Data Exchange Module

Authorization Setup

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SPECTRUM DATA EXCHANGE (SDX) WEB SERVICES

Viewpoint has created a Data Exchange module to provide a secure, quick, and easy way to transfer data in or out of Spectrum Construction Software. The Spectrum Data Exchange Web Services requires an Authorization ID which provides the necessary security to access Spectrum.

The secure Authorization ID is created in the Data Exchange Installation screen and provides access to the individual Web services to send data to or from Spectrum. The Authorization ID can be set up for specific companies and Web services. The Data Exchange Installation screen provides access to the available report options.
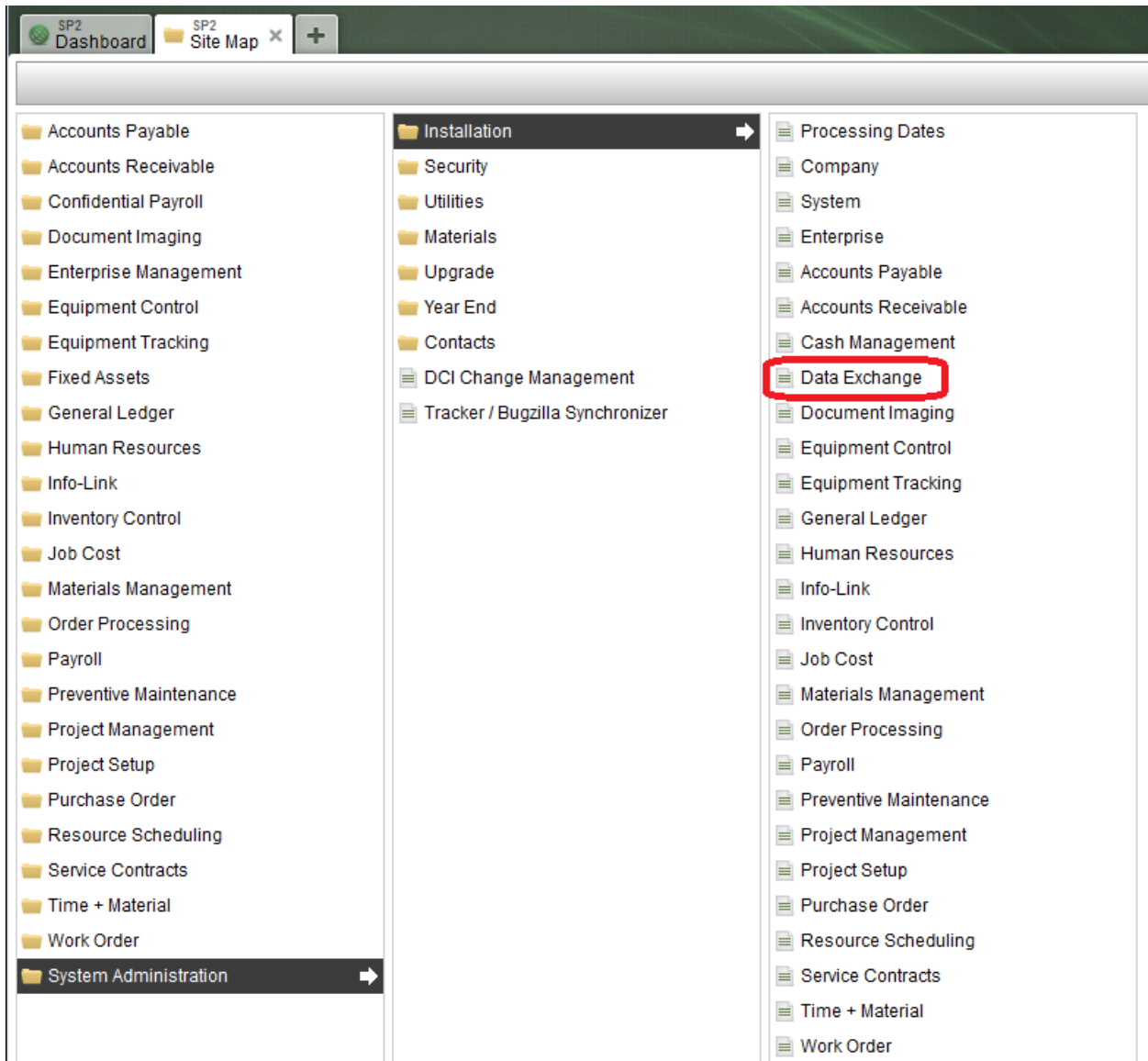
DATA EXCHANGE INSTALLATION SETUP

To access the Data Exchange Module it must be active on the Company Installation screen.
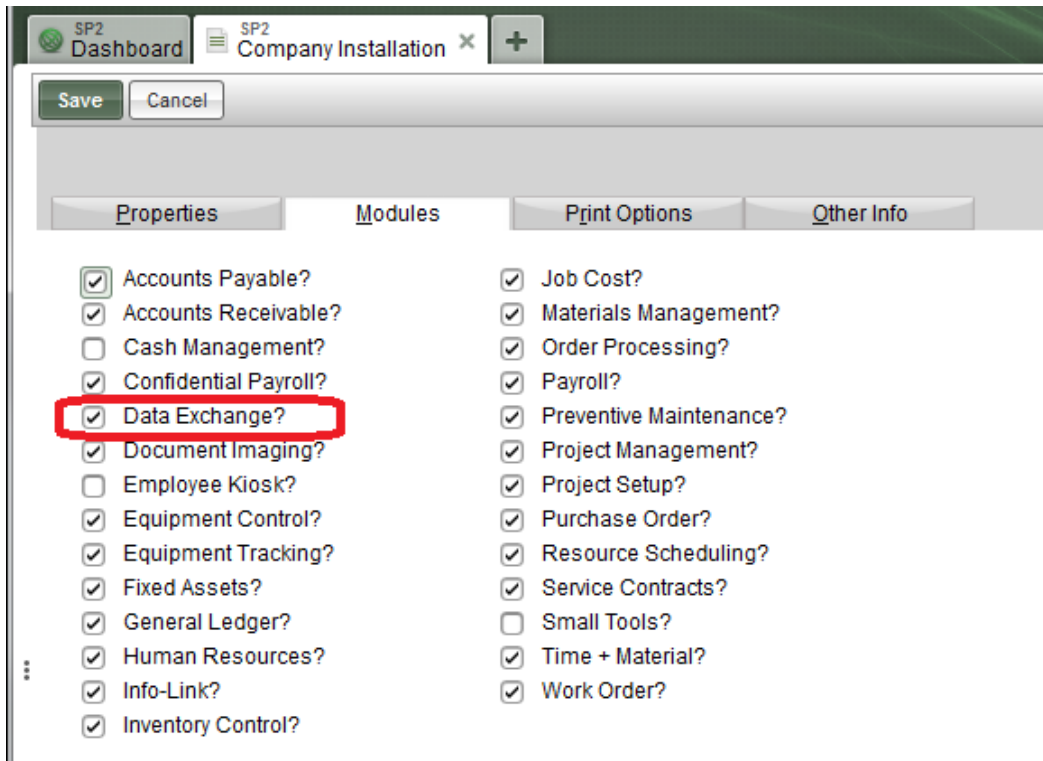
DATA EXCHANGE INSTALLATION

Once the Data Exchange Module is active, you have access to the Data Exchange Installation Setup screen. Click on System Administration to display the Installation options and select Data Exchange.

The Data Exchange Installation screens define:

- The Authorization IDs.
- The individual Web services and Companies that can be accessed by the Authorization ID.
- The specific options for each Web service that the Authorization ID may have defined for the Default Values, User-Defined Fields (UDF), and Counter Overrides.
- Enhanced Authorization functionality (refer to the *Spectrum Security Manual* for details on how to configure enhanced authentication settings).

All Authorization IDs display based on the search criteria and Status definitions. Click the **New** button to add a new Authorization ID, click **Edit** to modify an existing Authorization ID, or click **Delete** to remove an existing Authorization ID.

Authorization ID	Service count	Status	Created company	Authorized company	Memo
TS1	3	Active	2ND	SP1, SP2, SP3	Co-Specific QA Op has access to SP1 SP2 & SP3 but only SP1 & SP2 are a
DX DEMO	2	Active	ABC	ABC, SP1	
MDA	13	Active	ARC	SP1, SP2, SP3	Maura Test Authorization
DEMO	4	Active	HHC	APH	DEMO TESTING
ALW	10	Active	HHC	030, SP1, SP2	test
NEW01	0	Active	HHC	3RD	
CDC	4	Active	HHC	010, 3RD, HHC	CDC
SUE	11	Active	SP1	SP1, SP2, SP3	For Testing Purposes - SP1 SP2 and SP3
TSB4	3	Active	SP1	SP1	NEW SETUP FOR 2ND QA IN DEV 14
EJM2	12	Active	SP2	ABC, SP1, SP2	
KML	8	Active	SP2	ABC, SP1, SP2, SP3	MEMO
Training	4	Active	SP2	AVI, ELE, SP1, SP2	Used for our Training Department only
BlackHawk	6	Active	SP2	ABC, SP1, SP2, SP3	
WELLS FARGO	2	Active	SP2	None	CUSTOM CREDIT CARD IMPORT
KING	4	Active	SP2	CCC	
TRAINER	0	Active	SP2	ABC, ELE, SP1, SP2	

CREATE AUTHORIZATION ID

To add a new Authorization ID click **New** and the New Authorization ID screen displays

The following fields need to be defined for each Authorization ID:

- **Authorization ID** – Must be unique across each company. Up to 20 characters are allowed.
- **Company** – Define the specific companies that the Authorization ID has access to, and define the Authorization ID's default company.
- **Secret Status** – If enhanced authentication has been enabled, click this button to generate the **Client ID** and **Secret Status** code. Refer to the *Spectrum Security Manual* for details on how to configure enhanced authentication settings.
- **Spectrum Operator code –** Define a valid operator code. Field has lookup functionality.
  - o Provides access based on the operator's job based security and cost center logic.
  - o Operator Code must be valid for all the defined Companies associated with the Authorization Id.
  - o Required when a 'Get' web service is assigned to the Authorization ID.
- **Status** – Defaults to Active, but can be set to Inactive.
- **Memo** – Provides a place to store any necessary notes. This optional field allows up to 250 characters.
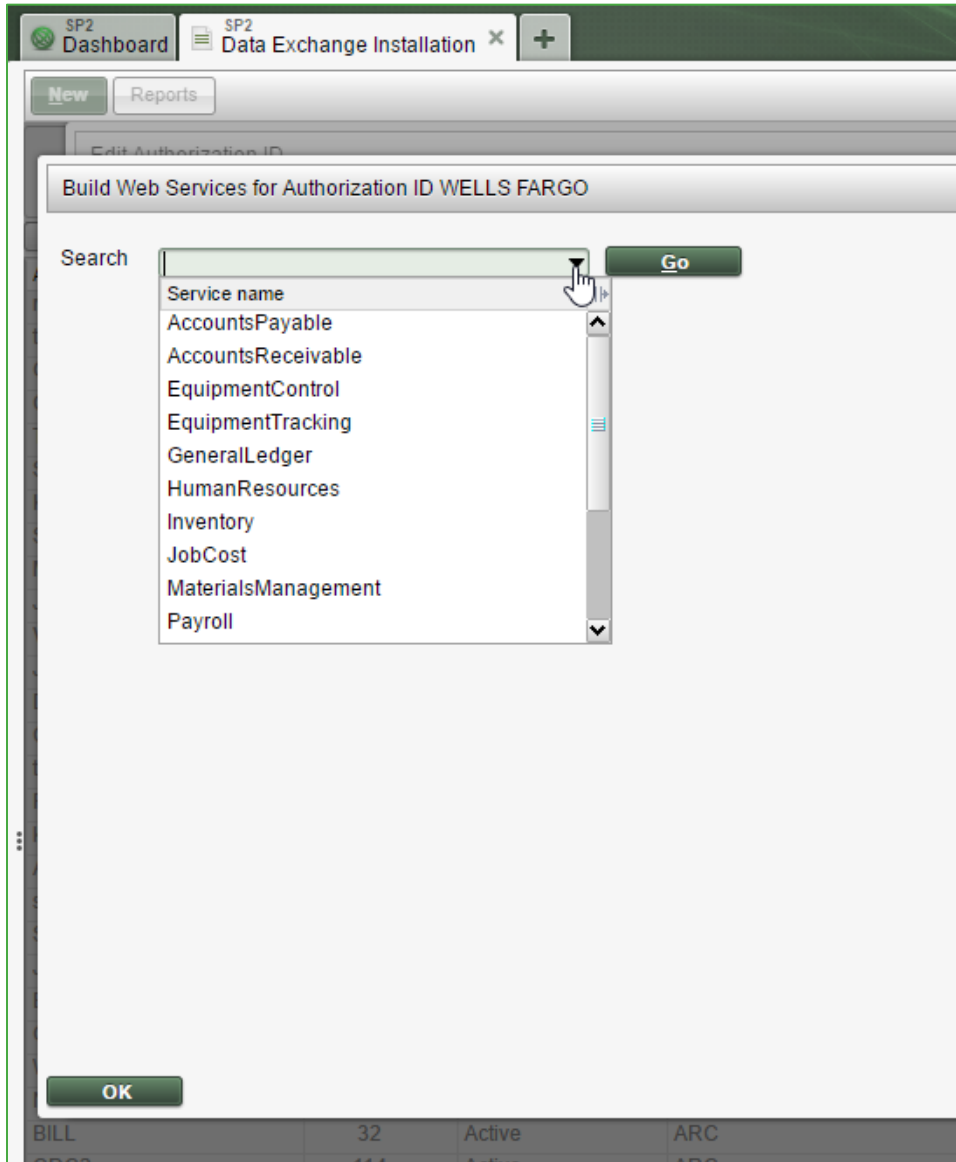
- **Web services** – Assigned using the **Build** button to attach the Web services to the authorization ID. Allows specific options to be defined for the Web service.

Once an authorization ID has been defined, the Build Companies for Authorization ID screen displays. Each Authorization ID must have a company defined and if multiple companies are defined then the user must define the Default Company.
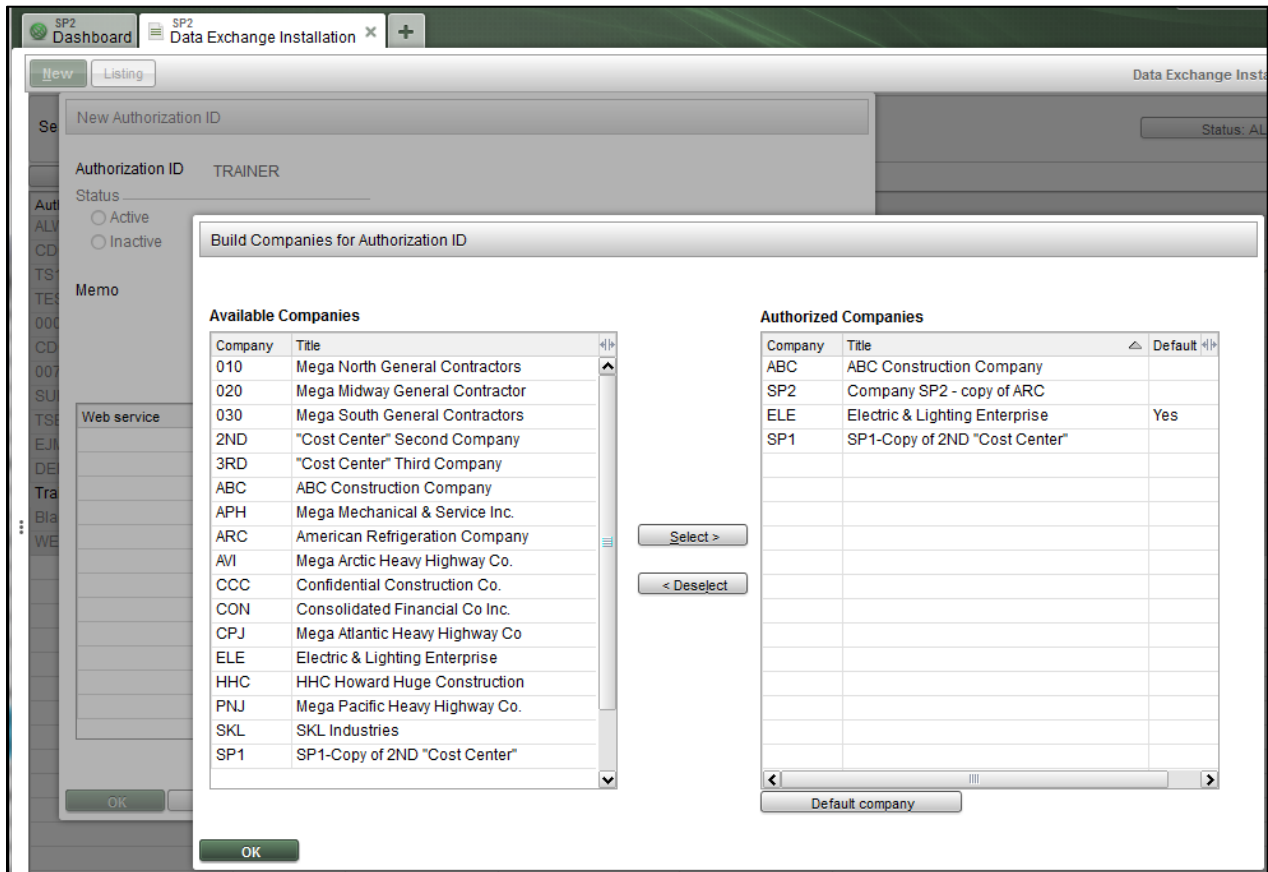
BUILD WEB SERVICE

A search option is available to narrow down the list of Web Services available by module. The user must select from the available list.

The available Web services display in the left pane and the authorized Web services already assigned to the current Authorization ID display in the right pane.

Note:

- *Some web services displayed on the Build Web Services screen are created for 3rd party Vendor Use only and the Description shown states that information.*
- *When selecting the Web Services, it will move a maximum of 40 records at a time. A warning message appear is more than 40 records are chosen but the message doesn't prevent the data from moving. The user can do this as many times as needed.*

DEFINE WEB SERVICE OPTIONS

Once the Company and Web services are defined for the Authorization ID and updated, the main Authorization screen displays with the **Options** button available.

Web service		Description	Defaults	UDFs	Counters
AddCustomer		Add Customer	Yes		
AddJob		Add Job			Yes
AddPhase		Add or Change Job Phase			
AddVendor		Add Vendor			
GetEmployee		Get Employees			Yes
TimeEntry		Time Entry			Yes

Edit Authorization ID

Authorization ID: Training   Company: Multi

Status: ⦿ Active   ○ Inactive

Spectrum operator code: ABC

Memo: Used for our Training Department only

Build   Options

OK   Cancel

Each Web service can have specific options defined. Select the Web service and click the **Options** button to display the Options screen. If the Web service does not contain any UDFs, then the User-Definded Fields tab will be grayed out.

The Web Service Options screen shows the following tab(s) available based on their individual layout:

- **Default Values** – You can default a defined value into the file layout/data if it is blank during the Web service import. The UDF field name must be defined prior to setting up a Web Service Default Value.
- **User-Defined Fields (UDF)** – Provides a mapping of the Spectrum User Defined Fields to the UDF field name in the Web service.
- **Counter Overrides** – Provides the ability to override the values for the specific counters that have been set up within Spectrum.

Default Values

The Web Service Options screen opens with the Default Values tab selected.

Click **New** to open the New Service Default Value window and create the default value by selecting an entry from the drop-down list.

Select a Service field name using the lookup functionality, define the Company code, or select the check box to have it default for any company that the Authorization ID has access to. Then define the information to be entered for the Default value. See the example below.

New Service Default Value

Service field name	Address_3 ▼
	☐ Default for any company?
Company code	SP2 ▼
Default value	TESTING DEFAULT ADDRESS 3

OK   Cancel

The Default Values tab displays the default values that you have defined.

Web Service Options

Authorization ID   ABC
Web service   AddVendor
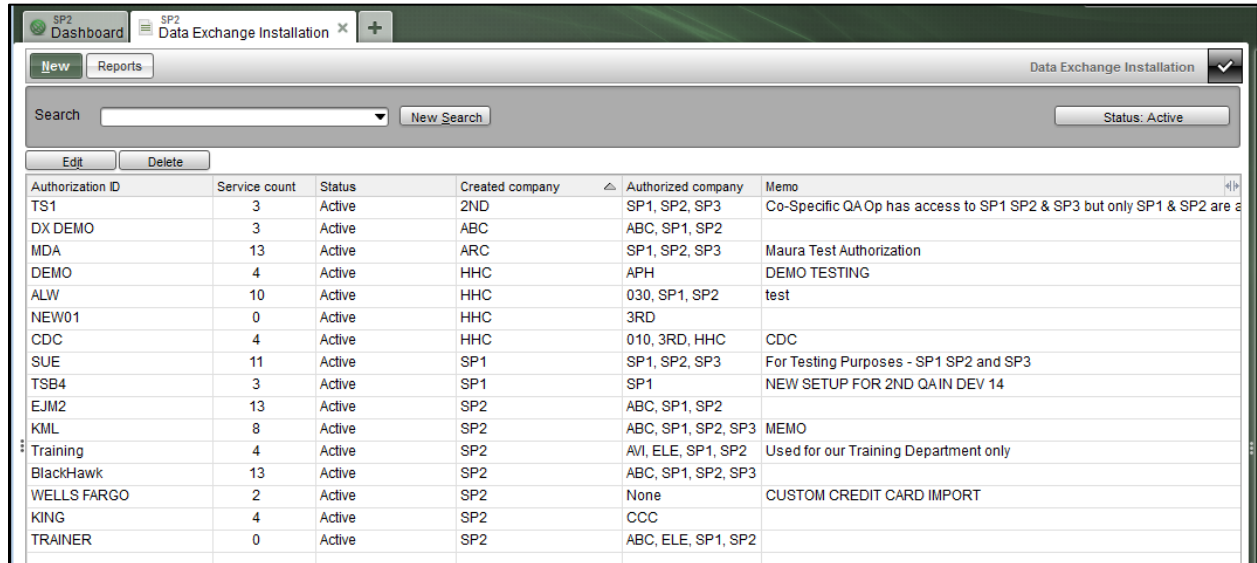
Default Values   User-Defined Fields   Counter Overrides

New   Edit   Delete

Service field name	Company code	Default value	
Address_3	SP2	TESTING DEFAULT ADDRESS 3	

OK   Cancel

By clicking **Edit**, the Default value can be modified as shown below.

The Service Default Values can also be deleted by highlighting the Service field name, clicking **Delete,** and confirming its deletion.

User-Defined Fields

Select the User-Defined Fields tab to display or define the corresponding UDF field names to the UDF prompts defined in Spectrum.

Click **New** to open the New User-Defined Field window and create the UDF mapping by selecting an entry from the drop-down list for each entry field.
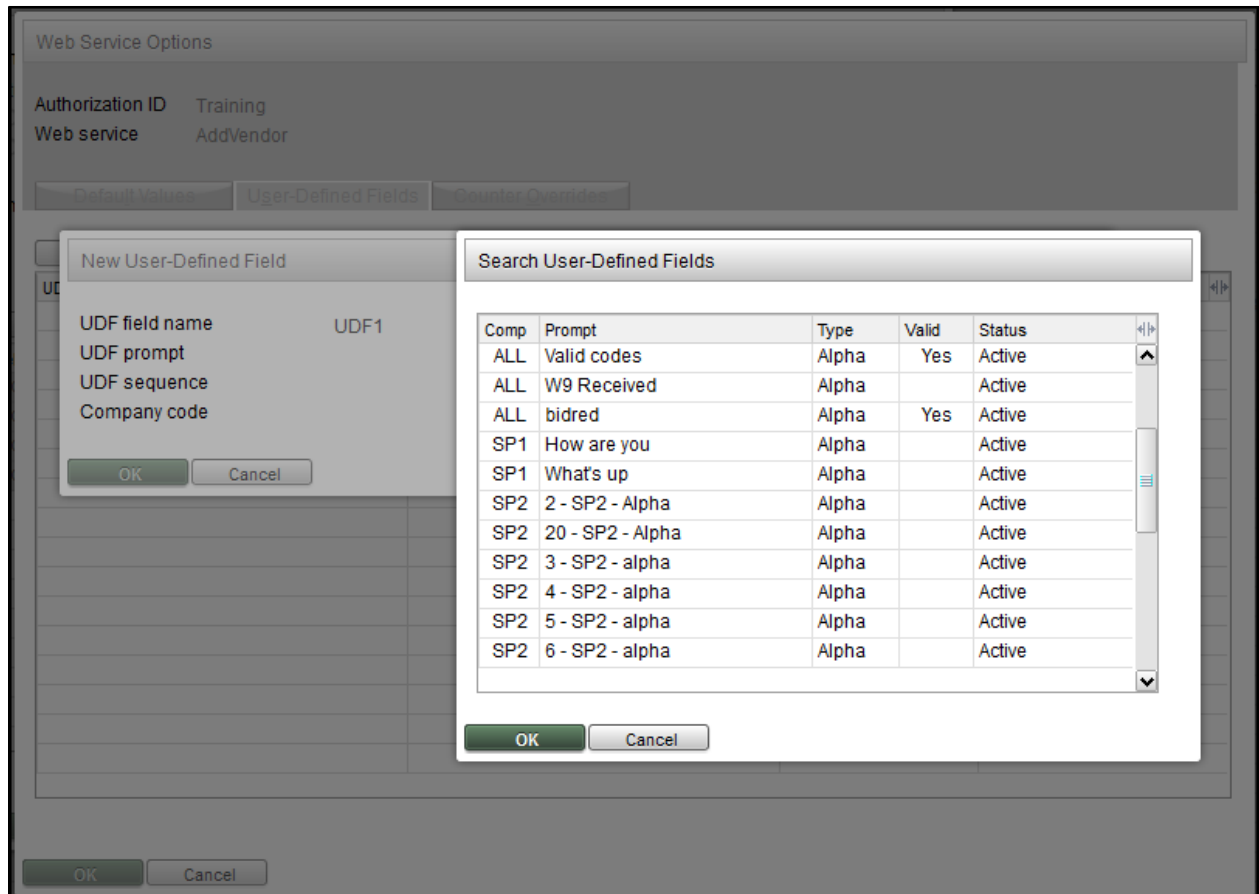
Use the lookup functionality to define the UDF field name and UDF prompt. The lookup logic will show all companies that the Authorization ID has access to and any UDF prompt set up for Company 'ALL'.

The UDF tab displays the default values that you have defined.

You can also delete the user-defined field by highlighting the UDF field name, clicking **Delete**, and confirming its deletion.

Counter Overrides

The Service Counters Overrides tab is used to create an override for the following predefined counters. The type of Web service determines the available counter overrides.

- Max # of records
- Max # of total errors
- Max # of consecutive errors
- Time out (in seconds)

The Counter Overrides tab displays the standard Web Service Defaults for the given counters.

Web Service Options

Authorization ID   ABC
Web service   AddVendor

Default Values | User-Defined Fields | Counter Overrides

☑ Use standard Web Service defaults?

Max # of records   10,000
Max # of total errors   1,000
Max # of consecutive errors   20
Time out (in seconds)   86,400

OK   Cancel

To change the values, clear the "Use standard Web Service defaults?" check box.

Web Service Options

Authorization ID   ABC
Web service   AddVendor

Default Values | User-Defined Fields | Counter Overrides

☐ Use standard Web Service defaults?

Max # of records   10,000
Max # of total errors   500
Max # of consecutive errors   50
Time out (in seconds)   20,000

OK   Cancel

Once you have defined the Options, the Authorization ID screen redisplays and shows which Web services have defined Options. If a Web service or Company is removed from the Authorization ID, then all Options defined for the Web service and/or the Company will be removed.

Click **OK** to exit the Authorization ID screen and return to the Data Exchange Installation screen to view the Authorization IDs.

REPORTS

To access the various reports available with the Data Exchange, click the **Reports** button on the Data Exchange Installation screen.

The Data Exchange Report screen provides you with the following report options:

- **Authorization ID Listing** – Provides the current details for the Authorization ID.
- **Service Event Report** – Provides historical details on the individual services that have accessed the Spectrum database.
- **Authorization Event Report** – Provides historical details on what sub screens have been entered for a given Authorization ID.

Each report has associated selection criteria and sort options available.

Authorization ID Listing

Start screen

Report example

Service Event Report

Start screen

Report example

Authorization ID Event Report

Start screen

Report example

PURGES

To access the various purge features available from the Data Exchange:

On the Site Map, click on **System Administration** and then click on **Utilities** to display the Utilities options. Select the Purge Data Exchange Event Log screen.

The Purge Data Exchange Event Log screen provides you with the following purge options:

- **Service Event Purge** – Deletes the historical details on the individual services that have accessed the Spectrum database.
- **Authorization ID Event Purge** – Deletes the current details for the Authorization ID.

Each report has associated selection criteria and sort options available. Once you have defined the criteria, click **Continue** on the purge screen to remove the records.

Service event purge start screen

Authorization ID event purge screen