

Tivoli Directory Integrator (TDI)

The Best Free Tool You've Never Heard Of (The Administrator's Perspective)

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Agenda

- Introduction to TDI architecture/concepts
- Discuss TDI entitlement
- Intro to TDI use for Directories
- Example – Synch Domino Directory to Active Directory
- Example – Synch Active Directory to Domino Directory
- Extras!
- Resources



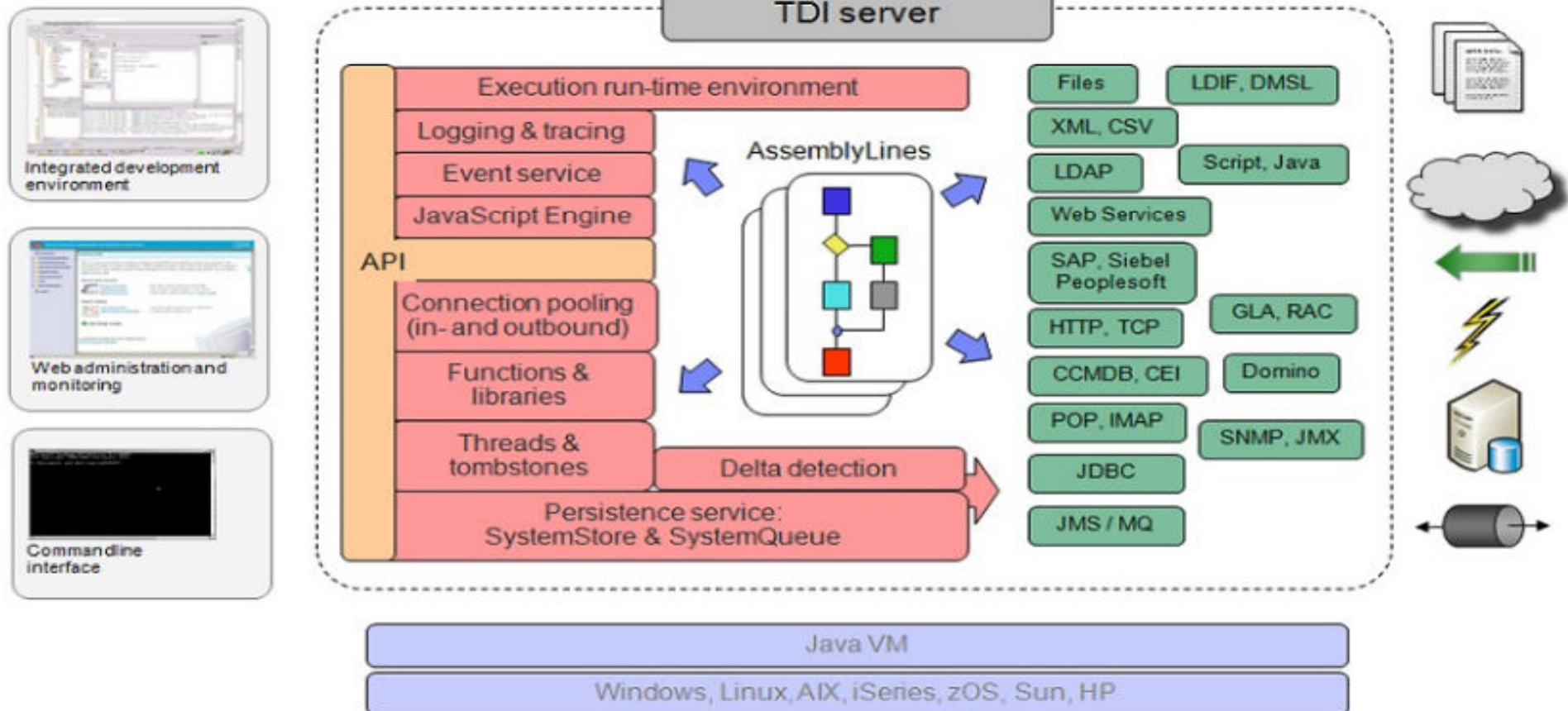
IBM Tivoli® Directory Integrator®:

“Tivoli Directory Integrator (TDI) is a graphical integration toolkit for accessing and detecting changes in practically any type of system, data store, protocol, or API. It also lets you transform, filter, and validate this data before driving it to the output targets of your choosing.”

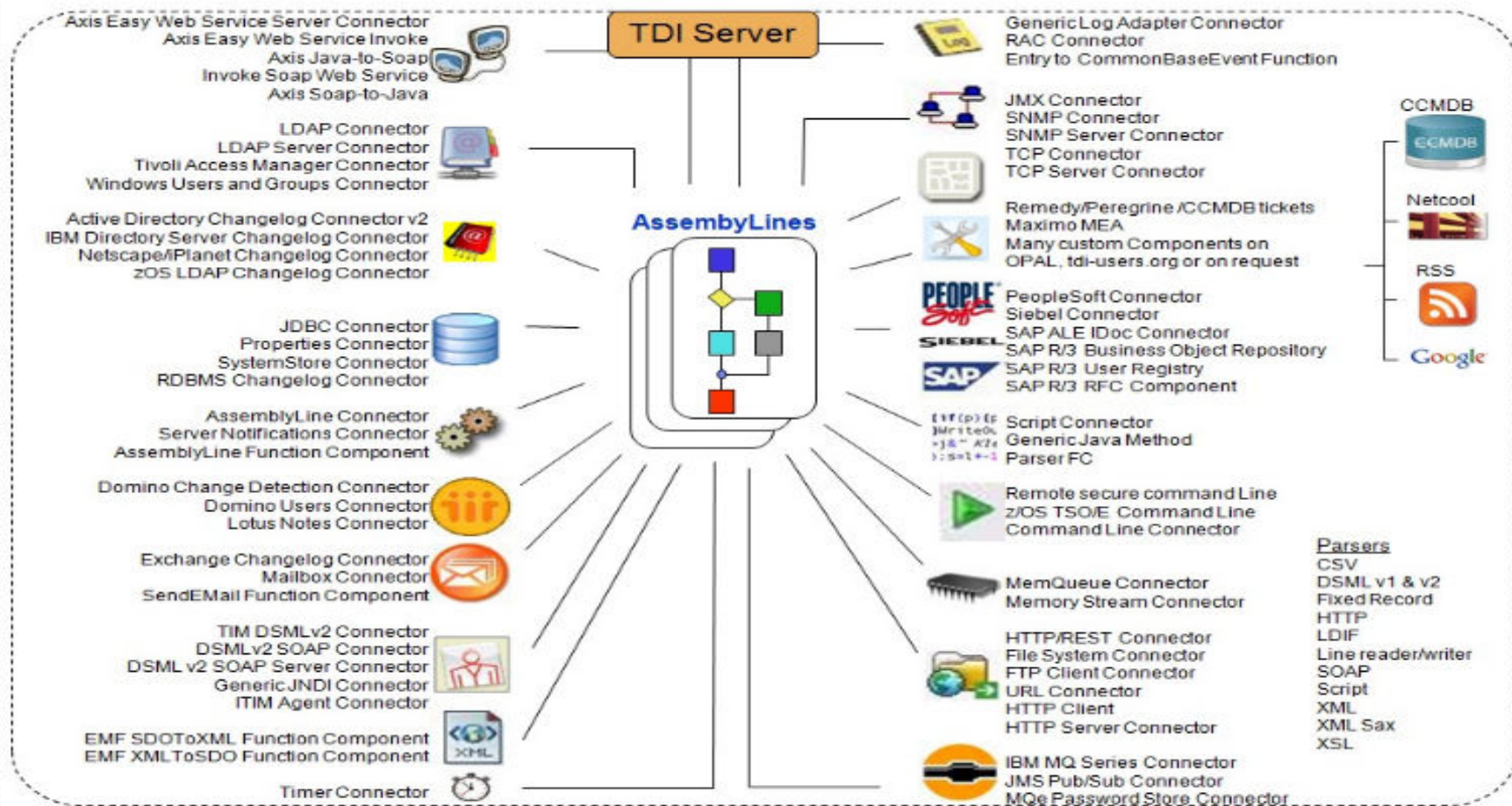
Source: Redpaper IBM Lotus Domino Integration Using IBM Tivoli Directory Integrator

- **Use for migration**
- **Use for integration**
- **Use for synchronization**

TDI Architecture



What Will TDI Connect To?





TDI Entitlement – “It’s free!”

- Domino license holders are entitled to TDI
- Check your IBM Passport Advantage download site
- Remember to visit IBM Fix Central for TDI Fixpack downloads.
- AssemblyLine should include Domino as a data source
- For additional information go to:
 - <http://www-01.ibm.com/software/lotus/notesanddomino/additionalswentitlements.html>

Finding TDI on the IBM Passport Advantage Site

Download options

You will see downloads for the most current version. In addition:

If available, would you like to see previous versions of this product?

☐ Yes ☒ No

If available, would you like to see associated products included at no additional charge?

☒ Yes ☐ No

Select optional downloads, if desired

Additional software, which you may or may not require, is bundled with your main product (at no additional charge) and is available for downloading. Refer to the license agreements for specifics.

☒ Associated products included at no additional charge

<input checked="" type="checkbox"/>	IBM Tivoli Directory Integrator 6.1.1 for Domino 8.0.x Multiplatform Multilingual eAssembly(CR5TQML)
Size	6 files (2490mb)
Date posted	17-Aug-2007
Multi-product package terms	
<input checked="" type="checkbox"/>	IBM Tivoli Directory Integrator 7.0 for Lotus Domino 8.5.x Multiplatform Multilingual eAssembly(CR9ZVML)
Size	8 files (3388mb)
Date posted	12-Oct-2009

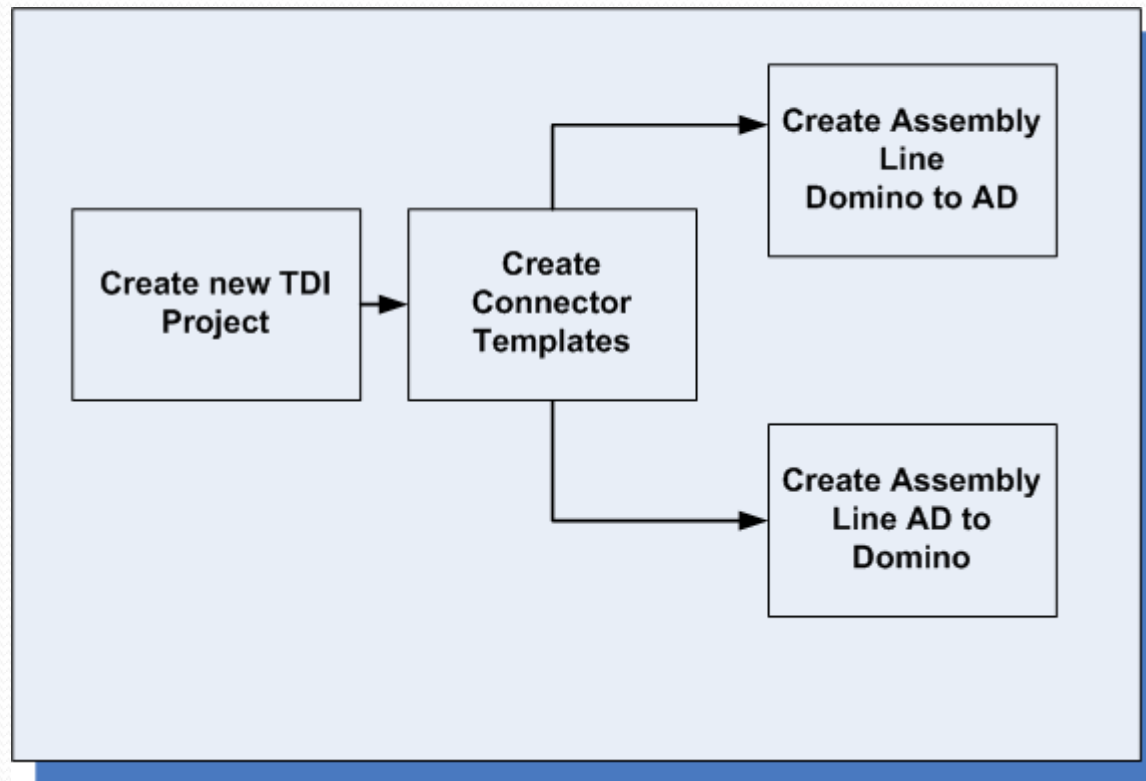
1. Select your Domino software type
2. Next screen – be sure to select the Download options – “If available would you like to see associated products included at no additional charge.”
3. Expand the “Associated products included at no additional charge” selection
4. Choose the version of TDI you’d like to download



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What are we going to do today?



Steps to include:

- Create an assembly line(s) to do the following:
 - Connect to Active Directory
 - Connect to Domino names.nsf
 - Detect any additional users created for Active Directory and create them in Domino names.nsf
 - Detect any changes to information in Active Directory and update in Domino names.nsf (but don't change internet address)
 - Detect any accounts deleted from Active Directory and delete in Domino (via admin4.nsf)
 - Detect any changes in Domino and update to Active Directory.
 - Detect any deletes in Domino and update to Active Directory.
- Going to use IF and ELSE IF Branches
- And some javascripting for good measure!



Details for LDAP Connections

- Know your LDAP schema (or work with your LDAP team).
- You'll need the following:
 - LDAP userid that can read and/or write to the LDAP directory.
 - Organizational Unit
 - OrgClass
- Another invaluable tool is Softerra's LDAP Browser (FREE!)
 - <http://www.softerra.com/download.htm>
- If you considering an assembly line to create Lotus Notes accounts:
 - LDAP connection will not create full Notes users
 - Use Lotus Domino Users Connector in order to provision new accounts

A little Domino LDAP config check:

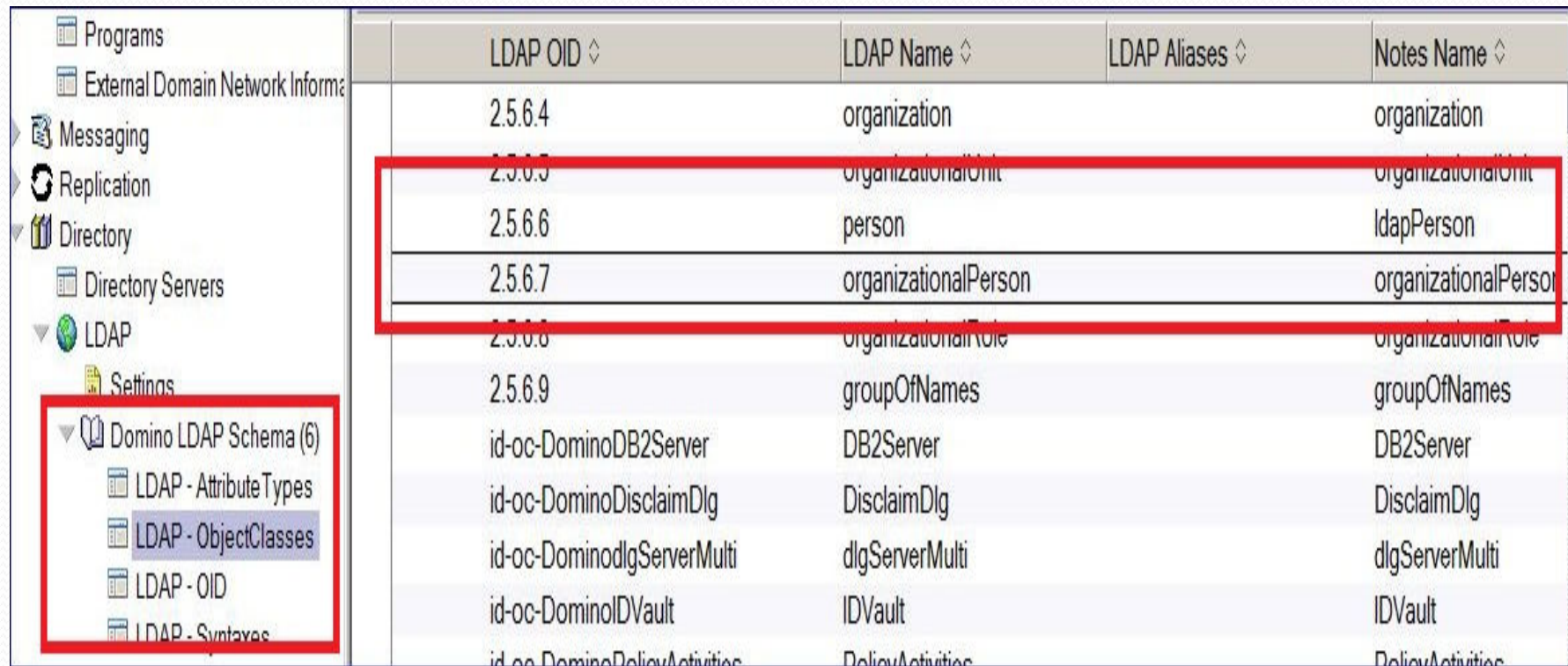
- Confirm that domain configuration document has the following set on the LDAP tab.
- You can control security via Security settings and/or XACL.

The screenshot shows the Domino Directory configuration console. On the left, the 'LDAP' folder is expanded, and the 'Settings' sub-folder is selected. The main pane displays the 'LDAP Settings' configuration. A red box highlights the 'Allow LDAP users write access' option, which is set to 'Yes'. Other settings visible include 'Timeout' (0 seconds), 'Maximum number of entries returned' (0), 'Minimum characters for wildcard search' (1), and 'Allow Alternate Language Information processing' (No).

Setting	Value
uniqueMember	
userCertificate	
vendorname	
vendorversion	
Allow LDAP users write access:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Timeout:	0 seconds
Maximum number of entries returned:	0
Minimum characters for wildcard search:	1
Allow Alternate Language Information processing:	<input type="radio"/> Yes <input checked="" type="radio"/> No

Domino LDAP Schema

- Domino LDAP Schema is stored in the schema.nsf
- Review classes and attributes to see how Domino might be using them and what type of data is stored (string, domain name, etc.)



LDAP OID ◇	LDAP Name ◇	LDAP Aliases ◇	Notes Name ◇
2.5.6.4	organization		organization
2.5.6.5	organizationalUnit		organizationalUnit
2.5.6.6	person		IdapPerson
2.5.6.7	organizationalPerson		organizationalPerson
2.5.6.8	organizationalRole		organizationalRole
2.5.6.9	groupOfNames		groupOfNames
id-oc-DominoDB2Server	DB2Server		DB2Server
id-oc-DominoDisclaimDlg	DisclaimDlg		DisclaimDlg
id-oc-DominodlgServerMulti	dlgServerMulti		dlgServerMulti
id-oc-DominoIDVault	IDVault		IDVault
id-oc-DominoRelayActivities	RelayActivities		RelayActivities

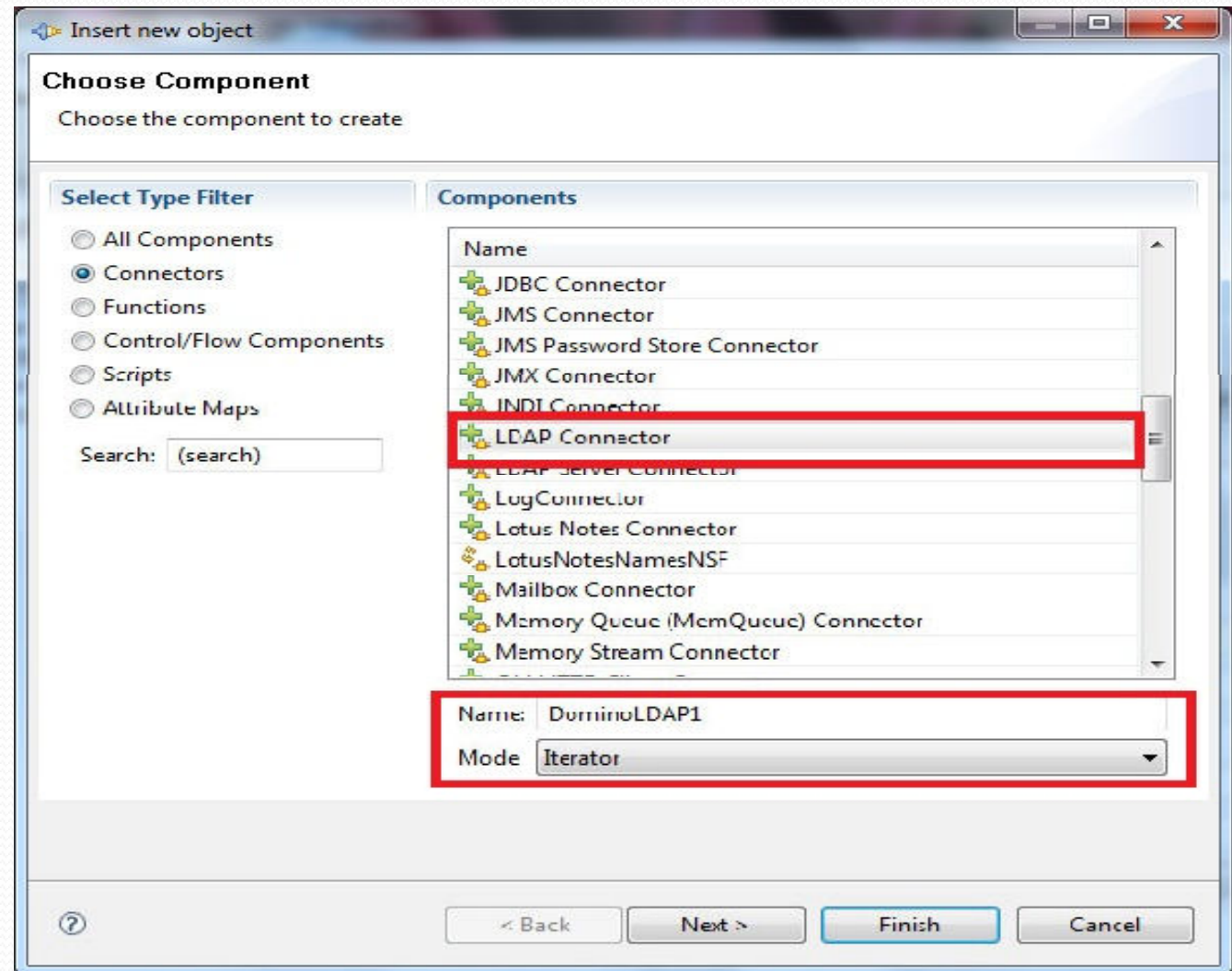


Domino LDAP & Active Directory

- If you just need to update Domino person documents with corporate data stored in Active Directory then use LDAP.
- Using LDAP Connectors:
 - Easy to set up and easy to move attributes
 - Aren't provisioning full Notes accounts
 - Using the assembly line for updating data

Create Domino LDAP Connector

- Create a connector for Domino – using base LDAP Connector
- Create in Iterator Mode



Configure the Domino LDAP Connector

- Add the specifics for your Domino LDAP connection (Connector Tab)

DominoLDAP1

Mode: State: Inherit From:

Input Map | Hooks | Delta | **Connection** | Connection Errors

LDAP Connector

LDAP URL *	<input type="text" value="ldap://viking1.topchefs.com:637"/>
Login username	<input type="text" value="cn=doctor notes,o=topchefs"/>
Login password	<input type="password" value="*****"/>
Search Base	<input type="text" value="o=topchefs"/>
Search Filter	<input type="text" value="objectclass=dominoperson"/>
Search Scope	<input type="text" value="subtree"/>
Comment	<input type="text"/>



Browsing LDAP data: How & Why

- Right click on the LDAP Connector
- Choose Browse data.
- The LDAP View panel will display.
- Review each record by clicking Next to review the data in each attribute.
- This allows you to determine if you need to make any editing changes when performing an update or data match.
- You'll also see what attributes are available in the schema.

Browsing Domino Directory Data

DominoLDAP1

LDAP View

** Server Information **

Attributes

Connect Select All Clear All **Next** Close Accumulate

Attribute	Value
<input type="checkbox"/> Sdn	"CN=Doctor Notes,o=topchefs"
<input type="checkbox"/> availableordirsync	1
<input type="checkbox"/> checkpassword	"0"
▷ <input type="checkbox"/> clienttype	["3","4"]
<input type="checkbox"/> clntbld	"Release 8.5.1"
▷ <input type="checkbox"/> clntdate	["20091218010112Z","20091219172754Z"]
▷ <input type="checkbox"/> clntmachine	["WIN-90J74NVC1D1","TCWK1"]
<input type="checkbox"/> clntpltfm	"Windows/Vista 6.1 Intel Pentium"
<input type="checkbox"/> cn	"Doctor Notes"

Details Connection

[Object Data Dump]

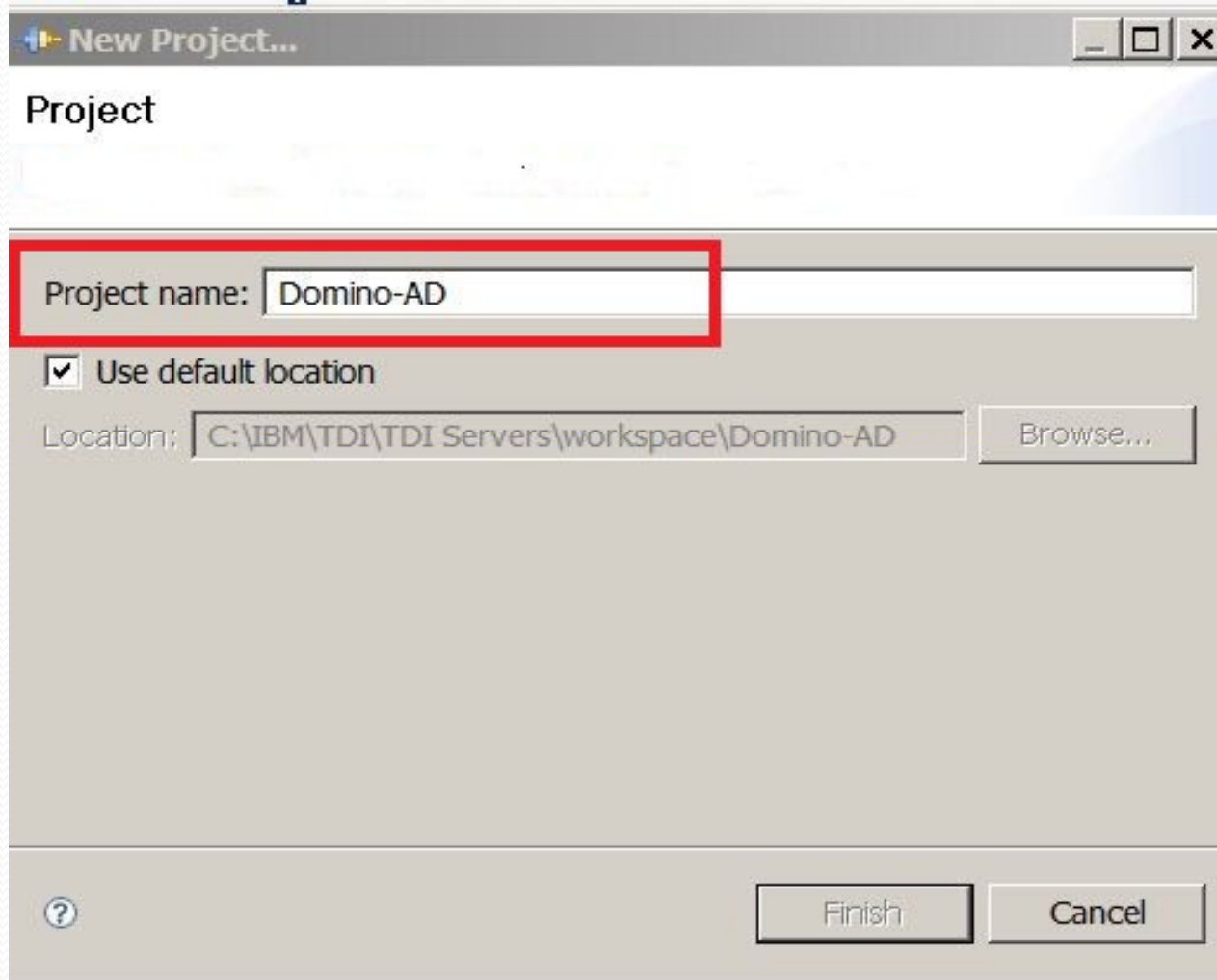
checkpassword[0] (java.lang.String) = 0



Connectors to be Used:

- LDAP Connector
 - Use to connect to LDAP directories (including AD & Domino).
- Domino Change Detection Connector
 - reports on changed objects in a Notes database (add, modify, or delete). Includes actions on the names.nsf.
- Active Directory Change Detection Connector
 - reports on changed AD objects
- Domino Users Connector
 - For use when you want to create, delete or modify Notes user information (in names.nsf or admin4.nsf). This connector can be used to create and manage accounts.

Create a new TDI Project



New Project...

Project

Project name: **Domino-AD**

☒ Use default location

Location: C:\IBM\TDI\TDI Servers\workspace\Domino-AD [Browse...](#)

[?](#) [Finish](#) [Cancel](#)

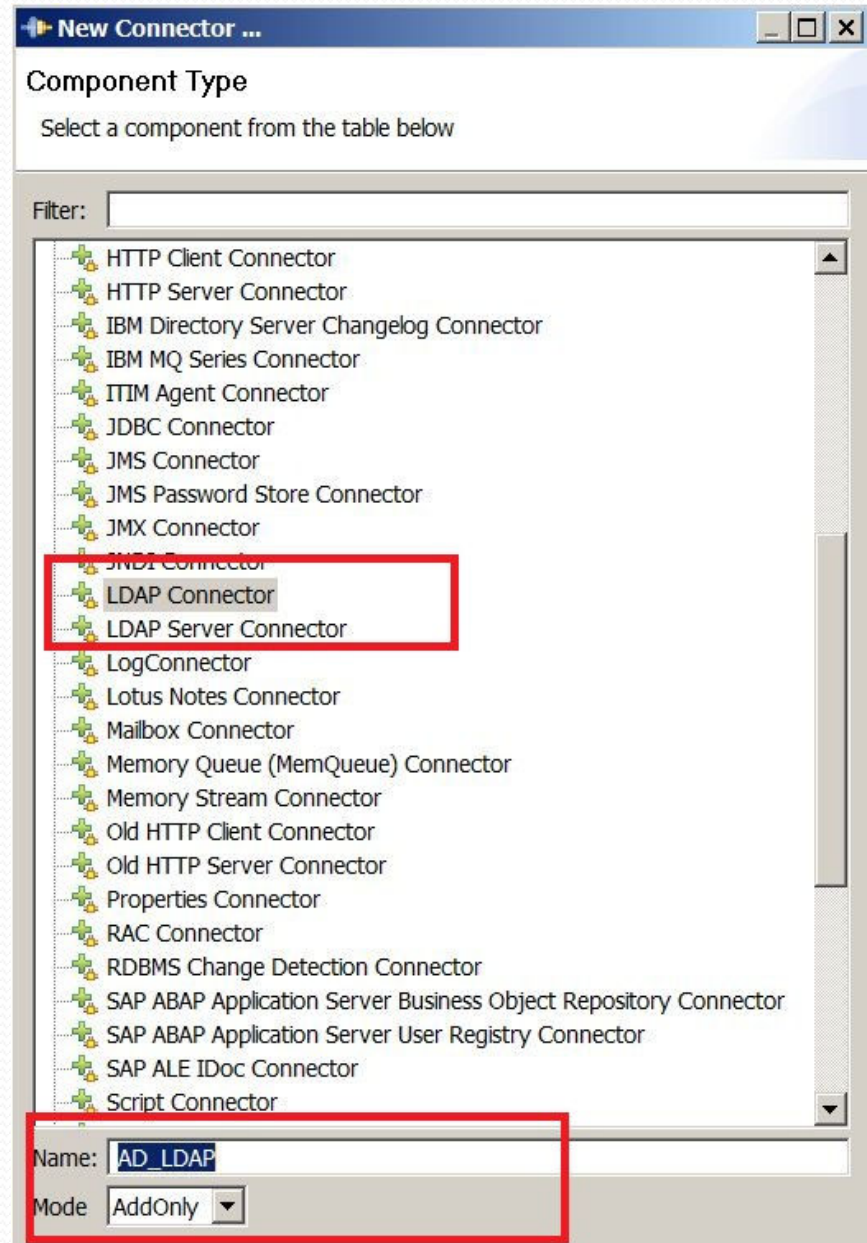


Create your Connector “templates”

- Create the connectors you will use throughout the Assembly line
 - AD_LDAP – based on LDAPConnector
 - ADChanges – based on ActiveDirectoryChangeDetector
 - DominoChanges – based on DominoChangeDetection
 - DominoUsers – based on DominoUsersConnector

Create Connector: AD_LDAP

- Use LDAP Connector as template
- Create with AddOnly Mode



Connector Config: AD_LDAP

- AddOnly mode
- objectclass=person

AD_LDAP

Mode **AddOnly** State **Enabled** Inherit From **system:/Connectors/ibmdi.LDAP** More...

Output Map Hooks Connection Connection Errors Pool

LDAP Connector

Help

LDAP URL * **ldap://viking1.topchefs.com:389**

Login username **cn=Administrator,cn=users,dc=topchefs,dc=com**

Login password *********

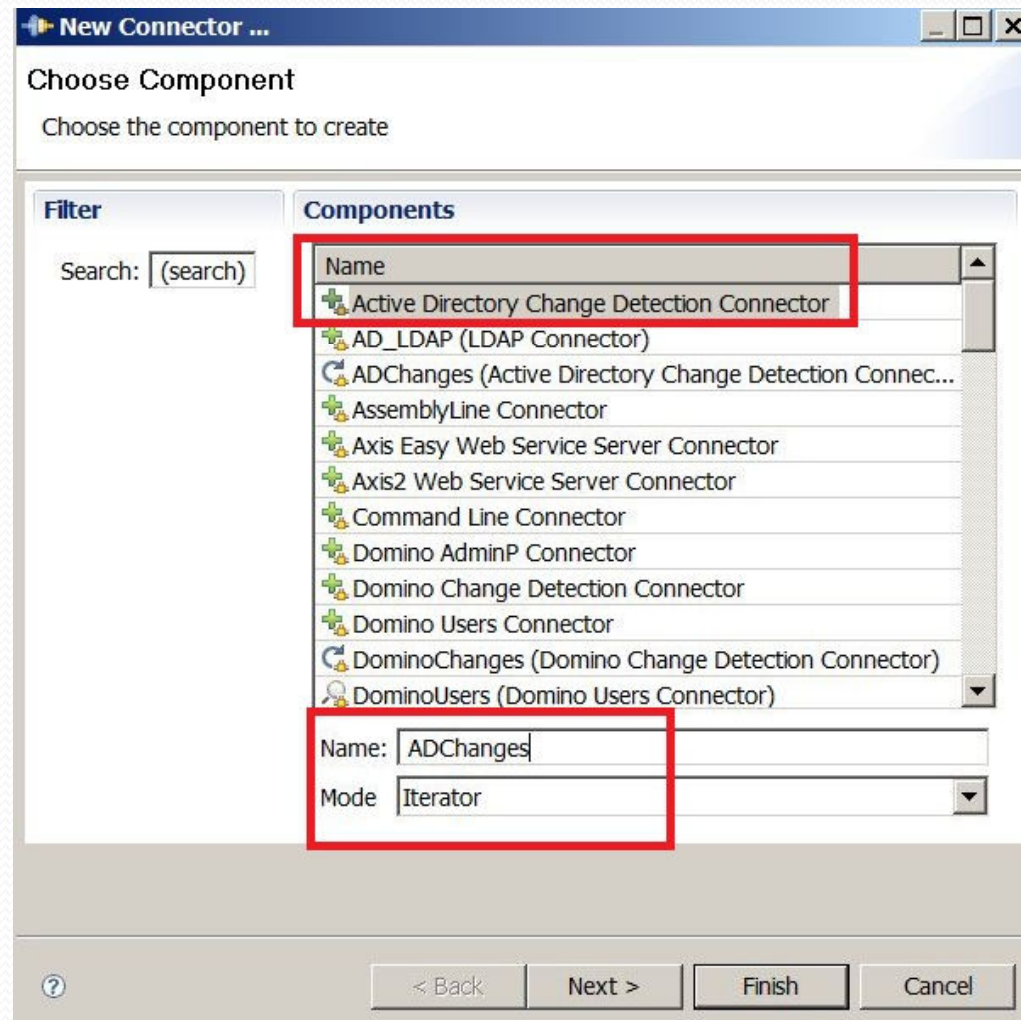
Search Base **DC=topchefs,DC=com**

Search Filter **objectclass=person**

Comment

Create Connector: ADChanges

- Use Active Directory Change Detection Connector template
- Use Iterator mode



Connector Config: ADChanges

- See LDAP search base
- LastChangeInAD parm
- Inherits from ADChangelog connector template

ADChanges

Mode **Iterator** State **Enabled** Inherit From **system:/Connectors/ibmdi.ADChangelogv2** More...

Input Map Hooks Delta **Connection** Connection Errors Pool

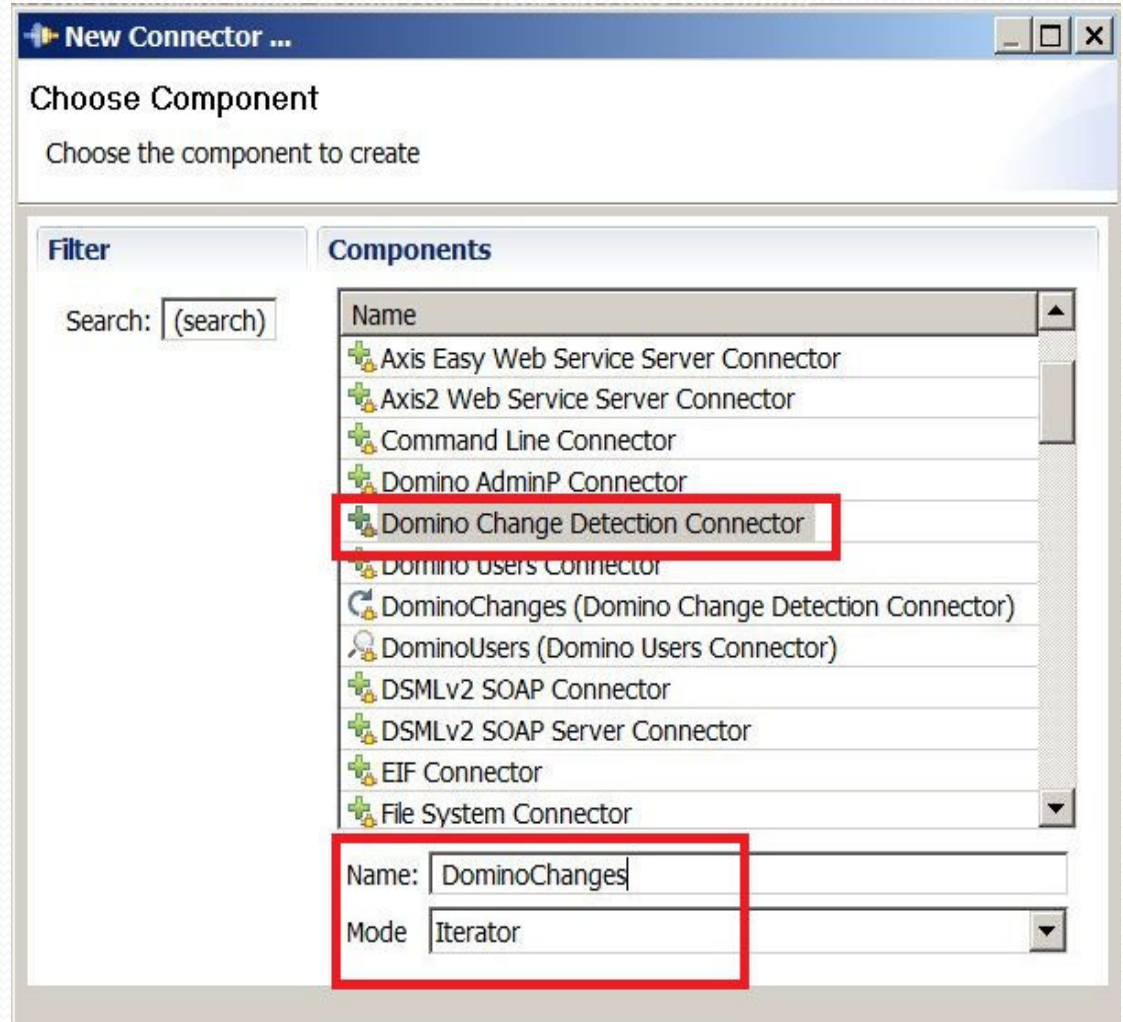
Active Directory Change Detection Connector

Help

LDAP URL *	ldap://viking1.topchefs.com:389
Login username	cn=Administrator,cn=users,dc=topchefs,dc=com
Login password	*****
LDAP Search Base *	DC=topchefs,DC=com
Iterator State Key	LastChangeInAD
Start at	0
Comment	

Create Connector: DominoChanges

- Uses DominoChangeDetector template
- Set up in Iterator Mode



Connector Config: DominoChanges

- Uses DominoChangeDetection connector as template
- Uses local client connection
- Connects to names.nsf

DominoChanges

Mode **Iterator** State **Enabled** Inherit From **system:/Connector/ibmdi.DominoChangeDetectionConnector**

Input Map Hooks Delta **Connection** Connection Errors Pool

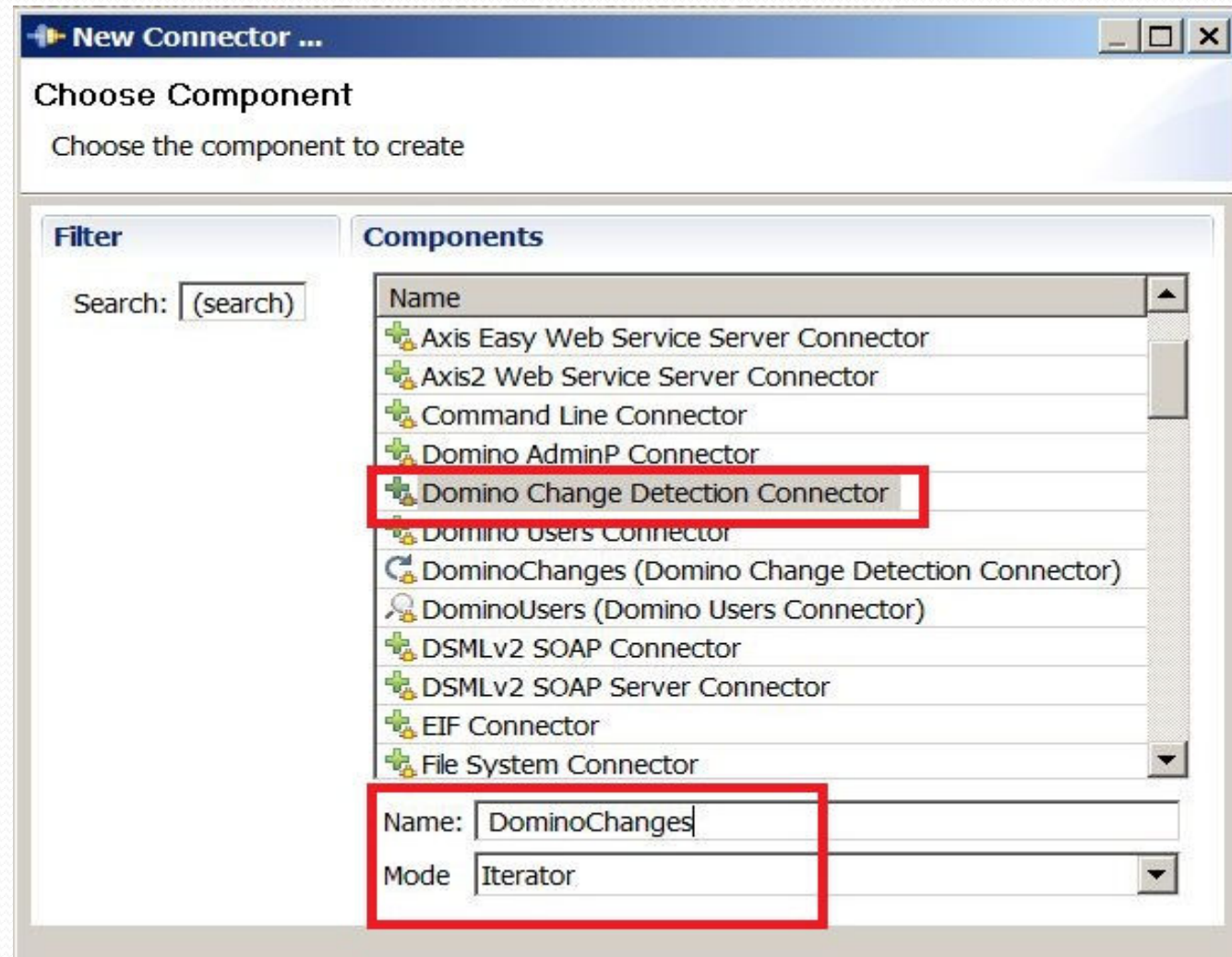
Domino Change Detection Connector

Help

Session Type *	LocalClient
Domino Server IP address	192.168.2.2
IOR String	
HTTP Port	80
Username	dnotes
Password *	*****
Database *	names.nsf
Iterator State Key	LastChangeInDomino
Start at	Start Of Data


Create Connector: DominoUsers

- Uses DominoUserConnector template
- Set up in Lookup Mode



Connector Config: DominoUsers

- Detects changes to users
- Uses local client connection

 **DominoUsers**

Mode State Inherit From

Input Map Hooks Link Criteria Connection Connection Errors Pool

Domino Users Connector

Session Type *	<input type="text" value="LocalClient"/>
Domino Server IP Address	<input type="text" value="viking1.topchefs.com"/>
HTTP Port	<input type="text" value="80"/>
Username	<input type="text" value="dnotes"/>
Password *	<input type="password" value="*****"/>
Comment	<input type="text"/>

Notes client configuration

- Change the following security property to allow for DominoUsers connection without prompt

The screenshot shows the 'User Security' dialog box with the following sections and fields:

- Security Basics** (left sidebar):
 - Security Basics (selected)
 - Your Identity
 - Identity of Others
 - What Others Do
 - Notes Data
 - Mail
- Who You Are** (top section):
 - Name: Doctor Notes/TOPCHEFS
 - ID File: C:\notes\data\user.id
 - ID File encryption strength: 128 bit RC2
 - ID File expiration date: 12/17/2011
- Your Login and Password Settings** (bottom section):
 - To change your password, click here
 - If you think someone knows your Notes password, click here
 - ☐ Don't let administrator set Domino web/Internet password to match Notes password
 - ☒ Don't prompt for a password from other Notes-based programs (reduces security)
 - ☐ Log in to Notes using your operating system login

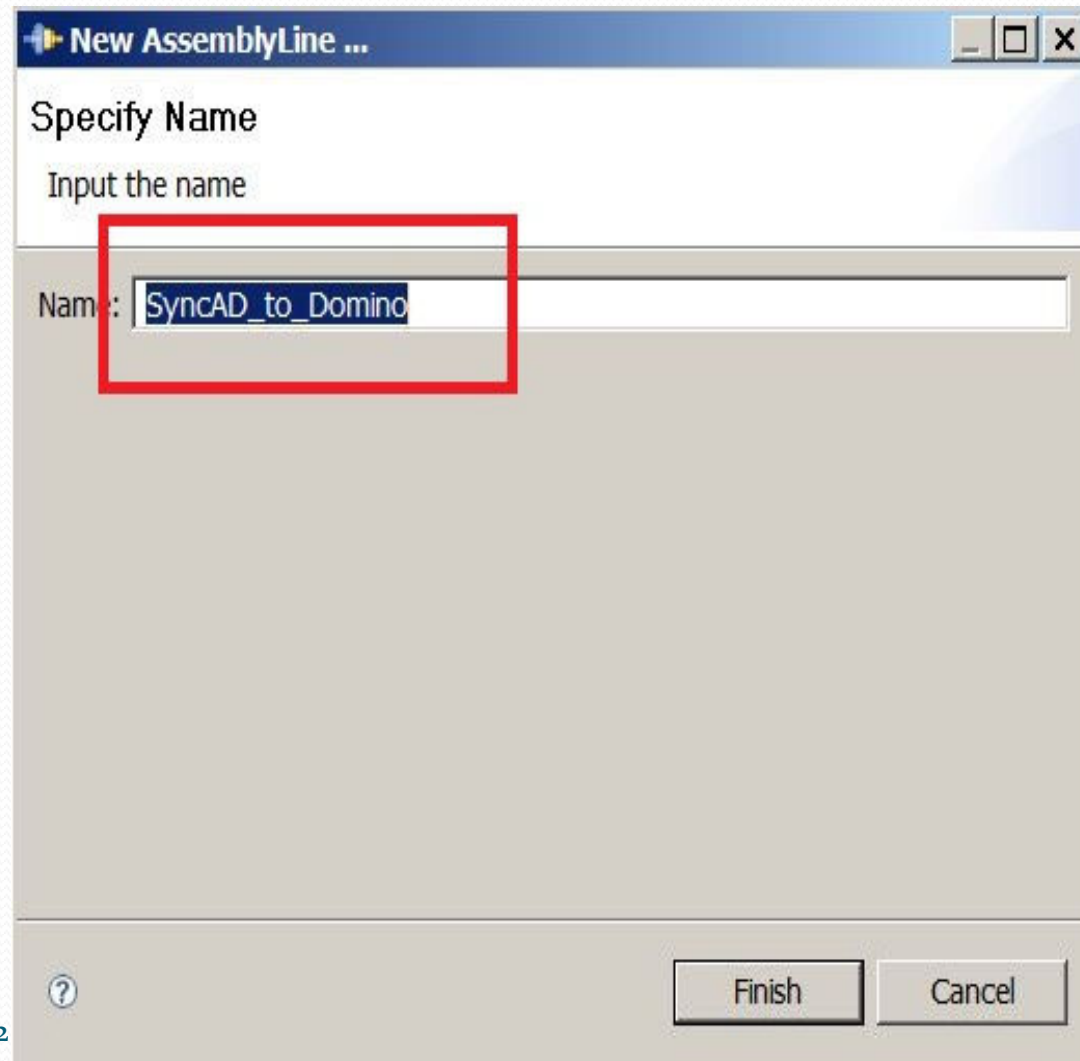


Assembly Lines next...

- Setup assembly lines with data feed and data flow
- Will map attributes that will match between AD and Domino
- Will set up any exception processes
- Create scripts or IF/Else/IF/ElseIF logic

Create Assembly Line: SyncAD_to_Domino

- Let's create our first assembly line



New AssemblyLine ...

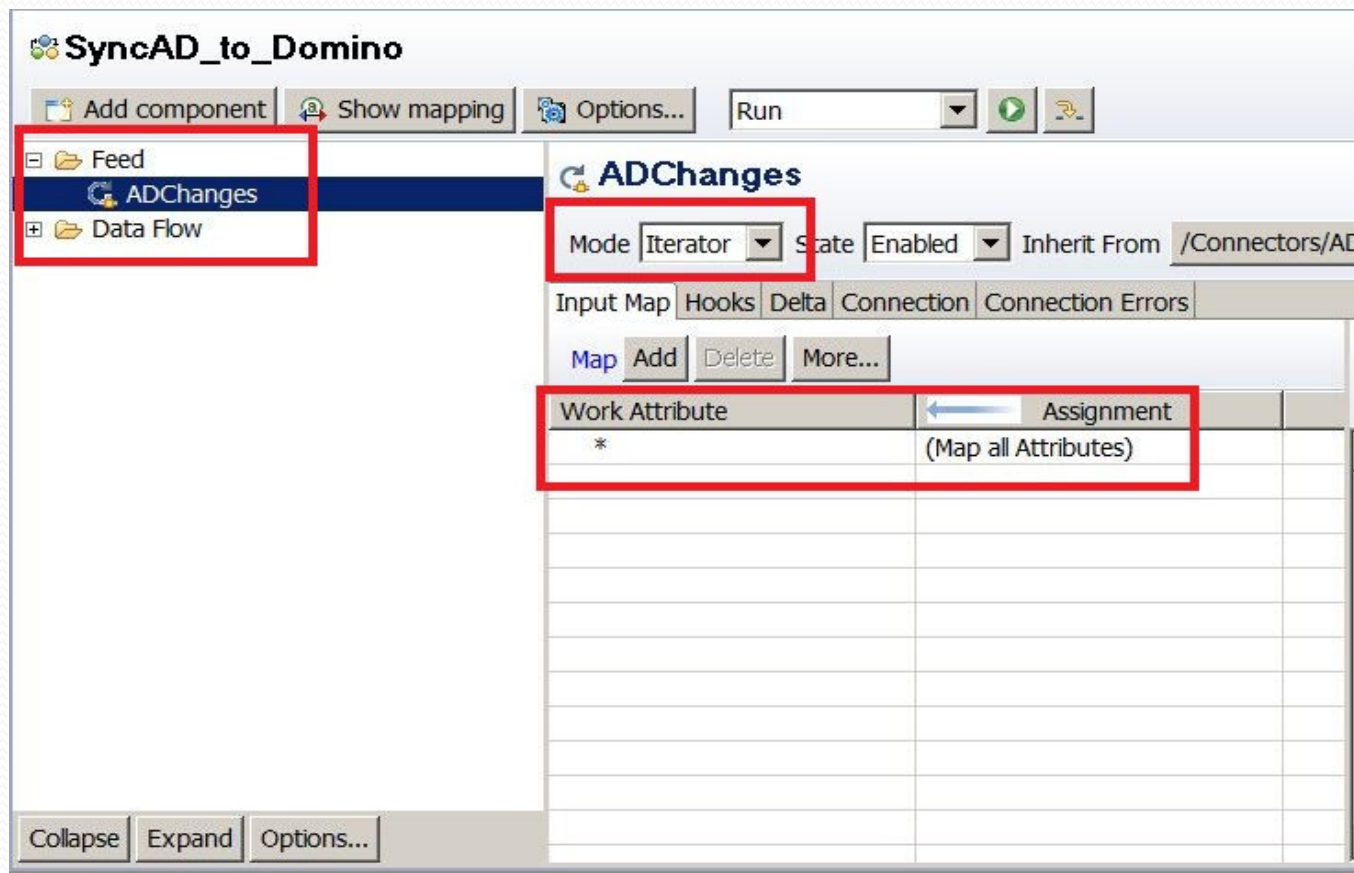
Specify Name

Input the name

Name: SyncAD_to_Domino

Finish Cancel

- Create Connector based on ADChanges and include all work attributes



Connector Config: ADChanges

- See LDAP search base
- LastChangeInAD parm
- Inherits from ADChangelog connector template

ADChanges

Mode **Iterator** State **Enabled** Inherit From **system:/Connectors/ibmdi.ADChangelogv2** More...

Input Map Hooks Delta **Connection** Connection Errors Pool

Active Directory Change Detection Connector

Help

LDAP URL * **ldap://viking1.topchefs.com:389**

Login username **cn=Administrator,cn=users,dc=topchefs,dc=com**

Login password *********

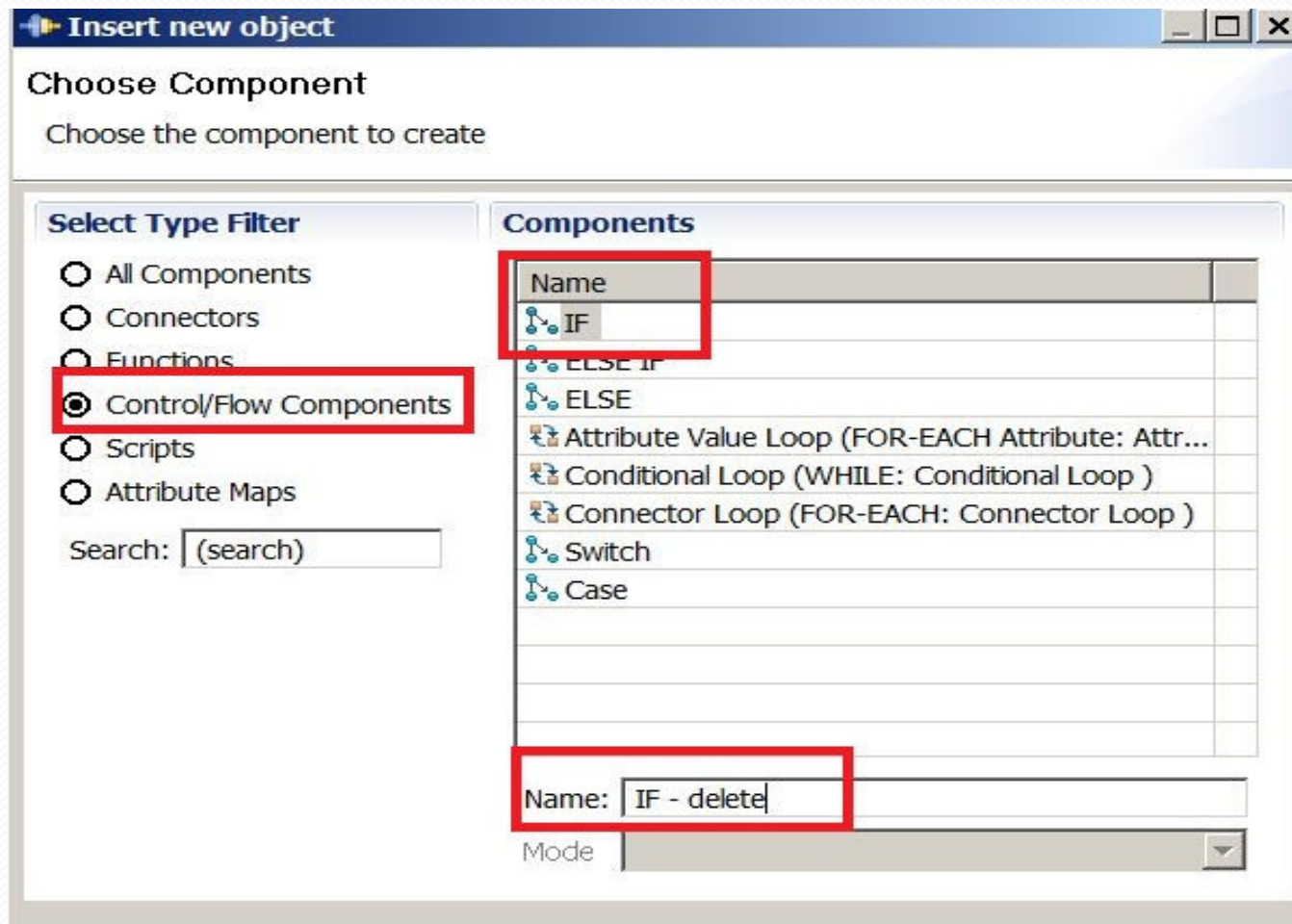
LDAP Search Base * **DC=topchefs,DC=com**

Iterator State Key **LastChangeInAD**


Start at **0**

Comment

Add IF BRANCH - delete



Create IF-delete script

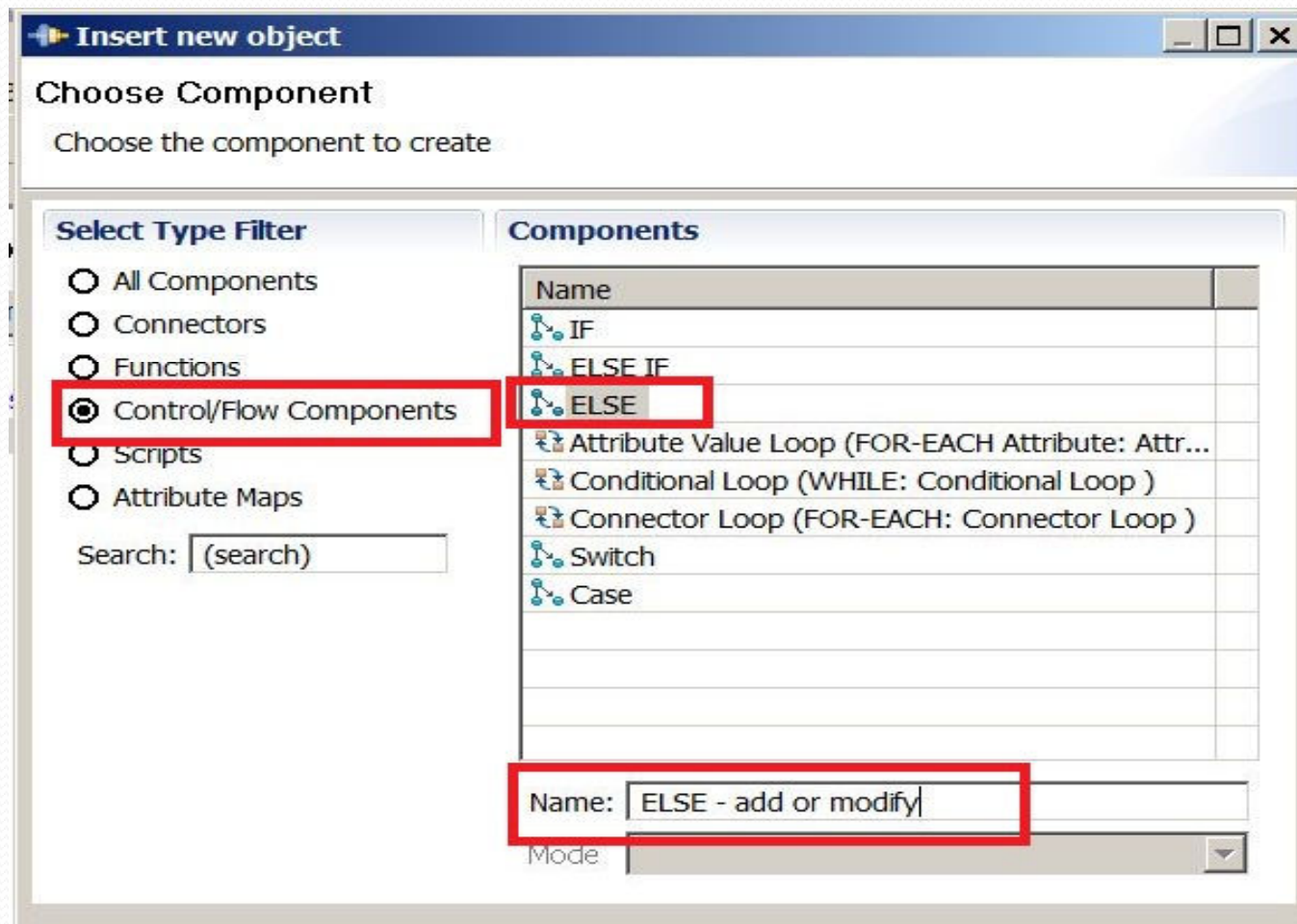
 **IF branch**

IF branch ▼ Close

Add Remove Move Up Move Down Script ☒ Match all

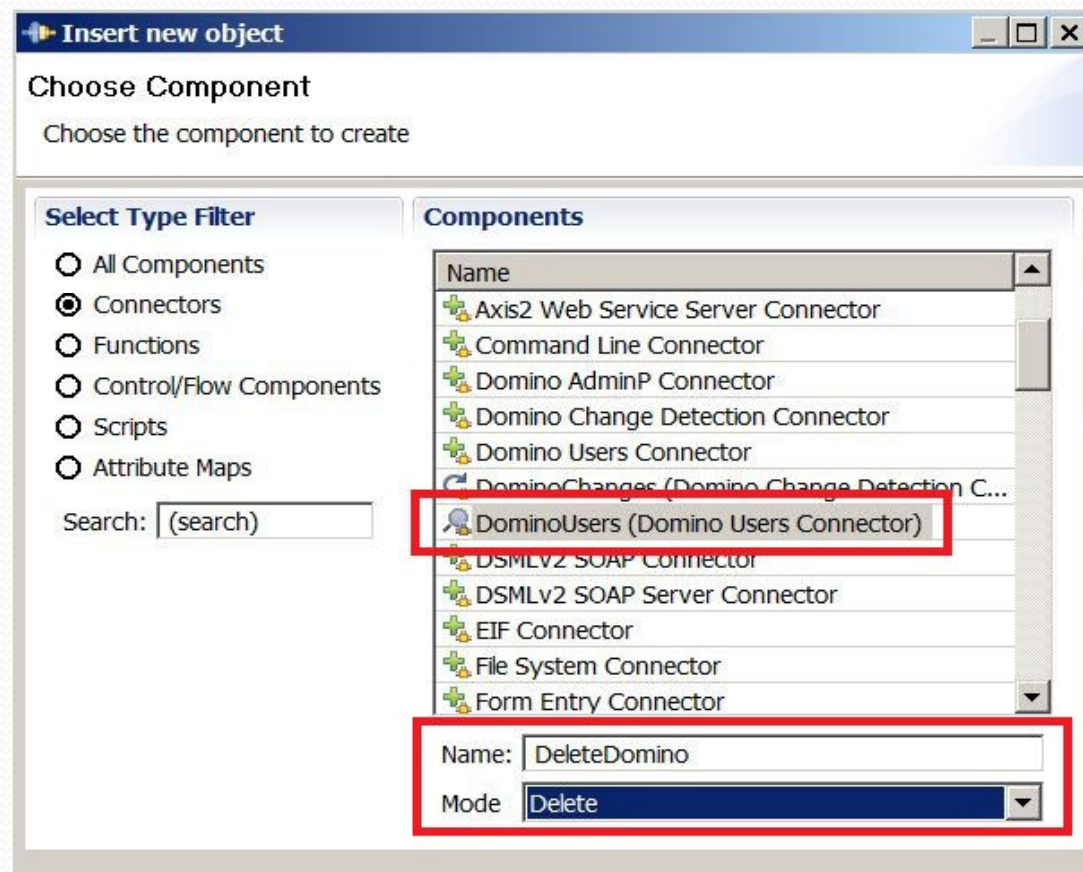
Attribute	NOT	Operator	Value	Case Sensitive
<pre>ret.value = work.getOperation() == "delete";</pre>				

Add ELSE Branch – add or modify



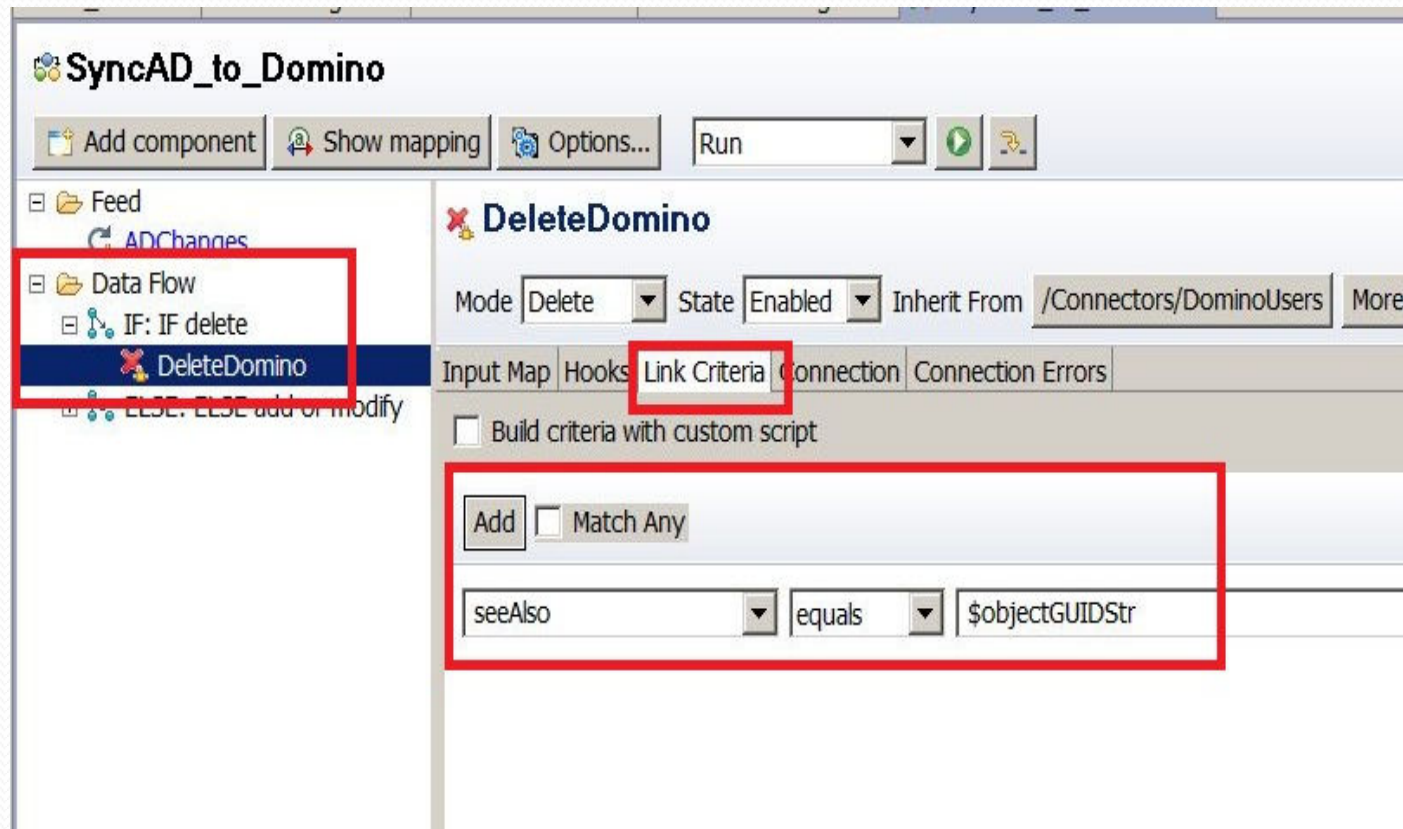
Create Connector: DeleteDomino

- Use the DominoUsers connector as your template



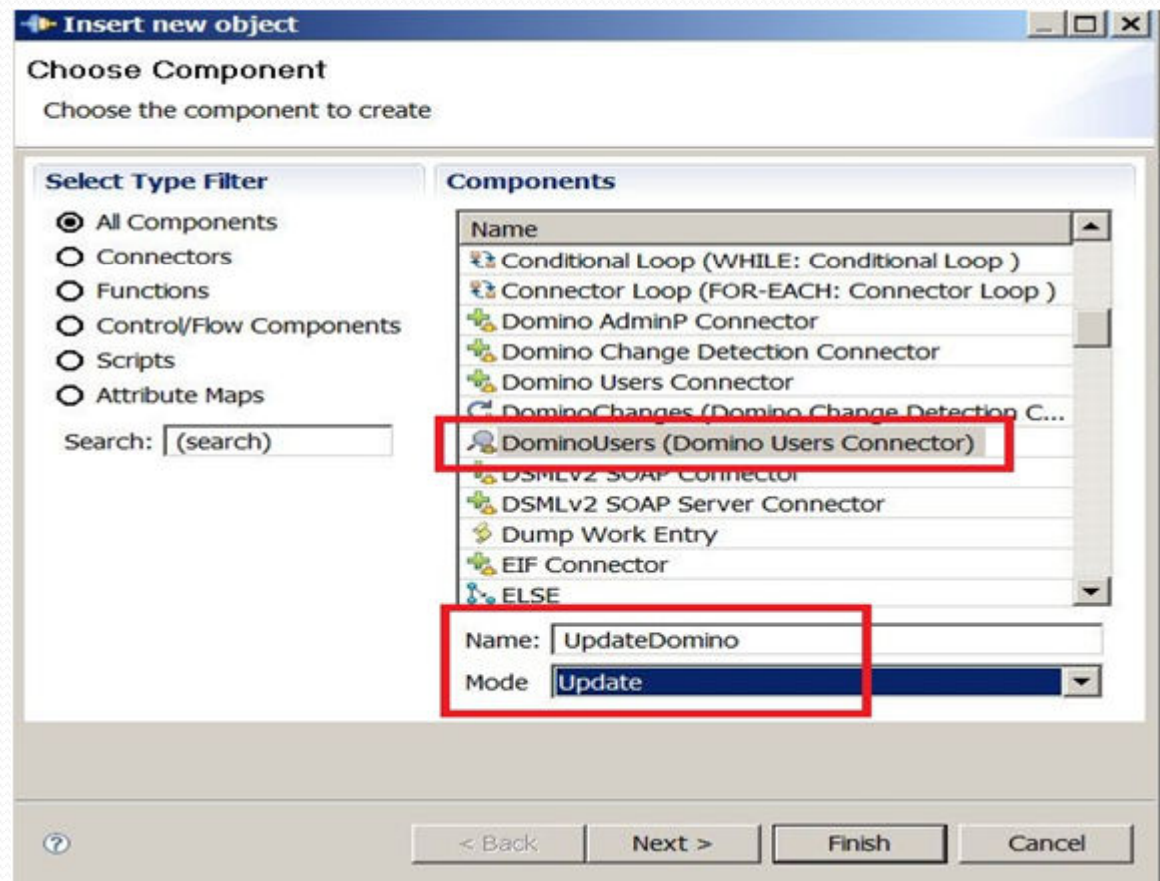
Create DeleteDomino Link Criteria

- Create the link criteria to match objects between AD & Domino



Create UpdateDomino Connector

- Created based on DominoUsers connector
- Created in update mode



Create UpdateDomino Link Criteria

The screenshot shows the 'UpdateDomino' configuration window. At the top, the title is 'UpdateDomino' with a small icon. Below the title, there are several settings: 'Mode' is set to 'Update', 'State' is 'Enabled', and 'Inherit From' is '/Connectors/DominoUsers'. A 'More...' button is to the right. Below these are tabs for 'Output Map', 'Hooks', 'Link Criteria', 'Connection', and 'Connection Errors'. The 'Link Criteria' tab is selected. Under this tab, there is a checkbox for 'Build criteria with custom script' which is unchecked. Below that is an 'Add' button and a 'Match Any' checkbox which is also unchecked. At the bottom, there is a list of criteria. The first criterion is highlighted with a red box: 'seeAlso' (selected from a dropdown), 'equals' (selected from a dropdown), and '\$objectGUIDStr' (text input).

UpdateDomino

Mode **Update** State **Enabled** Inherit From **/Connectors/DominoUsers** More...

Output Map Hooks **Link Criteria** Connection Connection Errors

☐ Build criteria with custom script

Add ☐ Match Any

seeAlso **equals** **\$objectGUIDStr**

UpdateDomino Mapping

- Bread and butter of the assembly line
- Includes javascript to modify the field data

UpdateDomino

Mode **Update** State **Enabled** Inherit From **/Connectors/DominoUsers** More...

Output Map Hooks Link Criteria Connection Connection Errors

Map Add Delete More...

Assignment	Add	Mod	Component Attrib...
work.Department	true	true	Department
work.sAMAccountName	true	true	EmployeeID
work.givenName	true	true	FirstName
Person	true	false	Form
ret.value = "cn=" + work.getString("cn") + "/o=topchefs";	true	true	FullName
work.mail	true	true	InternetAddress
work.title	true	true	JobTitle
work.sn	true	true	LastName
[work.Location, work["\$dn"]]	true	true	Location
{work.cn}/TOPCHEFS	true	true	MailAddress
work.department	true	true	OU
ret.value = "cn=" + work.getString("cn") + "/o=topchefs";	true	false	Owner
work.telephoneNumber	true	true	PhoneNumber
work.sAMAccountName	true	false	ShortName
work.description	true	true	Title
Person	true	false	Type
work.objectGUIDStr	true	true	seeAlso

Create BeforeModify Script

Insert new object

Choose Component
Choose the component to create

Select Type Filter

- ☐ All Components
- ☐ Connectors
- ☐ Functions
- ☐ Control/Flow Components
- ☒ **Scripts**
- ☐ Attribute Maps

Search:

Components

Name	
Empty Script	
Dump Work Entry	
Exit Branch	
Exit Flow	

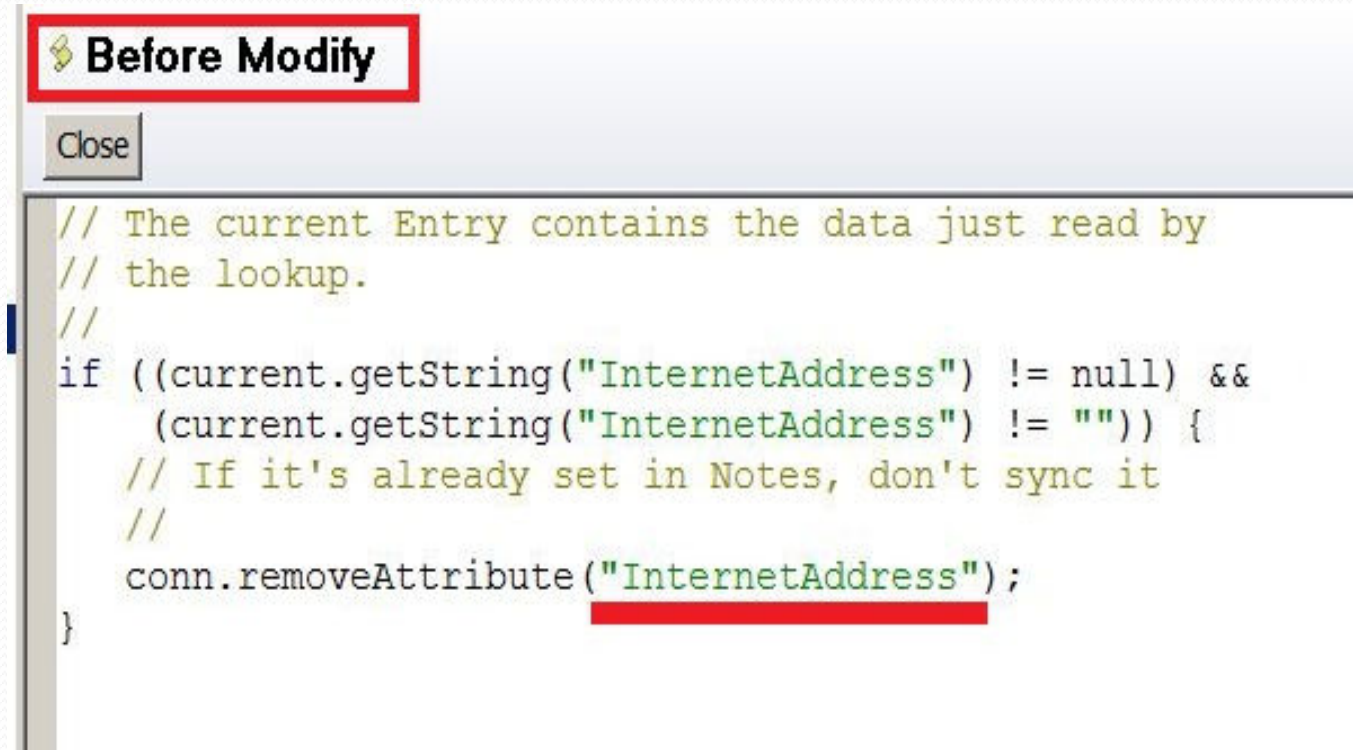
Name:

Mode:

Navigation:

Create BeforeModify Script

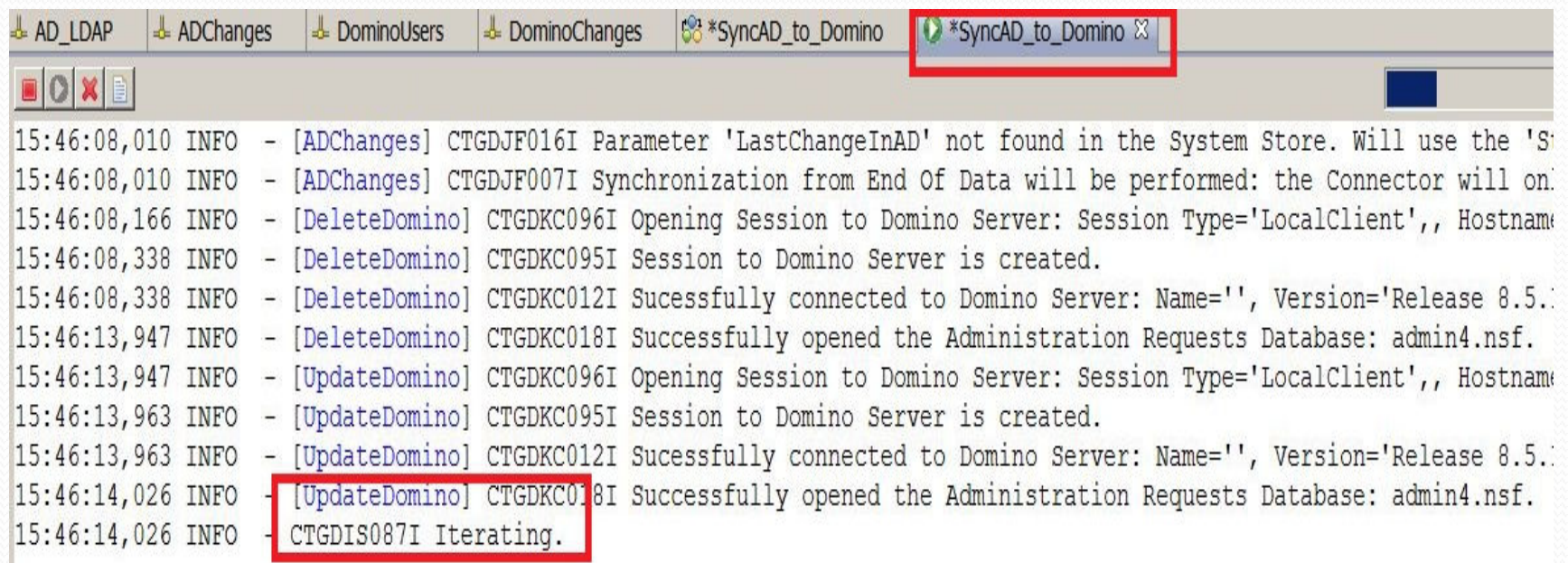
- Not updating internetaddress object



```
// The current Entry contains the data just read by
// the lookup.
//
if ((current.getString("InternetAddress") != null) &&
    (current.getString("InternetAddress") != "")) {
    // If it's already set in Notes, don't sync it
    //
    conn.removeAttribute("InternetAddress");
}
```

Whew! The first one's done. Let's start the first assembly line:

- Click Run to start SyncAD_to_Domino
- Confirm that the process is “Iterating”



The screenshot shows a Visual Studio interface with a solution explorer at the top containing several projects: AD_LDAP, ADChanges, DominoUsers, DominoChanges, *SyncAD_to_Domino, and *SyncAD_to_Domino. The last two are highlighted with red boxes. Below the explorer is a console window displaying a log of system messages. The messages show the process of connecting to a Domino server and opening a database. The final message, 'CTGDIS087I Iterating.', is highlighted with a red box.

```
15:46:08,010 INFO - [ADChanges] CTGDJF016I Parameter 'LastChangeInAD' not found in the System Store. Will use the 'S
15:46:08,010 INFO - [ADChanges] CTGDJF007I Synchronization from End Of Data will be performed: the Connector will on
15:46:08,166 INFO - [DeleteDomino] CTGDKC096I Opening Session to Domino Server: Session Type='LocalClient',, Hostname
15:46:08,338 INFO - [DeleteDomino] CTGDKC095I Session to Domino Server is created.
15:46:08,338 INFO - [DeleteDomino] CTGDKC012I Sucessfully connected to Domino Server: Name='', Version='Release 8.5..
15:46:13,947 INFO - [DeleteDomino] CTGDKC018I Successfully opened the Administration Requests Database: admin4.nsf.
15:46:13,947 INFO - [UpdateDomino] CTGDKC096I Opening Session to Domino Server: Session Type='LocalClient',, Hostname
15:46:13,963 INFO - [UpdateDomino] CTGDKC095I Session to Domino Server is created.
15:46:13,963 INFO - [UpdateDomino] CTGDKC012I Sucessfully connected to Domino Server: Name='', Version='Release 8.5..
15:46:14,026 INFO - [UpdateDomino] CTGDKC018I Successfully opened the Administration Requests Database: admin4.nsf.
15:46:14,026 INFO - CTGDIS087I Iterating.
```

SyncAD_to_Domino Final AssemblyLine

SyncAD_to_Domino

Add component Show mapping Options... Run

Feed

- ADChanges

Data Flow

- IF: IF delete
- DeleteDomino
- ELSE: ELSE add or modify
- UpdateDomino
- Before Modify

Map Add Delete Browse Data

Work Attribute	Assignment	Component Attribute
ADChanges	←	[Source]
*	(Map all Attributes)	*
DeleteDomino	←	[Source]
	[Empty map - double click to add]	
UpdateDomino	→	[Target]
Department	work.Department	Department
sAMAccountName	work.sAMAccountName	EmployeeID
givenName	work.givenName	FirstName
	Person	Form [Add]
getString	ret.value = "cn=" + work.getSt	FullName
mail	work.mail	InternetAddress
title	work.title	JobTitle
sn	work.sn	LastName
Location	[work.Location, work["\$dn"]]	Location
cn	{work.cn}/TOPCHEFS	MailAddress
department	work.department	OU
getString	ret.value = "cn=" + work.getSt	Owner [Add]
telephoneNumber	work.telephoneNumber	PhoneNumber
sAMAccountName	work.sAMAccountName	ShortName [Add]
description	work.description	Title
	Person	Type [Add]
objectGUIDStr	work.objectGUIDStr	seeAlso

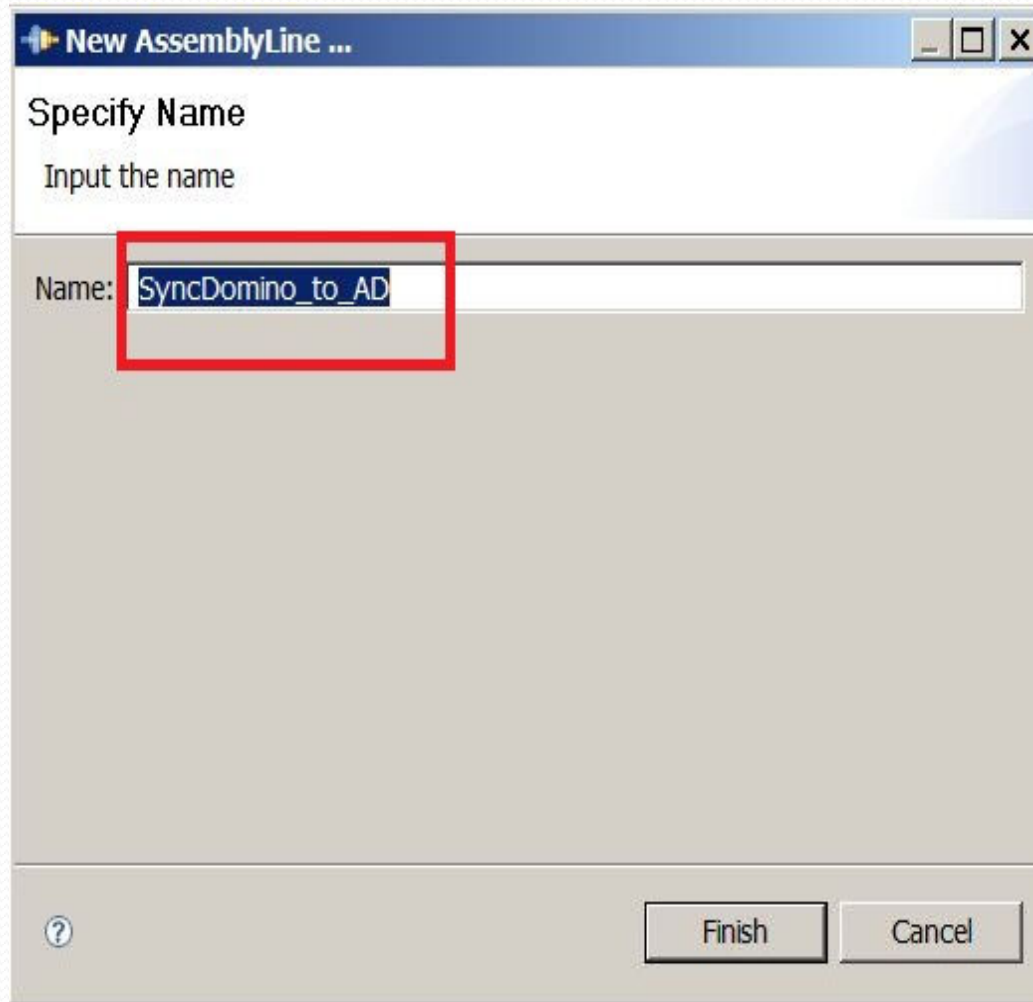


Now for the SyncDomino_to_AD AL

- Includes two connectors
 - DominoChanges
 - UpdateAD
- IF add or delete and Else modify branches
- Send Alerts script

Create Assembly Line: SyncDomino_to_AD

- Create our second assembly line:



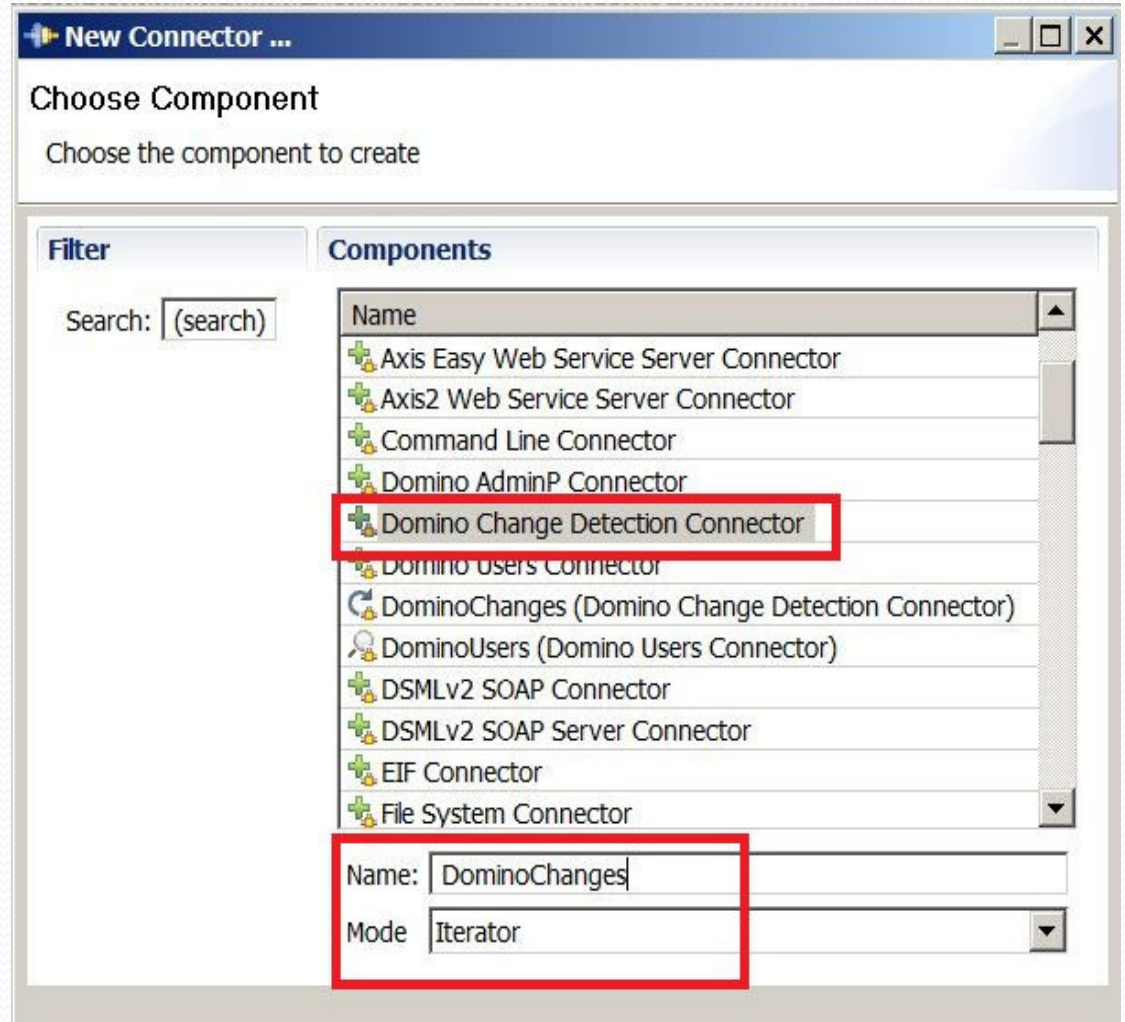


Drag and drop DominoChanges Connector

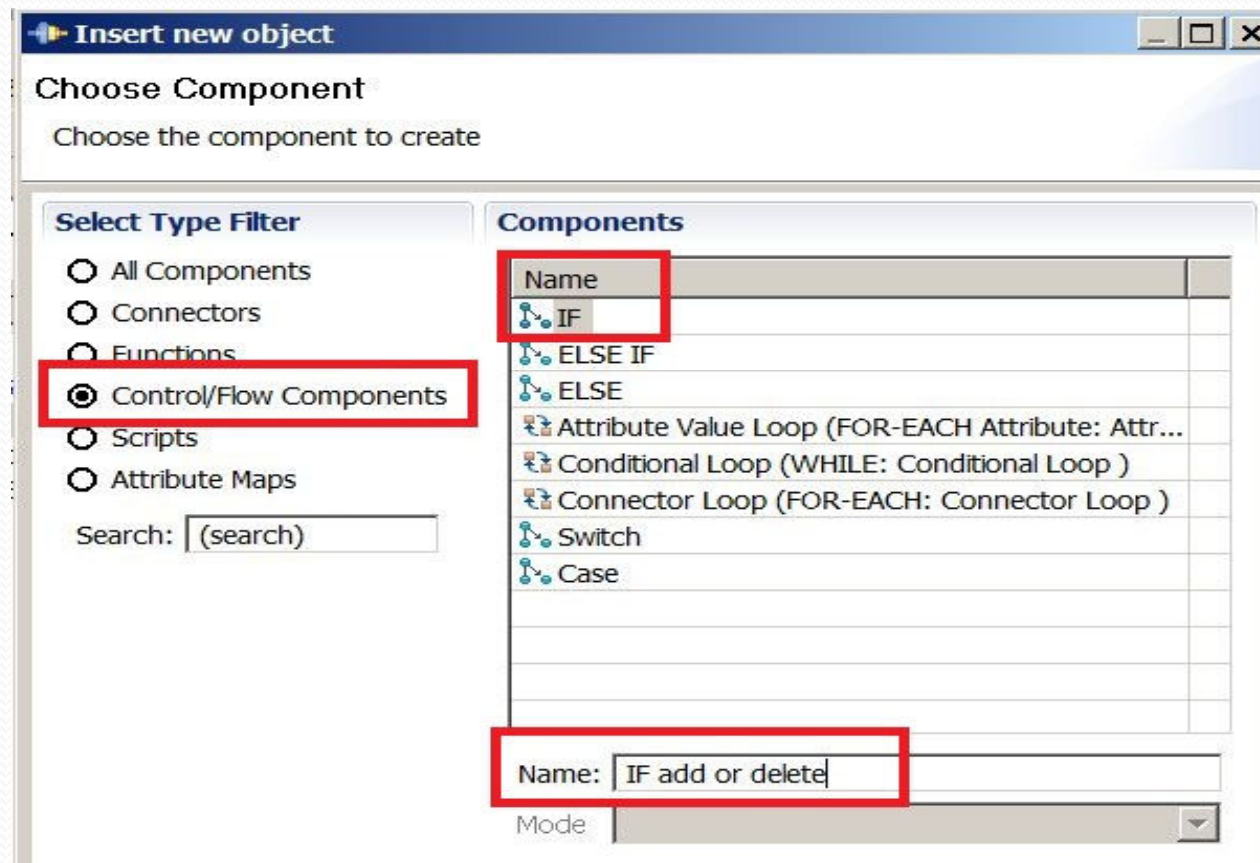
- Add as data feed
- Will be set up in iterator mode

Create Connector: DominoChanges

- Uses DominoChangeDetector template
- Set up in Iterator Mode



Create IF Branch – Add or Delete



IF -add or delete branch configuration

- Branch only if not equal to modify

IF branch

IF branch Close

Add Remove Move Up Move Down Script ☒ Match all

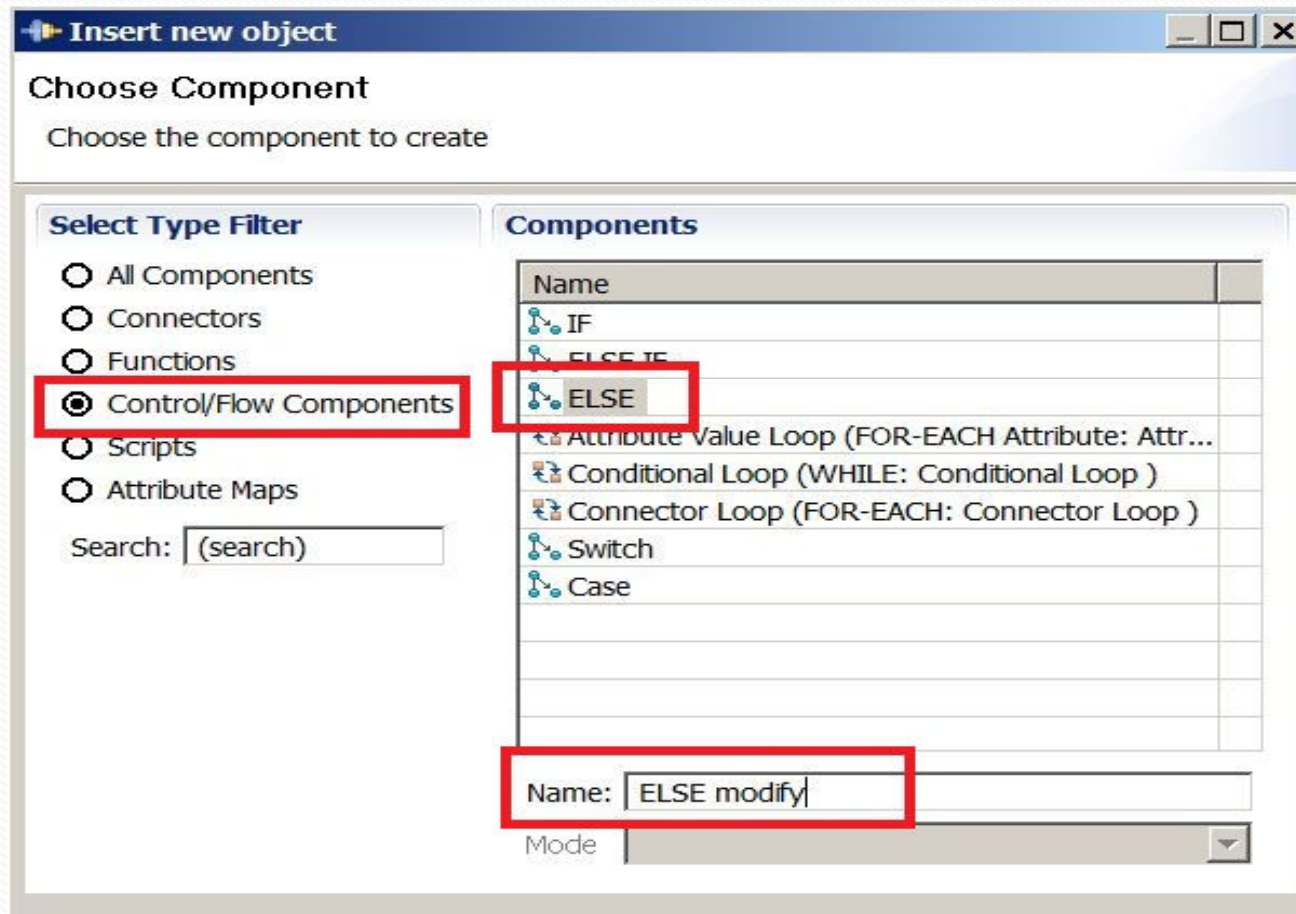
Attribute	NOT	Operator	Value	Case Sensitive
			ret.value = work.getOperation() != "modify";	

SendAlert Script Config

- Set an alert to appear in the log when a user has been created in Domino

A screenshot of the 'Send Alerts' configuration window in Domino. The window has a title bar with the text 'Send Alerts'. Below the title bar, there is a section with 'Inherit From' set to '[no inheritance]' and a 'Close' button. The main area of the window contains a text field with the following script: `task.logmsg('*** WARNING ** User has been provisioned directly in Domino');`

Create Else Branch - Modify



UpdateAD Connector Config

- Based on AD_LDAP Connector

UpdateAD

Mode **Update** State **Enabled** Inherit From **/Connectors/AD_LDAP** More...

Output Map Hooks Link Criteria Connection Connection Errors

LDAP Connector

Help

LDAP URL * ldap://viking1.topchefs.com:389

Login username cn=Administrator,cn=users,dc=topchefs,dc=com

Login password *****

Search Base DC=topchefs,DC=com

Search Filter objectclass=person

Search Scope subtree

Comment

UpdateAD Link Criteria

- Create a link criteria to map between Domino and AD

The screenshot shows the 'UpdateAD' configuration window. At the top, the title is 'UpdateAD' with a gear icon. Below the title, there are three dropdown menus: 'Mode' set to 'Update', 'State' set to 'Enabled', and 'Inherit From' set to '/Connectors/AD_LDAP'. A 'More...' button is to the right of the 'Inherit From' dropdown. Below these are five tabs: 'Output Map', 'Hooks', 'Link Criteria' (which is selected), 'Connection', and 'Connection Errors'. Under the 'Link Criteria' tab, there is a checkbox labeled 'Build criteria with custom script' which is unchecked. Below this is an 'Add' button and a 'Match Any' checkbox which is also unchecked. At the bottom, there is a table with one row of criteria. The first column contains '\$dn', the second column contains 'equals', and the third column contains '\$Location'. The entire table row is highlighted with a red border.

Field	Operator	Value
\$dn	equals	\$Location

UpdateAD Mapping Config

The screenshot shows the 'UpdateAD' configuration window. At the top, there are dropdown menus for 'Mode' (set to 'Update'), 'State' (set to 'Enabled'), and 'Inherit From' (set to '/Connectors/AD_LDAP'). Below these are tabs for 'Output Map', 'Hooks', 'Link Criteria', 'Connection', and 'Connection Errors'. The 'Output Map' tab is active, showing a table with columns 'Assignment', 'Add', 'Mod', and 'Component At'. A red box highlights the first row of this table, which contains 'work.InternetAddress', 'true', 'true', and 'mail'. To the right of the table are buttons for 'Map', 'Add', 'Delete', and 'More...'. Further right are buttons for 'Connect', 'Next', and 'Close'. On the far right, there is a 'Schema' section with a list of attributes: '\$dn', 'accountExpires', and 'accountNameHistory'.

Assignment	Add	Mod	Component At
work.InternetAddress	true	true	mail

Schema

- \$dn
- accountExpires
- accountNameHistory

SyncDomino to AD Final AssemblyLine

SyncDomino_to_AD

Add component Show mapping Options... Run

Feed

- DominoChanges

Data Flow

- IF: IF add or delete
- Send Alerts
- ELSE: ELSE modify
- UpdateAD

Map Add Delete Browse Data

Work Attribute	Assignment	Component Attribute
DominoChanges	←	[Source]
*	(Map all Attributes)	*
UpdateAD	→	[Target]
InternetAddress	work.InternetAddress	mail



Provisioning Notes Accounts

- You can take these types of assembly lines and build a process to provision Notes accounts.
- See this document for more information regarding the specific objects you need to pass to adminp to set up accounts.
- <http://www.tdi-users.org/twiki/pub/Integrator/HowTo/IntegratingDominowithTDIv1.1.pdf>



Agenda

- Introduction to TDI architecture/concepts
- Discuss TDI entitlement
- Intro to TDI use for Directories
- Example – Synch Domino Directory to Active Directory
- Example – Synch Active Directory to Domino Directory
- Extras!
- Resources

EXTRA! Blackberry Enterprise Server SQL Data to Domino Directory

- Connect to your Domino Blackberry Enterprise Server's SQL database to pull data like Blackberry PIN numbers and populate them in your Domino directory
- Set a JDBC connector to BES SQL
- Set up an LDAP connector to Domino Directory or use a Notes Database connector (either one works!).



Connecting TDI to MS SQL Databases

- Requires additional jar files to be downloaded into the TDI jar 3rd party directory
- sqljdbc4.jar
- sqljdbc.jar
- Downloadable from either MS SQL server or from Microsoft.com
- Set up a JDBC connector

Example: SQL connector to BESMgmt

- Set up as JDBC Connector
- Use to connect to Blackberry Server BESMgmt database

The screenshot shows the BESSql configuration window. At the top, the 'Mode' is set to 'Iterator' and the 'Inherit From' path is 'system:/Connectors/ibmdi.JDBC'. Below this, the 'JDBC Connector' tab is selected. The configuration fields are as follows:

JDBC URL *	jdbc:sqlserver:// <u>serverip</u> :1433;DatabaseName=BESMgmt;selectMethod=cursor;
JDBC Driver *	com.microsoft.sqlserver.jdbc.SQLServerDriver
Username	administrator
Password	*****
Schema	
Table Name *	UserConfig
Comment	



EXTRA! Domino, SPNEGO, & TDI

- Lots of buzz about single sign-on or one userid/one password across enterprise systems.
- TDI is perfect for synchronizing elements from Domino and Active Directory to facilitate single sign-on. Assembly Line is very similar to one demonstrated in this session.
- See the website which has docs, sample code, and presentations about TDI, Domino & SPNEGO integration.

<http://sites.google.com/site/dominointegration/Home/dominoad>

Additional Resources

- **IBM Tivoli Directory Integrator Users Group** - <http://www.tdi-users.org>
- **Domino Integration Specific Info:** <http://sites.google.com/site/dominointegration>
- **IBM DeveloperWorks – Tivoli** - <https://www.ibm.com/developerworks/tivoli/>
- **TDI User Forum** - <http://groups.google.com/group/ibm.software.network.directory-integrator/topics?gvc=2>
- **Learning TDI** - <http://www.tdi-users.org/twiki/bin/view/Integrator/LearningTDI>
- **Domino Integration with TDI** - <http://www.tdi-users.org/twiki/bin/view/Integrator/Domino>
- **TDI Redbooks/Redpieces –**
<http://www.redbooks.ibm.com/cgi-bin/searchsite.cgi?query=tivoli+AND+directory+AND+integrator>
- **And Marie and Tom have done a series of TDI articles on at:**
<http://www.bleedyellow.com/blogs/crashtestchix>
- **Thanks to Eddie Hartman “TDI Story Teller”** eddie.hartman@no.ibm.com

Questions? Comments?



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