Information Builders

Tutorial: JD Edwards Adapters Web Query V1R1M2

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Contents

Tutorial: JD Edwards Adapters

DB2 Web Query Version 1 Release 1 Modification 2 provides adapters for JD Edwards. These adapters allow DB2 Web Query to access data stored in the JD Edwards World and JD Edwards EnterpriseOne applications.

With these adapters, Web Query users will be able to generate and distribute reports, charts and documents against JD Edwards data while adhering to the security rules defined in the JD Edwards application.

This tutorial takes you through the configuration, administration, and basic reporting steps associated with the JD Edwards adapters using the reporting tool InfoAssist to create a report.

Topics:

Overview

There are three steps to perform reporting against JD Edwards application data with Web Query.

1. **Configure the Adapter for JD Edwards.** Define what type of JD Edwards security to implement.
2. **Refresh the metadata repository.** You will need to perform this step initially, and repeat it only if there are changes in the JD Edwards metadata tables. This occurs infrequently at most sites.
3. **Create the JD Edwards synonyms.** Synonyms are required for Web Query reporting against a data source.

Configuring the JD Edwards Adapters

How to:

Configure the JD Edwards World Adapter

Configure the JD Edwards EnterpriseOne Adapter

You can choose between two adapters: JD Edwards World and JD Edwards EnterpriseOne.

- ❏ You can configure only one JD Edwards adapter per system.
- ❏ Web Query Version 1 Release 1 Modification 2 supports World 7.x - 9.x.

Procedure: How to Configure the JD Edwards World Adapter

In order to use the JD Edwards World adapter you must configure the adapter.

1. Log on to DB2 Web Query as the DB2 Web Query (user profile with MRADMIN group) administrator ID.

   The administrator is the user that configures and manages the adapter configuration; other users are not permitted to manage and configure adapters.
2. Expand the *Domains* folder, then expand a domain.
3. Expand the *Reports* folder.
4. Right-click a Reports subfolder, and select *Metadata*.
5. In the left-hand Adapter navigation pane, expand the *Available* folder.
6. Expand the *ERP* folder.
7. Expand the *JD Edwards World* folder.

8. Double-click *A7.x - A9.x*.
9. Select the connection parameters.

Parameter	Description
Business Unit Security	Check this box to enable automatic execution of JD Edwards World Business Unit Security. The Server for IBM i automatically restricts user access to data, based on information retrieved from the F0001 and F0006 tables, and then adds appropriate WHERE conditions to the user's submitted data access request. Unchecked (OFF) is the default setting. If you check this parameter, you cannot turn it OFF until the server is shut down and then restarted (with no parameter settings).
Search Type Security	Check this box to enable automatic execution of JD Edwards World Search Type Security. The Server for IBM i server automatically restricts user access to data, based on information retrieved from the F0005 table, and then adds appropriate WHERE conditions to the user's submitted data access request. Unchecked (OFF) is the default setting. If you check this parameter, you cannot turn it OFF until the server is shut down and then restarted (with no parameter settings).
Business Unit (for PA) Security	Check this box to revert (if necessary) to an older security model used by this adapter. Unchecked (OFF) is the default setting. If checked, this option overrides standard Business Unit Security (as described above).
Column Security	Check this box to enable column security based on information in the F9401 file. Unchecked (OFF) is the default setting. If you check this parameter, you cannot turn it OFF until the server is shut down and then restarted (with no parameter settings).

Parameter	Description
UDC Direct File Access	Check this box to enable User Defined Code Direct File Access. Unchecked (OFF) is the default setting.
Select Profile	This must be EDASPROF.

10. Click *Configure*.

    You will receive a confirmation message.

11. Click *OK*.

Restarting the Reporting Server disconnects any users currently working in DB2 Web Query, please confirm no Web Query user jobs are running before clicking OK.

After the server restarts, the JD Edwards World adapter is successfully added to the configuration.

Procedure: How to Configure the JD Edwards EnterpriseOne Adapter

1. Log on to DB2 Web Query as the DB2 Web Query (user profile with MRADMIN group) administrator ID.

   The administrator is the user that configures and manages the adapter configuration; other users are not permitted to manage and configure adapters.

2. Expand the *Domains* folder, then expand a domain.
3. Expand the *Reports* folder.
4. Right-click a request subfolder, and select *Metadata*.
5. In the left-hand Adapter navigation pane, expand the *Available* folder.
6. Expand the *ERP* folder.
7. Expand the *JD Edwards EnterpriseOne* folder.
8. Double-click *JD Edwards EnterpriseOne*.

9. Select the connection parameters.

Parameters/Tasks	Description
Server Authentication	Check this box if the reporting server is secured. This option applies when every JD Edwards EnterpriseOne user has a user ID on the reporting server system as is the case in Web Query.
Security Type	When you configure the JD Edwards EnterpriseOne adapter, you must choose if your JDE environment is configured to use role, group-based security, or no security (NONE).
UDC Direct File Access	When you select this check box, you give users access to the User Defined Code Direct File.
Select profile	You *must* choose edasprof.prf.

10. Click *Configure*.

    You will receive a confirmation message.

    Note: The reporting server agents will be stopped. You need to confirm that no Web Query jobs are running before clicking *OK*. Restarting the Reporting Server disconnects any users currently working in DB2 Web Query.

11. Click *OK*.

Refreshing the Metadata Repository

How to:

Refresh the JD Edwards World Metadata Repository

Refresh the JD Edwards EnterpriseOne Metadata Repository

The Metadata repository contains the dictionary information for the JD Edwards tables.

You must refresh the repository the first time you set up the adapter and repeat the process each time the JD Edwards World tables change.

Procedure: How to Refresh the JD Edwards World Metadata Repository

Important: In order to refresh metadata, you must have first configured the adapter.

1. Right-click *JD Edwards World*.
2. Click *Refresh Metadata Repository*.

   This is only done when you first configure the JD Edwards World adapter, or when JD Edwards data dictionary information changes.
3. Right-click the configured Adapter for JD Edwards World and select *Refresh Metadata Repository*.
4. Select the version of JD Edwards World you will be using. Enter the name of the library for each of the specified objects.

   The UDC library parameter is the library name that will contain information on the User Defined Codes in the JDE dictionary. A new library with the name specified will be created on the system. Additionally, a new table will be created in that library which will contain UDC information to be used by DB2 Web Query.
5. Click *Refresh Now*.

Once the refresh has completed, the metadata repository has been successfully refreshed.

Procedure: How to Refresh the JD Edwards EnterpriseOne Metadata Repository

From the Adapters list in the navigation pane on the Web Console or the Adapters tab in the Data Management Console:

1. Right-click the configured JD Edwards EnterpriseOne adapter and select *Refresh Metadata Repository*.

   You will need to perform this step initially, and repeat it only if there are changes in the metadata for tables. This occurs infrequently at most sites.

   The Refresh Metadata Repository pane opens. The JDE tables required for this procedure are listed in the first column.
2. Enter the Library name of the library containing the specified objects. The UDC library can be any arbitrary name, for example, UDCLIB.
3. Click *Refresh Now* to refresh the metadata repository.

Creating the JD Edwards Synonyms

How to:

Create the JD Edwards World Synonyms

Create the JD Edwards EnterpriseOne Synonyms

To report against JD Edwards data, you must first create synonyms.

Procedure: How to Create the JD Edwards World Synonyms

To create the synonyms for reporting with JD Edwards World:

1. Right-click*JD Edwards World*, and select *Create Synonym*.
2. Click the DB2 cli connection that points to your JD Edwards World data tables.
3. Select the restrictions you would like to apply when searching for synonym candidates.

   Restriction options included are restrict object type, further restricting Tables, Views, Aliases, and MQTs.
4. Click *Next*.
5. Add JD Edwards dictionary information to your synonym.

   Options to specify include date format, presumptive join, field names, language code, UDC, and Combine UDC.

Parameter	Description
Select date format	The options are: YMD, YYMD, DMY, MDY, MDYY, DMYY, MYY, YYM. (YYMD is the default setting.) The selected format will be used only if the field is described as a DATE in the Data Dictionary.
Presumptive Join	Check the *Presumptive Joins* box to include additional DEFINEs (virtual fields) for presumptive join fields in the synonym. Checked (ON) is the default setting.
Field Names	Select *Long Fieldname* (the default) to display the field descriptions as names on reports. Select *Short Fieldname* to use the JDE aliases as field names on reports.
Language Code	Enter the appropriate Language Code, which exists in the JDE F9292 file. (Leave the field blank for English.)

Parameter	Description
UDC	Check the UDC box to ensure that UDC description fields are generated as DEFINEs (virtual fields) in the synonym. Checked (ON) is the default setting.
Combine UDC	Check this box to Combine User Defined Code. Unchecked (OFF) is the default setting.

6. Click *Continue*.

Once you have created the synonyms, you can now develop DB2 Web Query reports to access JD Edwards World data.

Procedure: How to Create the JD Edwards EnterpriseOne Synonyms

To create the synonyms for reporting with JD Edwards EnterpriseOne:

1. Log on to DB2 Web Query.
2. Expand the *Domains* folder, then expand a domain.
3. Expand the *Reports* folder.
4. Right-click a Reports subfolder, and select *Metadata*.
5. Right-click *JD Edwards EnterpriseOne*, and select *Create Synonym*.
6. Click the DB2 cli connection that points to your JD Edwards EnterpriseOne data tables.
7. Select the restrictions you would like to apply when searching for synonym candidates.

   Restriction options included are restrict object type, further restricting Tables, Views, Aliases, and MQTs.
8. Click *Next*.
9. Select the parameters you would like the synonym to include.

   Parameters options include With foreign keys, One-part name, Application, Prefix, Suffix, and Overwrite existing synonyms.

Parameters/Tasks	Description
With foreign keys	Select the *With foreign key* check box to include within this synonym every table related to the current table by a foreign key. The resulting multi-table synonym describes all of this tables foreign key relationships.

One-part name	On the IBM i platform, the One-part name check box is unchecked by default. The unchecked behavior generates a table name that includes the explicit name of the library containing the table. For example, if you specified a library on the first Create Synonym pane, a qualified name like the following is automatically created in the Access File:
	`TABLENAME=MYLIB/MYTABLE`
	With this explicit type of entry in the Access File, at run-time the library is directly located and searched for the table name.
	If you select the check box, the explicit library name is not stored in the metadata (Access File). When the synonym is generated, the library portion of the table name is omitted from the Access File, and appears as follows:
	`TABLENAME=MYTABLE`
	With this type of entry in the Access File, at run time the library path of the user is searched until the table name is located.

Application	This defaults to the first application folder in the application path.
Prefix/Suffix	If you have tables with identical table names, assign a prefix or a suffix to distinguish them. For example, if you have identically named human resources and payroll tables, assign the prefix HR to distinguish the synonyms for the human resources tables. Note that the resulting synonym name cannot exceed 64 characters. If all tables and views have unique names, leave prefix and suffix fields blank.

Parameters/Tasks	Description
Overwrite existing synonym	To specify that this synonym should overwrite any earlier synonym with the same fully qualified name, select the *Overwrite existing synonyms* check box. **Note:** The connected user must have operating system write privileges in order to recreate a synonym.

10. Select the check box next to table(s) you wish to create synonyms for.
11. Click *Create synonym*.
12. Add JD Edwards dictionary information to the synonym.

Parameter/Tasks	Description
Select date format	The options are: YMD, YYMD, DMY, MDY, MDYY, DMYY, MYY, YYM. (YYMD is the default setting.) The selected format will be used only if the field is described as a DATE in the Data Dictionary.
UDC	Check the UDC box to ensure that UDC description fields are generated as DEFINEs (virtual fields) in the synonym. Checked (ON) is the default setting.
Combine UDC	Check this box to Combine User Defined Code. Unchecked (OFF) is the default setting.

13. Click *Continue*.

    The synonym has been successfully created.

Developing a JD Edwards Report

How to:

Develop a JD Edwards Report

This section will highlight the JD Edwards synonym using InfoAssist. We will use the F42119 table (Sales Order History) for this section of the tutorial and assumes you have completed all the prior sections of this tutorial.

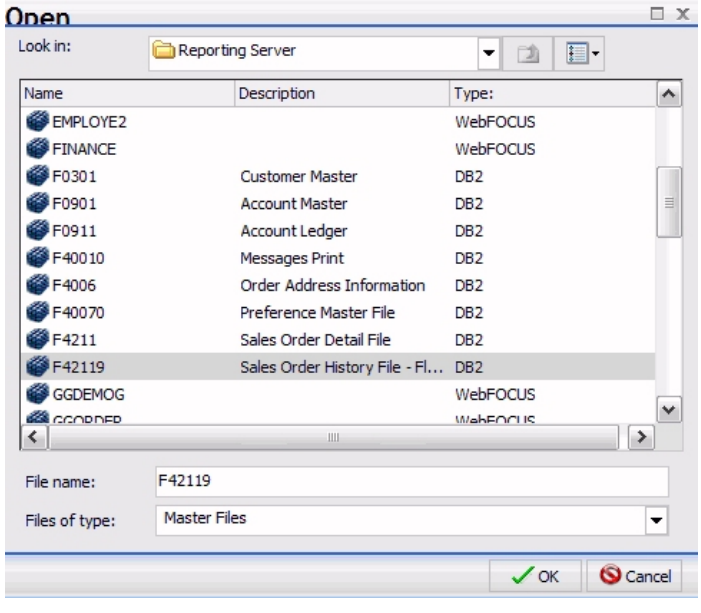
The benefits of the JD Edwards adapter are:

- Proper decimal notation
- Automatic UDC lookups
- Julian to Gregorian date conversion
- User friendly column titles
- Leveraging Presumptive Joins (World only) and Security definitions

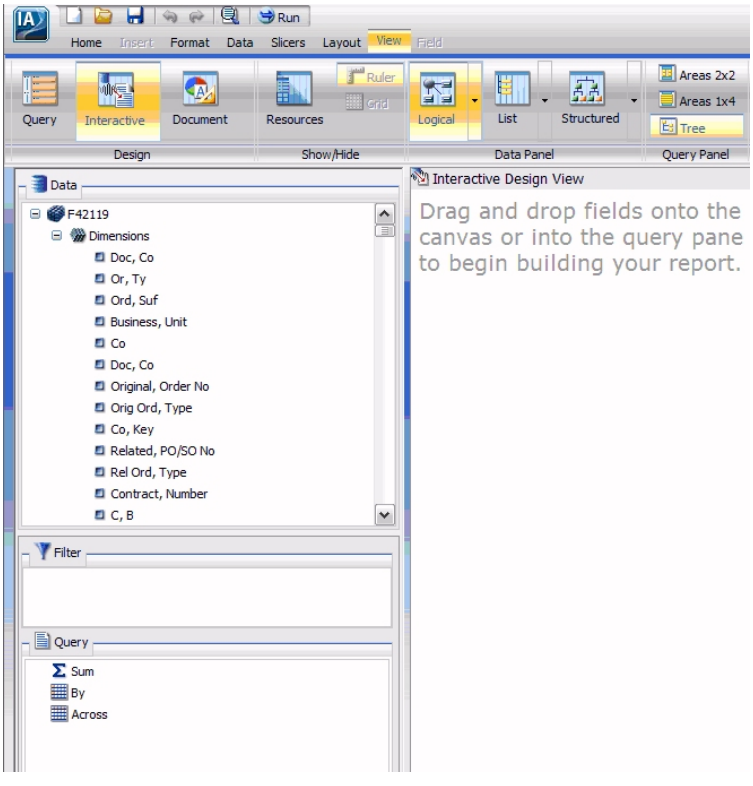
This tutorial will highlight the first four benefits.

Procedure: How to Develop a JD Edwards Report

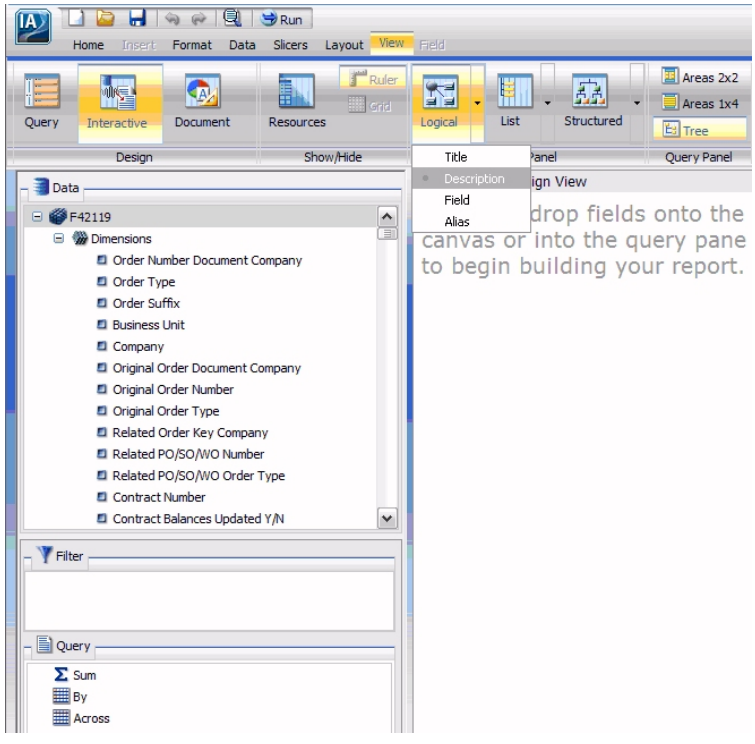
1. Open up InfoAssist and select the JD Edwards F42119 synonym.



By default you are presented with the Logical view of the field list from F42119. The Logical view arranges your fields by Dimension and Measures. Your fields are sorted such that all your numeric fields are grouped under a heading called Measures and all the character fields are grouped under Dimensions.

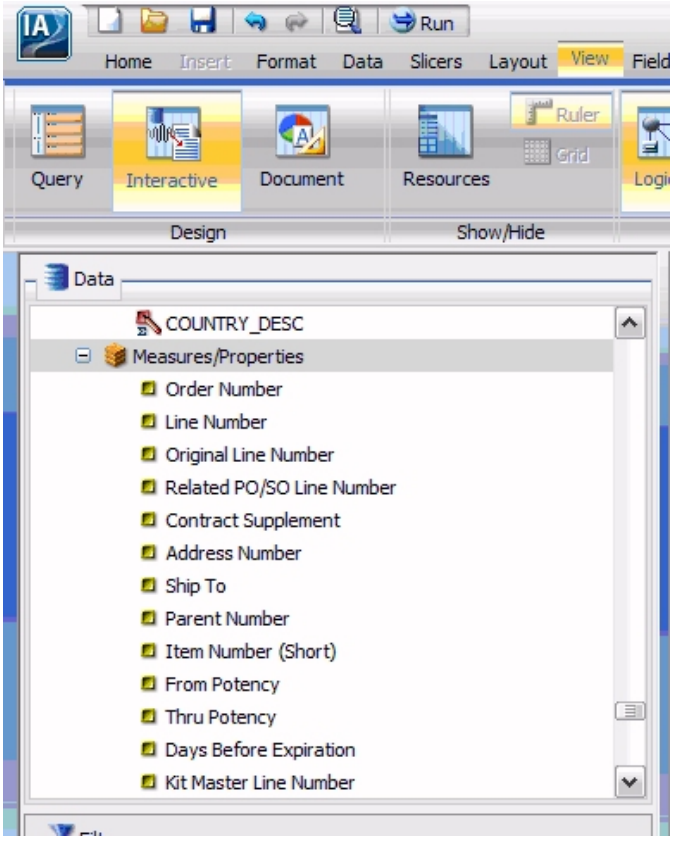


2. If you want more descriptive names, you can set this by clicking on the Logical icon on the View Ribbon and selecting Description.



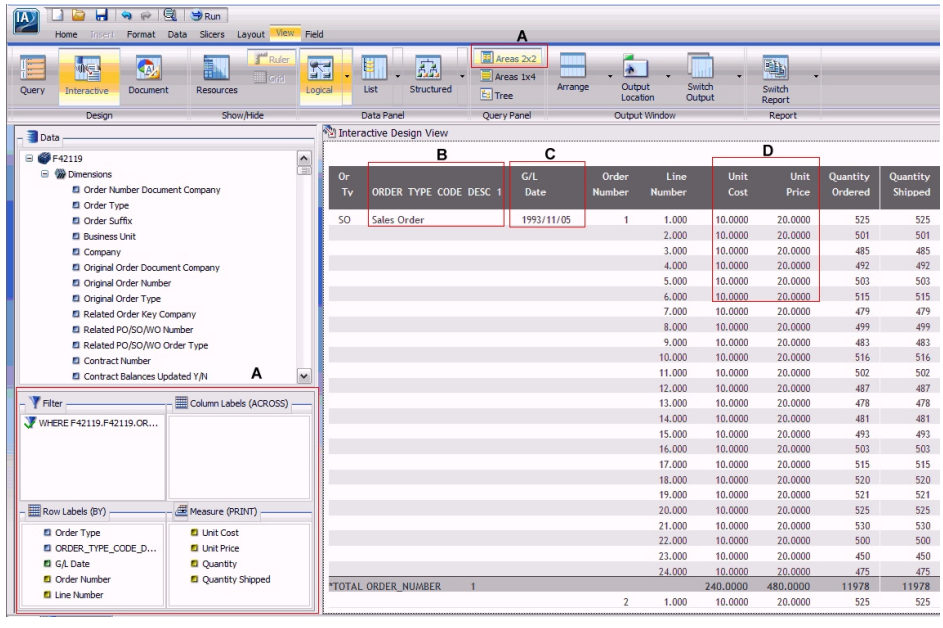
3. Let's scroll down the field list and notice the UDC (User Defined Codes) fields. These represent the descriptive text for key fields in the file.

4. Scroll down further and notice the Measures associated with this file.



5. Select some of each of the aforementioned fields and build a report. You can multi select the fields and drag them over as one unit. InfoAssist will put dimensions as Sort fields and measures as Measure fields where you can aggregate as required. The other option is to drag fields into a specific area of the Query Panel.

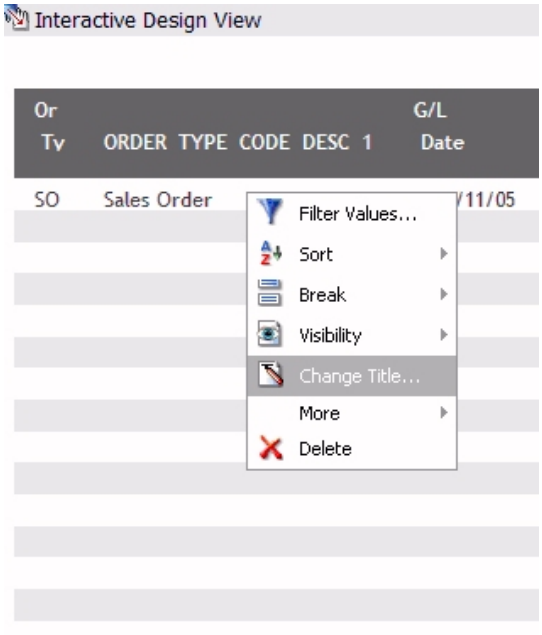
The following shows the Interactive Design view using Data from Source. It represents what your report will look like at run time using data from the JD Edwards data source.



- Notice that the Query Panel to be 2x2 has been changed by selecting this icon from the Query Panel group on the View Ribbon. The icon on the View Ribbon and the Query Panel group are both highlighted with boxes labeled A in the above image.
- Notice the UDC field, ORDER_TYPE_DESC_1, is provided. In this case, it is giving the descriptive name for Order Type. This is highlighted in the box labeled B in the above image.
- Notice the Date is converted to a Gregorian date YYMD. This is highlighted in the box labeled C in the above image.
- Notice the decimal precision on the numeric columns as well as the friendly column titles. This is highlighted in the box labeled D in the above image.

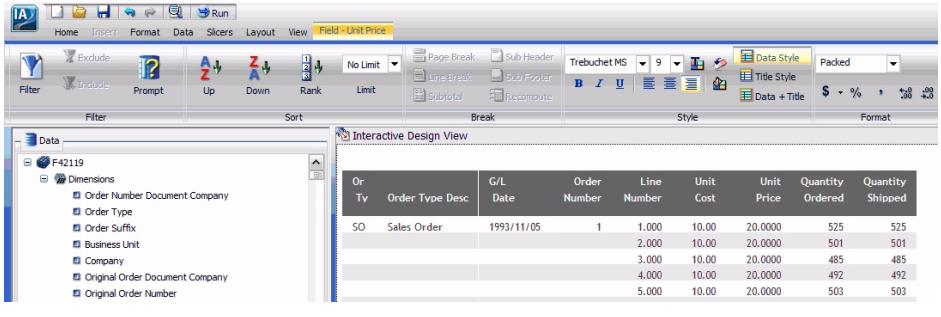
6. There are a couple of tasks you can perform to enhance your report before running it.

- UDC field titles can be changed by right clicking on the UDC field in the Interactive Design View and selecting the *Change Title...* option as shown:

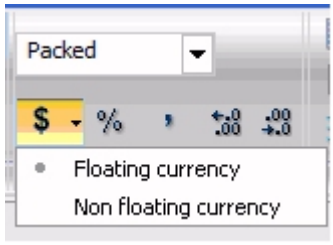


A dialog box will appear to allow you to enter in a new column title.

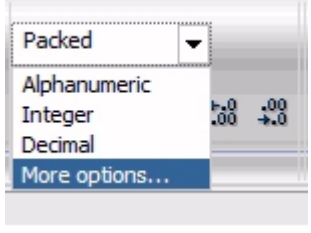
- Currency fields can be easily formatted with floating currency symbols. Select a numeric field on the Interactive Design View. Let's select Unit Price. Notice the Field Ribbon appears for Unit Price:



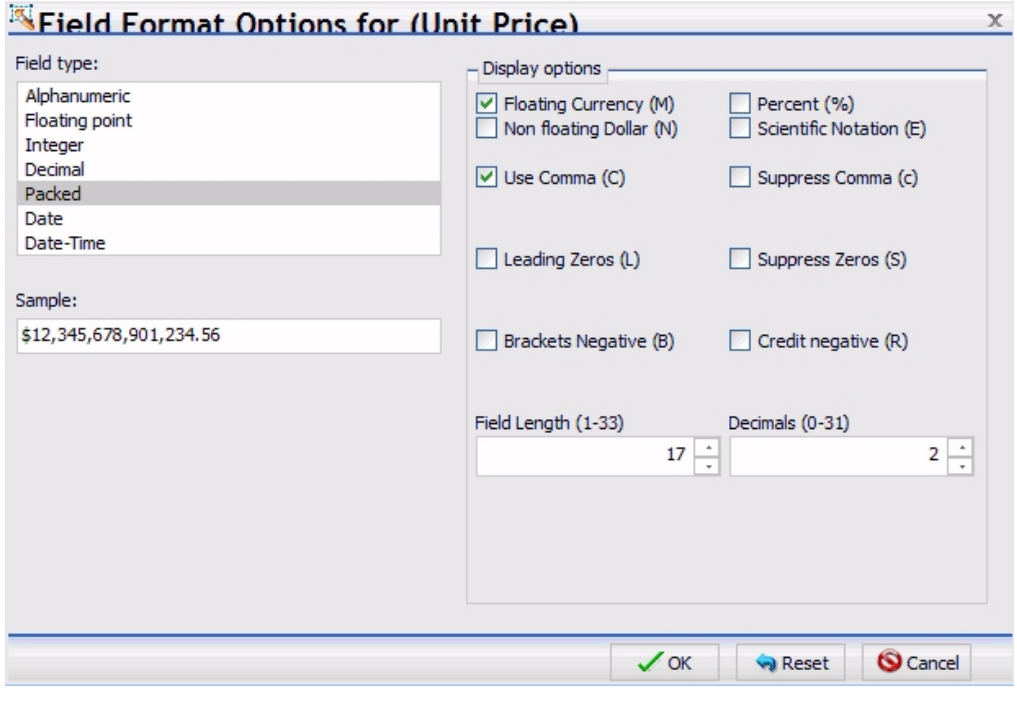
Use the Format group on the Field Ribbon to add floating currency and commas by clicking on the respective icons. An item that is highlighted in yellow means the option is turned on.



To do more advance formatting, click on the drop down and select *More options...*



Change decimal precision to 2.

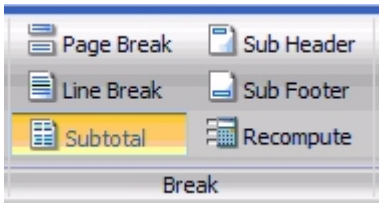


The Interactive Design View dynamically reflects this change:

Interactive Design View

Or Ty	Order Type Desc	G/L Date	Order Number	Line Number	Unit Cost	Unit Price	Quantity Ordered	Quantity Shipped
SO	Sales Order	1993/11/05	1	1.000	10.00	$20.00	525	525
				2.000	10.00	$20.00	501	501
				3.000	10.00	$20.00	485	485
				4.000	10.00	$20.00	492	492
				5.000	10.00	$20.00	503	503
				6.000	10.00	$20.00	515	515
				7.000	10.00	$20.00	479	479
				8.000	10.00	$20.00	499	499
				9.000	10.00	$20.00	483	483
				10.000	10.00	$20.00	516	516
				11.000	10.00	$20.00	502	502
				12.000	10.00	$20.00	487	487
				13.000	10.00	$20.00	478	478
				14.000	10.00	$20.00	481	481
				15.000	10.00	$20.00	493	493
				16.000	10.00	$20.00	503	503
				17.000	10.00	$20.00	515	515
				18.000	10.00	$20.00	520	520
				19.000	10.00	$20.00	521	521
				20.000	10.00	$20.00	525	525
				21.000	10.00	$20.00	530	530
				22.000	10.00	$20.00	500	500
				23.000	10.00	$20.00	450	450
				24.000	10.00	$20.00	475	475

- Add a subtotal on each Order Number. On the Interactive Design View, click on the Order Number field and click the Subtotal icon in the Break group on the Order Number Field Ribbon as shown:



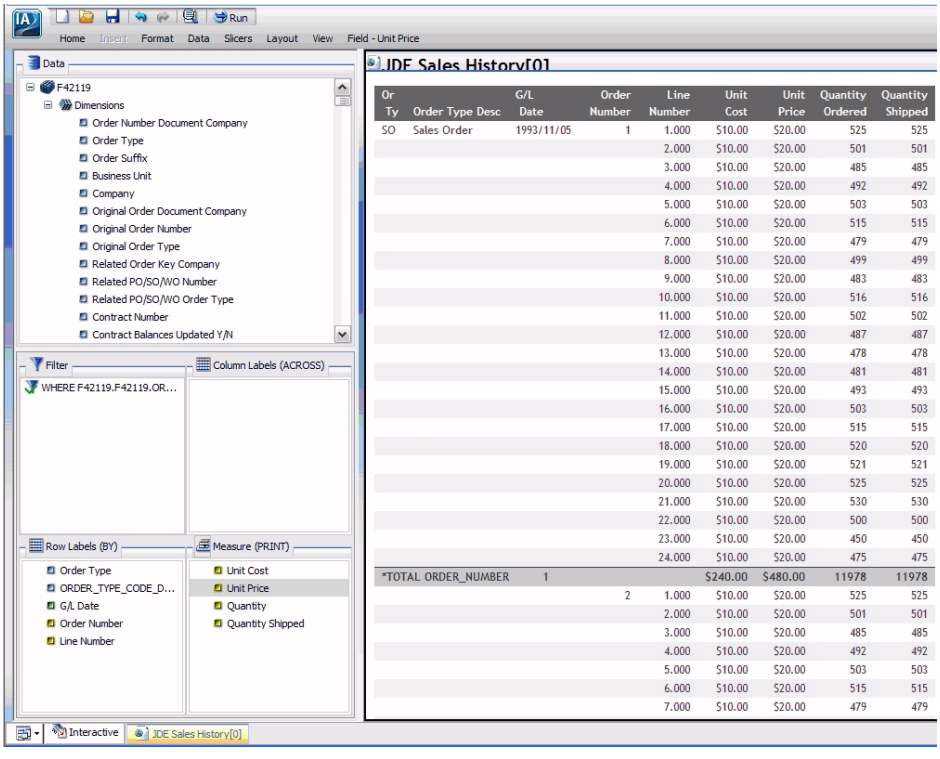
Notice a subtotal is added dynamically to the Interactive Design View:

Interactive Design View

Or Ty	Order Type Desc	G/L Date	Order Number	Line Number	Unit Cost	Unit Price	Quantity Ordered	Quantity Shipped
SO	Sales Order	1993/11/05	1	1.000	$10.00	$20.00	525	525
				2.000	$10.00	$20.00	501	501
				3.000	$10.00	$20.00	485	485
				4.000	$10.00	$20.00	492	492
				5.000	$10.00	$20.00	503	503
				6.000	$10.00	$20.00	515	515
				7.000	$10.00	$20.00	479	479
				8.000	$10.00	$20.00	499	499
				9.000	$10.00	$20.00	483	483
				10.000	$10.00	$20.00	516	516
				11.000	$10.00	$20.00	502	502
				12.000	$10.00	$20.00	487	487
				13.000	$10.00	$20.00	478	478
				14.000	$10.00	$20.00	481	481
				15.000	$10.00	$20.00	493	493
				16.000	$10.00	$20.00	503	503
				17.000	$10.00	$20.00	515	515
				18.000	$10.00	$20.00	520	520
				19.000	$10.00	$20.00	521	521
				20.000	$10.00	$20.00	525	525
				21.000	$10.00	$20.00	530	530
				22.000	$10.00	$20.00	500	500
				23.000	$10.00	$20.00	450	450
				24.000	$10.00	$20.00	475	475
*TOTAL ORDER_NUMBER		1			$240.00	$480.00	11978	11978
			2	1.000	$10.00	$20.00	525	525

7. Click the *Run* button on the Quick Access Toolbar to run your report:

Depending on your InfoAssist settings, your report output will appear in a tab or window. In this example, InfoAssist directs the output to a single tab.



This tutorial guides you through your first JD Edwards report. As you can see, configuring the JD Edwards adapter, managing JD Edward synonyms, and developing a report with Web Query InfoAssist is very similar to any other data source in Web Query!

Index