



Environment Management

Veeva Professional Services

Module Objectives

- **Define environment management**
- **Describe the options for migrating custom metadata**
- **Demonstrate how to perform migration with Eclipse and Change Sets**



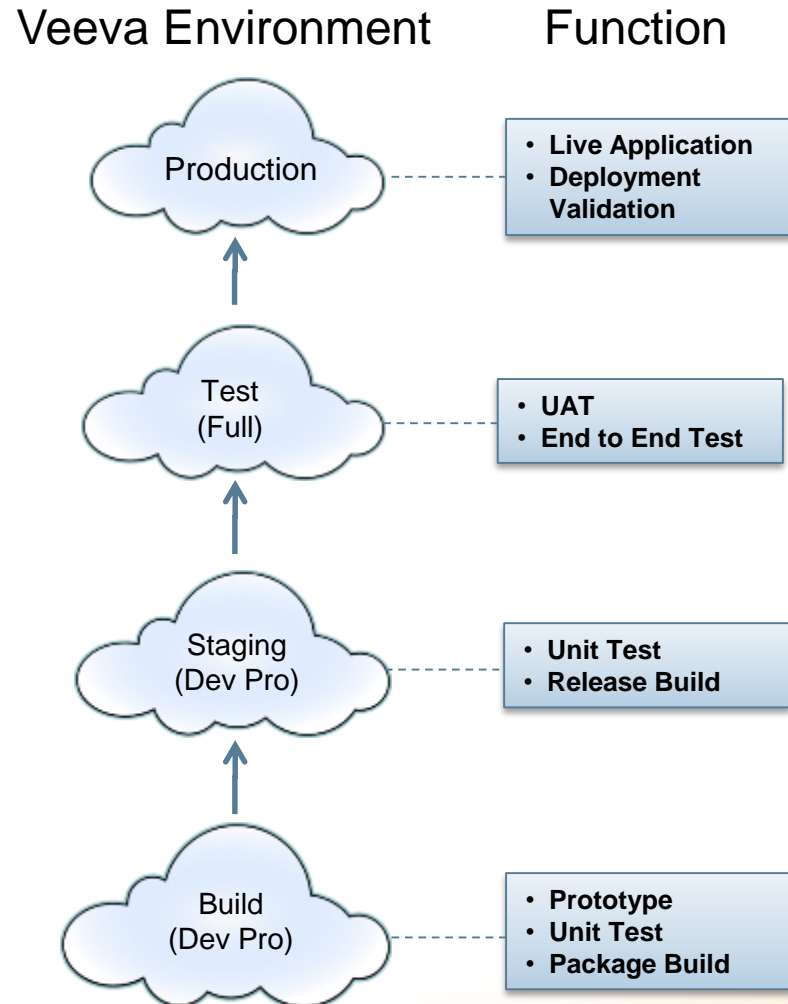
Environment Management

- **Environment Management is the strategy, process and tools used to manage a Veeva instance (metadata) so that it remains current**
 - This includes the management of multiple environments (development, QA, staging, training, production, etc.) such that the correct updates are deployed to the correct environment at the correct time
- **Environment Management is crucial to every deployment**
 - Requires careful planning and finding a strategy that fits the organization's needs



Single Prod Org Implementations

- Typical single org path works for small companies with few business units who share similar business rules



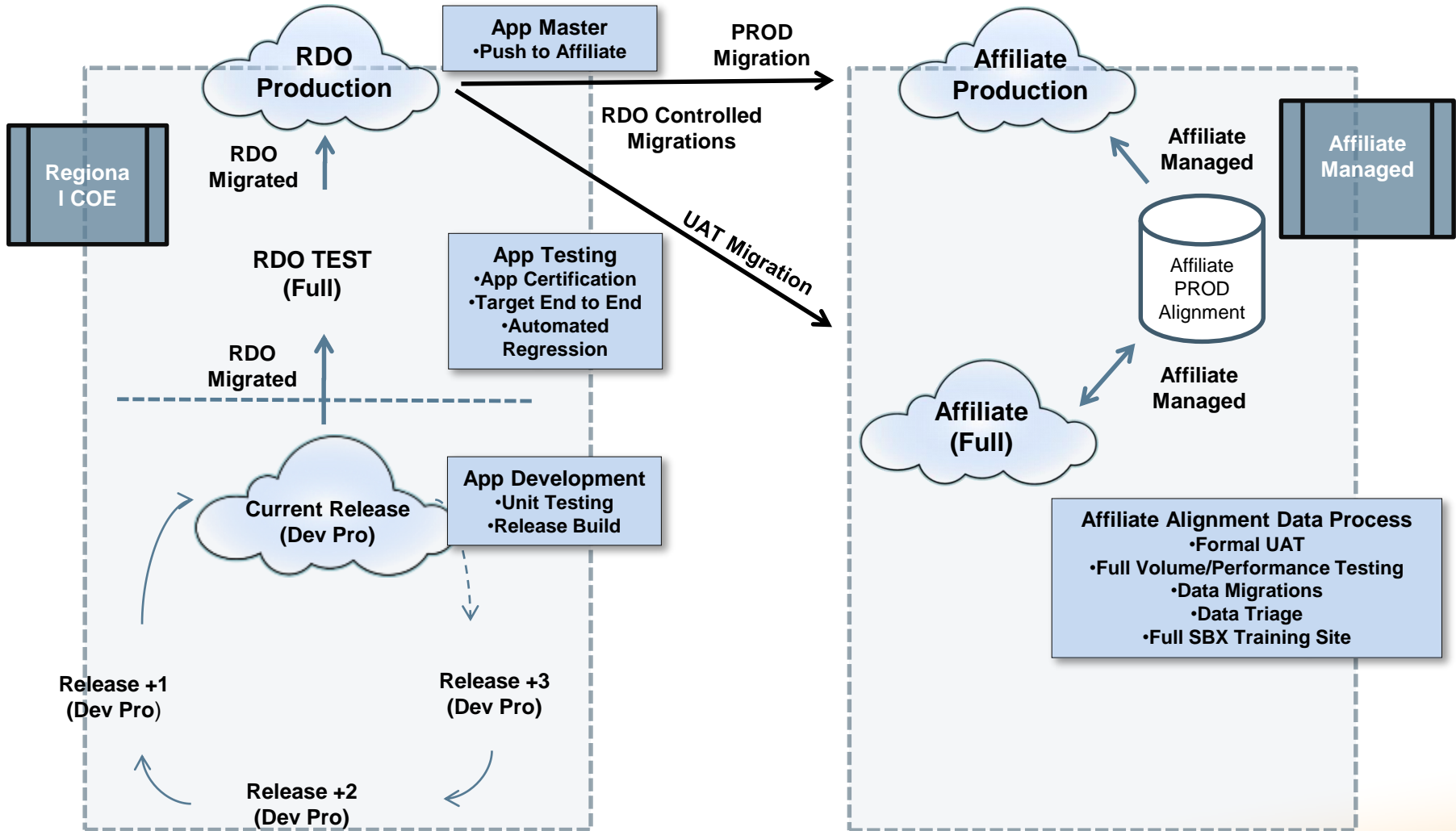
One Size Does Not Fit All

But...what happens
when the company grows
and business rules and
processes become more
unique amongst business
units?

Or...what about large
companies that span
multiple countries
and regions?



Multiple Prod Org Implementations



Sandbox – Configuration Migration

What are the tools to migrate metadata between environments?

Eclipse with Force.com IDE plug-in

- Migrates metadata between environments
- Fields, page layouts, record types, etc.
- http://wiki.developerforce.com/index.php/Force.com_IDE_Installation

Change Sets in SFDC

- Migrates metadata from one organization to another
- Fields, page layouts, record types, etc.
- Can only be migrated between “**related**” orgs

Workbench

- Migrates metadata between environments
- Fields, page layouts, record types, etc.
- Web-based tool
<https://workbench.developerforce.com/login.php>

Eclipse with Force.com IDE

Force.com IDE Migrates Metadata

- Fields, page layouts, record types, user profiles, reports, email template, triggers, Visualforce pages, translations, etc.
- There are some Metadata items that Force.com IDE does **not** manage
 - Org password policies, IP settings, Network settings

Force.com IDE Does Not Migrate Data

- User Roles, Territories, Users, User to Territories, Sharing Rules, Groups
 - Even though this is treated as Metadata by SFDC refresh processes
- Does not manage Veeva Data
 - Veeva Messages, Product Catalog, Views, etc.
- Does not manage Customer Data
 - Accounts, Calls, Product Plans



Force.com IDE



Eclipse Migration Steps

- Steps for creating and deploying custom metadata with Eclipse:

1. Download and
install Force.com
IDE

2. Create Force.com
Project(s) containing
custom metadata

3. Deploy
Force.com Project
containing custom
metadata to target
orgs



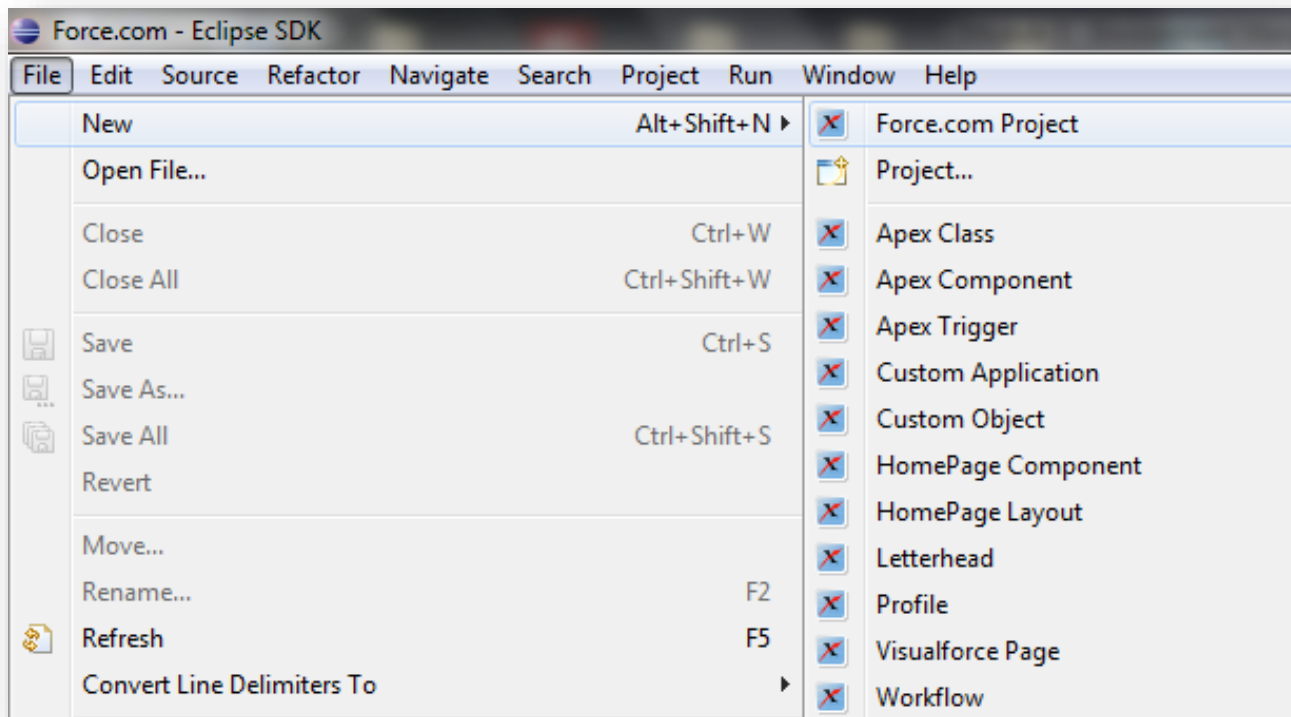
1. Install Force.com IDE

- **Go to**
http://wiki.developerforce.com/page/Force.com_IDE_Installation
 - Follow instructions to download Eclipse and install the Force.com plugin
- **Once installed and configured, you can start using Eclipse to connect to Salesforce.com (Veeva) orgs and perform environment management tasks**



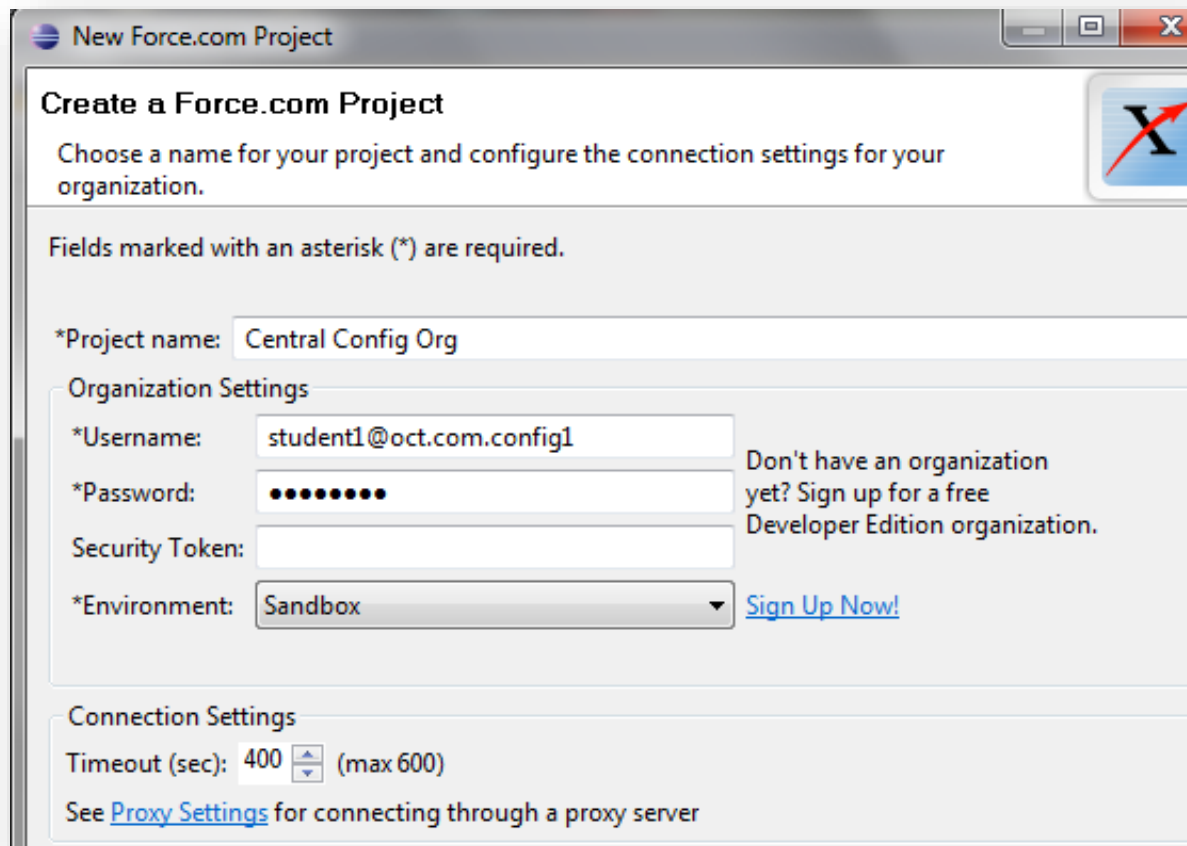
2. Create Force.com Projects

- Launch Eclipse and go to File → Force.com Project
- Create Force.com Projects to pull down custom metadata from source org(s)



2. Create Force.com Projects

- Login to the org that contains the custom metadata



The screenshot shows a 'New Force.com Project' dialog box. The title bar says 'New Force.com Project'. The main heading is 'Create a Force.com Project'. Below it, a subtitle says 'Choose a name for your project and configure the connection settings for your organization.' There is a small icon with a red 'X' and a blue arrow in the top right corner. A note states 'Fields marked with an asterisk (*) are required.' The form has two main sections: 'Organization Settings' and 'Connection Settings'. In 'Organization Settings', there are fields for '*Project name:' (filled with 'Central Config Org'), '*Username:' (filled with 'student1@oct.com.config1'), '*Password:' (masked with dots), 'Security Token:' (empty), and '*Environment:' (a dropdown menu currently showing 'Sandbox'). To the right of these fields is a text block: 'Don't have an organization yet? Sign up for a free Developer Edition organization.' with a blue link 'Sign Up Now!'. The 'Connection Settings' section has a 'Timeout (sec):' field with a value of '400' and a '(max 600)' label. At the bottom, it says 'See [Proxy Settings](#) for connecting through a proxy server'.

Create a Force.com Project

Choose a name for your project and configure the connection settings for your organization.

Fields marked with an asterisk (*) are required.

*Project name: Central Config Org

Organization Settings

*Username: student1@oct.com.config1

*Password: ••••••••

Security Token:

*Environment: Sandbox

Don't have an organization yet? Sign up for a free Developer Edition organization. [Sign Up Now!](#)

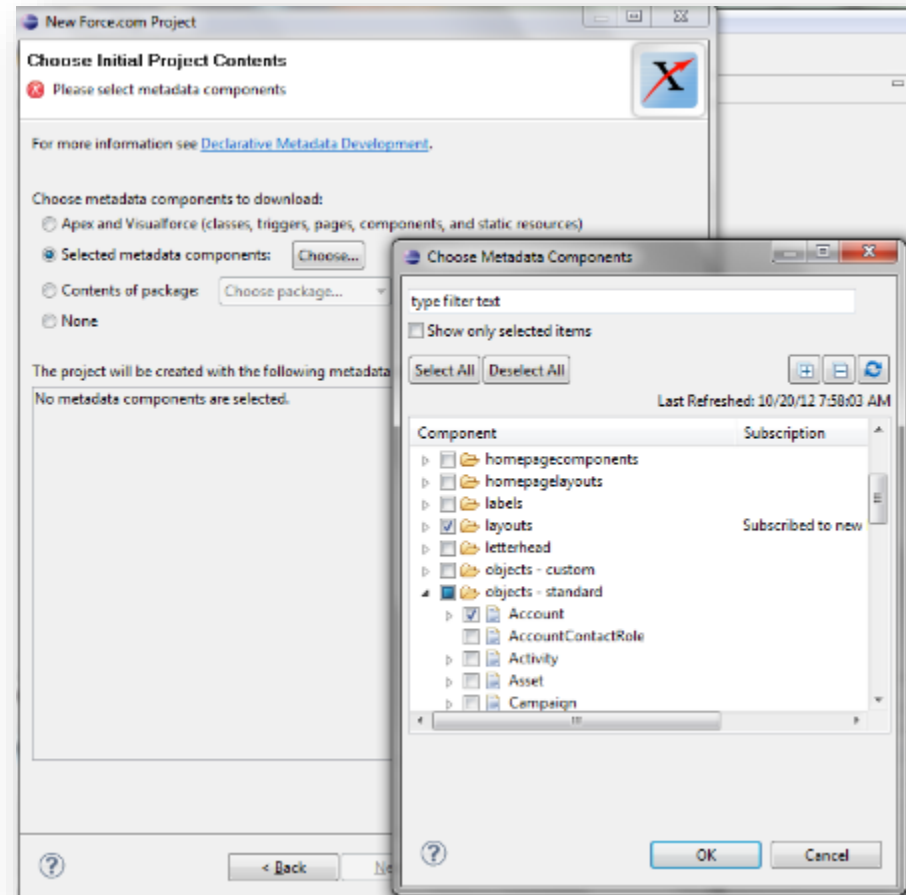
Connection Settings

Timeout (sec): 400 (max 600)

See [Proxy Settings](#) for connecting through a proxy server

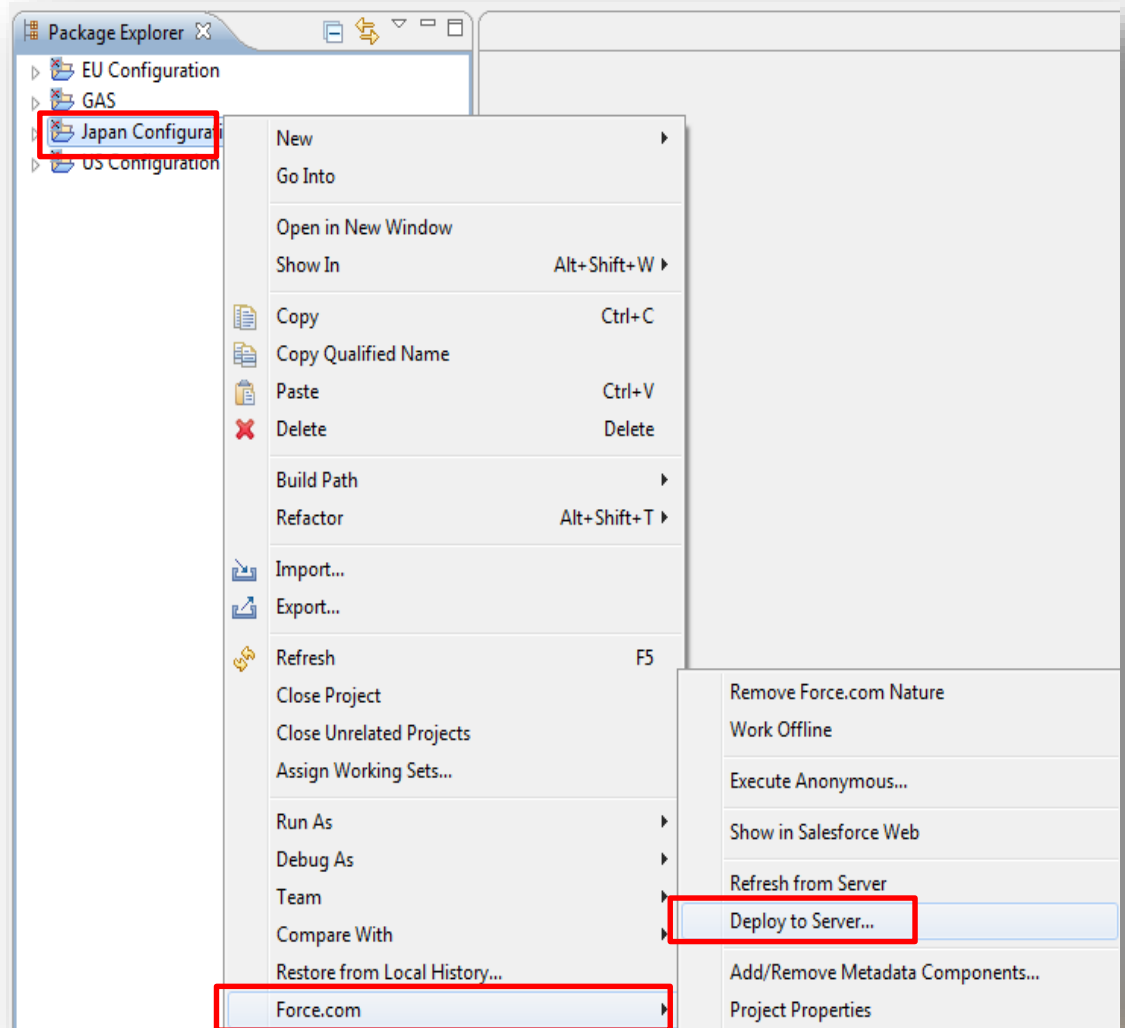
2. Create Force.com Projects

- **Fetch custom metadata to be part of the project(s):**
 - Fetch all metadata or only the needed custom metadata
 - For example, you may need to create projects containing the custom metadata specific to a region or country
- **Include all dependent metadata:**
 - For example, if custom fields are on a page layout you must also fetch the custom fields



3. Deploy Force.com Projects

- To deploy a project, right-click on it and:
 - Select Force.com → Deploy to Server...



3. Deploy Force.com Projects

- Login to the target org
 - For example, Japanese production or full sandbox org

Force.com Component Deployment

Destination Details (Step 1 of 4)

This wizard deploys Force.com components to a Salesforce destination.

Fields marked with an asterisk (*) are required.

Organization Settings

*Username:

*Password:

Security Token:

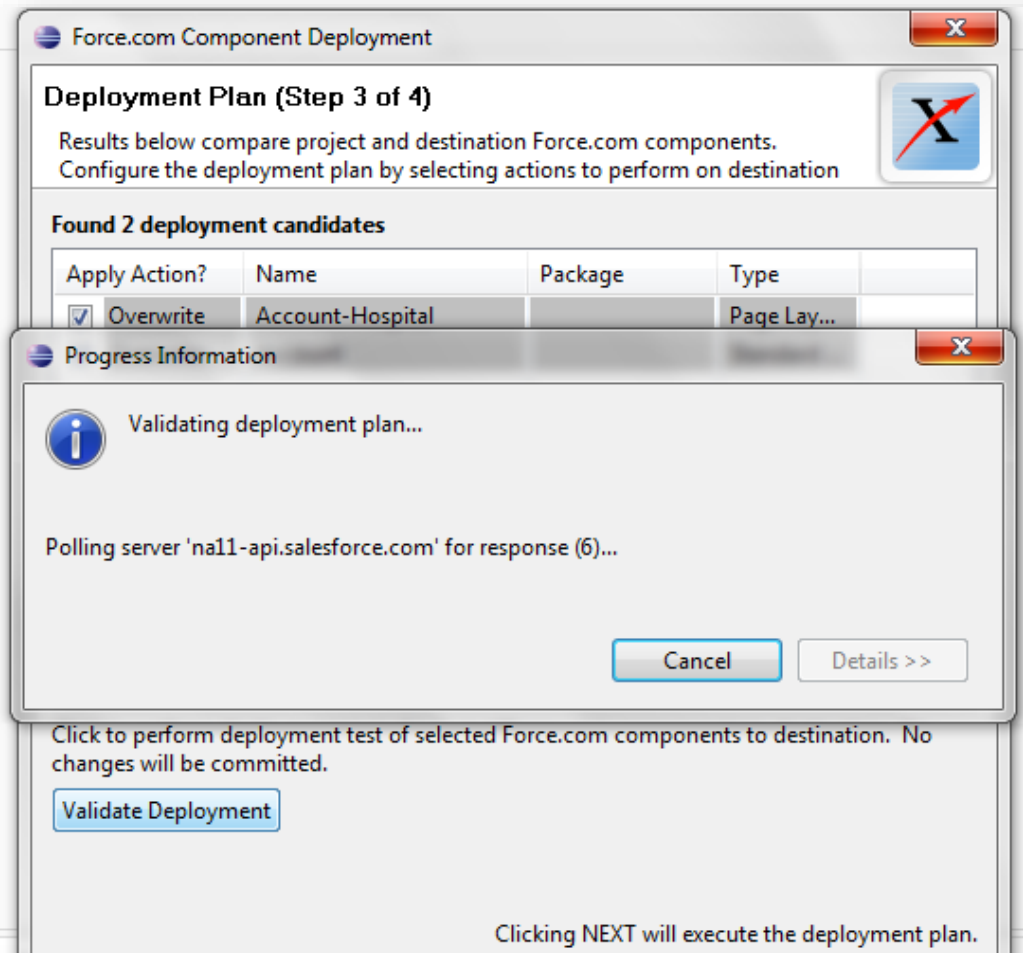
*Environment:

[Don't have an organization yet? Sign up for a free Developer Edition organization.](#)

[Sign Up Now!](#)

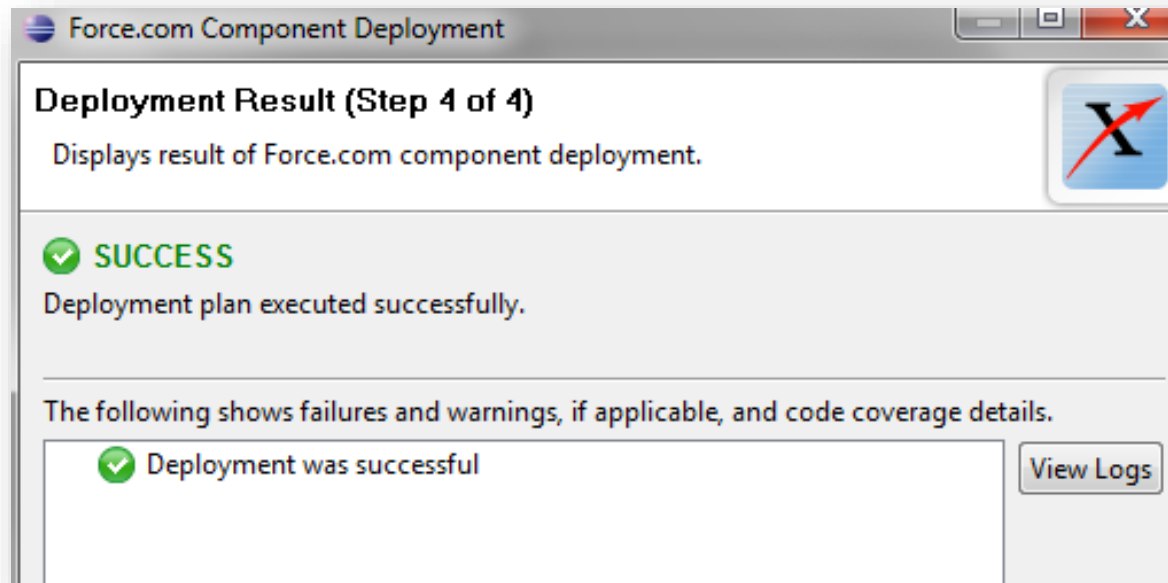
3. Deploy Force.com Projects

- Click the **Validate Deployment** button
- Validate the project prior to deployment to make sure there are no problems with the package
- If problems are detected, fix them before deploying the project



3. Deploy Force.com Projects

- If validation completes successfully, click Next to proceed with deployment



Change Sets



Change Sets in SFDC

- **Outbound and inbound change sets can also be used to migrate configuration created or modified through the Setup menu between orgs**

Deployment Connections

- Ensure a connection is created between orgs

Outbound Change Sets

- Create a change set from a source org (production or sandbox) and select components to migrate

Inbound Change Sets





- Once you have created an Outbound Change Set in an org and selected the org to which you want to migrate it, you would: (a) select the org to send the Change Set, (b) login to the target org and find the Change Set in the Inbound Change Set setup area , and (c) select the Change Set and deploy it

Deployment Connections

- Establishes connections between orgs
 - A deployment connection is automatically created between all related organizations whenever a sandbox is created
 - Each organization must be authorized to send and receive change sets

This Organization: **Veeva Systems Inc (Production)**

Deployment Connections

Action	Name	Description	Type	Upload Authorization Direction
Edit	Build		Configuration Only	Veeva Systems Inc  Build
Edit	pkgtest	The packaging testing org Refresh as needed	Developer	Veeva Systems Inc  pkgtest
Edit	Staging	Example	Configuration Only	Veeva Systems Inc  Staging
Edit	test	Used as full sbx for UAT and testing	Full	Veeva Systems Inc  test

Veeva Systems Inc cannot upload to test
test can upload to Veeva Systems Inc

Outbound Change Sets

- **Created in the org you are logged into to send to another org**
- **Packager is used to:**
 - Collect all desired components
 - View/add all dependencies
 - Add user profile settings



Inbound Change Sets

- **Sent to the org you are logged from another org**
- **Installer:**
 - Validates package before install
 - Installs package
 - Tracks installation history
- **Installations cannot be rolled-back**
 - Testing “Packaging Org” is important
 - Make changes in source org and redeploy
 - Manual changes to restore or refresh



Monitor Deployments

- Supports tracking of Installations

Monitor Deployments

Monitor deployments of XML configuration files from Force.com IDE, Force.com Migration Tool, and other Metadata API client applications.

Deployments in Progress

Created By	Start Time	Last Modified	Validate Only	Status	Components
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No records to display.

Completed Deployments Last 24 Hours

Created By	Start Time	End Time ↓	Validate Only	Status	Components
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No records to display.



Migrating Profiles Caveats

- **Profiles have many dependencies and can be troublesome to migrate**
- **Reference integrity is difficult to verify:**
 - Application
 - Field Level Security
 - Page Layouts
 - Record Types
 - VisualForce Pages
- **Ensure referenced components are migrated first**
- **May be quicker to create new profiles in the target org and manually configure new profile settings**



Module Summary

- **Defined environment management**
- **Described the options for migrating custom metadata**
- **Demonstrated how to perform migration with Eclipse and Change Sets**



Lab – Migrate Custom Metadata

Create a custom object in a sandbox

Retrieve and Deploy Custom Metadata

- Use Change Sets to Migrate the custom object components