Integration Guide

Tenrox and Salesforce Integration Guide

Tenrox 2016 R1 Release

December 2016

Tenrox by Upland Software

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About this Guide

This guide describes the procedures for setting up integration between Salesforce.com and Tenrox, as well as mapping, importing and exporting objects between Tenrox and Salesforce. This guide is used to integrate Salesforce.com with the following Tenrox releases:

- Tenrox 2016 R1
- Tenrox 2015 R1, R2
- Tenrox 2014 R1, R2, R3
- Tenrox 2013 R1, R2
- Tenrox 2011 R1, R2, R3

> **Note:** This guide describes the procedures for integrating Salesforce.com with Tenrox, starting from the Tenrox 2011 R1 release. The features described in this guide apply to all Tenrox releases unless otherwise indicated.

What's New in Tenrox

Available as of: Tenrox 2013 R2

- Salesforce Package Changes

Available as of: Tenrox 2011 R3

- Defining the Custom Integration Settings
- Mapping Existing Objects in Tenrox to Objects in Salesforce
- Defining the Tenrox Object Mapping Fields
- Mapping the Tenrox and Salesforce Object Fields
- Verifying the Status of the Imports
- Deleting or Synchronizing the Tenrox Object Mapping Entries
- Importing the Project Related Objects into the Tenrox Database

Tenrox Technical Support

The Tenrox support specialists are trained to use, configure, and troubleshoot Tenrox in your specific enterprise environment. If you have any questions, you can reach us by:

- Sending an email to support@tenrox.com

Tenrox Software License Agreement

The Tenrox Software license agreement was reviewed and accepted during the installation procedure of this software in your environment.

For additional information, please contact Tenrox at:

Corporate site: www.uplandsoftware.com I www.tenrox.com

Sales email: sales@tenrox.com

Support email: support@tenrox.com

Or click **Help > Contents and Index** from within Tenrox.

Issue 1

Tenrox and Salesforce Integration

The integration of Salesforce.com and Tenrox allows the handling of financial and Customer Relationship Management (CRM) information in Salesforce.com and the management of people, projects and business processes in Tenrox. With Salesforce.com integration, users can perform the following:

- Automate repetitive tasks
- Track time and expense actuals
- Centralize internal business process activities and generate detailed, real-time analysis reports to analyze operations, reduce costs, meet budget requirements, and improve project and service delivery
- Automatically map Salesforce.com objects to existing objects in Tenrox
- Define the fields of objects associated to cases, opportunities and projects in Salesforce that are imported
- Import Salesforce.com cases, opportunities or projects as Tenrox projects
- Define custom stored procedures that are processed before and after projects are created, updated or deleted in Tenrox.
- Define custom filters to filter the cases, opportunities and projects that are created, updated or deleted in Tenrox
- Define the fields of cases, opportunities and projects not mapped through the user interface that should be imported when the cases, opportunity and projects are imported
- Set up email notifications in the event of data errors during the import process
- Define Tenrox fields that are imported into Salesforce fields

Setting Up Integration Between Tenrox and Salesforce

For integration purposes, Salesforce.com is the master and Tenrox the slave to ensure that only one set of data exists in both applications. For example, if changes are applied to an object in Salesforce.com that has already been imported into Tenrox, then Salesforce.com (master) performs the updates in Tenrox (slave) when the object is re-imported. However, if Tenrox Key Performance Indicators (KPIs) are associated to the Salesforce.com projects, then the KPIs are tracked in Tenrox and updated in Salesforce.com. For more information, see Mapping the Tenrox KPIs to the Salesforce Fields.

Note: The master/slave model is a communication protocol that is used to define the primary application (master) that controls and updates the objects of the secondary application (slave).

The integration process between Tenrox and Salesforce.com consists of the following steps:

1. Configuring the TenroxSalesforce Integration Package.
2. Setting Up the Connection Between Salesforce and Tenrox.
3. Mapping the Objects Between Salesforce and Tenrox.
4. Mapping the Tenrox KPIs to the Salesforce Fields.
5. Importing the Users and Contacts into Tenrox.
6. Setting Up the Automated (Batch) Processing.
7. Exporting the Projects from Salesforce into Tenrox.

Available as of: Tenrox 2011 R3, custom integration is supported; for more information, see Setting the Advanced Integration Options.

Configuring the TenroxSalesforce Integration Package

The Tenrox Integration package is installed in the Salesforce.com environment to support integration with Tenrox. The configuration of the TenroxSalesforce integration package consists of the following steps:

1. Installing the TenroxSalesforce Package
2. Setting Up the Project for Exports to the Tenrox Organization
3. Setting Up the Project Tabs
4. Setting Up User Integration Between Tenrox and Salesforce

Note: Only users with administrative rights can perform the integration setup process.

Available as of: Tenrox 2013 R2

Salesforce Package Changes

- The Salesforce Package is now a Managed Package
- Salesforce Link Modifications
- Tenrox Application Modifications
- Upgrade Impact

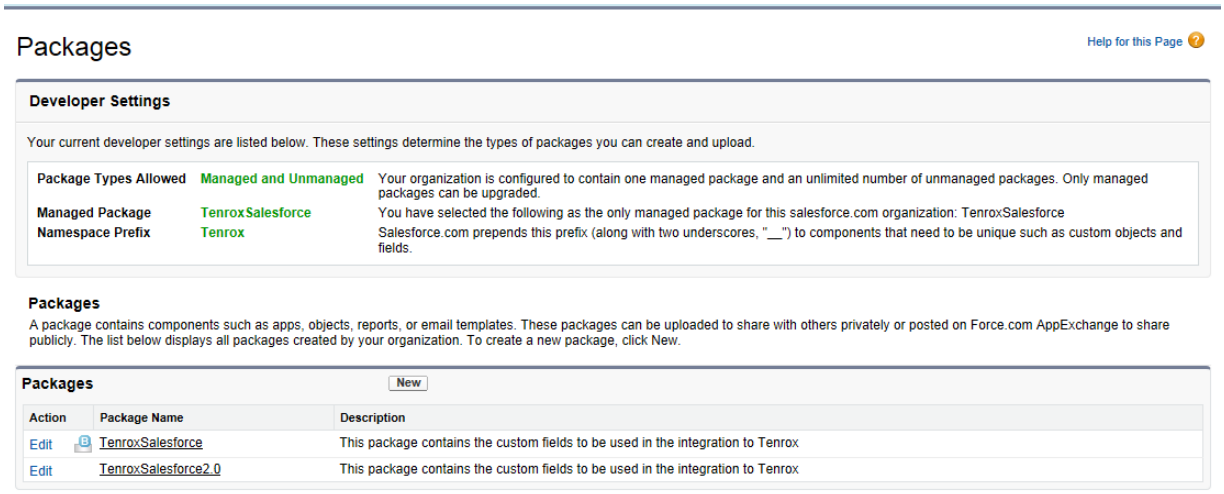
Installing the TenroxSalesforce Package

Before running the TenroxSalesforce package, contact your Tenrox representative to ensure that your base Salesforce.com configuration does not conflict with the package installation.

The Salesforce Package is now a Managed Package

To install the TenroxSalesforce package:

1. Copy the URL **https://login.salesforce.com/packaging/installPackage.apexp?p0=04ti0000000KLer** and paste it in your Web browser's **Address** bar to access the Salesforce.com logon page.
2. Enter the Salesforce **User Name** and **Password** of the Administrator of the target Salesforce environment.
3. Managed packages is created by navigating to Setup > Create > Packages.
   - 3a. The managed package name is set to "TenroxSalesforce".
   - 3b. The Namespace Prefix is set to "Tenrox". This namespace becomes a prefix for any items included within the package.



Managed Package Screen in Salesforce

The Managed Package will contain the following objects and fields:

Name	API Name	Type	Parent Owner
Tenrox URL Settings	Tenrox__UrlSettings__c	Custom Settings	-
Organization Name	Tenrox__Organization_Name__c	Custom Field Text(255)	Custom Settings
Tenrox Server URL	Tenrox__URL__c	Custom Field Text(255)	Custom Settings
Project	Tenrox__tenrox__c	Custom Object	-
Account	Tenrox__Account__c	Custom Field Lookup(Account)	Project
Description	Tenrox__Description__c	Custom Field Text Area (255)	Project
End Date	Tenrox__End_Date__c	Custom Field Date	Project
Id	Tenrox__Id__c	Custom Field Text(32)	Project
Opportunity	Tenrox__Opportunity__c	Custom Field Lookup(Opportunity)	Project
Project Code	Tenrox__Code__c	Custom Field Text (32), Unique Case Insensitive	Project
Start Date	Tenrox__Start_Date__c	Custom Field Date	Project
TenroxUniqueId	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	Project
Actual Billing	Tenrox__KPI_Actual_Billing__c	Custom Field Currency(10,2)	Project
Actual Cost	Tenrox__KPI_Actual_Cost__c	Custom Field Currency(10,2)	Project

Name	API Name	Type	Parent Owner
Actual Time	Tenrox__KPI_Actial_Time__c	Custom Field Number(10,2)	Project
Baseline Biling	Tenrox__KPI_Baseline_Billing__c	Custom Field Currency(10,2)	Project
Baseline Cost	Tenrox__KPI_Baseline_Cost__c	Custom Field Currency(10,2)	Project
Baseline Time	Tenrox__KPI_Baseline_Cost__c	Custom Field Number(10,2)	Project
Current Billing	Tenrox__KPI_Current_Billing__c	Custom Field Currency(10,2)	Project
Current Cost	Tenrox__KPI_Current_Cost__c	Custom Field Currency(10,2)	Project
Current Time	Tenrox__KPI_Current_Cost__c	Custom Field Number(10,2)	Project
Issues	Tenrox__KPI_Issues__c	Custom Field Number(10,2)	Project
Project Billable Amount	Tenrox__KPI_Project_Billable_Amount__c	Custom Field Currency(10,2)	Project
Project Billable Charges	Tenrox__KPI_Project_Billable_Charged__c	Custom Field Currency(10,2)	Project
Project Billable Expenses	Tenrox__KPI_Project_Billable_Expenses__c	Custom Field Currency(10,2)	Project
Project Billable Products	Tenrox__KPI_Project_Billable_Products__c	Custom Field Currency(10,2)	Project
Project Billable Time	Tenrox__KPI_Project_Billable_Time__c	Custom Field Number(10,2)	Project
Project Billed Amount	Tenrox__KPI_Project_Billed_Amount__c	Custom Field Currency(10,2)	Project
Project Invoices	Tenrox__KPI_Project_Invoices__c	Custom Field Currency(10,2)	Project
Project Paid Amount	Tenrox__KPI_Project_Paid_Amount__c	Custom Field Currency(10,2)	Project
Project Payable Amount	Tenrox__KPI_Project_Payable_Amount__c	Custom Field Currency(10,2)	Project
Project Payable Charges	Tenrox__KPI_Project_Payable_Charges__c	Custom Field Currency(10,2)	Project
Project Payable Expenses	Tenrox__KPI_Project_Payable_Expenses__c	Custom Field Currency(10,2)	Project
Project Payable Products	Tenrox__KPI_Project_Payable_Products__c	Custom Field Currency(10,2)	Project
Project Payable Time	Tenrox__KPI_Project_Payable_Time__c	Custom Field Number(10,2)	Project
Project Work In Progress	Tenrox__KPI_Project_Work_In_Progress__c	Custom Field Currency(10,2)	Project
Risks	Tenrox__KPI_Risks__c	Custom Field Number(10,2)	Project

Name	API Name	Type	Parent Owner
Scope Changes	Tenrox__KPI_Scope_Changes__c	Custom Field Number(10,2)	Project
Open/Publish Project	btnPublishProject	Custom Button	Project
Milestones	btnMilesotne	Custom Button	Project
Tenrox Portal	btnPortal	Custom Button	Project
Project Status Report	rptStatusReport	Custom Link	Project
Project Layout	-	Page Layout	Project
TenroxUniqueID	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	Opportunity
Open/Publish Project	btnPublishProject	Custom Button	Opportunity
TenroxUniqueID	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	Case
Open/Publish Project	btnPublishProject	Custom Button	Case
TenroxImportFlag	Tenrox__TenroxImportFlag__c	Custom Field, Checkbox unchecked	User
TenroxUniqueID	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	User
TenroxUniqueID	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	Account
TenroxUniqueID	Tenrox__TROXUniqueID__c	Custom Field Text(20), External ID	Contact

Salesforce Link Modifications

The link within each button / link have been modified to include the custom field settings that have been added to the package:

Open/Publish Project (Project object):

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Tenrox__tenrox__c.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=1&crmUserID={!User.Id}

Open/Publish Project (Opportunity object):

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Opportunity.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=1&crmUserID={!User.Id}

Open/Publish Project (Case object):

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Case.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=1&crmUserID={!User.Id}

Milestones:

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Tenrox__tenrox__c.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=108&crmUserID={!User.Id}

Tenrox Portal:

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Tenrox__tenrox__c.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=1&crmUserID={!User.Id}&DirectLogin=1

Project Status Report:

https://{!$Setup.Tenrox__UrlSettings__c.Tenrox__URL__c}/Tenterprise/Core/Base/logonCRM.aspx?orgname=

{!$Setup.Tenrox__UrlSettings__c.Tenrox__Organization_Name__c}&OppId={!Tenrox__tenrox__c.Id}&extapplication=salesforce&SFserverURL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=101&crmUserID={!User.Id}

Tenrox Application Modifications

The following changes have been made to the Tenrox application:

- Any advanced options for **Import**/**Update**/**Delete** will now query against the field "Tenrox__TROXUNIQUEID__c" as the identifier.
- The **Project** object mapping will now refer to the Salesforce object "Tenrox__tenrox__c".

Upgrade Impact

When upgrading:

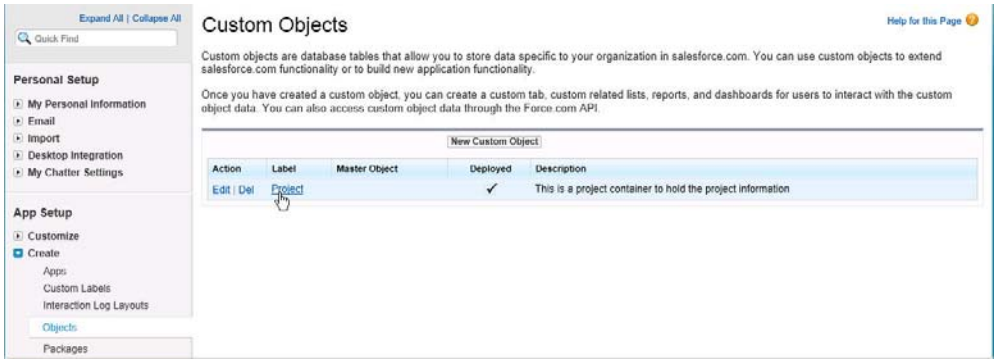
- Any advanced options for **Import**/**Update**/**Delete** will be changed to query against the field "Tenrox__TROXUNIQUEID__c" as the identifier.
- The **Project** object mapping will be changed to refer to the Salesforce object "Tenrox__tenrox__c".

Setting Up the Project for Exports to the Tenrox Organization

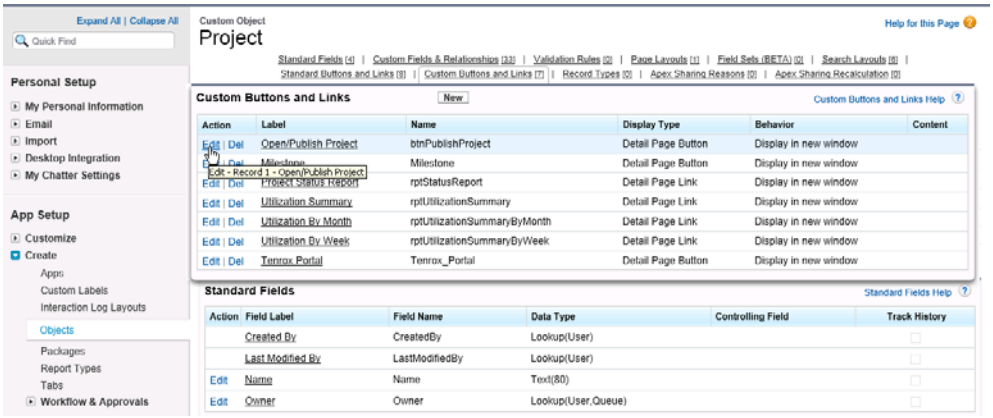
After installing the TenroxSalesforce package, the newly created project is set up to export to the correct Tenrox organization.

To export the newly created project to the correct Tenrox organization:

1. Click **Setup** at the top of the page to open the **Personal Setup** page.
2. From the navigation panel, click **App Setup>Create>Objects** to open the **Custom Objects** page.
3. Click the **Project** link to open the **Project** page.



4. Click the **Custom Buttons and Links** tab and then click the **Edit** link for the **Open/Publish Project** record.



5. Edit the following URL to reflect the server path and the orgname of your organization:

```
https://<computername>/Tenterprise/Core/Base/
logonCRM.aspx?orgname=<organizationname>&OppId={!tenrox__c.Id}&extapplication=salesforce&SFserver
URL={!API.Partner_Server_URL_70}&SFsessionId={!User.Session_ID}&mscrmCustomizationID=1&crmUse-
rID={!User.Id}
```

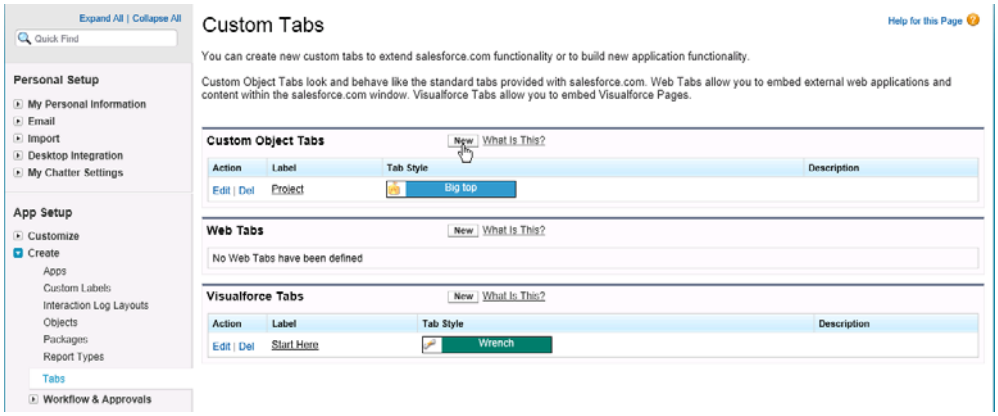
6. Click **Save** to save the server and orgname.
7. Repeat steps 1 to 6 for each custom button and link.

Setting Up the Project Tabs

In the Salesforce.com application, users can create and customize the Project tab to extend Salesforce.com functionality.

To set up the project tabs:

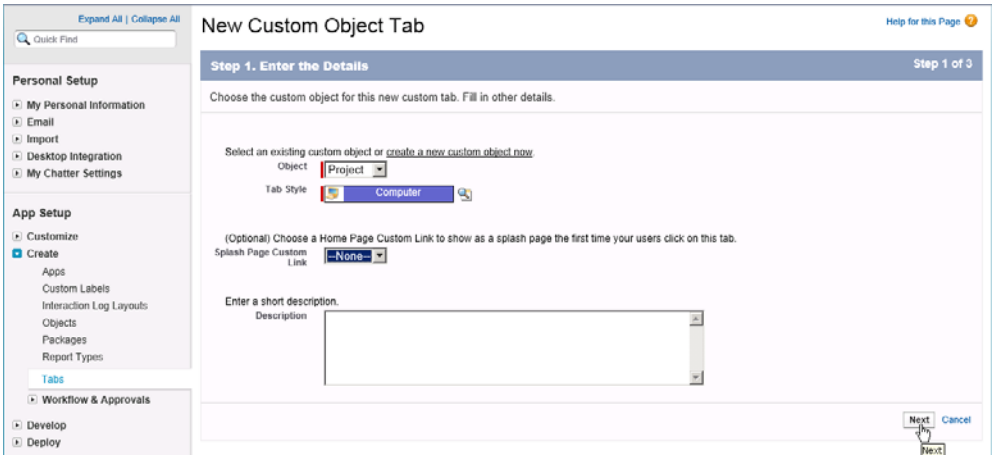
1. Click **Setup** at the top of the page to open the **Personal Setup** page.
2. From the navigation panel, click **App Setup>Create>Tabs** to open the **Custom Tabs** page.
3. Click the **New** button to create a new custom object tab.



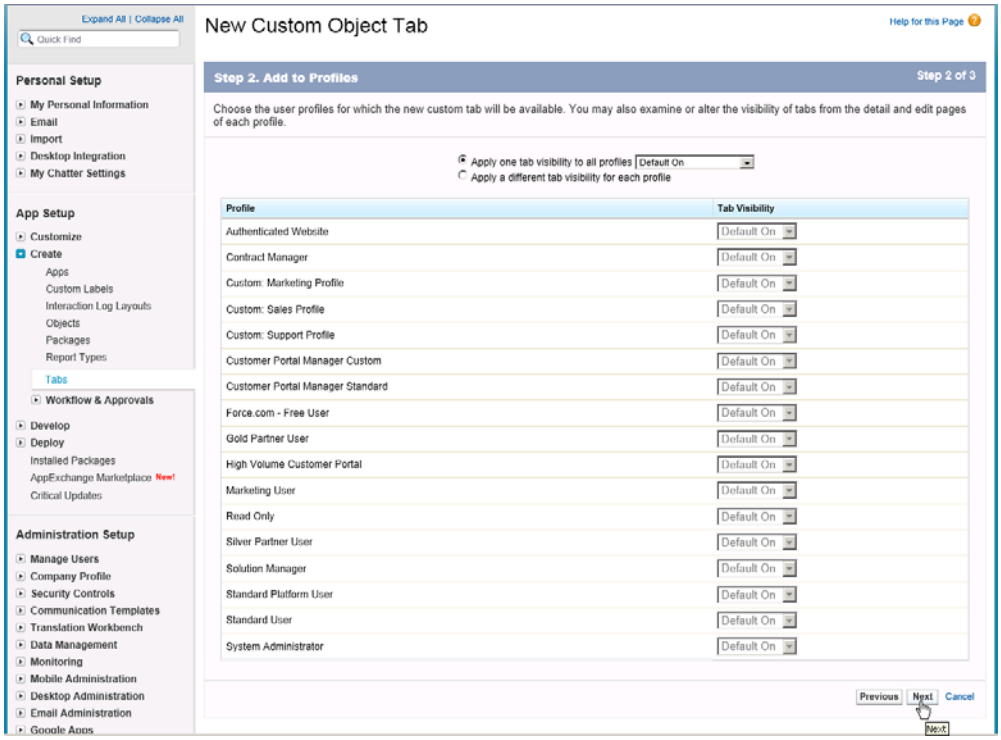
4. Select a newly defined project from the **Object** list and then select a **Tab Style** for the project.

> **Note:** If a project is already assigned to a tab, then it is not displayed in the **Object** list.

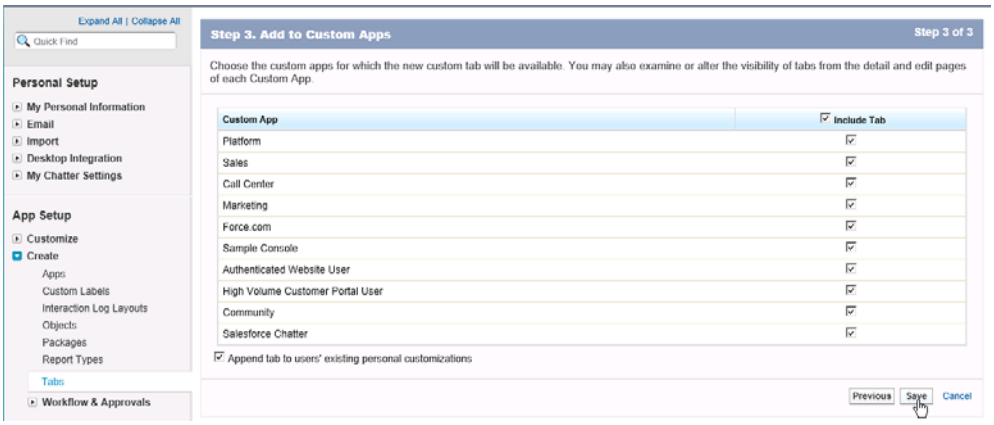
5. Select a custom link to display a splash page the first time a user clicks the tab (optional).
6. Type a short description for the new custom tab (optional)
7. Click **Next** to continue.



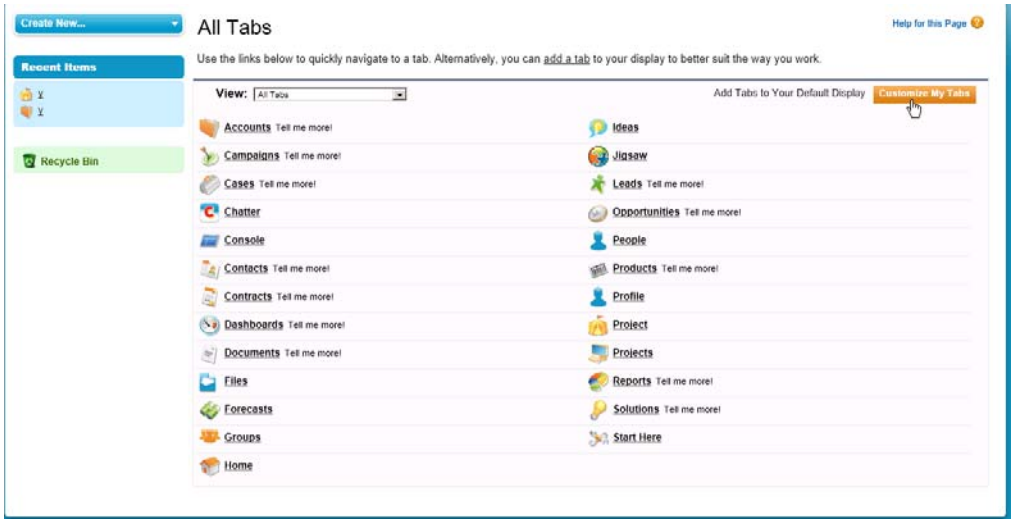
8. Specify the user profiles for the new tab.
   - Click **Apply one tab visibility to all profiles** to select a single tab visibility for all the profiles.
   - Click the **Apply a different tab visibility for each profile** to select a different tab visibility for each profile.
9. Click **Next** to continue.



10. Select the **Include Tab** check box to specify all the custom applications (apps) for the new custom tab or clear the **Include Tab** check box to select specific custom applications.
11. Select the **Append tab to users' existing personal customizations** check box to add the new custom tab to the existing user layout customizations.
12. Click **Save** to save the settings.



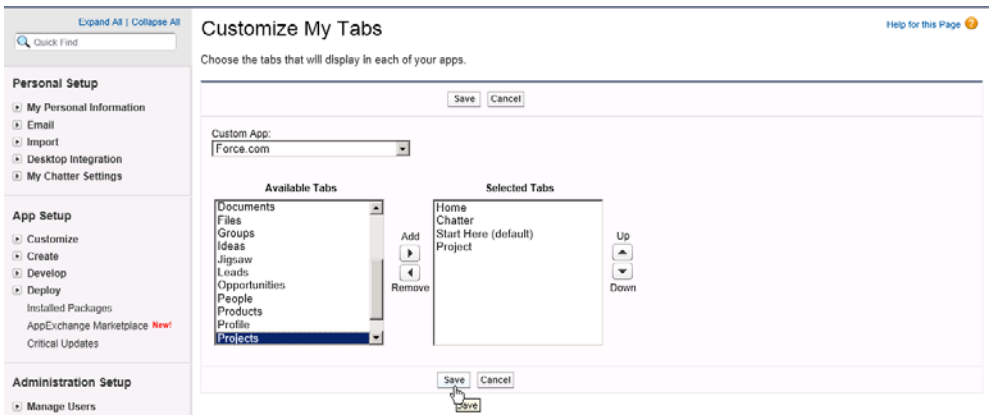
13. Click the All Tabs icon (**+**) and then click **Customize My Tabs** to add the tab to the default display.



14. Select the application from the **Custom App** list.
15. Select from the **Available Tabs** pane which tabs will be displayed for the selected application, then click the **Add** button to add the tabs to **Selected Tabs** pane.

> **Note:** The tabs can be added or removed, as well as moved up or down, by selecting the appropriate buttons.

16. Click **Save** to accept the settings.

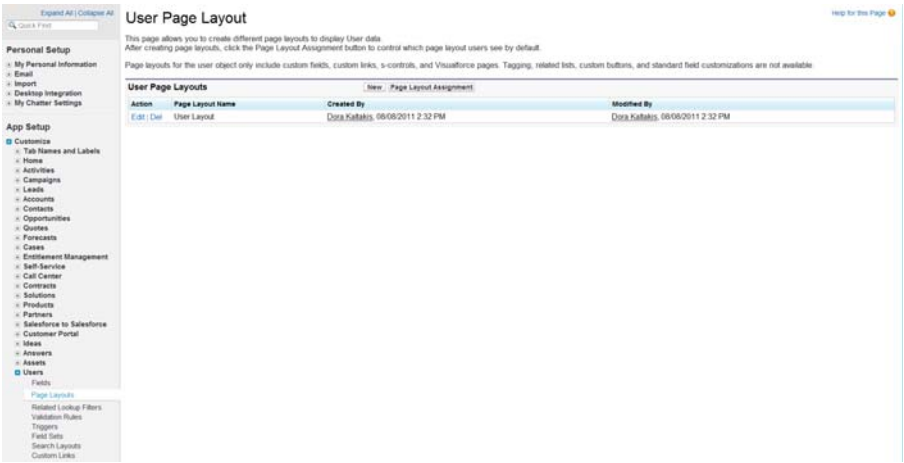


Setting Up User Integration Between Tenrox and Salesforce

After the TenroxSalesforce integration package is installed, all fields are applied to at least one page layout. The **User Page Layout** page allows you to create different page layouts for displaying the user data.

To set up the user integration between Tenrox and Salesforce.com:

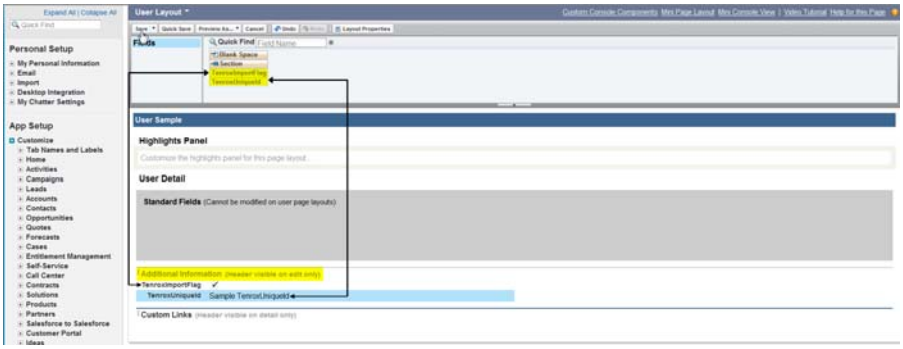
1. Click **Setup** at the top of the page to open the **Personal Setup** page.
2. From the navigation panel, click **App Setup>Customize>Users>Page Layouts** to open the **User Page Layout** page.
3. Click the **Edit** link to edit the page layout for displaying the user data.



4. Drag and drop the **TenroxImportFlag** and **TenroxUniqueID** from the **User Layout** pane to the **Additional Information** pane.

Note: The **TenroxImportFlag** and **TenroxUniqueID** are required for importing users into Tenrox.

5. Click **Save** to complete the Salesforce.com and Tenrox integration process. The **TenroxImportFlag** and **TenroxUniqueID** fields are now visible when editing or viewing user information.



Setting Up the Connection Between Salesforce and Tenrox

Before users can integrate with Salesforce.com, a connection must first be established between Salesforce.com and Tenrox.

The set up of the connection between Salesforce.com and Tenrox consists of the following steps:

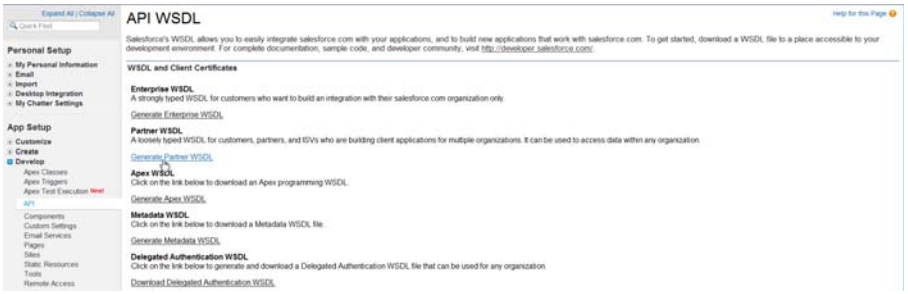
- Locating the URL in the Salesforce WSDL Document
- Setting Up the Connection to Salesforce

Locating the URL in the Salesforce WSDL Document

Before setting up the connection to Salesforce.com, ensure that a user ID and password from a valid Salesforce.com account is provided. The URL to access the Salesforce.com Web service is also required. The URL is located in a Salesforce.com Web Services Description Language (WSDL) document.

To locate the URL in the Salesforce.com WSDL document:

1. Log on to Salesforce.com.
2. Click **Setup** at the top of the page to open the **Personal Setup** page.
3. From the navigation panel, click **App Setup>Develop>API** to open the **API WSDL** page.
4. Under **Partner WSDL**, click the **Generate Partner WSDL** link to open the Salesforce.com Partner Web Services API XML page.
5. Scroll to the bottom of the XML page and then find **<soap:address location="URL**" />.
6. Copy and paste the URL in a location that is accessible since the URL is required to set up the Salesforce.com connection in Tenrox. For more information, see Setting Up the Connection to Salesforce.



Setting Up the Connection to Salesforce

The connection to Salesforce.com is configured using the Tenrox application.

Note: Before setting up the connection to Salesforce.com, ensure that the URL to access the Salesforce.com Web service is available; for more information, see Locating the URL in the Salesforce WSDL Document.

To set up the connection to Salesforce.com:

1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Select **Salesforce.com** from the **CRM System** list and then click **Save**.
4. Click the **Options** button to open the **CRM Integration Options** page.
5. Enter the URL provided by Salesforce.com, as well as your **Logon Id** and **Password**.

Note: Ensure that the URL is readily available; for more information, see Locating the URL in the Salesforce WSDL Document.

6. Select an object from the **Map Tenrox Project to CRM object** list to map the Tenrox project to a specific object in Salesforce.com, such as a project, opportunity or case.

Available as of: Tenrox 2011 R3. To track specific Salesforce.com objects as projects in the Tenrox, users can now map projects, opportunities and cases in Salesforce to projects in Tenrox.

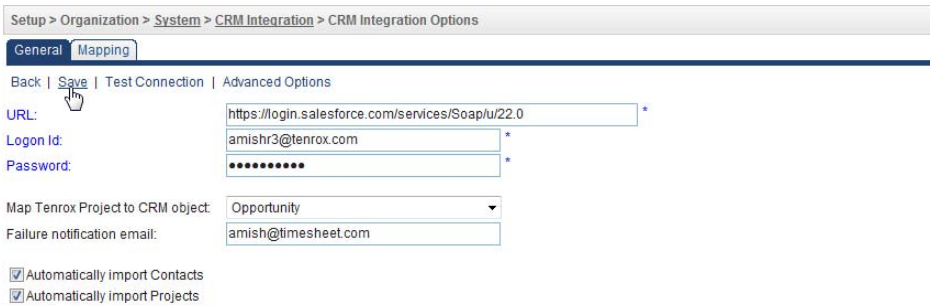
7. Enter the email address of the user who will be sent a notification in the event of an object import failure (case, opportunity, project, client, user or contact).

Available as of: Tenrox 2011 R3. In the event a data error (not a failure of the import service) occurs during the import process, the information displayed in the **Import Status** grid is emailed to the email address defined in the **Failure notification email** box. The default email format can be viewed by clicking **Setup>Organization>System**, then the **System Setup** and **Email Templates** buttons to access the **CRM Notification** link.

8. Select the **Automatically import Contacts** check box to automatically import a client's associated contacts when the accounts are imported from Salesforce.com to Tenrox.
9. Select the **Automatically import Projects** check box to automatically import all projects, cases or opportunities created in Salesforce.com to Tenrox.

Note: If the check boxes for automatically importing the contacts and the projects are not selected, the contacts associated with the client, as well as the projects, cases or opportunities created in Salesforce.com, are not automatically imported to Tenrox when the **CRM Users and Contacts Import** and **CRM Data Exchange** services are running. For more information on automation, see Setting Up the Automated (Batch) Processing.

10. Click the **Test Connection** link to verify the connection between Tenrox and Salesforce.com.
11. Click **Save** to save the changes.



Mapping the Objects Between Salesforce and Tenrox

After the Salesforce.com connection is set up, the system automatically maps certain imported objects from Salesforce.com to objects existing in Tenrox by default. The mapping of objects between Salesforce.com and Tenrox ensures that the information is transferred properly and reliably during the import and export processes. For information on custom integrations and importing cases, opportunities and projects with their associated detail objects, see Setting the Advanced Integration Options.

The mapping of **CRM Users to Tenrox Users** serves as an example of how fields are mapped between Salesforce.com and Tenrox objects since the mapping of the fields between the Salesforce.com and Tenrox objects is similar for the other objects, which include the following:

- CRM Accounts to Tenrox Clients
- CRM Contacts to Tenrox Contacts
- CRM Projects to Tenrox Projects
- Tenrox KPIs to CRM Opportunity

Deprecated as of: Tenrox 2011 R3. The Project Manager, Phase and Priority fields are removed from the project mapping options and are now mapped using the post update triggers; for more information, see Defining the Custom Integration Settings.

To map the CRM Users to the Tenrox Users:

1. Log on to Tenrox.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.

   Note: Ensure that the Salesforce.com connection is set up; for more information, see Setting Up the Connection to Salesforce.

4. Click the **Mapping** tab and then the **CRM Users to Tenrox Users** link to open the **Map User Fields** page.

   Note: The **Map User Fields** page lists the fields that can be imported to the Tenrox Users profile. The **Map Client Fields** page (**CRM Accounts to Tenrox Clients**) and **Map Project Fields** page (CRM Projects to Tenrox Projects) includes a **Creation Options** section to allow users to create and save the names of placeholders for the clients and projects.

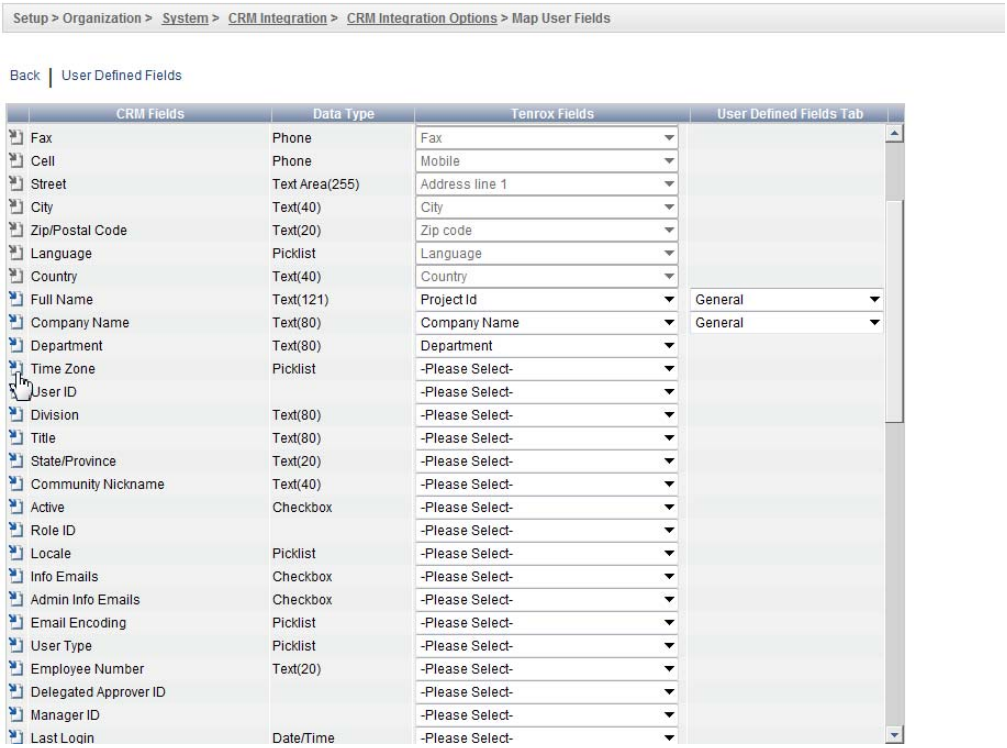
5. Click the Copy and Associate icon to create the user-defined fields in Tenrox and associate them to the Tenrox Users profile.

   Note: When the Copy and Associate icon is gray ( ), the field exists in the Tenrox Users profile and is already mapped. When the Copy and Associate icon is blue ( ), the entry does not exist in the Tenrox Users profile and is not mapped. If a user-defined field with the same name and type already exists in Tenrox, then the system automatically maps the imported Salesforce.com field to the existing user-defined field.

6. Verify that the appropriate Tenrox field is specified and assign a tab for each Salesforce.com field; for more information on mapping, see the table Mapping Fields Between Salesforce and Tenrox.

   Note: The **User Defined Fields Tab** column displays the tab under which the Salesforce.com field appears. To verify that the field is displayed under the assigned tab, click **Setup>Organization>Users** and select a user from the list to open the **User Edit** page, then click the specified tab to view the field.

7. Click the **User Defined Fields** link to map specific fields as user-defined fields, as well as view a list of all user-defined fields created under each tab for the Tenrox User profile.
8. Click **Save** to save the changes and then click the **Back** link.



Mapping the Tenrox KPIs to the Salesforce Fields

Tenrox provides Key Performance Indicators (KPIs) help companies monitor the efficiency of their projects and employees against operational targets. The Tenrox KPIs track and transfer specific project-related information from Tenrox to Salesforce.com using a set of KPI fields.

Note: Since all updates to the KPI fields originate in Tenrox, Tenrox is the primary application (master). The information between Salesforce.com and Tenrox is synchronized through the **Automation Processing** options; for more information on automation, see Setting Up the Automated (Batch) Processing.

To map the Tenrox KPIs to the Salesforce fields:

1. Log on to Tenrox.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.

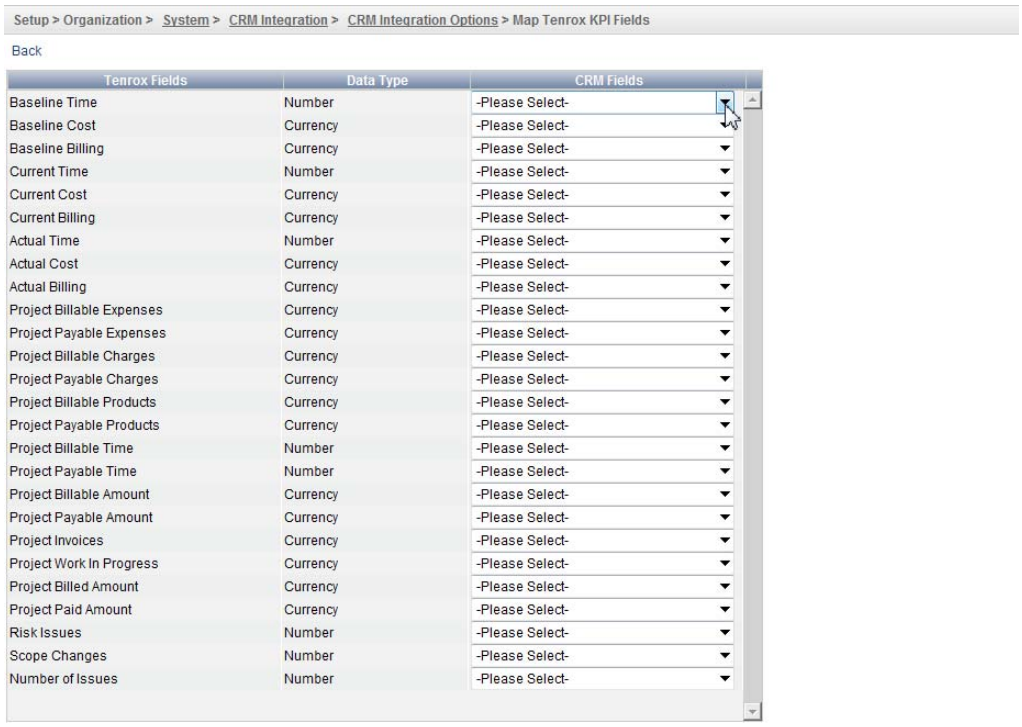
Note: Ensure that the Salesforce.com connection is set up; for more information, see Setting Up the Connection to Salesforce.

4. Click the **Mapping** tab and then click the **Tenrox KPIs to CRM Opportunity** link to open the **Map Tenrox KPI Fields** page that displays a list of fields that can be mapped between the Salesforce.com and Tenrox.
5. Select the corresponding Salesforce.com field from the **CRM Fields** list for each of the Tenrox KPI fields that you want to map.

Note: The **CRM Fields** lists are filtered based on the data type of the corresponding Tenrox field.

6. Click the **Back** link when the required fields are mapped between the Tenrox and Salesforce.com.

Note: After the fields are mapped, the information is transferred to Salesforce projects when the **Automation Processing** options are scheduled to run; for more information, see Setting Up the Automated (Batch) Processing.



Importing the Users and Contacts into Tenrox

The users and contacts can be manually imported from Salesforce.com into Tenrox from the **Tools** menu.

> **Note:** If Salesforce contacts are not associated to any Salesforce.com accounts already imported to Tenrox, then they are not imported.

To import the users and contacts into Tenrox:

1. Click **Tools>Import>CRM**.
2. Under **Import List Selection**, select the **Users** and **Contacts** check boxes to import the users and contacts respectively from Salesforce.com into Tenrox.
3. Click the **Import using service** or the **Import** link to start the import process.

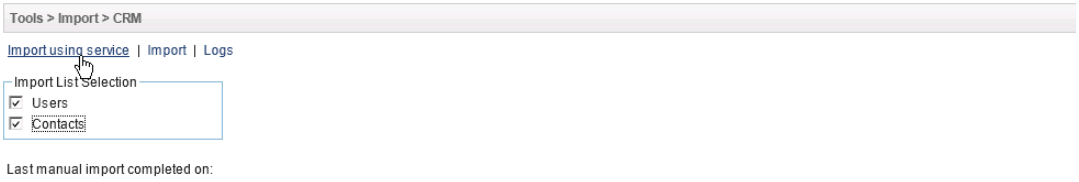
> **Note:** The **Import using service** option allows users to access other pages while the import process is in progress. The **Import** option forces an immediate import and does not allow users to access other pages while the import process is in progress.

4. Click the **Cancel** link to cancel an import process that is not in progress.

> **Note:** An import process cannot be cancelled once it is in progress.

5. Click the **Logs** link to display the following information:
   - **Type:** message type, options include **Error** or **Message**
   - **CRM Object**: type and name of object imported from Salesforce.com
   - **Imp/Exp:** type of activity performed, options include **Import** or **Export**
   - **Results:** type and name of the object created in Tenrox
   - **Date/Time**: date and time of import
   - **Source**: name of the user who performed the import from Tenrox

> **Note:** To delete all message logs, click the **Clear Logs** link and then click the **Back** link to return to **Import List Selection** page.



6. Click **Setup>Work>Clients** and a client from the list to open the **Client Edit** page, then click the **Contacts** button to open the **Contact List** page that displays a list of the imported contacts.
7. Click **Setup>Organization>Users** to open the **Users** page that displays a list of the imported users. By default, the **Standard User** security profile is assigned to all users imported from Salesforce.com.

Setting Up the Automated (Batch) Processing

The CRM automation processing options are used to automatically update information between Salesforce.com and Tenrox. Setting up automated processing for Salesforce.com and Tenrox integration ensures that the information is synchronized in both systems.

Note: If information updated directly in Tenrox differs from the information in Salesforce.com, then it is overwritten on the next import from Salesforce.com.

From the **Automation Processing Options** page, the following CRM services are available:

- **CRM Data Exchange** service that is set to automate the following:
  - Update Project, User and Contact data from Salesforce.com to Tenrox
  - Update KPIs from Tenrox to Salesforce.com
  - Import Projects from Salesforce.com to Tenrox
- **CRM Users and Contacts Import** service that is set to automate the import of users and contacts from Salesforce.com to Tenrox

Note: To automate the processing of the **CRM Users and Contacts Import** and **CRM Data Exchange** services, ensure that the check boxes for automatically importing the contacts and projects are selected. For more information, see Setting Up the Connection to Salesforce.

To set up the automated processing options:

1. Click **Setup>Organization>System** and then click the **Automation** button to open the **Automation Processing Options** page.
2. Click the **Enable Automation Processing** check box to enable the automatic processing feature.
3. Click the **CRM Data Exchange** and **CRM Users and Contacts Import** check boxes to enable the services or click each service to open the **Automation Service Setup** page to edit the following:
   - **Start Date**: start date of processing; set by default to the date when batch service was initialized
   - **Start Time**: time the service starts the processing; set by default to 01:00
   - **End Date**: end date of processing; set by default to **Open Ended**
   - **End Time**: time the service stops the processing; set by default to 01:00
   - **Time Zone**: time zone of processing time; set by default to the server time zone
   - **Process Every**: frequency service is processed; set by default to one day

   Note: When the **Add to Automation service** check box is selected, the **Process Every** option defines the time interval for mapping the objects. When the **Add to Automation service** check box is cleared, the **Process Every** option is not available. For more information, see Defining the Tenrox Object Mapping Fields.

   - **Last Process**: date and time of the last automated background process
   - **Status**: status of the process (successful or unsuccessful)
   - **Enable Service**: select the check box to enable the service; check box is cleared by default (disabled)
   - **Description**: description of the process
4. Click the **Save** link to save the changes and then the **Back** link to return to the **Automation Processing Options** page.
5. Click the **Save** link to save the changes and then the **Back** link to return to the System page.

Exporting the Projects from Salesforce into Tenrox

The Salesforce cases, opportunities and projects are exported to Tenrox as projects. For more information on exporting, see the following:

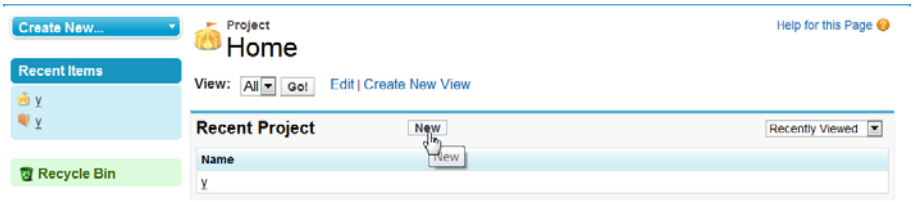
- Creating the Projects in Salesforce
- Exporting the Projects into Tenrox
- Viewing the Reports
- Setting the Advanced Integration Options

Creating the Projects in Salesforce

Before a project can be exported (published) from Salesforce.com to Tenrox, it is first created in Salesforce.com.

To create the projects in Salesforce:

1. Log on to Salesforce.com.
2. Click **Setup** at the top of the page to open the **Personal Setup** page.
3. Click the **Project** link/tab to open the **Project** page.
4. Click the **New** button to open the **Project Edit** page.



5. Enter the required information to create the record and then click the **Save** button to display the project details for the newly created record.

Note: The mandatory fields are marked with vertical red bar.

6. Click the **Edit** button to modify the project and then click **Save** to save the changes.
7. Click the **Delete** button and then click **OK** when prompted to confirm the deletion of the project.
8. Click the **Open/Publish Project** button to export the project from Salesforce to Tenrox.
9. Click the **Milestone** button to access a project's milestones in the Tenrox application (**Setup>Work>Projects>Project Edit**).

Note: The milestones are not available until a project is published.

10. Click the **Tenrox Portal** button to automatically launch the Tenrox application.

Exporting the Projects into Tenrox

Before exporting projects from Salesforce.com into Tenrox, ensure the that projects are associated to the Salesforce.com accounts and a custom link is created and associated to the projects in Salesforce.com. When Salesforce.com projects are exported to Tenrox, the accounts associated to them are automatically exported. The following rules apply when exporting Salesforce accounts to Tenrox:

- If an account is deleted in Salesforce.com that has associated entries in Tenrox, then it cannot be deleted in Tenrox; however, if the account does not have any associated entries in Tenrox, then it can be deleted in Tenrox using the **Automation Processing** options

  Note: This rule also applies to exported projects, users, and contacts.

- If the name of an account, which already exists as a client in Tenrox, is updated in Salesforce.com, the Tenrox client name will be updated

  Note: Provided that there is an Integration ID for the given Tenrox client, the client name will be updated to reflect the account name change made in Salesforce

- If a Tenrox client has the same name as the Salesorce.com account, then the Tenrox client (account) is overwritten during the export process by the Salesforce.com account

  Note:

  - Salesforce acounts are referred to as clients in Tenrox.
  - When a project is exported, the associated account and owner (as user) is automatically exported to Tenrox. However, the associated contacts for the account are only exported if the **Import Contacts** option is selected; for more information, see Setting Up the Connection to Salesforce.

- Updates to Tenrox occur when the Automation runs.

To export the projects from Salesforce.com into Tenrox:

1. Log on to Salesforce.com.
2. From the user menu, click **Setup** to open the **Personal Setup** page.
3. Click the **Project** link/tab to open the **Project** page.
4. Click the project that you want to export and then click the **Open/Publish Project** button to display the Salesforce project name in the **Project Edit** page.

   Note: If a project is not exported, the message the **Project does not exist** is displayed. If the Salesforce user does not exist in Tenrox when the **Open/Publish Project** button is clicked, then the user is required to log on to the Tenrox application using a **Logon name** and **Password**.

Viewing the Reports

After a project is exported to Tenrox, the following reports can be viewed:

- **Project Status Report**: displays the general project details, such as the name of the project, associated client name, start and end date, status (active or inactive), financial information, forecasts, and milestones related to the project
- Utilization reports: display the total number of actual hours and actual billable hours logged against the project; if a resource plan is set for the project, then the forecasted hours and forecasted billable hour information is also displayed
  - **Utilization Summary**: information is grouped by project, resources, weeks and days of the week
  - **Utilization By Month**: information is grouped by project, resources and months
  - **Utilization by Week**: information is grouped by project, resources and weeks

To view the reports:

1. Log on to Salesforce.com.
2. From the user menu, click **Setup** to open the **Personal Setup** page.
3. Click the **Project** link/tab to open the **Project** page.
4. Click a project and then click the report that you want to view for the selected project.

Note: If the Salesforce user does not exist in Tenrox when a report is clicked, then the user is required to log on to the Tenrox application using a **Logon name** and **Password**.

Setting the Advanced Integration Options

Available as of: Tenrox 2011 R3

The **Advanced Options** page is used to define the conditions for importing, updating and deleting the objects, as well as setting the pre- and post-processes to trigger the successful import, update or deletion of objects. For more information, see the following:

- Defining the Custom Integration Settings
- Mapping Existing Objects in Tenrox to Objects in Salesforce
- Defining the Tenrox Object Mapping Fields
- Mapping the Tenrox and Salesforce Object Fields
- Verifying the Status of the Imports
- Deleting or Synchronizing the Tenrox Object Mapping Entries
- Importing the Project Related Objects into the Tenrox Database

Note: The term object can refer to any project, opportunity or case.

Defining the Custom Integration Settings

Available as of: Tenrox 2011 R3

From the **Advanced Options** page, users can perform the following:

- Define the custom filters to apply conditions to the filter queries for the Salesforce.com objects that are imported, updated or deleted in Tenrox

  Note: The filter conditions are applied only to the Salesforce objects that are imported through the automation service; for more information, see Setting Up the Automated (Batch) Processing. The customization of the filters allows users to display only the relevant data for the projects imported into Tenrox; for example, importing projects linked to Salesforce.com opportunities marked as **Closed - Won**.

- Define the custom operations when importing, updating or deleting Salesforce objects
- Define the project fields that need to be imported from Salesforce.com into Tenrox but cannot be mapped through Tenrox; the fields are used to customize functionality

To define the conditions for the custom filters:

1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page and then click the **Advanced Options** link to add or edit the user-defined queries in the system defined statement boxes.

   Note: A system defined statement is available for each filter. The system defined statement is followed by a user-defined query that is used to filter the list of projects that are imported, updated or deleted in Tenrox.

   - **Import filter logic**: allows users to specify which objects are imported

   Note: The format of a user-defined query is set as an SQL statement. The user-defined query is used only with the automation service since objects manually pushed from Salesforce.com do not need to meet the filter conditions to be successfully imported into Tenrox.

   - **Update filter logic**: allows users to specify which objects are updated
   - **Delete filter logic**: allows users to specify which objects are deleted
4. Click the **Validate query** link to run the query on Salesforce.com.
   - If the query syntax is valid, the query returns the number of records for the import and update filters
   - If the query syntax is not valid, the query is not processed and an error message is displayed for the import and update filters
   - If no query is defined for the delete filter, no projects are deleted and an error message is displayed

   Note: When a project is deleted, the project, case or opportunity is set to **TROXUniqueid = “”** and since the default condition of the **Import filter logic** is to import any projects, cases or opportunities with **TROXUniqueid = “”**, a user-defined condition needs is defined for the **Import filter logic** to prevent deleted projects from being re-imported.

5. Click the **Copy to clipboard** link to copy the query to the clipboard and paste it into an editor, such as Apex Explorer, to correct syntax errors.
6. Define the stored procedures that trigger the custom functions performed before or after the Salesforce objects are imported, updated or deleted in Tenrox.
   - **Execute before delete**: defines the stored procedure that is triggered before a deletion occurs; it runs on every project marked for deletion
   - **Execute after create**: defines the stored procedure that is triggered after a creation occurs; it runs on every newly imported project

- **Execute before update**: defines the stored procedure that is triggered before the actual updates occur to the project; occurs before the **Execute after update** procedure
- **Execute after update**: defines the stored procedure that is triggered after an update successfully completes

Note: The pre- and post-processing run the stored procedures when an action is carried out by the automation service; for example, creating a task for a specific work type after a project is imported. The stored procedures only affect objects that are imported, updated or deleted through the automation service in Tenrox or pushed out of Salesforce.

7. Enter a list of project fields, separated by a comma, that should be imported from Salesforce.com to Tenrox but cannot be mapped through Tenrox in the **Use this area to add fields to the returned query (separate fields by comma)** box.

Note: The project fields are imported when a project is created or updated through the automation service or the object is manually pushed from Salesforce.com to Tenrox. The fields are stored in the Tenrox database but are not mapped in Tenrox. When the project is deleted in Tenrox, the fields are also deleted from the database.

8. Click the **Save** link to save the changes.

Note: When the filter logic statements are saved, the syntax of the queries is validated. If an error is encountered for a given filter, a message displays that the syntax of the filter is invalid and to validate the syntax for proper integration.

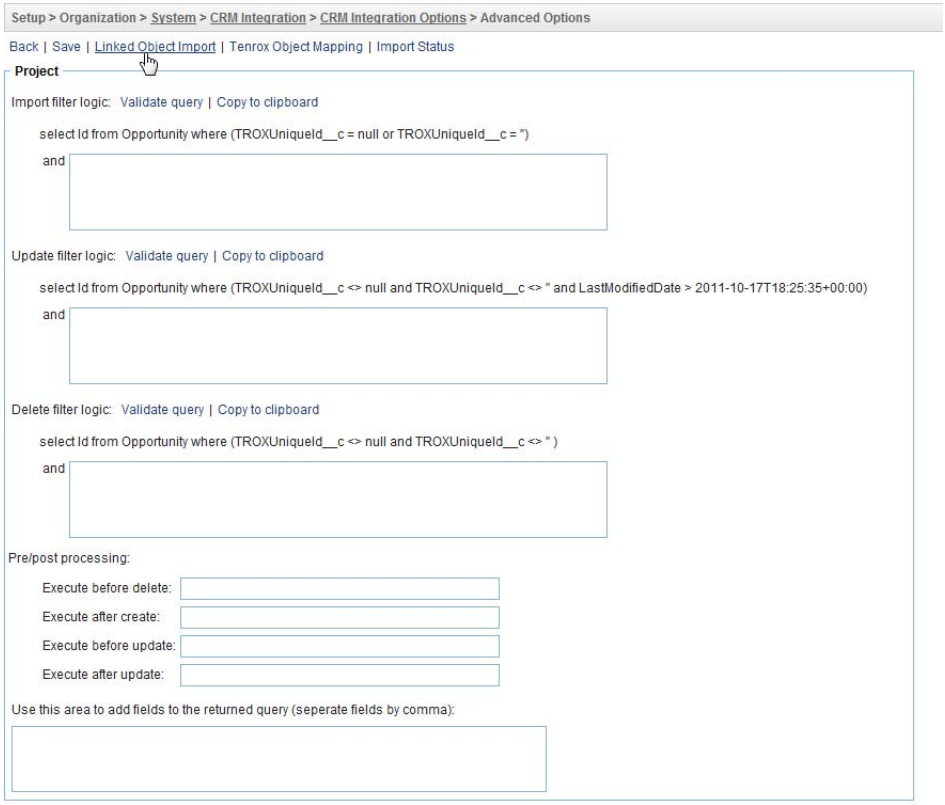
9. Click the **Linked Object Import** link to select the objects related to the specific project being imported; for more information, see Importing the Project Related Objects into the Tenrox Database.

Note: Since fields cannot be specific for the selected objects, all the fields associated with the objects are imported.

10. Click the **Tenrox Object Mapping** link to select the information imported into the Tenrox; for more information, see Defining the Tenrox Object Mapping Fields.

Note: The information imported into Tenrox can include objects or scripts returning data from the database.

11. Click the **Import Status** link to view the status of the imported objects; for more information, see Verifying the Status of the Imports.


Setup > Organization > System > CRM Integration > CRM Integration Options > Advanced Options
Back | Save | Linked Object Import | Tenrox Object Mapping | Import Status
Project
Import filter logic: Validate query | Copy to clipboard
select Id from Opportunity where (TROXUniqueId__c = null or TROXUniqueId__c = '')
and
Update filter logic: Validate query | Copy to clipboard
select Id from Opportunity where (TROXUniqueId__c <> null and TROXUniqueId__c <> '' and LastModifiedDate > 2011-10-17T18:25:35+00:00)
and
Delete filter logic: Validate query | Copy to clipboard
select Id from Opportunity where (TROXUniqueId__c <> null and TROXUniqueId__c <> '')
and
Pre/post processing:
Execute before delete:
Execute after create:
Execute before update:
Execute after update:
Use this area to add fields to the returned query (seperate fields by comma):

Mapping Existing Objects in Tenrox to Objects in Salesforce

Available as of: Tenrox 2011 R3

The ability to update existing objects in Tenrox when importing from Salesforce.com offers users the flexibility to map existing objects in Tenrox to objects in Salesforce to automatically update data across the applications. When importing objects from Salesforce.com into Tenrox, Tenrox verifies if specific objects already exist from imports or manual entries to avoid duplication. If the imported object already exists in Tenrox, then the Tenrox fields are updated. If the imported object does not already exist in Tenrox, then it is created.

Note: In earlier releases, when importing from Salesforce, the import process failed when trying to import objects that already exist in Tenrox.

To determine if the objects being imported from Salesforce.com already exist in Tenrox, the integration process verifies if certain key fields have matching values or entries; for more information, see Mapping the Tenrox and Salesforce Object Fields. To be considered the same object, the table Mapping Fields Between Salesforce and Tenrox lists the primary mapped fields that must have the same values or entries between both systems.

For example, a Salesforce (CRM) User and a Tenrox User map to the Username and Logon Name fields respectively. Therefore, if a user with the Username **daniel@tenrox.com** is imported from Salesforce.com and a user with the Logon Name **daniel@tenrox.com** already exists in Tenrox, then a new user is not created but rather the **daniel@tenrox.com** related fields for the Tenrox user are updated with the Salesforce.com user details.

For more information on mapping objects, see the following:

- Defining the Tenrox Object Mapping Fields
- Mapping the Tenrox and Salesforce Object Fields

Mapping Fields Between Salesforce and Tenrox

Salesforce (CRM)		Tenrox	
Object	**Field**	**Object**	**Field**
User	Username	User	Logon Name
Account	Account Name	Client	Name
Contact	First Name, Last Name	Client Contact	First Name, Last Name
Project	Name	Project	Name
Opportunity	Opportunity Name		Name
Case	Case Number		Name

Available as of: Tenrox 2011 R3, a project, opportunity or case can be any object associated to the Tenrox project object.

Defining the Tenrox Object Mapping Fields

Available as of: Tenrox 2011 R3

The **Tenrox Object Mapping** page is used to define the Tenrox data and related fields that are mapped to objects in Salesforce.com. The ability to map Tenrox data to the Saleforce.com object fields makes the information available to users in Salesforce.com. The additional fields defined in the Tenrox database are mapped to fields in Salesforce.com but are not available through the user interface. For more information, see Importing the Project Related Objects into the Tenrox Database.

To define the Tenrox object mapping entries:

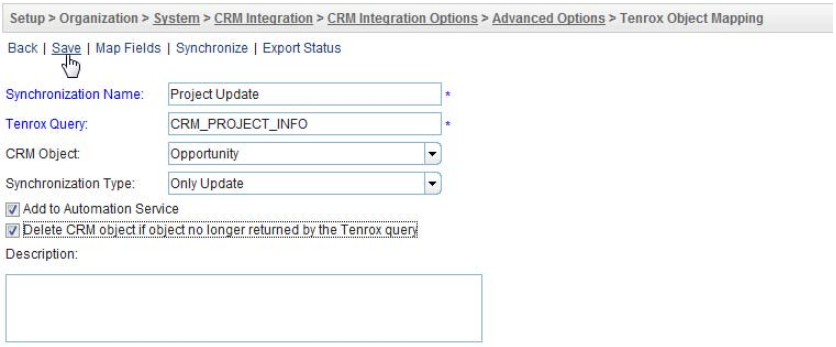
1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.
4. Click the **Advanced Options** link and then the **Tenrox Object Mapping** link to display the created object mapping entries; by default, the grid is empty. The following information is displayed for each entry:
   - **Name**: user-defined name of the Tenrox object mapped entry displayed in the **Synchronization Name** box
   - **Tenrox Query**: name of the Tenrox stored procedure
   - **CRM Object**: object name as it appears in Salesforce.com
5. Click the **New** link to create a new entry or click an entry from the grid to edit an existing entry. Any created Tenrox object mapping entries are displayed in the grid.
   - **Synchronization Name**: user-defined name for a Tenrox object mapping entry
   - **Tenrox Query**: name of the stored procedure run when the entry synchronizes with Salesforce.com

   Note: For synchronization to work, the stored procedure has to exist in the Tenrox database. If a stored procedure defined for the Tenrox query does not exist in the database, the user is prompted to enter a valid stored procedure name before proceeding; for more information, see Defining the Custom Integration Settings.

   - **CRM Object**: lists the available Salesforce objects for mapping the Tenrox object to a related object upon synchronization
   - **Synchronization Type**: defines whether the Tenrox object is created and updated (default) or only updated upon synchronization; for example, if users wants to map Tenrox invoices to CRM opportunities that already exist in Salesforce.com, then the opportunities would only be updated not recreated
   - **Add to Automation service**: defines whether or not the process is added to the automation service with the automation service default values; for more information, see Setting Up the Automated (Batch) Processing
   - **Delete CRM object if object no longer returned by the Tenrox query**: defines whether or not any record not returned by the Tenrox query is deleted in Salesforce.com
   - **Description**: user-defined description for the object mapping
6. Click the **Save** link to save the changes.
7. Click the **Synchronize** link and then click **Yes** to confirm the export of the Tenrox data to the selected Salesforce object.

   Note: The **Synchronize** link is unavailable if no Tenrox object mapping entries are selected.

8. Click the **Export Status** link to view the status of the selected object. For more information, see Verifying the Status of the Imports and Deleting or Synchronizing the Tenrox Object Mapping Entries.



Mapping the Tenrox and Salesforce Object Fields

Available as of: As of Tenrox 2011 R3

The **Map Objects** page is used to define the mapping between the fields returned by the Tenrox query and the fields of the selected Salesforce.com object. With Tenrox object mapping, users can map any Tenrox object to a Salesforce object, as long as a stored procedure is defined. For more information on defining stored procedures, see Defining the Custom Integration Settings.

To map the Tenrox and Salesforce object fields:

1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.
4. Click the **Advanced Options** link and then the **Tenrox Object Mapping** link to display the created object entries in the grid.
5. Click the name of a Tenrox object mapping entry and then click the **Map Fields** link to map the Tenrox and Salesforce.com fields.

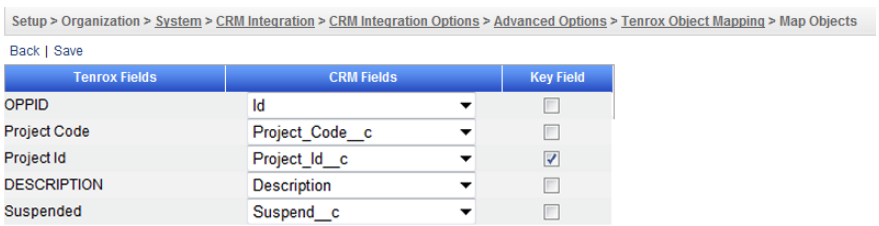
Note: The **Tenrox Fields** (read-only) list each field returned by the Tenrox query as defined in the Tenrox stored procedure; for more information on stored procedures, see Defining the Custom Integration Settings

6. Under **CRM Fields**, select a field to map the selected Salesforce.com object to the corresponding Tenrox field; by default, each box is set to **Please Select**. The fields displayed in the **CRM Fields** boxes depend on the selected Salesforce object; for more information, see Defining the Tenrox Object Mapping Fields.
7. Select the **Key Field** check box to define the related Tenrox and Salesforce.com field used as the unique identifier for the mapping.

Note: This **Key Field** is a unique marker that represents the objects in both Tenrox and Salesforce.com. Only one field can be selected as a **Key Field**.

8. Click the **Save** link to save the changes and then the **Back** link.

Note: If more than one field is selected as a **Key Field**, the changes are not saved and a message indicates that only a single **Key Field** can be defined. Also, at least one field mapping and one **Key Field** needs to be defined; otherwise, the changes are not saved.



Verifying the Status of the Imports

Available as of: Tenrox 2011 R3

The status of the last synchronization process performed for each object can be viewed from the **Import Status** and **Export Status** pages. The **Import Status** page displays the latest import status of all projects created, updated and deleted based on the custom defined filters and processes. The **Export Status** page displays the latest import status of all Tenrox object mapping entries.

Note: The **Import Status** link is also available from the **General** tab on **Project Edit** page as long as the projects are imported, updated or deleted using the custom integration settings defined on the **Advanced Options** page and the CRM integration licenses exist. For more information, see Defining the Custom Integration Settings.

To view the status of the synchronized objects:

1. Click the **Import Status** or **Export Status** link to view the status of last synchronization event. For more information on accessing the **Import Status** link, see Defining the Custom Integration Settings. For more information on accessing the **Export Status** link, see Defining the Tenrox Object Mapping Fields.
2. Verify the synchronization status of a specific object or objects.
3. Enter the filter criteria or use wildcards in the boxes to display only the objects that match the filter criteria.

- From the **Import Status** page, the objects can be filtered using the following criteria:
  - **Name**: name of Salesforce.com object that is synchronized
  - **Date**: date and time of the last update
  - **Status**: status of last update, options include **Success** or **Failure**
  - **CRM Object Id**: identification of Salesforce.com object that was updated

Note: The **CRM Object Id** can be appended to the Salesforce.com URL to access the object.

  - **Message**: error message describing an encountered failure condition
  - **Updated by**: name of user who performed the last update; if the update is performed by the automation service, **Automation Service** is displayed

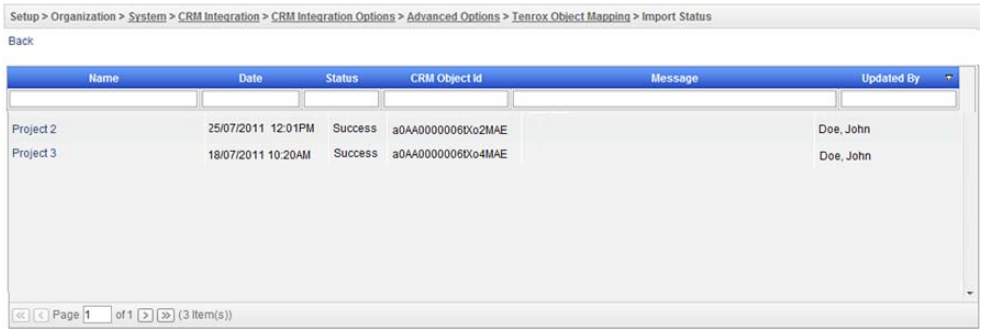
Note: In the event a data error is encountered during the import, the information in the **Import Status** grid is emailed to the email address defined in the **Failure notification email** box. The default email format, can be viewed by clicking **Setup>Organization>System** and then the **System Setup** and **Email Templates** buttons to access the **CRM Notification** link.

- From the **Export Status** page, the objects can be filtered using the following criteria:
  - **Name**: name of Tenrox object mapping entry
  - **Date**: date and time of the last update
  - **Status**: status of last update, options include **Success** or **Failure**
  - **CRM Object Id**: identification of Salesforce.com object that was updated

Note: The **CRM Object Id** can be appended to the Salesforce.com URL to access the object.

  - **Data**: data that was synchronized
  - **Message**: error message describing an encountered failure condition
  - **Updated by**: name of user who performed the last update; if the update is performed by the automation service, **Automation Service** is displayed

4. Click the **Back** link to exit the status page.


Setup > Organization > System > CRM Integration > CRM Integration Options > Advanced Options > Tenrox Object Mapping > Import Status
Back
Name
Date
Status
CRM Object Id
Message
Updated By
Project 2
25/07/2011 12:01PM
Success
a0AA0000006tXo2MAE
Doe, John
Project 3
18/07/2011 10:20AM
Success
a0AA0000006tXo4MAE
Doe, John
Page 1 of 1 (3 Item(s))

Deleting or Synchronizing the Tenrox Object Mapping Entries

Available as of: Tenrox 2011 R3

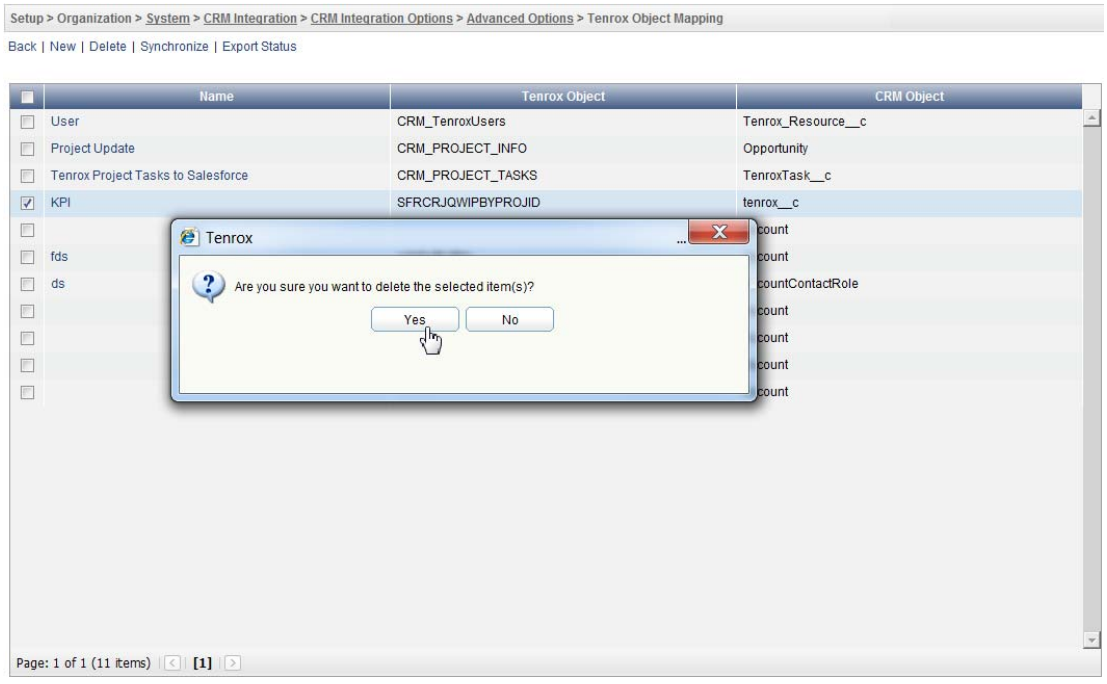
The **Tenrox Object Mapping** page lists all the created Tenrox object mapping entries. From the **Tenrox Object Mapping** page, users perform the following

- Create the entries; for more information, see Defining the Tenrox Object Mapping Fields
- Delete existing entries
- Synchronize the entries
- View the status of the Tenrox object mapping entries; for more information, see Verifying the Status of the Imports

To delete or synchronize the Tenrox object mapping entries:

1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.
4. Click the **Advanced Options** link and then the **Tenrox Object Mapping** link to display the created object entries in the grid.
5. Select the check boxes of the existing object entries that you want to delete or synchronize.
6. Click the **Delete** link and then **Yes** to confirm the deletion of the selected entries or click the **Synchronize** link and then **Yes** to confirm the export of the selected entries to Salesforce.com.

Note: The **Delete** and **Synchronize** links are unavailable if no Tenrox object mapping entries are selected.



Importing the Project Related Objects into the Tenrox Database

Available as of: Tenrox 2011 R3

The **Linked Object Import** page is used to import into the Tenrox database all fields related to a specific object associated with an opportunity, case or project in Salesforce.com. For example, to create tasks with services (work types) associated to projects in the sales process, users import the associated items for a project so that they can run a script in the post-processing.

- Objects are imported with all their properties when their values are updated in Salesforce
- Objects are imported through the automation service or manually pushed from Salesforce to Tenrox
- Objects are stored in the Tenrox database but are not available through the user interface
- Objects can later be used by the pre- and post-processing stored procedures

Note: The mapped object fields are not displayed in Tenrox but rather stored in the Tenrox database. For example, the Salesforce.com opportunity has an associated object named **Note** that includes the fields **Name** and **Text**. When **Note** is selected and the opportunity is either imported or updated, the associated object (**Note**), as well as the related fields (**Name** and **Text**) are also imported into the Tenrox database. Therefore, all the fields associated with this object are imported.

To import the project related objects into the Tenrox database:

1. Log on to the Tenrox application.
2. Click **Setup>Organization>System** and then click the **CRM** button to open the **CRM Integration** page.
3. Click the **Options** button to open the **CRM Integration Options** page.
4. Click the **Advanced Options** link and then the **Linked Object Import** link to display all the Salesforce.com objects that are associated to an opportunity, case or project.
5. Select the check boxes of the Salesforce.com objects in the **Available CRM Objects** pane and then add them to the **Selected CRM Objects** pane to import and save the object fields in the Tenrox database during the import or update process.

   Note: The **Available CRM Objects** pane displays all Salesforce.com objects linked to Salesforce.com cases, opportunities and projects. The **Selected CRM Objects** pane displays the objects selected for import.

6. Click the Back link to return to the **Advanced Options** page.