

Tivoli Application Dependency Discovery Manager V7.2.1

Modifying a predefined BIRT report to accommodate filtering by location tag



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In this Tivoli® Application Dependency Discovery Manager V7.2.1 training module, you learn how to modify a predefined built-in BIRT report to provide filtering by location tag.

Assumptions

- The Location Tag feature and servers are configured
 - Version is TADDM V7.2.1 Fix Pack 3 or higher
 - Objects that are stored in the discovery database include the LocationTag attribute (string)
- BIRT RCP Report Designer revision installation for TADDM V7.2.1 is correct
 - TADDM includes the open source BIRT runtime engine
 - TADDM includes hundreds of predefined database views and predefined reports
 - BIRT designer tool matches the version of the BIRT runtime engine (versions 2.2.1 or 2.2.2)

For more information about the BIRT project, including how to download the BIRT designer tool, go to the following website:

http://pic.dhe.ibm.com/infocenter/tivihelp/v46r1/index.jsp?topic=%2Fcom.ibm.taddm.doc_721fp3%2FUserGuide%2Fc_cmdb_birtoverview.html)

These assumptions are made. You configured the Location Tag feature and discovered the servers. You installed TADDM V7.2.1 Fix Pack 3. It contains the functions that are necessary for tagging objects to have them grouped by location. After enabling location tagging, you successfully verified that each object stored in the discovery database includes the LocationTag attribute (string). You verified the correct BIRT RCP Report Designer 2.2.1 or 2.2.2 installation.

TADDM includes the open source BIRT runtime engine as an integrated component. In addition, TADDM includes hundreds of predefined database views and predefined reports. Remember that you can also use the BIRT designer tool to create new reports to use with the TADDM BIRT runtime engine. In this training module, you use a file name TADDM_server as a LocationTag string.

Objectives

After completing this training, you can accomplish these tasks:

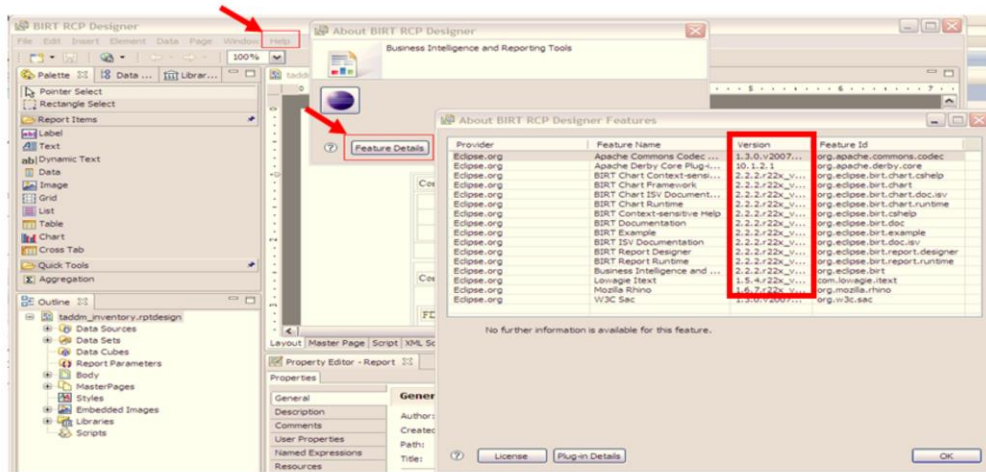
- Create BIRT report filtering by location tag
- Modify BIRT report filtering by location tag
- Verify the revision number of the BIRT RCP Report Designer
- Download and install the BIRT RCP Report Designer
- Add new parameters to a standard predefined BIRT report
- Add new columns to a standard predefined BIRT report
- View BIRT report output

After completing this training, you can accomplish these tasks:

- Create BIRT report filtering by location tag
- Modify BIRT report filtering by location tag
- Check the revision number of the BIRT RCP Report Designer
- Download and install the BIRT RCP Report Designer
- Add new parameters to a standard predefined BIRT report
- Add new columns to a standard predefined BIRT report
- View BIRT report output

Verifying correct version of BIRT RCP Report Designer

Verify that the correct version of the BIRT RCP Report Designer V2.2.1 or V2.2.2 is installed; if not, download and install it



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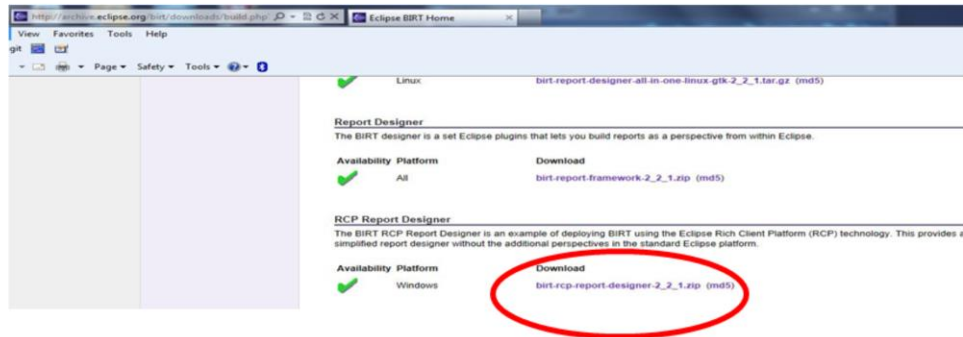
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Check for the correct version number of the BIRT RCP Report Designer. You must install the BIRT RCP Report Designer version that matches the version of the BIRT runtime engine that is included with TADDM V7.2.1. Look for either BIRT RCP Report Designer version 2.2.1 or version 2.2.2 for usage with TADDM V7.2.1.

Downloading BIRT RCP Report Designer V2.2.1

- Go to www.eclipse.org
- Locate the archived `birt-rcp-report-framework-2_2_1.zip` (md5) file
- Download and uncompress the file
- Double-click the `.exe` file to start the installation



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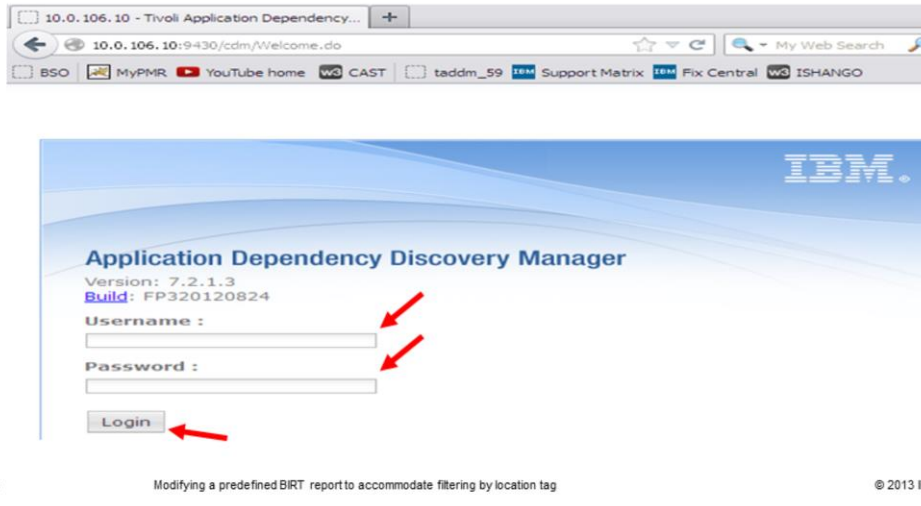
To obtain a download of BIRT RCP Report Designer V2.2.1, you must go to the www.eclipse.org archive and perform these steps:

1. Locate **`birt-rcp-report-framework-2_2_1.zip`** (md5).
2. Download the file by clicking the link.
3. Extract the file on your computer.
4. Double-click the `.exe` file to start the installation.

After the installation completes, you can use the BIRT RCP Report Designer.

Logging in to the Data Management portal

Log in to the TADDM Data Management portal



Predefined reports are reports that are included with TADDM V7.2.1. None of the predefined reports can use location tags for BIRT Report filtering without modification to these predefined reports. To support filtering by location tag in one of the predefined reports, you need to manually modify that predefined report. In this module, you learn to modify a predefined report.

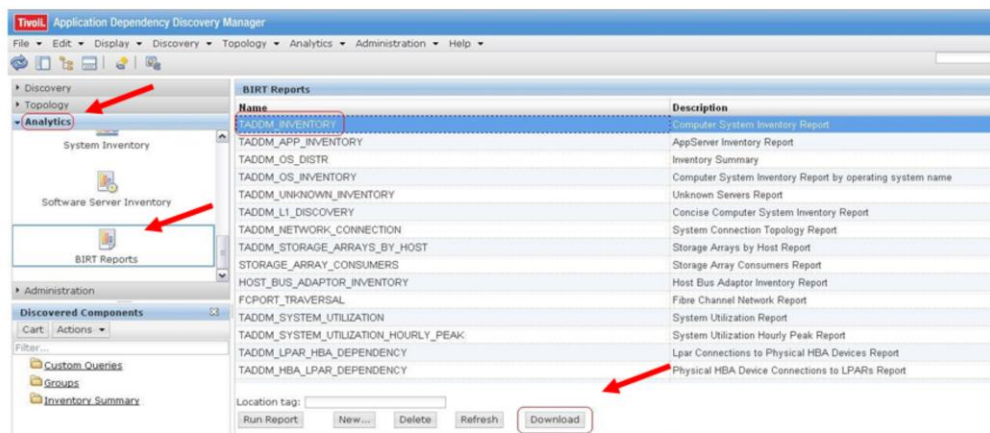
First, you log in to the Data Management portal to begin the modification procedure. After entering an authorized user name and password, you click the **Login** button.

Selecting a predefined BIRT report

You must filter the location tag by manually modifying the reports configuration; predefined BIRT reports do not use the location tag feature by default

- Click **Analytics > BIRT Reports**
- Select one of the available BIRT reports, and click the Download button

The downloaded file in this sample is named **taddm_inventory.rptdesign**



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To modify a predefined report to filter by location tag, you must make two changes:

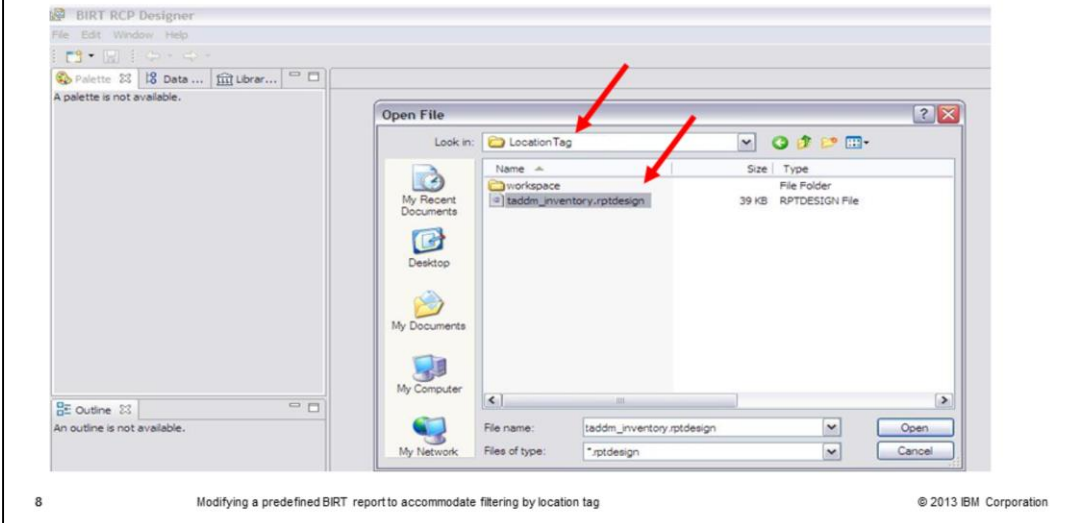
- Change the Query to TADDM DB to add a LocationTag field
- Change BIRT report layout to add a new column to contain or display the LocationTag field or value

To modify the predefined report, you perform these steps:

1. Open the Analytics drop-down menu, and click the BIRT Reports icon.
2. Click to highlight one of the reports in the BIRT Reports section. On this slide, the BIRT report named TADDM_INVENTORY is highlighted. This is one of the standard predefined BIRT reports that comes with TADDM V7.2.1.
3. Click the Download button to download TADDM_INVENTORY.

Opening the downloaded report file with the BIRT RCP Report Designer

View and open the downloaded file by using the BIRT RCP Report Designer

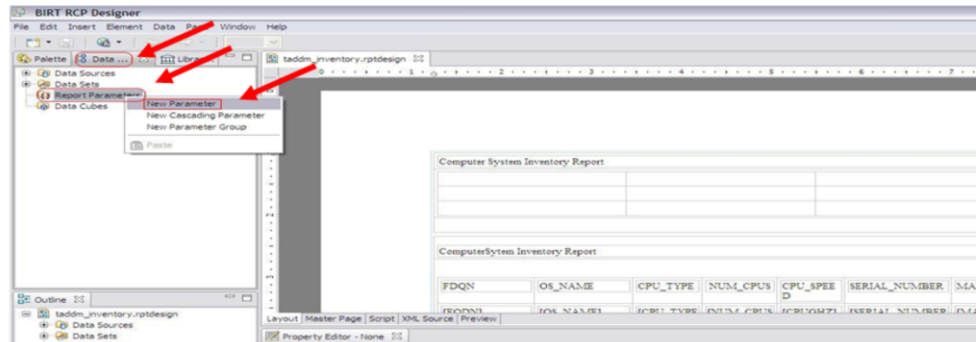


Open the downloaded BIRT report file in the BIRT RCP Report Designer. Here, you see the stored **taddm_inventory.rptdesign** file before it is opened in the BIRT RCP Report Designer.

Adding a new parameter to a standard predefined BIRT report

Perform these steps to add a new parameter to the downloaded BIRT report file:

1. Click the **Data** button
2. Right-click **Report Parameters**
3. Click **New Parameter**



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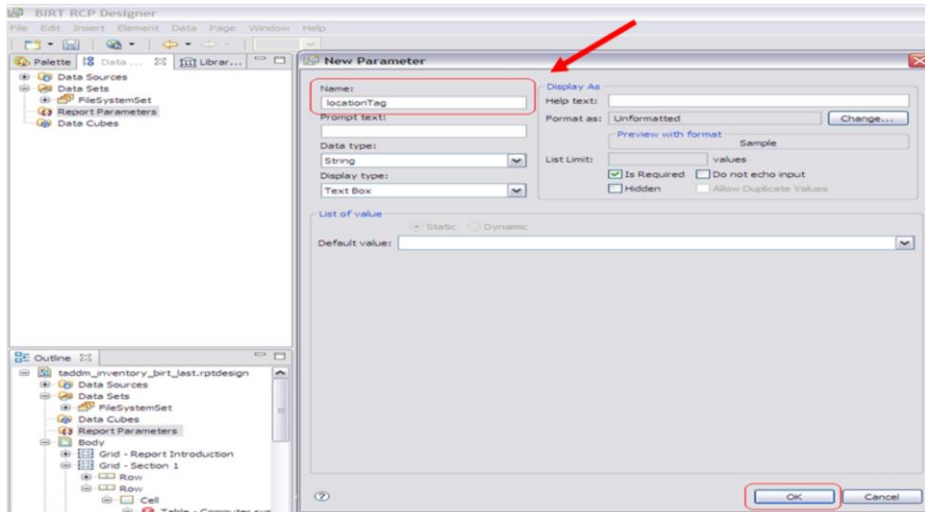
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Modify the downloaded predefined report file, **taddm_inventory.rptdesign**.

1. Click the BIRT RCP Report Designer **Data** button.
2. Right-click **Report Parameters**, and click **New Parameter**.

Adding a location tag field as a new parameter

Type **locationTag** in the **Name** field, and click **OK**



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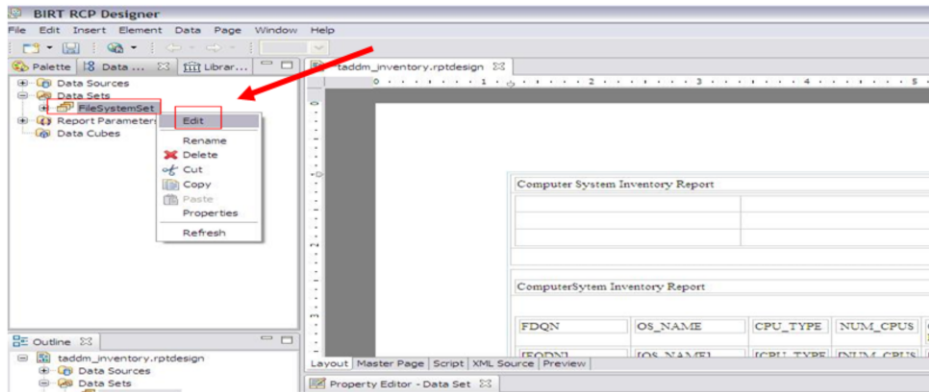
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Now that the New Parameter panel is open, you add a new parameter to the **taddm_inventory.rptdesign** file for location tags. Type **locationTag** in the **Name** field, and click the **OK** button.

Editing standard predefined BIRT report data sets (1 of 2)

Click **Data Sets > FileSystemSet > Edit**



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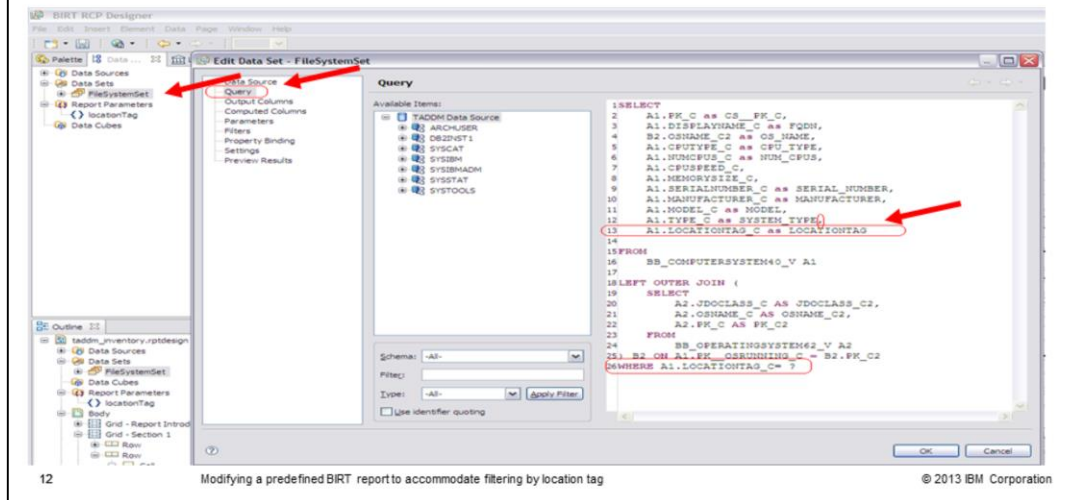
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Expand the Data Sets list. Right-click **FileSystemSet**, and click **Edit**.

Editing standard predefined BIRT report data sets (2 of 2)

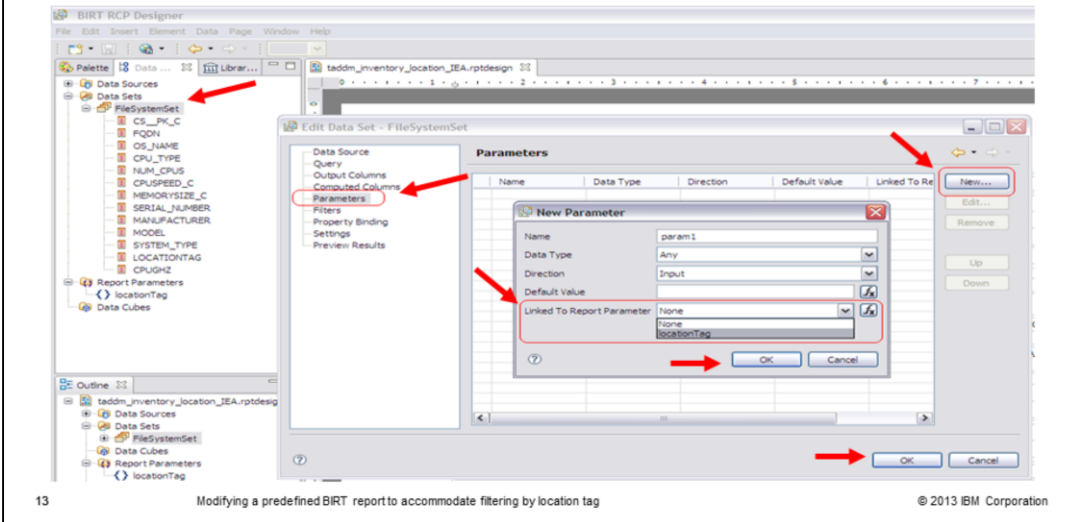
In the Edit Data Set – FileSystemSet window, click **Query**



1. Click **Query**, and modify the query. In the SELECT section, change the TADDM Database LOCATIONTAG_C from the BB_COMPUTERSYSTEM40_V view, like A1.LOCATIONTAG_C as LOCATIONTAG.
2. In the last line, add a "WHERE ... <table>.<locationTagAttribute> = ?" statement, like WHERE LOCATIONTAG_C = ?
3. Click **OK**.

Linking new parameters to the BIRT report

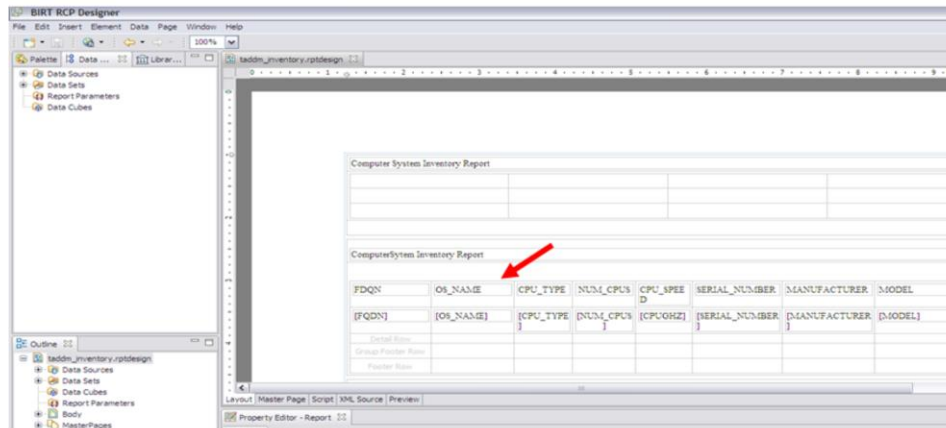
2. Click **Parameters**, and click **Next**
3. Click the **New** button
4. Select **locationTag**
5. Click **OK**
6. Click the Edit Data Set – FileSystemSet **OK** button



1. Ensure that you are in the Data Sets list.
2. From FileSystemSet, verify that you are on the Edit Data Set – FileSystemSet panel. Click **Parameters**.
3. Click the **New** button. The New Parameter window opens.
4. In the Linked To Report Parameter list, select **locationTag**. Remember that locationTag is the new parameter that you are creating. Now, you are linking that parameter.
5. Click **OK**.
6. Click the Edit Data Set – FileSystemSet **OK** button to close that panel.

Adding a new column

Copy an existing file that contains the **locationtag** value, for instance OS_NAME



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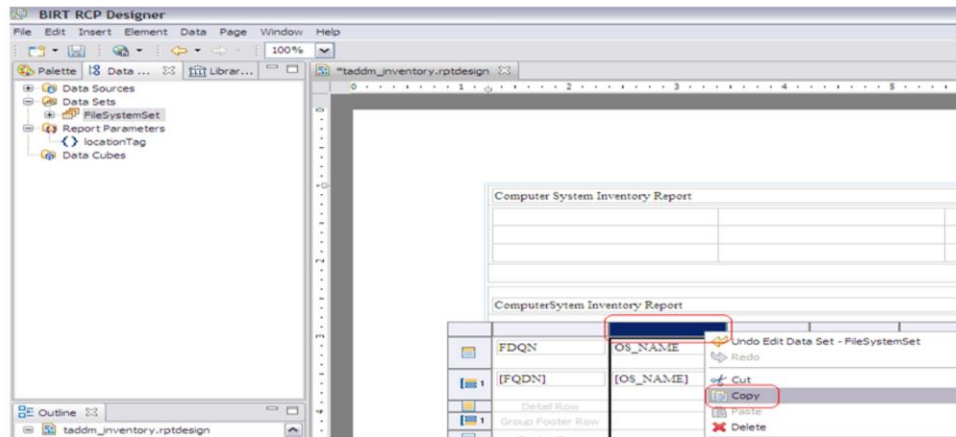
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You now add a new column to the default layout. Start from the window where you can see the default columns of the **rtpdesign** file. Add a new column that contains the **locationtag** value by copying an existing file that contains the value. In this example, OS_NAME is an existing column that contains the **locationtag** value.

Select the column

Select the column; in this case, OS_NAME. Right-click, and select **Copy**



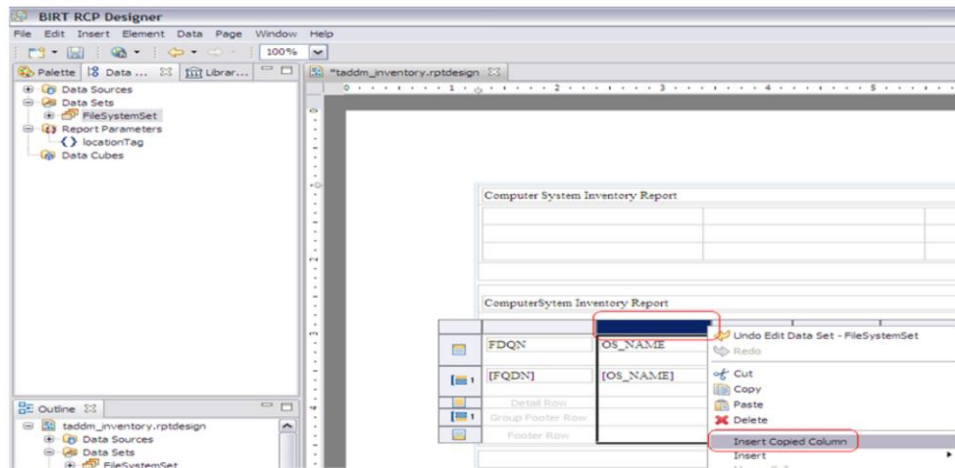
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Select the entire column containing OS_NAME. Right-click and select **Copy**.

Select Insert Copied Column



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Select **Insert Copied Column**.

Change the Content and the Content Key

The screenshot shows the BIRT RCP Designer interface. The main workspace displays a report design for 'Computer System Inventory Report'. The report contains a table with the following columns: FQDN, OS_NAME, OS_NAME, CPU_TYPE, NUM_CPUS, CPU_SPEED, and SERIAL. A red arrow points to the second 'OS_NAME' column. Below the report, the 'Properties' window is open to the 'Advanced' tab. A red arrow points to the 'Content' property, which is currently set to 'OS_NAME'. Another red arrow points to the 'Content key' property, which is currently set to 'taddm_compsysbyType_osname'.

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You can see that the field OS_NAME is duplicated. Select the duplicated field. In the bottom part of window, select **Properties > Advanced**. Change Content from OS_NAME to LOCATIONTAG, and change Content Key from taddm_compsysbyType_osname to taddm_compsysbyType_locationtag.

View the change to the column name

The copied OS_NAME column changed to LOCATION_TAG with Content and Content Key

The screenshot shows the BIRT RCP Designer interface. The main window displays a report titled "Computer System Inventory Report" with a table containing the following columns: FQDN, OS_NAME, LOCATION_TAG, CPU_TYPE, NUM_CPUS, CPU_SPEED, and SERIAL_ID. A red arrow points to the LOCATION_TAG column. The Property Editor at the bottom shows the "Advanced" tab with the "ContentKey" property set to "tadcm_compsystype_locationtag".

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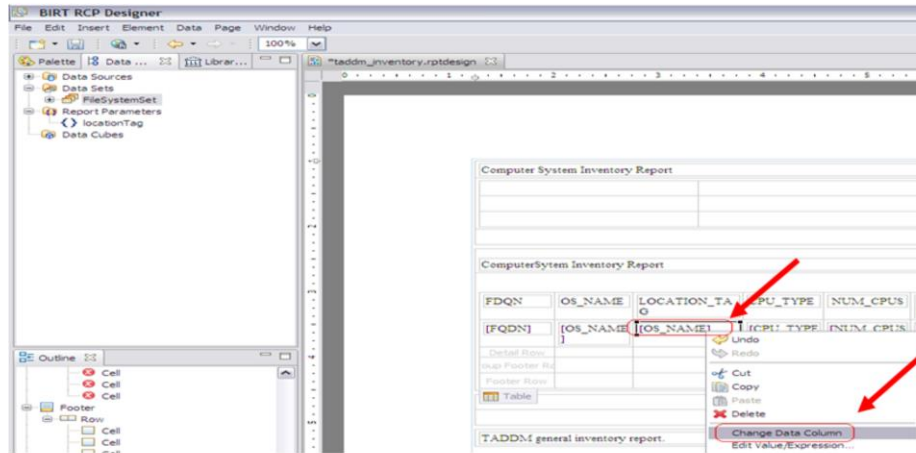
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In this example, you see how the column addition opens after the change. Note that in the upper part, the copied OS_NAME column is changed to LOCATION_TAG. Content and Content Key are also changed.

Select the Change Data column

Right-click OS_NAME and select **Change Data Column**



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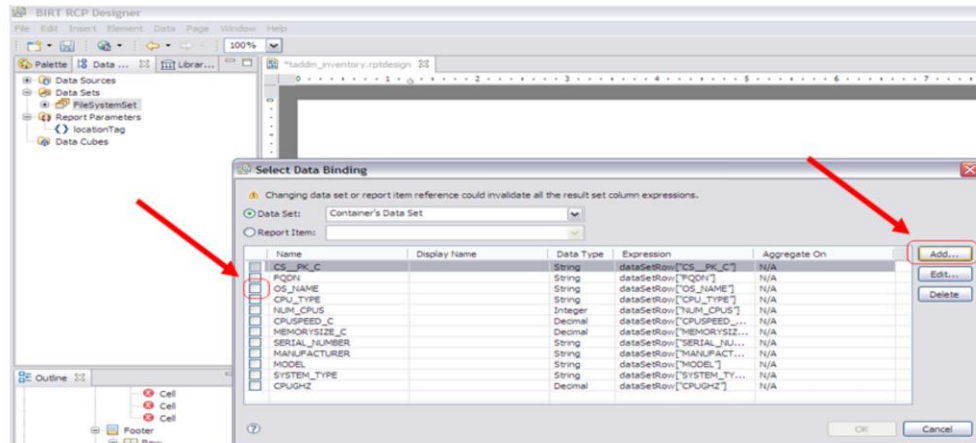
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Select **OS_NAME**. Right-click and select **Change Data Column** from the menu.

Clear OS_NAME

Clear the OS_NAME check box, and click **Add**



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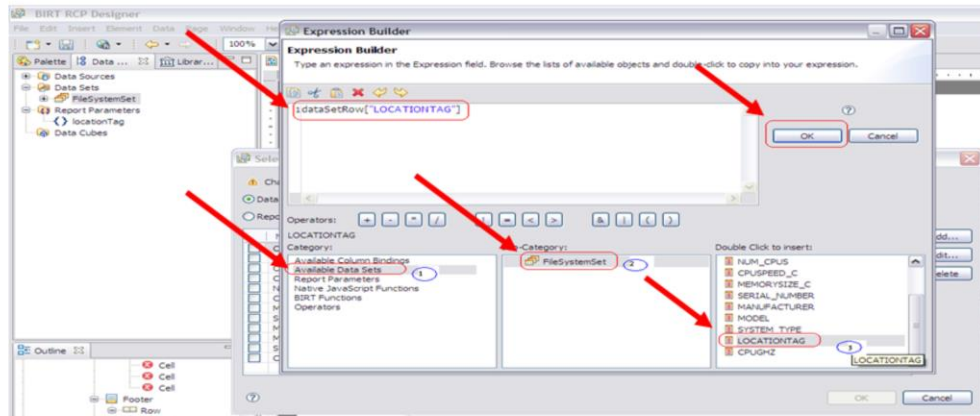
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Clear the **OS_NAME** check box on the Select Data Binding window. Click **Add**.

Insert LOCATIONTAG

- Click **Available Data Sets > FileSystemSet**
- Double-click **LOCATIONTAG** and click **OK**



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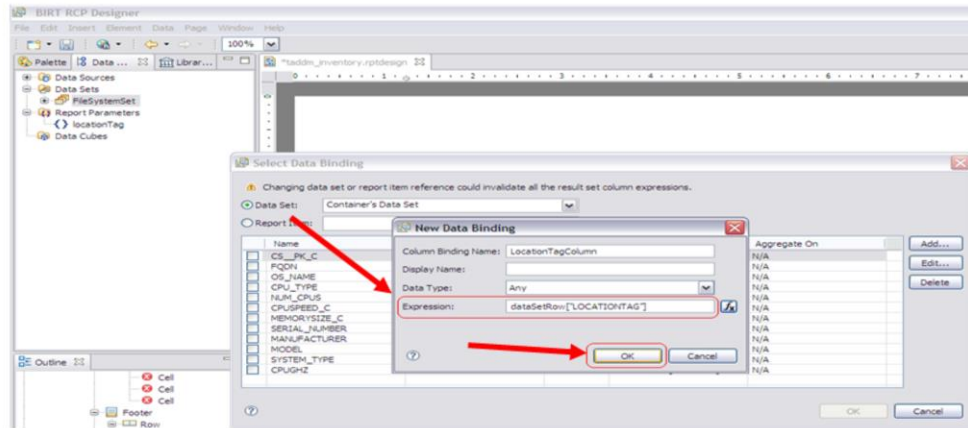
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Perform these four steps:

1. Click **Available Data Sets**.
2. Click **FileSystemSet**.
3. Double-click **LOCATIONTAG**. You can see in the upper part that `dataSetRow` is set to **LOCATIONTAG**.
4. Click **OK**.

View the expression

Observe the entry in the Expression field, and click OK



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You need to bind new data now. Observe the Expression entry on the New Data Binding window and click **OK**.

Select LocationTagColumn

Observe the addition of LocationTagColumn in the Name column. Select it, and click **OK**

The screenshot shows the 'Select Data Binding' dialog box in BIRT RCP Designer. The dialog box contains a table with the following data:

Name	Display Name	Data Type	Expression	Aggregate On
CS_PK_C		String	dataSetRow["CS_PK_C"]	N/A
FOOD		String	dataSetRow["FOOD"]	N/A
OS_NAME		String	dataSetRow["OS_NAME"]	N/A
CPU_TYPE		String	dataSetRow["CPU_TYPE"]	N/A
NUM_CPUS		Integer	dataSetRow["NUM_CPUS"]	N/A
CPU_SPEED_C		Decimal	dataSetRow["CPU_SPEED_..."]	N/A
MEMORY_SIZE_C		Decimal	dataSetRow["MEMORY_SIZ..."]	N/A
SERIAL_NUMBER		String	dataSetRow["SERIAL_NUM..."]	N/A
MANUFACTURER		String	dataSetRow["MANUFACT..."]	N/A
MODEL		String	dataSetRow["MODEL"]	N/A
SYSTEM_TYPE		String	dataSetRow["SYSTEM_TY..."]	N/A
CPU_ARCH		Decimal	dataSetRow["CPU_ARCH"]	N/A
LocationTagColumn		Any	dataSetRow["LOCATIONTAG..."]	N/A

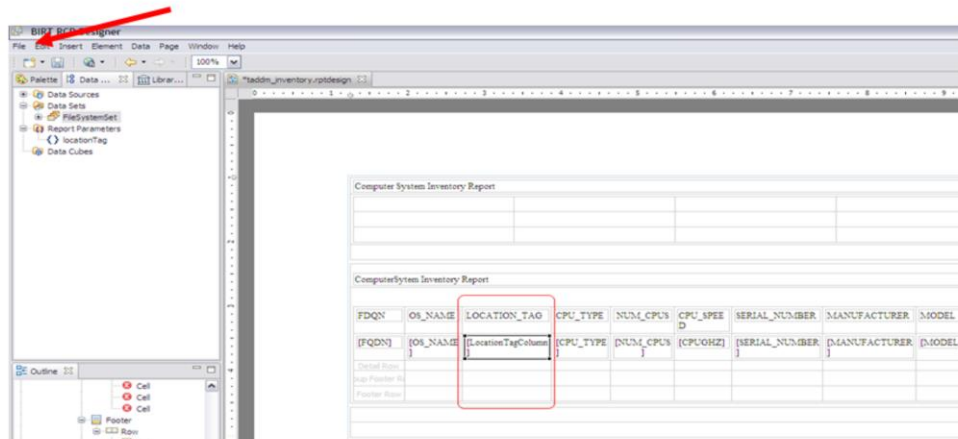
The 'LocationTagColumn' entry is selected in the table. A red arrow points to this entry, and another red arrow points to the 'OK' button. The background shows the BIRT RCP Designer interface with a palette on the left and an outline on the bottom left.

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Notice **LocationTagColumn** is added in the name column. Select it, and then click **OK**. You completed steps to add the **LocationTag** field to a BIRT report.

Rename and save the file

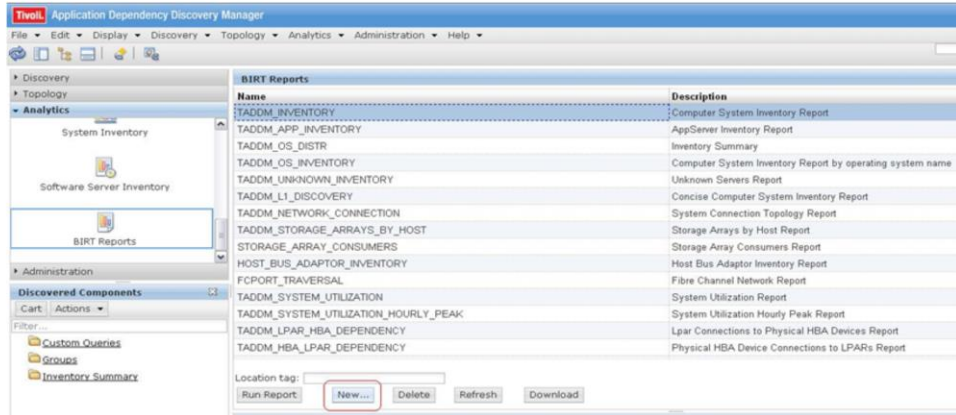
Rename and save the new BIRT report file



You can save this new BIRT report as a renamed file. In this example, you might save the new BIRT report file as **c:\temp\taddm_inventory_location IEA.rptdesign**. From the BIRT RCP Report Designer menu, click **File > Save As** and name your new BIRT report.

Adding a modified BIRT report (1 of 2)

Return to the TADDM Data Portal Management GUI and import the new report



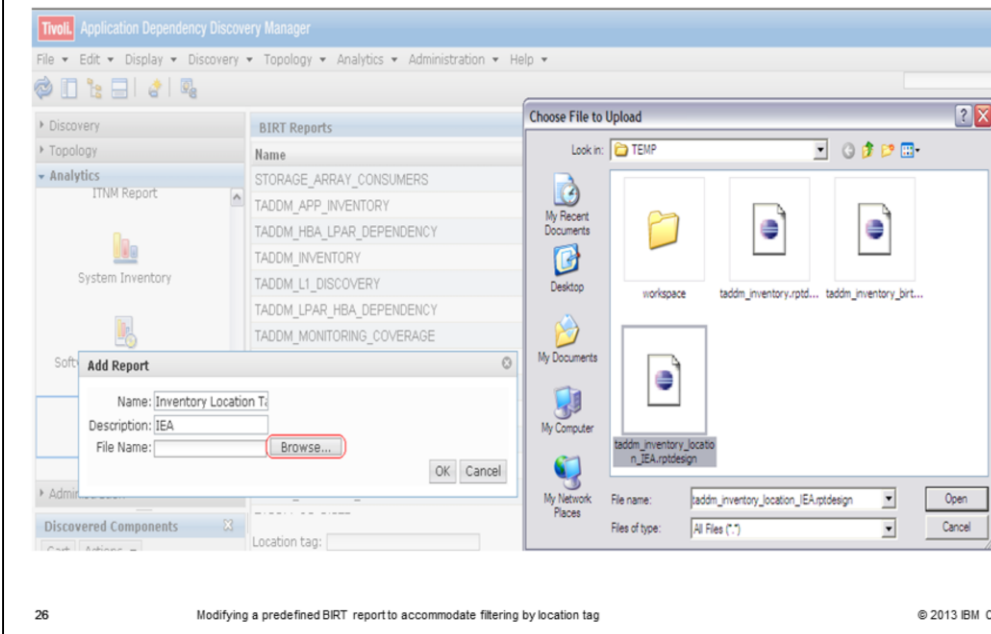
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Return to the TADDM Data Portal Management GUI. Create the new report by importing **taddm_inventory_location_IEA.rptdesign**.

Adding a modified BIRT report (2 of 2)



Add the report as Inventory Location Tag, and browse to **C:\TEMP** to upload **taddm_inventory_location_IEA.rptdesign**.

Running a modified BIRT report

- Highlight the report name, and verify the Location tag
- Click the **Run Report** button

The screenshot shows the Tivoli Application Dependency Discovery Manager (TADM) interface. The main window displays a list of BIRT Reports. The report 'Inventory Location Tag' is highlighted, and its 'Location tag' field is set to 'TADDM_server'. A red arrow points to the 'Run Report' button.

Name	Description
FCPORT_TRAVERSAL	Fibre Channel Network Report
FCPORT_TRAVERSAL	Fibre Channel Network Report
HOST_BUS_ADAPTOR_INVENTORY	Host Bus Adaptor Inventory Report
Inventory Location Tag	IEA
STORAGE_ARRAY_CONSUMERS	Storage Array Consumers Report
STORAGE_ARRAY_CONSUMERS	Storage Array Consumers Report
TADDM_APP_INVENTORY	AppServer Inventory Report
TADDM_HBA_LPAR_DEPENDENCY	Physical HBA Device Connections to LPARs Report
TADDM_INVENTORY	Computer System Inventory Report
TADDM_L1_DISCOVERY	Concise Computer System Inventory Report
TADDM_LPAR_HBA_DEPENDENCY	Lpar Connections to Physical HBA Devices Report
TADDM_MONITORING_COVERAGE	Monitoring Coverage Report for Operating Systems
TADDM_MONITORING_COVERAGE_DB	Monitoring Coverage Report for Databases
TADDM_MONITORING_COVERAGE_MSFT	Monitoring Coverage Report for Microsoft Applications
TADDM_MONITORING_COVERAGE_SYSTEMP	Monitoring Coverage Report for System P

Location tag: TADDM_server

Run Report New... Delete Refresh Download

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You can see that the report named **Inventory Location Tag** is added. By typing the TADDM server string in the Location Tag input field, you can run the report.

Viewing BIRT report output

BIRT report output for TADDM_server

BIRT Report Viewer
Showing page 1 of 1
Tivoli
ComputerSystem Inventory Report

Name	Os Name	LOCATION_TAG	CPU Type	Number of CPUs	CPU Speed (GHz)	Serial #
msad	Windows Server 2003	TADDM_server	Intel(R) Pentium (R) III Xeon processor	2	2.73	VMware-56 4d 48 c4 eb 29 44 36-e5 cf 5d 95 f9 20 2c 66
10.0.106.1	Windows Server 2003	TADDM_server	Intel(R) Pentium (R) III Xeon processor	2	2.24	VMware-56 4d 7b fb 49 67 e6 4d-ab 05 e9 2b ef 76 a4 8e
10.0.106.12	Linux	TADDM_server	Intel(R) Xeon(R)	2	2.24	VMware-56 4d 64 e8 8f b6 4a 0a-df e5 6e 23 3e 7a 9a ad
windows2003-32bit	Windows Server 2003	TADDM_server	Intel(R) Pentium (R) III Xeon processor	1	2.73	VMware-56 4d Dc 18 87 d0 45 2e-89 b0 3c 12 45 d4 c4 46
nc11709s.camelab.it.ibm.com	AIX	TADDM_server	PowerPC_POWER5	2	1.95	06307DA
SHEL5.4-721-107.10	Linux	TADDM_server	Intel(R) Xeon(R)	4	2.73	VMware-56 4d 7f f5 14 35 f8 4d-f7 8c e9 1b ef 4d 1b 69

This example is the output that contains the list of servers that are filtered by TADDM_server LOCATION_TAG.

Summary

Now that you have completed this training, you can accomplish these tasks:

- Create BIRT report filtering by location tag
- Modify BIRT report filtering by location tag
- Verify the revision number of the BIRT RCP Report Designer
- Download and install the BIRT RCP Report Designer
- Add new parameters to a standard predefined BIRT report
- Add new columns to a standard predefined BIRT report
- View BIRT report output

Now that you have completed this training, you can complete the tasks, as shown on this slide.

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