

Currently, getting the text or value of the **Currency** field on the subsidiary record returns inconsistent results depending on whether the field is being accessed in edit or read-only mode. As of 2020.1, this behavior will change to ensure results are consistent.

To avoid unexpected results after your account is upgraded to 2020.1, you should modify any scripts that get the text or value of the subsidiary record **Currency** field while in read-only mode. The **Currency** field is read-only after a subsidiary record is created and saved.

For example, scripts currently return the following for these APIs in read-only mode:

Version	API	Current Value Returned
SuiteScript 1.0	`nlapiGetFieldValue('currency')`	The text value stored in the field. For example, “USD.”
	`nlapiGetFieldText('currency')`	null
	`nlapiGetFieldValue('currencyvalue')`	The internal ID of the value stored in the field. For example, 1.
SuiteScript 2.0	`record.getValue({fieldId:’currency’})`	The text value stored in the field. For example, “USD.”
	`record.getText({ fieldId:’currency’})`	The text value stored in the field. For example, “USD.”
	`record.getValue({ fieldId:’currencyvalue’})`	The internal ID of the value stored in the field. For example, 1.

In 2020.1, these SuiteScript APIs will return the following:

Version	API	2020.1 Value Returned
SuiteScript 1.0	`nlapiGetFieldValue('currency')`	The internal ID of the value stored in the field. For example, 1.
	`nlapiGetFieldText('currency')`	The text value stored in the field. For example, “USD.”
	`nlapiGetFieldValue('currencyvalue')`	The internal ID of the value stored in the field. For example, 1. This field ID will be deprecated in 2020.2.
SuiteScript 2.0	`record.getValue({fieldId:’currency’})`	The internal ID of the value stored in the field. For example, 1.
	`record.getText({ fieldId:’currency’})`	The text value stored in the field. For example, “USD.”
	`record.getValue({ fieldId:’currencyvalue’})`	The internal ID of the value stored in the field. For example, 1. This field ID will be deprecated in 2020.2.

Suitelet External URLs Now Use Account-Specific Domains

As of May 2019, Suitelets support a new format for external URLs. This format contains an account-specific domain instead of the generic forms.netsuite.com domain. Now, when you check the Available Without Login box on a script deployment for a Suitelet, the **External URL** field displays an external URL containing an account-specific domain. For more information about account-specific domains, see the help topic URLs for Account-Specific Domains.

In addition, the SuiteScript 1.0 API nlapiResolveURL(type, identifier, id, displayMode) and the SuiteScript 2.0 API url.resolveScript(options) now return URLs with account-specific domains for external URLs.

The **External URL (Deprecated)** field that displayed the previously supported Suitelet URL in 2019.1 is now removed.

> **Note:** The script ID, or internal ID, of the **External URL** field was `externalurlnew` in 2019.1. In 2019.2, the **External URL** field has the script ID `externalurl`.

If you have any hard-coded references to external URLs for Suitelets with the forms.netsuite.com domain, you must update these references. As of 2020.1 any external URL references with the old format will result in broken links. For access or redirection from another script to a Suitelet, the best practice is to use url.resolveScript(options) to discover the URL instead of hard-coding the URL.

URL APIs Now Return Account-Specific Domains

The following SuiteScript APIs now return URLs with account-specific domains:

- SuiteScript 1.0 API nlapiResolveURL(type, identifier, id, displayMode) now returns an account-specific domain when you set the `displayMode` parameter to ‘external.’
- SuiteScript 2.0 API url.resolveScript(options) now returns an account-specific domain when you set the `options.returnExternalUrl` parameter to true.

- SuiteScript 2.0 API url.resolveDomain(options) now returns an account-specific domain for all host types.

For more information about account-specific domains, see the help topic URLs for Account-Specific Domains.

2019.2 SuiteScript Record Exposures

Record Type	Newly Exposed/Updated	Notes
Employee Change Request	Newly Exposed	To use the employee change request record, you must enable and set up the Employee Change Requests, Effective Dating, and Advanced Employee Permissions features. To create an employee change request approval workflow in SuiteFlow, you must also enable the SuiteFlow feature. This record is scriptable in both client and server SuiteScript. Copy and transform are not supported.
Employee Change Request Type	Newly Exposed	To use the employee change request type record, you must enable and set up the Employee Change Requests, Effective Dating, and Advanced Employee Permissions features. This record is scriptable in both client and server SuiteScript. Copy and transform are not supported.
Employee Status	Newly Exposed	This record is scriptable in both client and server SuiteScript.
Employee Type	Newly Exposed	This record is scriptable in both client and server SuiteScript.
Financial Institution	Newly Exposed	To use this record, you must have the Financial Institution Records permission with full access. This record is scriptable in server SuiteScript. This record does not support client SuiteScript.
Format Profile	Newly Exposed	To use this record, you must have the Financial Institution Records permission with full access. The Format Profile record and its sublists are scriptable in both server and client SuiteScript.
Subsidiary Settings	Newly Exposed	Some subsidiary-specific features require additional setup before you can use them. The Subsidiary Settings Manager page enables you to manage these subsidiary-specific features that require additional setup. After you enable a subsidiary-specific feature on the Enable Features page, that feature is available on the Subsidiary Settings Manager page. This record is scriptable in server SuiteScript. All server-side script types are supported. Search is available only through SuiteAnalytics Workbook by searching for the Subsidiary Settings record type.
Unlocked Time Period	Newly Exposed	The unlocked time period record is available only when the Weekly Timesheets feature is enabled. Additionally, the Lock Timesheet Period accounting preference must be set to lock timesheets after a specified time. The unlocked time period record is scriptable in both client and server SuiteScript.

2019.2 SuiteScript Records Browser

The 2019.2 version of the SuiteScript Records Browser is now available.

You can find links to the SuiteScript Records Browser in several places, including the following:

- The help topic titled Using the SuiteScript Records Browser.
- The reference page for each supported record in the SuiteScript Records Guide. The SuiteScript Records Guide is available in the NetSuite Help Center and can be downloaded as a PDF from the User Guides topic.

SuiteTalk Web Services Integration

NetSuite 2019.2 includes the following enhancements to web services features:

- REST Web Services (Beta)
- Concurrency Limit per Integration
- Change to Schema for Payee Address Data on Three Transaction Types
- Schema Uses Relative Paths to XSD Files
- Field Type Change for Two Fields Affecting Multiple Record Types
- Merchandise Hierarchy Versions Sublist Available Through SOAP Web Services for Multiple Record Types
- New Fields and Sublist Available Through SOAP Web Services in Term Records
- Installment Sublist Available for Vendor Bill Records Through SOAP Web Services
- TaxDetails Sublist Available for Expense Reports Through SOAP Web Services
- SOAP Web Services Version 2019.2
- Araxis Merge Diff File for the 2019.2 Endpoint
- 2019.2 SOAP Schema Browser

REST Web Services (Beta)

View the REST Web Services New Feature training video.

> **Warning:** REST Web Services is a beta feature. The contents of this feature are preliminary and may be changed or discontinued without prior notice. Any change may impact the feature's operation with the NetSuite application. Warranties and product service levels do not apply to this feature or the impact of the feature on other portions of the NetSuite application. We may review and monitor the performance and use of this feature. The documentation for this feature is also considered a beta version and is subject to revision.

NetSuite 2019.2 provides beta support for REST web services. REST web services provide a REST-based interface for interacting with NetSuite. Using REST web services, you can:

- Use create, read, update, delete (CRUD) operations to perform business processing on records, subrecords, and sublists, and navigate dynamically between records. For details, see the help topic Working with Records.
- Get and process the API definition and record metadata. For details, see Working with Resource Metadata.
- Execute NetSuite queries on records. For details, see Record Query.

- Run saved analytics workbooks. For details, see Working with SuiteAnalytics Workbooks in REST Web Services.

To use REST web services, you must have:

- The REST Web Services feature enabled on the SuiteCloud subtab at Setup > Company > Setup Tasks > Enable Features.
- The SuiteAnalytics Workbook feature enabled on the Analytics subtab at Setup > Company > Setup Tasks > Enable Features.
- The REST Web Services and SuiteAnalytics Workbook permissions assigned to your role. For information about assigning the permission to your role, see REST Web Services Prerequisites and Setup.

For detailed information, see SuiteTalk REST Web Services.

All records available in SuiteScript are available in REST web services, too. For information about records supported in SuiteScript, see the SuiteScript Records Guide. All records in REST web services are considered beta until indicated otherwise.

Concurrency Limit per Integration

View a video about the latest enhancements to concurrency governance.

Concurrency limit per integration allows you to allocate part of your account's concurrent requests limit to specific integrations.

You can use concurrency limit per integration to ensure that:

- The specific integration to which this limit is allocated has the required bandwidth to function.
- The specific integration to which this limit is allocated does not use a too big part of your limit, blocking your other applications from working fluently.

To see and manage your available concurrency limit, go to Setup > Integration > Integration Management > Integration Governance.

When you allocate part of your account's concurrency limit to one application, you reduce the available concurrency limit for other integrations, which do not have a specific limit. You should only use this feature if you have a good reason to do so. For example, you may have an external application that you do not fully control and which occasionally sends a high number of concurrent requests. This sudden increase in concurrent requests can cause issues to other integrations. With this feature, you can now limit the number of concurrent requests allowed for this application to protect the functionality of the other integrations.

It is a best practice to have one account concurrency limit, without limits for each integration.

For more details on this topic, see Concurrency Limit per Integration.

Change to Schema for Payee Address Data on Three Transaction Types

As of the 2019.2 endpoint, payee address data is stored in a subrecord instead of a text field for the check, customer refund, and vendor payment transactions. On UI forms for these transactions, the address information is now displayed in a sublist instead of a single field. This change impacts integrations that reference payee address data for check, customer refund, or vendor payment transactions. You should review these integrations to determine whether updates are needed.

Schema Uses Relative Paths to XSD Files

As of the 2019.1 WSDL, the schema uses relative paths to XSD files.

If you encounter any issues, it is because of outdated tools. Make sure to upgrade the tools you are using to their latest versions.

Field Type Change for Two Fields Affecting Multiple Record Types

With the 2019.2 endpoint the fields laborResources and machineResources have changed from long type to double type. These fields can now contain fractional values.

The affected record types are Entity Group, Manufacturing Operation Task, Manufacturing Routing, and Work Order Completion.

The affected sublists are Routing Steps in the Manufacturing Routing record type and Operations in the Work Order Completion record type.

Respectively the search operations for laborResources and machineResources have changed from SearchLongField to SearchDoubleField and from SearchColumnLongField to SearchColumnDoubleField.

The affected searches are Entity Group Search (Row) Basic and Manufacturing Operation Task Search (Row) Basic.

> **Important:** The type of fields has also changed in the UI. If you are using an earlier endpoint than 2019.2 and try to get a fractional value that has been added in the 2019.2 UI, you will receive a warning. If the values in the fields are integer and not fractional, you will not receive the warning.

Example of warning for the laborResources field:

```
<platformCore:code>WARNING</platformCore:code>
                      <platformCore:message>Unable to parse value into the correct type. Problem occured on record
 type: float, internalid: 146, field : laborresources, value: 22.3</platformCore:message>
```

Example of warning for the machineResources field:

```
<platformCore:code>WARNING</platformCore:code>
                      <platformCore:message>Unable to parse value into the correct type. Problem occured on record
 type: float, internalid: 146, field : machineresources, value: 11.2</platformCore:message>
```

For more information, see the help topics Group (Entity Group) and Manufacturing Operation Task.

Merchandise Hierarchy Versions Sublist Available Through SOAP Web Services for Multiple Record Types

The 2019.2 endpoint makes the Merchandise Hierarchy Versions sublist available for the listed records types:

- AssemblyItem
- LotNumberedAssemblyItem

- SerializedAssemblyItem
- ServicePurchaseItem
- ServiceResaleItem
- ServiceSaleItem
- NonInventoryPurchaseItem
- NonInventoryResaleItem
- NonInventorySaleItem
- OtherChargePurchaseItem
- OtherChargeResaleItem
- OtherChargeSaleItem
- KitItem
- ItemGroup

The sublist contains the fields: hierarchyVersion, hierarchyNode, and isIncluded. The hierarchyVersion field is the sublist key.

Important: It is not possible to add any lines to the Merchandise Hierarchy Versions sublist.

Note: The record types ServicePurchaseItem, ServiceResaleItem, and ServiceSaleItem appear in the Record Browser under the ServiceItem group.

The record types NonInventoryPurchaseItem, NonInventoryResaleItem, and NonInventorySaleItem appear in the Record Browser under the NonInventoryItem group.

The record types OtherChargePurchaseItem, OtherChargeResaleItem, and OtherChargeSaleItem appear in the Record Browser under the OtherChargeItem group.

For more information on Merchandise Hierarchy, see the help topic Merchandise Hierarchy Overview.

New Fields and Sublist Available Through SOAP Web Services in Term Records

The 2019.2 endpoint makes the listed fields and the sublist available for the Term records:

installment	The installment field is available only if the Installment feature is enabled in Setup > Company > Setup Tasks > Enable Features, under the Accounting subtab. It is a Boolean field and can be set to true or false only when adding a new record. You cannot edit the installment field after you have created the term record. The rest of the fields and the sublist are available only when the installment field is set to true.
recurrenceFrequency	The recurrenceFrequency field is available only if the installment field is set to true. It is an enum field and is checked for the correct value from the list.
recurrenceCount	The recurrenceCount field is available only if the installment field is set to true. The value of this field determines the number of items in the sublist.
splitEvenly	The splitEvenly field is available only if the installment field is set to true.

	It is a Boolean field and when set to true, the sublist cannot be edited and any edit will be ignored.
repeatEvery	The repeatEvery field is mandatory, but available only if the installment field is set to true.
percentages.percentage	The percentages.percentage sublist is available only if the installment field is set to true and may be edited only if the splitEvenly field is set to false. The sublist is not returned with the Get operation if splitEvenly is set to true. The percentages sublist contains only the percentage field. The Update and Upsert operations can be used for the sublist, only if ReplaceAll is set to true.

For more information, see the help topic Term.

Installment Sublist Available for Vendor Bill Records Through SOAP Web Services

The 2019.2 endpoint makes the installment sublist and the overrideInstallments body field available for the Vendor Bill records.

To use the installment sublist, the Installment feature must be enabled in Setup > Company > Setup Tasks > Enable Features, under the Accounting subtab.

The installment sublist is available only for Update operation and contains the fields:

- dueDate
- amount
- amountDue
- seqNum – This is the key field in the sublist.
- status

Only values of the dueDate and amount fields can be edited and only when the overrideInstallments body field is set to true. You cannot add or remove lines on the sublist.

For the installment sublist to be generated:

1. Create a new payment Term with the installment field set to true. For more information, see New Fields and Sublist Available Through SOAP Web Services in Term Records.
2. Use the newly created payment Term in a Purchase Order to automatically generate installments content (the sublist is view-only on Purchase orders).
3. Use the Purchase Order to create a Vendor Bill record and make sure you are using the Term you have created.

For more information, see the help topic Vendor Bill.

TaxDetails Sublist Available for Expense Reports Through SOAP Web Services

The 2019.2 endpoint makes the taxDetails sublist available for Expense Report records and contains the fields:

- taxDetailsReference – Mandatory field when working with the sublist. The taxDetailReference field is available through SOAP web services both in the taxDetails and the expenses sublists and is used to link an item from the expenses sublist to the taxDetails one.
- name – The value of the field is automatically retrieved from the expenses sublist.
- netAmount – The value of the field is automatically retrieved from the expenses sublist.
- grossAmount
- taxType – Mandatory field when working with the sublist.
- taxCode – Mandatory field when working with the sublist.
- taxBasis – Mandatory field when working with the sublist.
- taxRate – Mandatory field when working with the sublist.
- taxAmount – Mandatory field when working with the sublist.
- details

There is no key field for the taxDetails sublist.

> **Note:** When adding a line in expenses and taxDetails sublists, you can enter a value of your choice in the taxDetailReference fields. This value will change to an automatically generated value as soon as the Expense Report has been created. To update the sublists, you will need to first retrieve the value of the taxDetailReference field using the Get operation.

In addition to the taxDetails sublist, the nexus and taxRegNum fields have been made available through SOAP web services, and they are mandatory when working with the sublist.

To use the taxDetails sublist you must enable the SuiteTax feature in Setup > Company > Setup Tasks > Enable Features, under the Tax subtab.

For more information, see the help topics Tax Details on Transactions in SuiteTax and Expense Report.

SOAP Web Services Version 2019.2

SOAP web services version 2019.2 is available. When your implementation is upgraded to 2019.2, the 2019.2 WSDL becomes available in your production account.

You do not need to upgrade your WSDL as soon as the new version is generally available. NetSuite supports each endpoint for three years. For information about the supported generally available versions, see the help topic Support for Existing WSDL Versions.

Araxis Merge Diff File for the 2019.2 Endpoint

The Araxis Merge Diff file highlights 2019.1 - 2019.2 schema changes.

- About the Araxis Diff File
- Using the Araxis Diff File

About the Araxis Diff File

NetSuite publishes an Araxis Diff File for every new endpoint. Depending on the scope of the release, changes described in the Araxis Diff File may include:

- New record types
- Elements (fields) that have been added, removed, or changed
- New sublists (lists)
- New joins
- New search filters and search return columns
- New platform operations

Using the Araxis Diff File

> ⚠ **Important:** The figures in this section are for illustrative purposes **only**. They do not reflect changes related to any specific endpoint.

The diff file is generated using Araxis Merge. When you click the diff file link (when it is available), a page appears that offers an overview of all schema changes.

The following screenshot shows how this summary page looks. In this example, the rows highlighted in purple indicate that an XSD has been modified. The integers at the center indicate the number of changed lines in the file. To see the exact differences, click the Report link in the column at the right, or click the name of the file in either column.

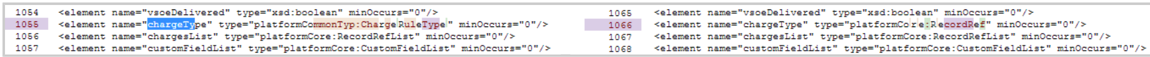
activities.scheduling.xsd	3	activities.scheduling.xsd	Report 1
activities.schedulingTypes.xsd	1	activities.schedulingTypes.xsd	Report 2
documents.fileCabinet.xsd	0	documents.fileCabinet.xsd	Report 3
documents.fileCabinetTypes.xsd	2	documents.fileCabinetTypes.xsd	Report 4
general.communication.xsd	3	general.communication.xsd	Report 5
general.communicationTypes.xsd	0	general.communicationTypes.xsd	Report 6
lists.accounting.xsd	32	lists.accounting.xsd	Report 7
lists.accountingTypes.xsd	5	lists.accountingTypes.xsd	Report 8
lists.employees.xsd	0	lists.employees.xsd	Report 9
lists.employeeTypes.xsd	0	lists.employeeTypes.xsd	Report 10
lists.marketing.xsd	0	lists.marketing.xsd	Report 11
lists.marketingTypes.xsd	0	lists.marketingTypes.xsd	Report 12
lists.relationships.xsd	10	lists.relationships.xsd	Report 13
lists.relationshipTypes.xsd	1	lists.relationshipTypes.xsd	Report 14
lists.supplyChain.xsd	0	lists.supplyChain.xsd	Report 15
lists.supplyChainTypes.xsd	0	lists.supplyChainTypes.xsd	Report 16
lists.support.xsd	2	lists.support.xsd	Report 17
lists.supportTypes.xsd	0	lists.supportTypes.xsd	Report 18

When you click any of these links, the diff file shows a page with two columns. The previous version of the file is displayed on the left, and the new version on the right. Changed elements are highlighted.

For example, the following screenshot shows an excerpt from the report on platform.commonTypes.xsd. Notice the addition of two values to the PermissionCode enumeration: _accessPaymentAuditLog and _advancedPDFHTMLTemplates.

500	<!-- PermissionCode/start -->	500	<!-- PermissionCode/start -->
501	<simpleType name="PermissionCode">	501	<simpleType name="PermissionCode">
502	<restriction base="xsd:string">	502	<restriction base="xsd:string">
		503	<enumeration value="_accessPaymentAuditLog"/>
503	<enumeration value="_accountDetail"/>	504	<enumeration value="_accountDetail"/>
504	<enumeration value="_accountingBook"/>	505	<enumeration value="_accountingBook"/>
505	<enumeration value="_accountingLists"/>	506	<enumeration value="_accountingLists"/>
506	<enumeration value="_accounts"/>	507	<enumeration value="_accounts"/>
507	<enumeration value="_accountsPayable"/>	508	<enumeration value="_accountsPayable"/>
508	<enumeration value="_accountsPayableGraphing"/>	509	<enumeration value="_accountsPayableGraphing"/>
509	<enumeration value="_accountsPayableRegister"/>	510	<enumeration value="_accountsPayableRegister"/>
510	<enumeration value="_accountsReceivable"/>	511	<enumeration value="_accountsReceivable"/>
511	<enumeration value="_accountsReceivableGraphing"/>	512	<enumeration value="_accountsReceivableGraphing"/>
512	<enumeration value="_accountsReceivableRegister"/>	513	<enumeration value="_accountsReceivableRegister"/>
513	<enumeration value="_accountsReceivableUnbilled"/>	514	<enumeration value="_accountsReceivableUnbilled"/>
514	<enumeration value="_adjustInventory"/>	515	<enumeration value="_adjustInventory"/>
515	<enumeration value="_adjustInventoryWorksheet"/>	516	<enumeration value="_adjustInventoryWorksheet"/>
516	<enumeration value="_admindocs"/>	517	<enumeration value="_admindocs"/>
517	<enumeration value="_adpImportData"/>	518	<enumeration value="_adpImportData"/>
518	<enumeration value="_adpSetup"/>	519	<enumeration value="_adpSetup"/>
519	<enumeration value="_advancedAnalytics"/>	520	<enumeration value="_advancedAnalytics"/>
		521	<enumeration value="_advancedPDFHTMLTemplates"/>
520	<enumeration value="_allocationSchedules"/>	522	<enumeration value="_allocationSchedules"/>
521	<enumeration value="_allowNonGLChanges"/>	523	<enumeration value="_allowNonGLChanges"/>

The diff file also shows changes to data types. The following screenshot is a snapshot of transactions.sales.xsd. Notice that the chargeType element changed from an enumeration to a RecordRef.



```
<element name="vsoeDelivered" type="xsd:boolean" minOccurs="0"/>
<element name="chargeType" type="platformCommonTyp:ChargeRuleType" minOccurs="0"/>
<element name="chargesList" type="platformCore:RecordRefList" minOccurs="0"/>
<element name="customFieldList" type="platformCore:CustomFieldList" minOccurs="0"/>
```

```
<element name="vsoeDelivered" type="xsd:boolean" minOccurs="0"/>
<element name="chargeType" type="platformCore:RecordRef" minOccurs="0"/>
<element name="chargesList" type="platformCore:RecordRefList" minOccurs="0"/>
<element name="customFieldList" type="platformCore:CustomFieldList" minOccurs="0"/>
```

2019.2 SOAP Schema Browser

The 2019.2 version of the SOAP Schema Browser is now available. You can find links to the SOAP Schema Browser in several places, including the following:

- The help topic titled SOAP Schema Browser.
- The reference page for each supported record in the SOAP Web Services Records Guide. The SOAP Web Services Records Guide is available in the NetSuite Help Center and can be downloaded as a PDF from the User Guides topic.

SuiteCloud SDK

SuiteCloud Software Development Kit (SuiteCloud SDK) are the tools you can use to develop SuiteCloud Development Framework (SDF) projects, the SuiteCloud IDE plug-ins, and SuiteCloud CLI.

SuiteCloud SDK for 2019.2 includes the following features and updates:

- Introducing SuiteCloud SDK
- 2019.2 SuiteCloud CLI for Java Is Now Available
- 2019.2 SuiteCloud IDE Plug-in for WebStorm Is Now Available
- 2019.2 SuiteCloud IDE Plug-in for Eclipse Is Now Available
- New SDF Project Structure in SuiteCloud SDK
- Creation of SuiteScript Files in IDE Plug-in for WebStorm
- Creation of Custom Objects in IDE Plug-in for WebStorm

Generally, 2019.2 plug-in behavior changes are designed to support SDF. In addition, SuiteCloud IDE plug-ins for versions 2017.1 and later have compatibility requirements. The version of your plug-in must match the version of your NetSuite account before you can use the plug-in to create SDF projects. For information about additional features that impact SuiteCloud IDE plug-ins and SuiteCloud CLI, see the release note for SuiteCloud Development Framework.

Introducing SuiteCloud SDK

As of 2019.2, the available tools for SuiteCloud development have been rebranded and moved under a new book named SuiteCloud SDK. For more information, see Getting Started with SuiteCloud SDK.

The new tool names are as follows:

- **SuiteCloud CLI for Java** – Formerly known as SDF SDK or SDF CLI. As of 2019.2, SuiteCloud CLI for Java refers to both the installation package you download from the Help Center and the tool itself.

  For more information, see the help topic Command Line Interface Guide.
- **SuiteCloud IDE Plug-in for WebStorm**

For more information, see the help topic SuiteCloud IDE Plug-in for WebStorm Overview.

- **SuiteCloud IDE Plug-in for Eclipse**

  For more information, see the help topic SuiteCloud IDE Plug-in for Eclipse Overview.

2019.2 SuiteCloud CLI for Java Is Now Available

SuiteCloud CLI for Java 2019.2 is now available for download. To install it, see the help topic Installing SDF SDK.

The CLI for Java is used with your own integrated development environment (IDE) to create SuiteCloud projects, including SuiteApps. You can also create batch and shell scripts that use CLI commands to automate your project validation and deployment processes. When used with your own IDE, CLI for Java acts as an alternative to SuiteCloud IDE plug-in. For more information about CLI for Java, see the help topic Command Line Interface Guide.

In previous releases, the help information for commands and options printed at once when running `sdfcli`. As of 2019.2, only the description for commands prints when you run `sdfcli`. To see the detailed help information for each command, run `sdfcli {commandName} –h`. For example, to see the help information for the deploy command, run `sdfcli deploy –h`.

CLI for Java is supported on Windows, Linux, and Mac OS X. For more information, see the help topic SDF SDK Installation Prerequisites.

2019.2 SuiteCloud IDE Plug-in for WebStorm Is Now Available

2019.2 SuiteCloud IDE plug-in for WebStorm is now available for download. For more information, see the help topic Update SuiteCloud IDE Plug-in for WebStorm.

> **Important:** When your account is upgraded to 2019.2, your IDE plug-in for WebStorm is not updated automatically to the 2019.2 version. After your account upgrade, you must manually update the IDE plug-in for WebStorm.

2019.2 SuiteCloud IDE Plug-in for Eclipse Is Now Available

2019.2 SuiteCloud IDE plug–in for Eclipse is now available for download. For more information, see the help topic Updating Eclipse for Use with SuiteCloud IDE Plug-in.

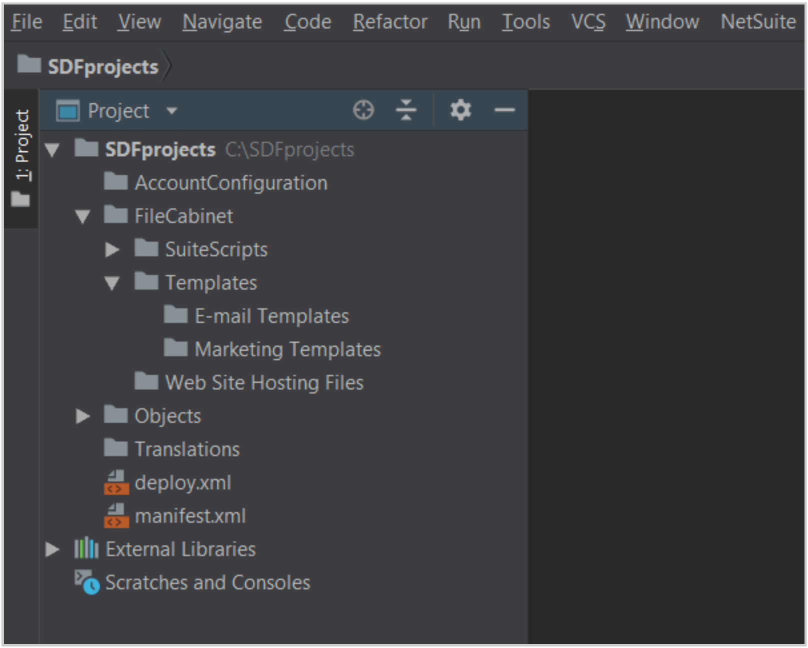
> **Important:** When your account is upgraded to 2019.2, your IDE plug-in for Eclipse is not updated automatically to the 2019.2 version. After your account upgrade, you must manually update the IDE plug-in for Eclipse.

New SDF Project Structure in SuiteCloud SDK

As of 2019.2, the structure of SDF projects has changed to support translationcollection objects. The **Translations** folder has been added to store XLIFF files referenced in translationcollection objects.

If you try to deploy SDF projects created in SuiteCloud SDK 2019.2 to accounts previous to 2019.2, the process will fail. Your SuiteCloud SDK version must match your account version.

Note: If you want to deploy SDF projects created in SuiteCloud SDK 2019.2 to accounts previous to 2019.2, you need to delete the **Translations** folder manually. Additionally, delete the `translationimports` tag from the deploy.xml file of your project.



Important: If your SDF project contains an **src** folder, you must rename it. Otherwise, you can encounter problems with the IDE plug-in for WebStorm.

For more information, see the following topics:

- SDF Project Components
- Translation Collections as XML Definitions

Creation of SuiteScript Files in IDE Plug-in for WebStorm

In previous releases, templates for SuiteScript files were not available in IDE plug-in for WebStorm.

As of 2019.2, you can create SuiteScript files in IDE plug-in for WebStorm and the appropriate SuiteScript file type template is used. Additionally, if you add SuiteScript modules when creating the file, you can use code completion for those modules.

For more information, see Creating a SuiteScript File in SuiteCloud IDE Plug-in for WebStorm.

Creation of Custom Objects in IDE Plug-in for WebStorm

In previous releases, XML templates for custom objects were not available in IDE Plug-in for WebStorm. If you wanted to see the XML structure of custom objects, you had to create them in NetSuite. You could then import the custom objects to your project to edit and deploy them to an account.

As of 2019.2, you can create custom objects in IDE plug-in for WebStorm and the appropriate XML template is used.

For more information, see the help topic Creating an XML Definition for a Custom Object in SuiteCloud IDE Plug-in for WebStorm.

Installation Preferences Files in IDE Plug-in for WebStorm

In previous releases, you could only create hiding.xml and locking.xml files in IDE plug-in for Eclipse. In IDE plug-in for WebStorm, you had to create a blank XML file and manually add the template for the installation preferences file you wanted to create.

As of 2019.2 you can create hiding.xml and locking.xml files in IDE plug-in for WebStorm and the appropriate file template is used.

For more information, see the help topic Create an Installation Preference File with SuiteCloud IDE Plug-in for WebStorm.

SuiteCloud Development Framework

SuiteCloud Development Framework (SDF) is a development framework and deployment mechanism. Customers and partners can use SDF to create customization projects for internal use within their organizations or for commercial distribution. For more information about SDF, see the help topic SuiteCloud Development Framework Overview.

For a complete list of custom records and customizations that are supported by SDF, see the help topic Customizations Supported by SuiteCloud Development Framework.

With the release of SuiteCloud Development Framework, the SuiteCloud Terms of Service were updated in September 2016 to specifically include SuiteCloud Development Framework as one of the listed SuiteCloud Technologies and to make other clarifying changes. You can review the complete updated terms at http://www.netsuite.com/termsofservice.

View the SuiteCloud Development Framework 2019.2 New Feature Training.

NetSuite 2019.2 includes the following enhancements to SDF features:

- SDF and Bundle Interoperability: Ability to Reference Bundle Objects From an SDF SuiteApp
- Convert Bundles to an Account Customization Project From Your NetSuite Account
- SDF Now Supports Translation Collections
- SDF Now Supports Custom Address Forms
- SDF Now Supports Permissions in Custom Transactions
- SDF Now Supports Script Execution Context
- SDF CLI Renamed to SuiteCloud CLI for Java
- SuiteCloud IDE Plug-ins are Now Part of SuiteCloud SDK

Generally, SDF features are supported by SuiteCloud IDE plug-ins. SuiteCloud IDE plug-ins for versions 2017.1 and later have compatibility requirements. The version of your plug-in must match the version of your NetSuite account before you can use the plug-in to create SDF projects. For information about additional features that may impact SDF, see the release notes for SuiteCloud SDK.

SDF and Bundle Interoperability: Ability to Reference Bundle Objects From an SDF SuiteApp

In previous releases, SDF projects were unable to reference objects from bundles. As of 2019.2, you can now reference objects in bundles from a SuiteApp project using the newly supported <bundles> element. This capability provides better bundle and SDF SuiteApp reuse and interoperability.

To reference a bundle object outside your SDF project in the manifest file, you can use the Add Dependencies option or manually add a reference to the object's bundle ID value and script ID.

For example:

```
<dependencies>
    <bundles>
        <bundle id=351>
            <objects>
                <object>customrecord_sample</object>
            </objects>
        </bundle>
    </bundles>
</dependencies>
```

From the XML object file, insert the reference within square brackets, using the following format:

```
<objectref>[bundleid=351, scriptid=customrecord_sample]</objectref>
```

Note: To reference a bundle object from a custom object in an SDF project, the object must be one of the SDF-supported types. The bundle must be installed or copied to the account where the SuiteApp will be deployed. As well, the target account cannot be the source account where the bundle was originally created. You cannot reference files in the bundle.

For more information, see the following topics:

- SDF SuiteApp Object Dependencies
- Bundle Object Depenencies
- Specifying an SDF SuiteApp Object Reference
- Specifying a Bundle Object Reference
- Defining SDF SuiteApp Object Dependencies in SuiteCloud IDE Plug-in for Eclipse

Convert Bundles to an Account Customization Project From Your NetSuite Account

You can now use your NetSuite account to convert bundles to account customization projects. Prior to this release, you were required to use SuiteCloud IDE Plug-in for Eclipse to complete this task.

When you view a bundle in your NetSuite account, you can click the new **Convert to SDF Project** button.

> **Note:** If a bundle conversion is in progress, the Convert to SDF Project button is grayed out for that specific bundle. Bundles are converted in the order requested one at a time.
>
> Conversion is only available when the bundle originates from the account and it is not a configuration bundle.

The bundle and conversion log is zipped in the SuiteBundles/SDF_Conversions folder in the File Cabinet. You can download the ZIP file and import it to an account customization project.

For more information, see the help topic Conversion of a Bundle into an Account Customization Project.

SDF Now Supports Translation Collections

You can now use SDF for Translation Collections to store translation strings with their translations in NetSuite. A Translation Collection is defined in an SDF project by the following files:

- **translationcollection objects** – Translation Collections are defined by translationcollection objects, which are composed of the object fields and translation strings. Each translationcollection object can reference multiple XLIFF files. For more information, see Translation Collection Object Fields in XML Definitions.
- **XLIFF (.xlf or .xliff) formatted files** – Optional XLIFF formatted files individually contain the translated strings for a target language. Each XLIFF file is associated with a single translationcollection object, has a single target language, and contains translations for that target language. For more information, see Translation Collection Strings in SDF Projects.

  The XLIFF files are located separately from the translationcollection object in the SDF project, providing a convenient way to add translation strings received from your translators. The XLIFFs can also be imported into the Translation Collection in NetSuite separately. Using XLIFF files provided by your translators eliminates the need to manually manipulate the strings.

  You can add XLIFF files to the Translations directory at the root of the SDF project. If the Translations directory is needed and does not exist, you can create it. The Translations directory is not required when there are no XLIFF files included with the translationcollection objects in the SDF project.

Consider the following information when working with Translation Collections as XML definitions:

- Importing Translation Collections into SDF Projects
- Deploying SDF Projects Containing Translation Collections
- Including Translation Collections in SDF SuiteApps

For more information, see the following:

- To create and manage Translation Collections in NetSuite, see the help topic Translation Collection Overview.
- To interact with Translation Collections programmatically with SuiteScript, see the help topic N/translation Module.
- For updates to the Manage Translations feature in 2019.2, see Translation Management Enhancements.

SDF Now Supports Custom Address Forms

As of 2019.2, custom address forms are supported as objects that you can customize using SuiteCloud Development Framework (SDF). This object is a type of custom entry form that is formatted to collect address information for specific locations defined by the country code.

Note: If your custom address form includes an address form template and you want to work with it using SDF, create it in NetSuite first. Import it to SDF to add to your project and modify as needed.

In NetSuite, to view address forms, go to Customizations > Forms > Address Forms. For more information, see the help topic Customizing Address Forms.

The following example is a custom address form as an XML definition:

```
<addressForm scriptid="custaddressform_sample">
    <name>Sample Address Form</name>
     <mainFields>
          <defaultFieldGroup>
           <fields position="MIDDLE">
            <field>
                 <id>COUNTRY</id>
                 <label>Country</label>
                 <visible>T</visible>
                 <mandatory>T</mandatory>
                 <displayType>NORMAL</displayType>
                 <columnBreak>F</columnBreak>
                 <sameRowAsPrevious>F</sameRowAsPrevious>
            </field>
           <field>
                <id>ATTENTION</id>
                <label>Attention</label>
                <visible>T</visible>
                <mandatory>F</mandatory>
                <displayType>NORMAL</displayType>
                <columnBreak>F</columnBreak>
                <sameRowAsPrevious>F</sameRowAsPrevious>
            </field>
            <field>
                <id>ADDRESSEE</id>
                 <label>Addressee</label>
                 <visible>T</visible>
                 <mandatory>F</mandatory>
                 <displayType>NORMAL</displayType>
                 <columnBreak>F</columnBreak>
                 <sameRowAsPrevious>F</sameRowAsPrevious>
            </field>
            <field>
                 <id>ADDRPHONE</id>
                 <label>Phone</label>
                 <visible>T</visible>
                 <mandatory>F</mandatory>
                 <displayType>NORMAL</displayType>
                 <columnBreak>F</columnBreak>
                 <sameRowAsPrevious>F</sameRowAsPrevious>
            </field>
            <field>
                 <id>ADDR1</id>
                 <label>Address 1</label>
                 <visible>T</visible>
                 <mandatory>F</mandatory>
```

```
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
        <field>
            <id>ADDR2</id>
            <label>Address 2</label>
            <visible>T</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
        <field>
            <id>ADDR3</id>
            <label>Address 3</label>
            <visible>F</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
           <field>
            <id>[scriptid=custrecord_barangay]</id>
            <label>Barangay</label>
            <visible>F</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
        <field>
            <id>CITY</id>
            <label>City</label>
            <visible>true</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
        <field>
            <id>STATE</id>
            <label>State</label>
            <visible>true</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
            <columnBreak>F</columnBreak>
            <sameRowAsPrevious>F</sameRowAsPrevious>
        </field>
        <field>
            <id>ZIP</id>
            <label>Zip</label>
            <visible>true</visible>
            <mandatory>F</mandatory>
            <displayType>NORMAL</displayType>
```

```
                 <columnBreak>F</columnBreak>
                 <sameRowAsPrevious>true</sameRowAsPrevious>
            </field>
          </fields>
         </defaultFieldGroup>
    </mainFields>
     <addressTemplate> <![CDATA[
<ATTENTION>
<ADDRESSEE>
<ADDRPHONE>
<ADDR1>
 <ADDR2>
<ADDR3>
<CITY> <STATE> <ZIP>
<COUNTRY>
]]>
    </addressTemplate>
    <country>PH|IN|US</country>
</addressForm>
```

For information about using SDF to define custom address forms, see Custom Address Forms as XML Definitions.

SDF Now Supports Permissions in Custom Transactions

You can now use SuiteCloud Development Framework (SDF) to add permissions sublists to custom transaction types. You can also grant a permission to a custom transaction type by including role objects in your SDF project.

The following is an example of a custom transaction type object in SDF that includes a permissions sublist:

```
<customtransactiontype scriptid="customtransaction2">
...
    <permissions>
        <permission>
            <permittedlevel>NONE</permittedlevel>
            <permittedrole>[scriptid=customrole_transactionapprover]</permittedrole>
        </permission>
    </permissions>
...
</customtransactiontype>
```

Custom transaction types can be referenced by a role custom object. You can include role objects in your SDF project that grant a permission to the custom transaction type in the target account.

> **Important:** When the custom role is in the same SDF project as the custom transaction, both objects must have matching permissions.

The following example adds the VIEW permission to custom transaction customtransaction2:

```
<role scriptid="customrole_sample1>
....
    <permissions>
```

```
        <permission>
            <permkey>[customtransaction2]</permkey>
            <permlevel>VIEW</permlevel>
        </permission>
    </permissions>
....
</role>
```

For information about using SDF to define custom transactions, see the help topic Custom Transaction Types as XML Definitions.

SDF Now Supports Script Execution Context

You can now include the script execution context for some SuiteScript objects in a SuiteCloud Development Framework (SDF) project.

In NetSuite, the script execution context controls the contexts in which user event and client scripts can run. The script execution context is stored in the Execution Context field on the Context Filtering subtab in the Script Deployment record for the SuiteScript object.

In an SDF project, the script execution context is stored in the executioncontext field, which can be specified for usereventscript and clientscript objects. The execution context is also supported in workflow objects by specifying the execution_context value for the initcontexts and contexttypes fields.

For more information about the new script execution context value for 19.2, see the Context Filtering for User Event and Client Script Execution release note. For more information about working with script execution context values in SuiteApps, see:

- For the list of fields available for script execution context in SDF objects, see the help topic SuiteCloud Development Framework XML Reference.
- For using Bundle Builder to bundle SuiteScript objects, see the help topic Objects Available in Customization Bundles.

SDF CLI Renamed to SuiteCloud CLI for Java

SuiteCloud Development Framework Software Development Kit (SDF SDK) and SuiteCloud Development Framework Command Line Interface (SDF CLI) have been rebranded to SuiteCloud CLI for Java. For more information, see Introducing SuiteCloud SDK.

As of 2019.2, for an overview of the new features of SuiteCloud CLI for Java, see SuiteCloud SDK.

SuiteCloud IDE Plug-ins are Now Part of SuiteCloud SDK

The SuiteCloud IDE plug-ins for Eclipse and WebStorm are now part of the new SuiteCloud SDK.

As of 2019.2, for an overview of the new features of SuiteCloud IDE plug-ins, see SuiteCloud SDK.

SuiteApps (Bundles) Released by NetSuite

NetSuite 2019.2 includes the following enhancements to SuiteApps released by NetSuite:

- Accounting SuiteApps
- SuitePeople SuiteApps
- Order Management SuiteApps
- Item Record Management SuiteApps
- Inventory Management SuiteApps
- Localization SuiteApps
- Manufacturing SuiteApps
- Projects SuiteApps
- SuiteAnalytics SuiteApps
- Food and Beverage SuiteApps
- Taxation SuiteApps

Accounting SuiteApps

Following are the 2019.2 accounting enhancement to SuiteApps:

- SuiteApprovals Version 2019.2
- Fixed Assets Management Enhancements
- Bank Statement Parser SuiteApp
- Bank Connectivity SuiteApp

SuiteApprovals Version 2019.2

Important: The Early Access bundle for SuiteApprovals Version 2019.2 is now available to Sandbox accounts. The target production release date is November 2019.

SuiteApprovals version 2019.2 includes the following enhancements:

- **Extension to Requisition Records** – You can now create approval rules for requisition records. You can define any approval rule for requisitions in two ways:
  - Using the total line amount of the record as basis and then selecting an approval routing type: employee hierarchy or custom approval matrix.
  - Specifying an approval chain (employee hierarchy or custom) regardless of the total amount on the record.
- **Support for Cross-Subsidiary Approvals for Users with Appropriate Subsidiary Permissions** – You can now set up subsidiary restriction values on the employee record of approvers. This enhancement allows you to specify or add approvers from a subsidiary that is different from the subsidiary of an approval rule.

  This change applies to all supported record types.

For more information, see the help topic SuiteApprovals Version 2019.1.

Fixed Assets Management Enhancements

- Japan Depreciation

- Asset Proposal and Asset Creation Enhancements
- Lease Accounting Reports and Support for Period 0

Japan Depreciation

To comply with the depreciation requirements of Japan National Tax Authority, the following enhancements for Japan depreciation are added in FAM version 19.2:

- **New Depreciation Methods for Japan** – The following depreciation methods will be available for Japan:
  - Japan Straight Line
  - Japan 250% Declining Balance
  - Japan 200% Declining Balance
- **Depreciation Rate Table** - The **Depreciation Rate Table** field is added to the Depreciation Method page. When calculating the depreciation amount, the depreciation rate, guaranteed rate, and revised rate for each declining balance method will be sourced from the selected rate table.
- **New Depreciation Period** - The **Annual Depreciation, Monthly Posting** depreciation period will compute for the depreciation annually but post the depreciation journal entries monthly. Assets using this depreciation period will show the asset lifetime in number of fiscal years. Residual Value of 1 JPY will be considered in the last year's depreciation before the monthly amount is computed.
- **Rounding Preference for Decimal Values** - The **Rounding Method** field in the System Setup page lets you set the rounding method to use for JPY currency. The following options are available:
  - Round Off
  - Round Down
  - Round-Up

  By default, the preference is set to blank and the Round Off method is used. The selected rounding method will be applied to both annual and monthly depreciation and will be used on all FAM transactions (e.g. depreciation, revaluation). Changing the rounding method will reset all pre-computed depreciation history records that are in JPY currency.

Asset Proposal and Asset Creation Enhancements

To improve the performance of the asset proposal, the transaction and asset proposal search have been separated into different pages. Users can now search for new asset proposal records in the new **Manage Asset Proposals** page. This page has filters for asset type and subsidiary to help you search for specific proposal records. You can then choose to create assets from the proposal records or split and reject asset proposals.

The Asset Proposal page is now used to search for transaction records for which you want to create an asset proposal. A date range is added as a filter so that you can search for transactions to propose based on the transaction date. Because of this change, the **Asset Account Last Check** field in the Asset Type record will no longer be used. The proposal records will still be created based on the asset type and subsidiary. However, the user must manually enter the asset type in the sublist.

The changes introduced in the Asset Proposal page are also applied in the Asset Creation page because both pages use the same back-end process.

Lease Accounting Reports and Support for Period 0

- **Support for Period 0** – Starting with FAM version 19.2, Period 0 will be considered in the interest computation for the lease payments. The period between the 1 st and the 15 th of the month is considered as Period 0. When the first lease payment date falls within the Period 0, no interest will be computed, and the principal amount will be equal to the lease payment amount.

- **Lease Accounting Reports** – FAM version 19.2 will include the following reports:
  - **Lease Liability Report** – This report shows details about the lease liability. You can filter the report based on the lease start date, accounting book, or subsidiary. The report shows the current period by default, but the user can define the date range.
  - **Right-of-Use Asset Listing Report** - This report shows a list of all leased assets. You can filter the report to show assets under an operating or finance lease.
  - **Short Term Liability Report** – This report shows details for the short-term lease liability, which is the sum of the principal amount of the current fiscal year.
  - **Long Term Liability Report** – This report shows the details for long term lease liability, which is the sum of the principal amount of the next fiscal years.

Bank Statement Parser SuiteApp

The Bank Statement Parser SuiteApp delivers standard parser plug-ins that can read statement files and then import bank transactions into NetSuite. The SuiteApp also comes with sample scripts that you can download and use as a reference when you create a custom parser.

The Bank Statement Parsers SuiteApp includes parser plug-ins for the following file formats in UTF-8 (Unicode) encoding:

- BAI2
- OFX/QFX
- MT940

For more information, see Bank Statement Parsers SuiteApp.

Bank Connectivity SuiteApp

The Bank Connectivity SuiteApp works together with the Bank Statement Parser plug-ins to securely connect to your bank or 3rd party financial institutions. The SuiteApp includes an sFTP Connectivity plug-in which can import bank statement files to NetSuite based on a filename pattern that you defined. You can use regular expressions and reserved words to define the filename pattern.

For more information, see Bank Connectivity SuiteApp.

SuitePeople SuiteApps

Following are the 2019.2 SuitePeople enhancements to SuiteApps:

- Enhanced Access to Employee Reports
- HR Dashboard Components
- Employee Directory and Org Browser Enhancements

Enhanced Access to Employee Reports

Employee Reports version 1.04.0 fixes an error that stops roles from viewing reports because they do not have Employee Reports permissions. Prior to the upgrade, Administrators must assign the permissions to SuiteApp users' roles to resolve this issue.

Starting with Employee Reports 1.04.0, the following changes will apply to the **Execute as Role** field on the Script Deployment page of the **ER Employee UE** script (ID: customdeploy_er_employee_ue):

Prior to ER 1.04.0	Starting with ER 1.04.0
set to **Current Role**	set to **Administrator**

Prior to ER 1.04.0, the script does not run unless the permissions are present. After the upgrade, the script will run with all permissions, and you will no longer have to add Employee Reports permissions to your custom role to use the SuiteApp.

Guidelines for Existing Employee Reports Users

- If you have added Employee Reports permissions to your custom roles, you will still be able to use the SuiteApp after the upgrade.
- Oracle recommends that you do not edit the **Execute as Role** field to a role other than **Administrator**. You may encounter an error if you use Employee Reports with the Advanced Employee Permissions feature enabled. This issue occurs if your role does not have enough permissions for **Birth Date**, **Age Group**, and **Birth Month** fields on employee records.

  For information about the employee permissions that are automatically assigned to standard NetSuite roles, read the help topic Advanced Employee Permissions and Standard NetSuite Roles.

Also see the following:

- Employee Saved Search Reports
- Executing Scripts Using a Specific Role

HR Dashboard Components

NetSuite 2019.2 introduces HR Dashboard Components SuiteApp version 1.0 for Human Resources Generalist (HRG), Chief People Officer (CPO), and Administrator roles.

HR Dashboard Components lets users with HR roles streamline tasks and strategies using preconfigured dashboard content. It enables you to quickly view demographics on your dashboard, compare HR metrics, and save time on creating visual aids and reports.

The SuiteApp includes the following dashboard content:

- **Workforce demographics portlet** – This custom portlet shows the breakdown of employee headcount across different demographic dimensions.
- **KPI scorecard portlet configuration** – This configuration sets up a performance scorecard that compares different human resource metrics.
- **Saved searches** – These saved searches display reports on diversity and expiring government IDs.

These are readily available to be added on your dashboard after you install HR Dashboard Components. After you install the SuiteApp, updates for fixes and enhancements are automatically posted to your account without any need to update manually.

Guidelines for Existing SuitePeople Users

If you are using the **SuitePeople | Remediate Customize Rel SuiteApp** (Bundle ID: 219023), you can refer to the following table for some recommended actions to maximize your use of HR Dashboard Components. These will replace or update some of the elements of the SuiteApp with the HR Dashboard Components SuiteApp. You do not need to uninstall the existing SuiteApp.

Recommended Actions	Description
Add existing custom KPIs on the new KPI scorecard portlet configuration	If you have existing custom KPIs and want to display them with the HR Dashboard Components (HRDC) Human Resources KPIs in one portlet, you have to manually add your custom KPIs on the HRDC scorecard configuration.
Allow custom roles to access the Workforce Demographics portlet	The Workforce Demographics portlet is available to standard Administrator, Human Resources Generalist (HRG) and Chief People Officer (CPO) roles by default. Add custom roles that will use the portlet by going to the script deployment page and adding the role in the **Audience** subtab.
Update or replace saved searches that were updated in HR Dashboard Components	Replace dashboard elements or records that capture any of the following with similar saved searches found in HRDC: ▪ Expiring Visas ▪ Expiring Passports ▪ Expiring Driver's License ▪ Diversity Report You can also update the criteria of your saved searches to match those in the HRDC SuiteApp. The HRDC saved searches will give you a list of employees that matches the present definition of active employees.
Use new KPI scorecard portlet configuration to replace SuiteSuccess Insights and Key Performance Indicators portlets	Some of the KPIs use total active employee in their calculation. For this release, the total active employee saved search has been updated to incorporate the present definition of an active employee in SuitePeople. To ensure that the KPIs you use are consistent with the present definition, you can replace the SuiteSuccess Insights and Key Performance Indicators portlet with the HRDC Scorecard configuration.

For more information, read the help topic HR Dashboard Components.

Employee Directory and Org Browser Enhancements

Following are enhancements to the Employee Directory and Org Browser SuiteApp:

- Administrators Can Use the Select All Box to Specify Roles
- Complete Employee List Appears in Google Chrome

Administrators Can Use the Select All Box to Specify Roles

With Employee Directory and Org Browser SuiteApp version 1.07, Administrators can use the **Select All** box on the script deployment pages of the Employee Directory and Org Browser to provide all roles with access to the feature. In previous versions, checking the box results in error, so Administrators must hold the CTRL key and select each role.

For more information, read the help topic Updating Required Scripts for the Employee Directory and Org Browser.

Complete Employee List Appears in Google Chrome

With Employee Directory and Org Browser SuiteApp version 1.07, users can see the complete list of employees on Google Chrome versions that are supported by NetSuite. Prior to this release, the SuiteApp may not show the expected number of employees found on the search results on Google Chrome.

Order Management SuiteApps

Following are the 2019.2 order management enhancement to SuiteApps:

- Electronic Bank Payments Enhancements
- Electronic Invoicing Enhancements
- Proration by Month in Subscription Billing Enhanced UI
- Enhanced Validations and Defaulting Now Available
- Availability and Multi-Language Support for Customer Lifetime Value
- Return Authorization from Case Now Available
- Grid Order Management Enhancements

Electronic Bank Payments Enhancements

Electronic Bank Payments version 2019.2 includes the following features:

- Changes to SEPA Direct Debit Templates
- Installment Payments Support for Account Payable

Changes to SEPA Direct Debit Templates

In Electronic Bank Payments SuiteApp version 2019.2, standard SEPA Direct Debit payment templates are updated with the following changes to permit efficient processing of payment batches.

- A new **Use Advanced SEPA DD Sorting** box is added on the payment template record to enable grouping of payment transactions for single payment run.
- The template is enhanced with a new sorting logic to help improve performance when processing payment transactions.

If you are using custom SEPA DD payment templates, you must update your templates after the upgrade to Electronic Bank Payments SuiteApp version 2019.2. Otherwise, you will be restricted from creating new payment batches by using Invoice Payment Processing and Generate Customer Payment files.

For instructions to update your custom templates, see the SuiteAnswers article **Electronic Bank Payments SuiteApp: Changes to the SEPA Direct Debit Payment Templates**, SuiteAnswers ID 85848. For more information on changes to SEPA DD payment templates, see the help topic Payment File Template Changes in NetSuite Electronic Bank Payments 2019.2

Installment Payments Support for Account Payable

As of 2019.2, Installment Payments feature is now supported in Electronic Bank Payments SuiteApp. You can now pay vendor bills in installments using:

- Bill Payment Processing
- Auto-Batch Processing
- Custom Bill Payment Processing pages using Electronic Bank Payments API

This feature is specific only to Accounts Payable (A/P). If the Installment Payments feature is enabled in your account, a new column will be added to display the Installment Reference Number. For more information on installment payments support for account payable, see the help topic Installment Payment Support.

Electronic Invoicing Enhancements

Electronic Invoicing version 2019.2 includes the following features:

- Digital Signature Plug-in Implementation
- Support for Transfer Order Transactions
- XSD Validations in Outbound E-Document Generation

Digital Signature Plug-in Implementation

Electronic Invoicing SuiteApp version 2019.2 enables you to digitally sign e-documents by using the Digital Signature plug-in implementation. You must create a custom digital signature plug-in implementation first. Then, on an e-document template, you can select the custom plug-in implementation from the new **Digital Signature Plug-in Implementation** field. For more information on Digital Signing of e-documents, see the help topic Creating a Digital Signature Plug-in Implementation for E-Documents.

Support for Transfer Order Transactions

The Electronic Invoicing SuiteApp now supports the new Transfer Order transactions. E-documents can also be generated from Item Fulfillments created from Transfer Order transactions. For more information on Transfer Order transactions, see the help topic Selecting E-Document Packages, Templates and Sending Methods on Transactions.

XSD Validations in Outbound E-Document Generation

XML Schema Definition (XSD) validation is now supported in the outbound e-document generation. The XSD file is a text file which defines and validates the elements and attributes that must be present in the generated XML file. You can create an XSD file with mandatory tags and attributes to enable their validations against the generated XML document. An error message appears if the validation fails. A new **Outbound XSD File** field is added in the e-document template to select the outbound XSD file. For more information on XSD validations in outbound e-document generation, see the help topic Understanding XSD in Outbound E-Document Templates

Proration by Month in Subscription Billing Enhanced UI

Note: Subscription Billing Enhanced UI version 19.2 is available in accounts running NetSuite 2019.2. While waiting for your production account to be upgraded, you can test the new version of the SuiteApp in your Release Preview or Sandbox account running NetSuite 2019.2. For more information about the availability of the SuiteApp in production or for early access testing, see Answer ID 86395.

Subscription Billing Enhanced UI version 19.2 includes support for proration by month. Previously, recurring lines in subscriptions are automatically prorated by day.

In Subscription Billing Enhanced UI version 19.2, a **Prorate By** field is available for recurring lines on subscription plans and subscriptions. When you create or edit a subscription plan or a subscription in draft status, you have the option to select prorate by **Day** or **Month** on the first price interval of recurring lines. The monthly proration option is available to recurring lines with a charge frequency that is greater than one month. For recurring lines with a charge frequency that is equal to or less than one month, prorate by day is selected by default.

Following are the bundle details for the new version of the SuiteApp:

- Name: Subscription Billing Enhanced UI
- Bundle ID: 289291

For more information, see the help topic Subscription Billing Enhanced UI.

To see an example of daily and monthly proration charges, see Proration By Month.

Enhanced Validations and Defaulting Now Available

The Enhanced Validations and Defaulting SuiteApp provides a set of validations and default discounts that can be used on sales transaction and inventory adjustment records. This SuiteApp includes item set validation, negative inventory validation, and default discounts that can be tagged to a customer group. You can enable the validations and default discounts separately or use them in combination on sales transaction and inventory adjustment records.

For more information on this SuiteApp, see the help topic Enhanced Validations and Defaulting.

Availability and Multi-Language Support for Customer Lifetime Value

Customer Lifetime Value SuiteApp version 1.01.0 is now a public and managed SuiteApp. It means you can install this SuiteApp for free and it is automatically updated whenever enhancements or new features are added.

To search and install this SuiteApp, use the following information:

- Bundle Name: Customer Lifetime Value
- Bundle ID: 254383

The Customer Lifetime Value SuiteApp is translated into the following languages:

- Chinese (Simplified)
- Chinese (Traditional)
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- French (Canada)
- German
- Italian

- Indonesian
- Japanese
- Korean
- Latin American Spanish
- Norwegian
- Portuguese (Brazil)
- Russian
- Spanish
- Swedish
- Thai
- Turkish
- Vietnamese

To set the language preference, you must enable the Multi-Language feature in your account. For more information, see Multi-Language Support for Customer Lifetime Value.

For more information on this SuiteApp, see Customer Lifetime Value.

Return Authorization from Case Now Available

The Return Authorization from Case SuiteApp lets you create a return authorization or a sales order directly from a support case for existing sales orders or customer invoices. You can search for transactions using the transaction type, document number, transaction date, or through a date range. On the transaction record, you can select the items and specify the quantity for return or replacement. Through the SuiteApp, you can ensure that the source transaction, the support case, and the generated return authorization or replacement sales order are all linked together.

For more information on this SuiteApp, see Return Authorization from Case.

Grid Order Management Enhancements

Grid Order Management SuiteApp version 6.01.0 includes the following enhancements:

- **CSV Import Changes for Purchase Order and Sales Order Transactions** – When you use CSV Import for purchase order and sales order transactions, both **Grid Item ID** and **Grid Template** fields are no longer required. The SuiteApp now autogenerates a grid item ID for each item in the transaction. The system also assigns the grid template based on the current grid template assignment.
- **Preferred Grid Template** – The **Preferred Grid Template** field is now available to easily assign grid templates to inventory matrix items. You can set the preferred grid template on the item record.
- **Customizable Grid Print Templates** – Alongside purchase order and sales order, the SuiteApp now enables you to customize grid print templates for the following transaction records:
  - Cash sale
  - Invoice
  - Packing slip
  - Picking ticket
  - Quote

To learn more about these features, see the help topic Grid Order Management.

Item Record Management SuiteApps

Following is the 2019.2 item record management enhancement to SuiteApps:

Effective Date Pricing Now Available

The Effective Date Pricing SuiteApp enables you to schedule specific price changes in advance. You can select a start date to indicate when you want the price changes to take effect, and an end date to indicate when the item should revert to its original price. You can also set a permanent change in item price. The change takes effect on the selected start date for the price update. A scheduled script runs in the background to automatically update the item prices on the scheduled period.

For more information on this SuiteApp, see the help topic Effective Date Pricing SuiteApp.

Inventory Management SuiteApps

Following are the 2019.2 inventory management enhancements to SuiteApps:

- NetSuite WMS
- Quality Management

NetSuite WMS

> **Note:** NetSuite WMS Version 2019.2 is available in accounts running on NetSuite 2019.2.

The new capabilities will be available in your account only after you upgrade to NetSuite WMS Version 2019.2 and you complete the required steps to enable the feature. For more information, see the NetSuite WMS Upgrade Guide.

If you do not explicitly enable the new capabilities, you can continue to use your NetSuite WMS implementation as you did previous to NetSuite Version 2019.2.

Oracle recommends that you take time to become familiar with these enhancements and upgrade to the new version at your earliest convenience following your phased upgrade to NetSuite Version 2019.2. The features in NetSuite WMS Versions 2019.1 and previous will no longer be available as of NetSuite 2020.2 in the fall of 2020.

Watch the video on What's New in WMS 2019.2.

NetSuite WMS Version 2019.2 includes the following enhancements:

- Releasing Orders to the Warehouse
- Oracle NetSuite WMS and SCM Mobile SuiteApps
- Redesigned Mobile Device User Interface
- Mobile Device Configuration and Customization
- Picking Enhancements

- Multi-Language Support

Releasing Orders to the Warehouse

> **Important:** Use of this feature requires the Oracle NetSuite WMS and SCM Mobile SuiteApps. See Oracle NetSuite WMS and SCM Mobile SuiteApps.

NetSuite WMS 2019.2 introduces wave transactions, which enable you to release sales or transfer orders to the warehouse. To initiate the outbound processing of orders, you can create wave transactions for the orders or line items you want to release. From the line items that you include in a wave, NetSuite WMS generates pick tasks and pick tickets. Using a mobile device, warehouse operators or pickers can reference these records when they pick the items and record the picking details.

NetSuite WMS includes the creation of item fulfillments from completed pick tasks. Warehouse managers can view the waves and pick tasks to monitor the progress of picking and fulfillment creation. See Wave Transactions or Pick Task Subrecords.

Aside from the two required SuiteApps, this feature also requires you to enable inventory management features, including Warehouse Management, Inventory, Bin Management, and Pick, Pack and Ship.

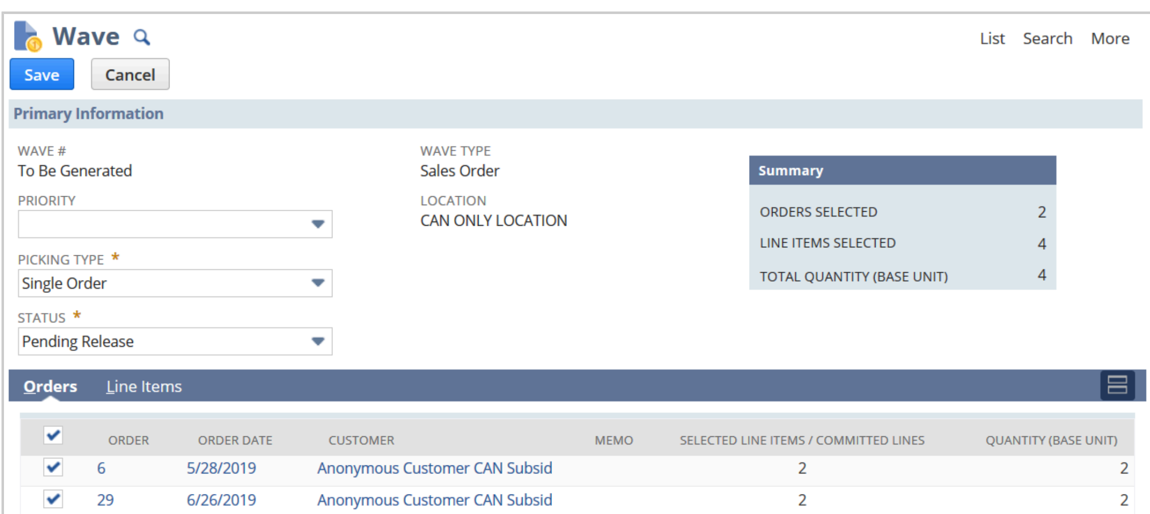
To view the complete list of required features and settings, see Enabling Features for NetSuite WMS.

As part of your setup process, you must create warehouse management records based on your business requirements. You can also create custom wave search and pick ticket templates. For existing users of NetSuite WMS, you can use the migration tool to migrate your data to the new or updated warehouse management records.

For more information about data migration, see Migrating Existing Data to New Records in the NetSuite WMS Upgrade Guide.

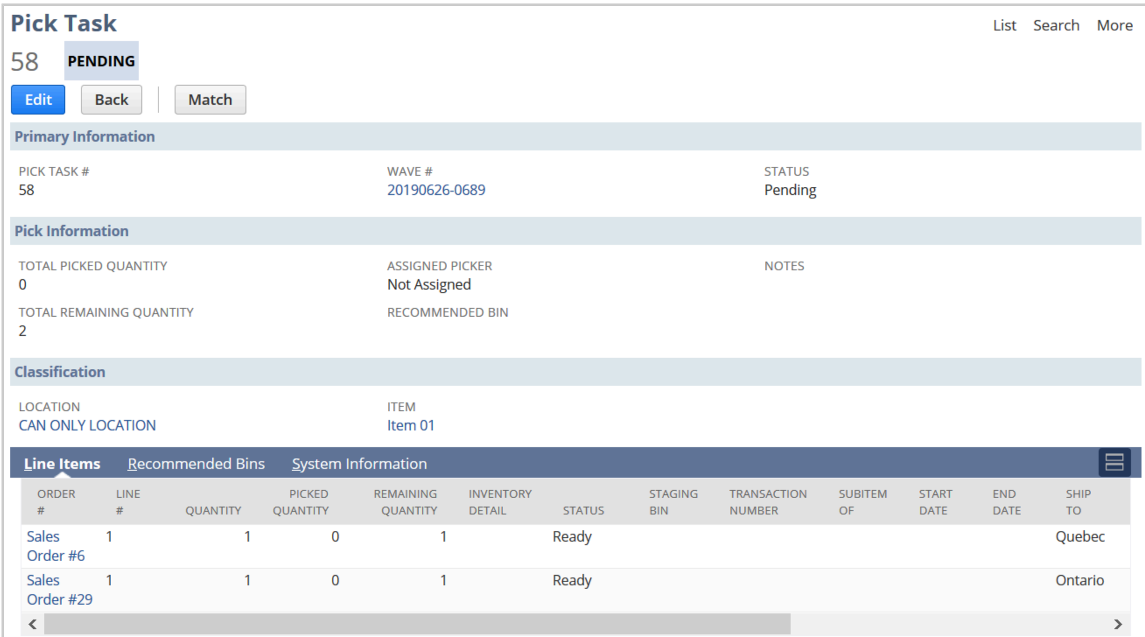
Wave Transactions

Wave transactions contain the list of orders, line items, and their associated pick tasks. You create a wave by selecting the orders or line items you want to release to the warehouse. You can also set the picking type, Single Order or Multiple Orders. Optional tasks include setting the wave's priority and assigning pick tasks to warehouse operators. The following illustration shows an example of an unreleased wave transaction with default settings.



Pick Task Subrecords

Pick task subrecords display picking details, including the quantity, status, and pick assignment. It also displays the recommended bin and the list of available bins, which result from a sorting process. Warehouse operators can enter picking details on their mobile device, which updates the associated pick task and wave. The following illustration shows an example of a pick task for multi-order picking.



Oracle NetSuite WMS and SCM Mobile SuiteApps

As of NetSuite WMS 2019.2, you must install two SuiteApps to set up WMS functionality in your account: Oracle NetSuite WMS and SCM Mobile.

The Oracle NetSuite WMS SuiteApp contains the business logic that drives your warehouse processes. It also provides the migration script for migrating your existing data to the new NetSuite WMS version.

The SCM Mobile SuiteApp contains the mobile device application that your warehouse operators use to process transactions on your warehouse floor. You must first install the SCM Mobile SuiteApp before installing the Oracle WMS SuiteApp.

For more information, see NetSuite WMS SuiteApps.

Redesigned Mobile Device User Interface

NetSuite WMS 2019.2 introduces an improved user experience for mobile device operation and warehouse processing. A redesigned mobile device user interface enables warehouse operators to more efficiently complete inbound, inventory, and outbound processing tasks. Improved performance and a more intuitive screen design decrease the amount of time operators spend on each task.

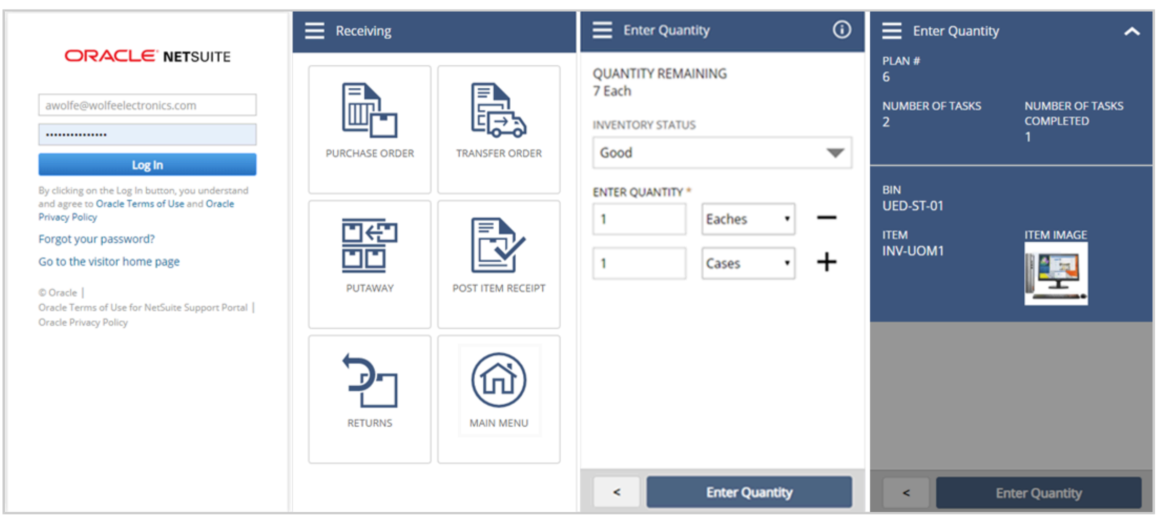
Each of the following processes are updated to a new design:

- Receiving Purchase Orders
- Receiving Transfer Orders
- Receiving Customer Returns

- Putting Away Items
- Posting Item Receipts
- Picking Single Orders
- Picking Multiple Orders
- Picking Items for Work Orders
- Building Work Order Assemblies
- Quick Ship
- Replenishment
- Cycle Counting
- Creating Inventory
- Transferring Inventory Between Bins
- Transferring Inventory Between Locations
- Searching Inventory

For more information about the mobile device interface, see Mobile Device Basics for NetSuite WMS.

Following are some examples of the new mobile device screens.



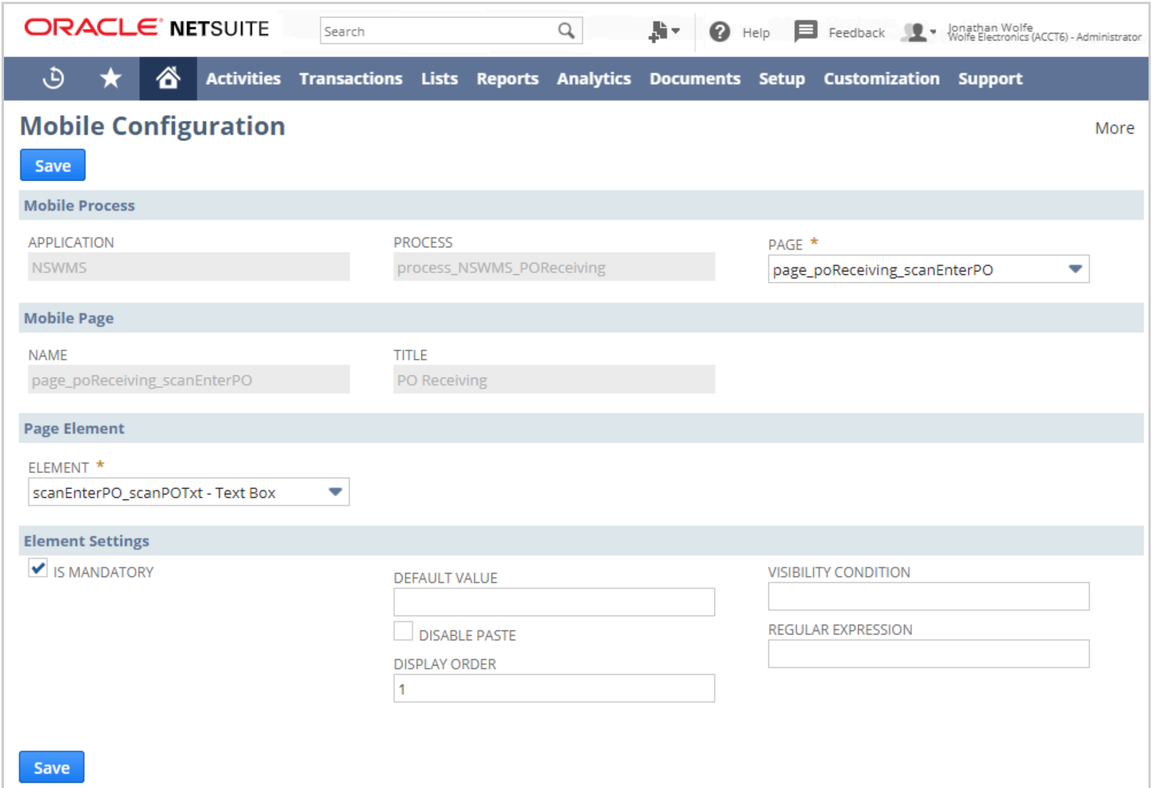
Mobile Device Configuration and Customization

NetSuite WMS 2019.2 includes standard mobile device processes to meet the majority of your business needs. To make minor changes to the screen elements in these standard processes, administrators can now use dedicated configuration screens in the NetSuite user interface. For example, you can configure a page in your purchase order receiving process to make a field required or change the display order of the fields on the page.

If you require changes other than this type of configuration of the standard processes, you can clone and then customize these processes. For example, consider you want to add a text box or dropdown field to a screen in the purchase order (PO) receiving process. You clone the standard PO receiving process and then configure your new cloned process to add the field.

You can also customize your processes to display a read-only message sourced from a record or static text you define. For example, you might want to add a PO Instructions hyperlink to a page in your receiving process that operators can click to read the associated instructions.

For more information, see Mobile Device Configuration.



Picking Enhancements

The redesigned mobile device processes enable warehouse operators to effectively pick items for orders using their mobile devices only. Operators no longer need to use printed picking reports to complete their tasks. New pick-to-carton capability also enables pickers to assign items to cartons when they move through the warehouse picking items for multiple orders.

Multi-Language Support

NetSuite WMS 2019.2 also now includes multi-language support. You can set your preferred language on the **General** subtab of the Set Preferences page (Home > Set Preferences).

Quality Management

The NetSuite Quality Management SuiteApp version 2019.2 introduces the following new feature.

Configurable Inspection Queue

NetSuite 2019.2 Quality Management Configurable Inspection Queue enables customers to better sort and filter the information presented in the Quality Management tablet Inspection Queue interface. Improving the tablet interface usability and efficiency enables customers to tailor the inspection queue list to include only the relevant information that helps them select which inspections to perform. By displaying only the relevant fields, tablet screen space is less cluttered, enabling the engineer to more easily identify inspections.

Quality Engineers can sort the tablet results by a number of criteria. For example, an engineer wants to inspect only items from a Lot LR37c, in Pending status, with Specification R145, from Purchase Order 298.

Warranty and Repairs Management Version 2019.2

> **Important:** The Early Access bundle for Warranty and Repairs Management Version 2019.2 is now available to Sandbox accounts. The target production release date is November 2019.

Warranty and Repairs Management version 2019.2 includes the following enhancements:

- **Support for Warranty Registration Through SuiteScript and Web Service** – You can now create warranty registration for invoice records using SuiteScript and web service. The same conditions apply for warranty to be registered for each item on the invoice:
  - Warranty tracking is enabled on the item record.
  - The item belongs to any of the supported types and there is available quantity on hand.
- **Creation and Saving of Invoice Records Through Bulk Approval and Billing Schedules** – To create and save invoice records through bulk approval or billing schedules using the SuiteApp, enable the **Automatically Register Warranty on Invoice** preference.
- **Support for Customizing the Display of the Warranty Information Subtab on the Invoice Record** – When creating warranty registration manually, you can remove or hide the subtab on the invoice through SuiteScript or by using a custom form.
- **Multi-Language Support** – The SuiteApp now supports the Multi-language feature. You can set your preferred language on the General subtab of the Set Preferences page (Home > Set Preferences).

For more information, see the help topic Warranty and Repairs Management.

Localization SuiteApps

The following are 2019.2 localization enhancements to SuiteApps:

- New SuiteApp for Mexico Localization
- Support for Additional Singapore Electronic Payment File Formats
- Support for New Japan Tax Requirements

New SuiteApp for Mexico Localization

The Mexico Localization SuiteApp version 2.01 includes the following new features and enhancements:

- Electronic Invoicing for Mexico
- Electronic Bank Payments for Mexico
- Financial Reports for Mexico
- Journal Entries for Mexico
- Enhancements to Electronic Accounting Files for Mexico

This SuiteApp is compatible with the SuiteTax feature.

Electronic Invoicing for Mexico

Using the Mexico Localization SuiteApp, you can generate and process e-documents for Mexico in compliance with the requirements established by the SAT (Mexican Tax Administration Service).

To use the Mexico Electronic Invoicing feature, you must first install or update to the latest version of the Electronic Invoicing SuiteApp, and then install the Mexico Localization SuiteApp.

The following features are included in the Mexico Localization SuiteApp to support Electronic Invoicing for Mexico:

- **SAT Catalogs** – When you install the Mexico Localization SuiteApp, the latest catalogs from the SAT are stored in NetSuite as custom records. Mexico-specific custom fields are also provided to capture values from these catalogs.
- **Mexico Localization Field Mapping** – A mapping tool is included to enable you to map standard NetSuite fields to official SAT Catalog values.
- **PAC Configuration** – The SuiteApp comes with a custom record for configuring credentials and other relevant settings to connect NetSuite with Mexican PACs (certification providers). It also provides the XML template files and e-document sending methods that let you integrate with the PACs. Three pre-configured PACs are delivered with the SuiteApp: MySuite, ProFact, and Solución Factible.
- **PDF templates** – PDF templates are available to let you obtain printable versions of certified CFDIs with the information required by the SAT.

For more information, see the help topic Electronic Invoicing for Mexico.

Electronic Bank Payments for Mexico

The Mexico Localization SuiteApp includes templates for generating bank payment files in the format specified by the major Mexican banks. Currently, Banamex CitiDirect and Santander Mexico templates are delivered with the SuiteApp.

To use these templates, you must first install the Electronic Bank Payments SuiteApp, and then the Mexico Localization SuiteApp.

For more information, see the help topic Electronic Bank Payments for Mexico.

Financial Reports for Mexico

The Mexico Localization SuiteApp provides financial reports in the print format specific to Mexican accounting practices:

- Balance para México (Mexico Balance Sheet)
- Estado de Ingresos y Egresos para México (Mexico Income Statement: Profit and Loss Statement)
- Balance de Comprobación para México (Mexico Trial Balance)

For more information, see the help topic Financial Reports for Mexico.

Journal Entries for Mexico

A new PDF layout is now available for generating Journal Entries for Mexico. A new workflow for approval of Mexico Journal Entry records is also included in the Mexico Localization SuiteApp.

For more information, see the help topic Mexico Journal Entries Print Layout.

Enhancements to Electronic Accounting Files for Mexico

The following are enhancements to the Electronic Accounting Files for Mexico:

- **Bank Account field on the Account record** – This field replaces the old Bank Account Number field from the Tax Audit Files SuiteApp.
- **Operation Type field** – The Operation Type field is now available in checks. On an Expense Report with a Mexican vendor, you can now specify the operation type for each expense item.
- **SAT Catalogs** – When you install the Mexico Localization SuiteApp, the latest catalogs from the SAT are stored in NetSuite as custom records. Mexico-specific custom fields are also provided to capture values from these catalogs.
- **Mexico Localization Field Mapping** – A mapping tool is included to enable you to map standard NetSuite fields to official SAT Catalog values.

For more information, see the help topic Mexico Electronic Accounting Files (Mexico Localization).

Support for Additional Singapore Electronic Payment File Formats

The Southeast Asia Localization SuiteApp version 2.02.0 comes with additional Singapore payment file formats and an updated Citibank Singapore XML GIRO payment format.

The following domestic electronic payment file formats for Singapore are included in the Southeast Asia Localization SuiteApp:

- HSBC Singapore pain.001.001.03 Low and High Value Domestic Payments
- JP Morgan Singapore pain.001.001.03 Low and High Value Domestic Payments
- OCBC Singapore GIRO and FAST Payments
- Standard Chartered Bank Singapore iPayment CSV GIRO and Domestic Payments
- UOB Singapore pain.001.001.03 GIRO, FAST and Domestic Payments
- Updated Citibank Singapore XML GIRO Payments

The new Singapore electronic payment formats support all domestic payment types. Currently, only the JP Morgan, HSBC, and Standard Chartered Bank templates support a combination of payments in a single output file. These features do not apply to the updated Citibank Singapore XML GIRO payment format.

To use the new Singapore electronic payment file formats, you must have the Electronic Bank Payments SuiteApp installed, followed by installation or update of the Southeast Asia Localization SuiteApp. If done so, the Southeast Asia Localization SuiteApp adds the new Singapore electronic payment file formats to the Electronic Bank Payments SuiteApp, where you can set them up and use to generate electronic payment files.

For more information, see the help topics Singapore Payment Formats, Setting Up Electronic Bank Payments, and Setting Up Payment File Formats.

Support for New Japan Tax Requirements

Japan Localization SuiteApp version 19.2 includes the following new features and enhancements to support new Japanese tax requirements:

- Provisioning of New Tax Records
- Tax Information on Invoice Summary
- New Implementations of Tax Forms, Reports and Calculation
- Support for New Tax Rates

- Retirement of Legacy Japan Tax Form and Deductible Tax & Taxable Sales Ratio Calculation Form

> **Note:** The tax features included in the Japan Localization SuiteApp are not compatible with the SuiteTax feature. If the SuiteTax feature is enabled in your NetSuite account, do not install the Japan Localization SuiteApp.

Provisioning of New Tax Records

A new installation of the Japan Localization SuiteApp automatically provides the following tax records:

- New Tax Codes (effective October 1, 2019)
- Tax Types
- Tax Control Accounts
- Tax Agency

If your account already has the Japan Localization SuiteApp installed, you must manually create the new tax codes that become effective on October 1, 2019. After the update to version 19.2, you must set up the new tax codes using the correct tax classification. Tax category mapped to main tax category must be set on purchase transactions.

For more information, see the help topics Setting Up Provisioned Tax Records and Creating Tax Codes - Other Nexuses.

Tax Information on Invoice Summary

Invoice summaries that use the default statement template from Japan Localization SuiteApp version 19.2 includes Tax Code and Tax Rate on the Transaction Details section. A Tax Details section shows the tax codes, tax rates, net amount, and total tax amounts per tax code or rate.

If you are using your own custom invoice summary template, you must modify the template and add the tax fields.

For more information, see the help topics Tax Details Table Fields and Placeholders and Customizing the Japanese Invoice Summary XML Template.

New Implementations of Tax Forms, Reports and Calculation

Japan Localization SuiteApp version 19.2 includes new implementations of the following tax forms, reports and tax calculation, and purchase transactions with tax information:

- The new Japan Tax Form is implemented in the Japan Localization SuiteApp. Previously, it was implemented in the Japan edition of NetSuite.
- The new Deductible Tax & Taxable Sales Ratio Calculation Form is accessed from Reports > Financial > Japan Consumption Tax Form. The page has subtabs displaying tables for Deductible Tax & Taxable Sales Ratio Calculation Form and Japan Tax Form.
- Updated Purchase Tax by Tax Category
- Consumption tax localized reports:
    - Sales by Tax Code
    - Purchases by Tax Code
    - Purchases by Account
    - Sales by Account

- Purchase Transactions with Tax Information

For more information, see the help topics Japan Consumption Tax Form and Japan Consumption Tax Reports.

Support for New Tax Rates

Japan Localization SuiteApp version 19.2 supports the standard rate (10%) and reduced rate (8%) that will be in effect starting October 1, 2019.

You must create and set up new tax codes for the new tax rates. The new tax codes should be set up using the correct tax classification. Tax category mapped to main tax category must be set on purchase transactions.

For more information, see the help topic Setting Up Provisioned Tax Records.

Retirement of Legacy Japan Tax Form and Deductible Tax & Taxable Sales Ratio Calculation Form

The Japan Localization SuiteApp supports a new implementation of the Japan Tax Form, following the prescribed format of the National Tax Agency, which will be in effect on October 1, 2019.

You must transition to and use the new implementation of the Japan Tax Form and the Deductible Tax & Taxable Sales Ratio Calculation Form. You can access the forms from Reports > Financial > Japan Consumption Tax Form. The old Japan Tax Form and Deductible Tax & Taxable Sales Ratio Calculation Form will still work, but they will be removed in NetSuite 2020.1.

For more information, see the help topics Japan Consumption Tax Form and Consumption Tax Overview - Japan.

Manufacturing SuiteApps

Following is the 2019.2 manufacturing enhancements to SuiteApps:

Advanced Manufacturing

The NetSuite Advanced Manufacturing SuiteApp version 2019.2 introduces the following new features:

- Conventional Work Order Production Units of Measure
- Conventional Work Order Serial Component Support
- Inventory Status for Component Issue

Conventional Work Order Production Units of Measure

NetSuite Advanced Manufacturing 2019.2 enables customers to report production for conventional work orders on the shop floor in units of measure other than base units.

The new Production Unit NetSuite Units of Measure fields are now supported in the Advanced Manufacturing tablet interface. The latest addition is the Conventional Work Order form. NetSuite Units of Measure conversions are leveraged to display all amounts in your selected unit of measure. This means that shop floor operators do not have to convert measures to report quantity produced.

For example, a customer work order displays a base unit quantity of 10 eaches. However, production uses pallets to records quantity. In this example, 10 Eaches would be reported as 2 pallets.

Advanced Manufacturing automatically converts the units in order to produce the correct NetSuite transaction.

A new UOM (Units of Measure) field displays the production measurement in the conventional work order tablet interface to identify reporting units for the operator. To consistently represent quantity in the tablet interface, the production UoM is also applied to the tablet Progress bar.

Production Unit of Measure is not supported for serialized inventory and assembly items.

Conventional Work Order Serial Component Support

NetSuite Advanced Manufacturing 2019.2 enables shop floor operators to issue serialized components for conventional work orders using the tablet interface.

Advanced Manufacturing does not automatically default serial number selection. To do this, replace the SuiteApp's default plug-in. Operators can enter or select a different serial number to issue from the Serial Number list.

Enabling shop floor operators to report the number of lot/serial assemblies used on the floor minimizes data input and eliminates paper record keeping.

Inventory Status for Component Issue

The NetSuite Advanced Manufacturing 2019.2 tablet interface enables shop floor operators to select inventory status by location during material issue. The list of available inventory statuses is limited based on administrative settings and filtered based on actual on-hand quantities for the item, bin, and potential lot numbers.

Operators can now record their material consumption within the confines of established business practices while maintaining the flexibility to use material in a state other than the default (Good) status.

Projects SuiteApps

Following is the 2019.2 projects enhancement to SuiteApps:

Custom Segment Support for Resource Allocation Chart/Grid

The filters let you limit the data on the Resource Allocation Chart or Grid so that only the information that matches the specified conditions are shown.

Custom Segments that you create and apply to an Employee, Generic Resource, and Vendor can now be used as a filter in the Resource Allocation Chart/Grid. This option will be available when you customize your filter and select the Resource record. You can use both the List/Record and Multi-select types of custom segment.

SuiteAnalytics SuiteApps

Following is the 2019.2 SuiteAnalytics enhancement to SuiteApps:

- Multi-Language Support for Dashboard Tiles

- Multi-Language Support for Navigation Portlet

Multi-Language Support for Dashboard Tiles

The Dashboard Tiles SuiteApp version 1.06.0 is now available in the following languages:

- Chinese (Simplified)
- Chinese (Traditional)
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- French (Canada)
- German
- Italian
- Indonesian
- Japanese
- Korean
- Latin American Spanish
- Norwegian
- Portuguese (Brazil)
- Russian
- Spanish
- Swedish
- Thai
- Turkish
- Vietnamese

To set the language preference, you must enable the Multi-Language feature in your account. For more information, see the help topic Setting the Language Preference for Dashboard Tiles.

Multi-Language Support for Navigation Portlet

The Navigation Portlet SuiteApp version 1.04.0 is now available in the following languages:

- Chinese (Simplified)
- Chinese (Traditional)
- Czech
- Danish
- Dutch
- English
- Finnish

- French
- French (Canada)
- German
- Italian
- Indonesian
- Japanese
- Korean
- Latin American Spanish
- Norwegian
- Portuguese (Brazil)
- Russian
- Spanish
- Swedish
- Thai
- Turkish
- Vietnamese

To set the language preference, you must enable the Multi-Language feature in your account. For more information, see the help topic Multi-Language Support for Navigation Portlet.

To search and install the Navigation Portlet SuiteApp, use the following information:

- Bundle Name: Navigation Portlet
- Bundle ID: 186103

Food and Beverage SuiteApps

Following are the 2019.2 enhancements to Food and Beverage SuiteApps:

- Allergen Statements
- Order Guides

Allergen Statements

In the Food and Beverages industry, it is essential to be able to identify Allergen information because consumers may be allergic to a specific allergen. The Allergen Statements SuiteApp version 1.0.0 enables the identification of relevant allergen information on items.

The SuiteApp provides the ability to add allergen information to items and then print an allergen statement for each item in PDF format. You can select the allergens from the **Allergen** subtab on the Items page.

Following are the bundle details:

- Bundle Name: Allergen Statements
- Bundle ID: 282582
- Availability: Public

Allergen Statements is a managed SuiteApp that is automatically updated whenever enhancements or new features are added.

For more details, see Allergen Statements.

Order Guides

Order guides are predefined lists of items that customers can order from on a regular basis. Order guides enable you to add any or all of the predefined items in bulk to a sales order.

Using the Order Guides SuiteApp, you can create an order guide per customer or a template that you can assign to multiple customers. You can create an order guide for a group of customers, such as pizza restaurants. Add the list of items, like flour and cheese, which they may order on a regular basis. For each customer, you can further customize the list by adding more items based on recent orders. On sales orders, you can use one or more order guides to add the items.

Following are the bundle details:

- Bundle Name: Order Guides
- Bundle ID: 275880
- Availability: Public

Order Guides is a managed SuiteApp that is automatically updated whenever enhancements or new features are added.

For more details, see the help topic Order Guides.

Taxation SuiteApps

Following are the 2019.2 taxation enhancements to SuiteApps:

- Tax Audit Files Enhancements
  - Mexico Declaración Informativa de Operaciones con Terceros (DIOT) Enhancement
  - France Fichier d'Ecritures Comptables (FEC) Enhancement
  - Mexico Tax Audit Files Field Mapping Update
- International Tax Report Enhancements
  - UK Making Tax Digital (MTD) Submission Headers
  - Malaysia Sales and Service Tax (SST-02) Return Updates
  - Germany Annual VAT Return Updates
  - Enhancements to Making Tax Digital for UK VAT
- Enhancements to US Tax Engine

Tax Audit Files Enhancements

Tax Audit Files SuiteApp includes the following enhancement in 2019.2:

- Mexico Declaración Informativa de Operaciones con Terceros (DIOT) Enhancement
- France Fichier d'Ecritures Comptables (FEC) Enhancement
- Mexico Tax Audit Files Field Mapping Update

Mexico Declaración Informativa de Operaciones con Terceros (DIOT) Enhancement

Tax Audit Files version 1.75.0 includes the following enhancements to the Mexico Declaración Informativa de Operaciones con Terceros (DIOT) file:

- Reporting of check transactions is included in the Mexico DIOT file.
- For accounts using the Mexico Localization SuiteApp, the updated DIOT report specifies the **Operation Type** for each expense item on expense report transactions for vendors located in Mexico.

The purpose of this enhancement is to provide accurate reporting of the DIOT file. The DIOT file is a monthly submission of a list of all payments made to third parties, detailing the applicable value added tax.

To learn more, see the help topic Mexico DIOT File.

France Fichier d'Ecritures Comptables (FEC) Enhancement

Effective August 6, 2019, Tax Audit Files version 1.74.0 includes the following enhancements to the France Fichier d'Ecritures Comptables (FEC) report:

- Establishment Code field - You can enter the Establishment Code either in the transaction or line item level of the sales and purchase transaction forms.
- Code Etbt column - The value entered in the Establishment Code field will be shown in the 19th column of the France FEC report. Moreover, if the company does not use the establishment code at all, Code Etbt column will not be shown on the FEC report.

This update ensures reporting of multiple establishments or locations on the France FEC report. The France FEC tax audit report is an export of accounting entries in flat file format as specified by the French tax authority, Direction Générale des Finances Publiques.

To learn more, see the help topic France Fichier d'Ecritures Comptables (FEC) Field Mapping.

Mexico Tax Audit Files Field Mapping Update

Tax Audit Files version 1.73.0 includes support for the Mexico Servicio de Administración Tributaria (SAT) catalogs field mapping feature provided by the new Mexico Localization SuiteApp.

This update ensures proper generation of the Mexico electronic accounting files for NetSuite users, regardless if they are using the Tax Audit Files or Mexico Localization SuiteApp to configure the SAT catalogs field mapping.

The following table shows the changes in the SAT catalogs field mapping and bank account number information if the Mexico Localization SuiteApp is installed in your NetSuite account:

> **Note:** When you install or update to Mexico Localization SuiteApp version 2.01.0, the mapping values for the Mexico SAT catalogs configured in the Tax Audit Files SuiteApp will automatically be migrated to the Mexico Field Mapping page in Mexico Localization.

Updates to Mexico Tax Audit Files	Without the Mexico Localization SuiteApp installed	With the Mexico Localization SuiteApp installed
Mexico Audit Files Field Mapping	No change to the Mexico Audit Files Field Mapping categories	The following categories are removed from the Tax Audit Files Mexico Audit Files Field Mapping:

Updates to Mexico Tax Audit Files	Without the Mexico Localization SuiteApp installed	With the Mexico Localization SuiteApp installed
		■ MX SAT: Account Grouping ■ MX SAT: Bank ■ MX SAT: Payment Method
Field mapping source for MX SAT: Account Grouping used in the Mexico Chart of Accounts (XML) report	Setup > Tax Audit Files > Audit Files Field Mapping > MX SAT: Account Grouping > Value	Setup > Mexico Localization > Mexico Field Mapping > SAT Account Grouping > Value
Field mapping sources for MX SAT: Bank and MX SAT: Payment Method used in the Mexico Journal (XML) report	■ Setup > Tax Audit Files > Audit Files Field Mapping > MX SAT: Bank > Value ■ Setup > Tax Audit Files > Audit Files Field Mapping > MX SAT: Payment Method > Value	■ Setup > Mexico Localization > Mexico Field Mapping > SAT Bank > Value ■ Setup > Mexico Localization > Mexico Field Mapping > SAT Payment Method > Value
Field sourcing for Bank Account Number of Mexico Journal (XML)	Account > Bank Account Number Field ID: custrecord_acct_bank_account_number	Account > Bank Account Field ID: custrecord_mx_bank_account_number

To learn more, see the help topic Field Mapping for Mexico.

International Tax Report Enhancements

International Tax Reports SuiteApp includes the following enhancements in 2019.2:

- UK Making Tax Digital (MTD) Submission Headers
- Malaysia Sales and Service Tax (SST-02) Return Updates
- Germany Annual VAT Return Updates
- Enhancements to Making Tax Digital for UK VAT

UK Making Tax Digital (MTD) Submission Headers

International Tax Reports version 3.109.0 includes submission header information in the UK Making Tax Digital (MTD) report. It is now mandatory for all software to supply submission header information and contents to comply with Her Majesty's Revenue and Customs (HMRC) regulations to prevent fraud.

For more information, see the help topic Submitting MTD VAT Returns to HMRC.

Malaysia Sales and Service Tax (SST-02) Return Updates

The Malaysian tax authority has updated the Malaysia Sales and Service Tax Returns (SST-02) to include declaration of Sales and Service Tax Deduction and the Total Value of Exempted Taxable Services. As a result, International Tax Reports version 3.109.0 includes updates to the Malaysia SST-02 Returns to support the following editable boxes:

- Box 13a: Tax Deduction from Credit Note
- Box 13b: Sales Tax Deduction
- Box 13c: Service Tax Deduction
- Box 18c: Total Value of Exempted Taxable Services

For more information, see the help topics What Goes Into Each Box - Malaysia Sales Tax (SST-02) and What Goes Into Each Box - Malaysia Service Tax (SST-02).

Germany Annual VAT Return Updates

The German tax authority has updated the annual VAT Return form for the year 2019. In relation to this, International Tax Reports version 3.109.0 includes the following changes to the Germany Annual VAT Declaration report for 2019:

- Reporting of reverse charge transactions has been simplified:
  - The net and notional amounts of purchases made for other services of a company based abroad declared in boxes 871 and 872 have been removed.
  - The net and notional amounts of purchases made for mobile devices and integrated circuits declared in boxes 844 and 845 have been removed. These values will be declared in boxes 877 and 878 instead.
  - Layout of the report is updated based on the 2019 form version of the Germany Annual VAT return.

For more information, see the help topic What goes into each box - Germany Annual VAT Declaration.

Enhancements to Making Tax Digital for UK VAT

Previously, you can access the Making Tax Digital (MTD) for UK VAT feature by going to Reports > VAT/GST > Tax Reports (International).

In version 3.108.0 of the International Tax Reports SuiteApp, the MTD for UK VAT feature is moved to a new page. The UK MTD Submit Via CSV page is created to support MTD VAT return submissions in CSV file format. You can access the new MTD for UK VAT feature by going to Reports > VAT/GST > UK MTD Submit Via CSV.

For more information, see the help topic Submitting an MTD VAT Return in a CSV File.

Enhancements to US Tax Engine

The NetSuite default US Tax Engine is a SuiteApp that uses the SuiteTax plug-in. US Tax Engine is available to businesses that have sales tax obligations.

For more information, see the help topic SuiteTax Engine.

Following are enhancements to NetSuite SuiteTax Engine:

- **Sales Tax Exemptions** – Support for customer exemption certificates with validity dates to help finance users in tax compliance. This enables finance users to easily associate the relevant exemption certificate information to invoices that were exempted from sales tax.

  For more information, see the help topic Creating Exemption Certificates.
- **US Sales Tax Code Lookup Logic** – Tax determination for sales tax using the new Tax API. Includes support for origin and destination based rules, intrastate and interstate sale, exemption certificate management, setting up taxation of individual items, and ZIP+4 accuracy for sales tax determination.

  For more information, see the help topic Tax Code Lookup Logic for United States.
- **US Sales and Use Tax Table** – Support for automatic tax table update to help finance users with tax compliance.