Rational. Dashboard





DOORS Walkthrough

Before using this information, be sure to read the general information under the "Notices" section on page 36.
This edition applies to <b>VERSION 4.0</b> , <b>Rational Dashboard</b> and to all subsequent releases and modifications until otherwise indicated in new editions.
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#### Welcome

Welcome to the DOORS Walkthrough for IBM Rational Dashboard!

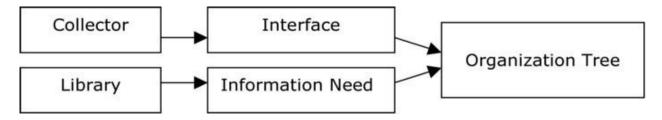
IBM Rational Dashboard brings software management best practices within reach of every organization and every manager. Manage requirements, schedule, budget, quality, configuration management and size in one place; keeping total control of the drivers that keep projects on time and within budget.

IBM Rational Dashboard spans the gap between the management process desired and the one currently in place. Focus on managing by exception using IBM Rational Dashboard alerts, analysis, graphical displays and drillable views that provide all the information needed to make well-informed decisions quickly. Using a web-based interface and intelligent integrations to software life cycle tools, IBM Rational Dashboard delivers industry best practices ready to be applied. Finally, IBM Rational Dashboard checks project compliance with industry standards and unit templates, ensuring a course to success.

#### **Data Collection Overview**

Before beginning the integration to a data source, it is important to understand the key elements that allow the portal to gather and display data from your data.

Data in the Portal is gathered by the **Collector**, configured by the **Interfaces**, organized by **Information Needs** and analyzed in the **Organization Tree**.



The **Collector** (Windows based executable) - Gathers data from outside sources and stores it in the **Transform** database.

- Outside Data Sources include: IBM Rational DOORS, IBM Synergy, IBM Change, IBM Rational ClearQuest, Microsoft Project, Oracle Databases, Microsoft SQL Databases, Microsoft Access, Microsoft Excel, ODBC, CSV, and HP Quality Center.
- The **Transform** is a MS SQL Database table located in the Dashboard\_Transform database. It stores current and historical data collected from **Outside Data Sources**.

**Interfaces** (From the Collection tab in the Portal) – Allow users to define and organize data collected by the **Collector**. **Interfaces** are defined using three subtabs: **General**, **Fields** and **Oueries**.

- The **General** tab includes the type of data being retrieved from the **Outside Sources** as well as the name of the database that will be used to store the data.
- The **Fields** tab defines the field sets of data that are being retrieved as well as the table name where information will be stored in the **Transform**.
- The **Queries** tab indicates the SQL queries that will be run against the **Transform** to produce data points for **Graphs**.

**Information Needs** (From the Library tab in the Portal) – Allow users to define graphs to display the collected data.

- Graphs contain Series that are used to plot data against time/events.
- Series are associated with Queries defined in Interfaces to determine which data to plot.
- Information Needs can be used by one or more interfaces.

**Organization Tree** (From the Status tab in the Portal) – Allows users to display and analyze data in **Graphs** which are defined in **Information Needs**.

- Folders and Units provide structure for the Organization Tree.
- Units can contain one or more Information Needs.

#### **IBM Rational DOORS Sample Walkthrough**

This sample describes the steps to be performed in tool needed to configure and collect data from IBM Rational DOORS. This sample walks a new user through all required steps needed to see graphs with data points populated with information from IBM Rational DOORS.

There are four areas that will be covered through this walkthrough:

- Set up IBM Rational DOORS modules for collection
- Portal Configuration:
  - o Examine/Configure an Interface in the Portal
  - o Examine/Configure an Information Need
  - Assigning Schedules to a Template
  - Setup a Unit with Information Needs (or use a template)
- Collector Configuration
  - Configure the Collector
  - o Run a collection
  - Check/Resolve any collection errors/problems
- Unit Configuration
  - o Check for collected items in the Portal and assign them to Units
  - o Refresh the Unit
  - o View collected data graphs in the Portal

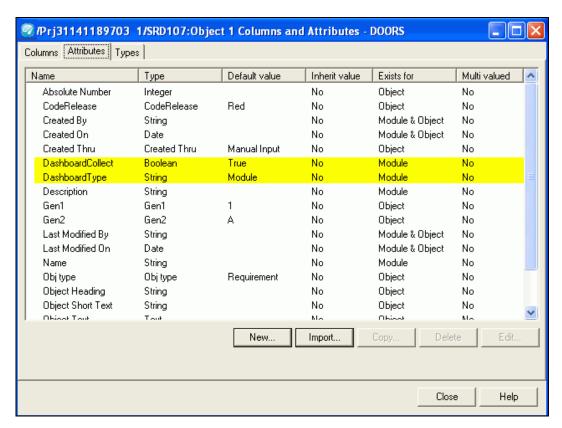
## **Configuring IBM Rational DOORS**

Before the Portal can collect data from your IBM Rational DOORS modules, the modules you wish to collect data from will need to be configured for use with the Portal. There are two attributes you will need to define on the IBM Rational DOORS modules from which you wish to collect data.

The first attribute, **the Collect attribute**, determines if the module should be considered for collection. You may name it anything you wish (the default is DashboardCollect), and it must be a module attribute of *Boolean type*. You will need to create this attribute and set it to "True" in all modules from which you wish to collect. If you will be collecting data from all DOORS modules you should set the value of the Collect attribute to "True" when you are creating the attribute.

The second attribute, **the Type attribute**, identifies which **Interface** is used to collect for a DOORS module. You may name it anything you wish (the default is DashboardType), and it must be a module attribute of *string type*. You will need to create this attribute and set it to "Module" in all modules from which you wish to collect. The "Type identifier" in the DOORS Requirements **Interface** that is shipped with the Portal is set to "Module". The Type identifier enables you to collect different information from different sets of DOORS modules at the same time. You can use a value other than Module, as long as there is an interface defined with that Type Identifier. If you will be collecting data from all DOORS modules you should set the default value of the Type attribute to "Module" when you are creating the attribute.

Both attributes must be configured for any DOORS modules that are to be included in the Portal data collection.

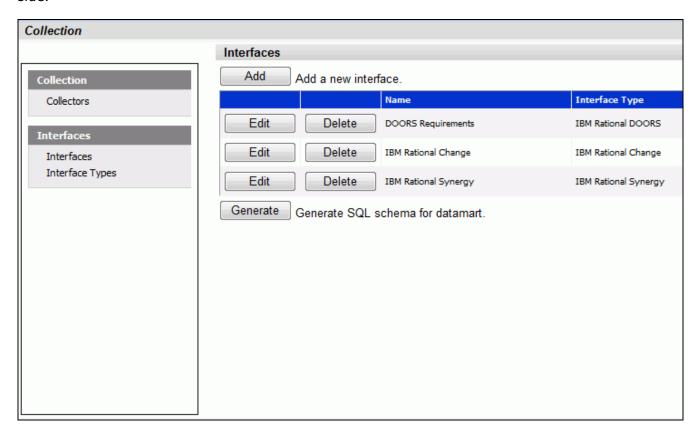


## **Configuring the Portal**

The Portal provides the user the ability to describe which data to collect, how to analyze it and then how to display it. Before information can be analyzed or displayed, the Portal must be configured to collect the information from IBM Rational DOORS.

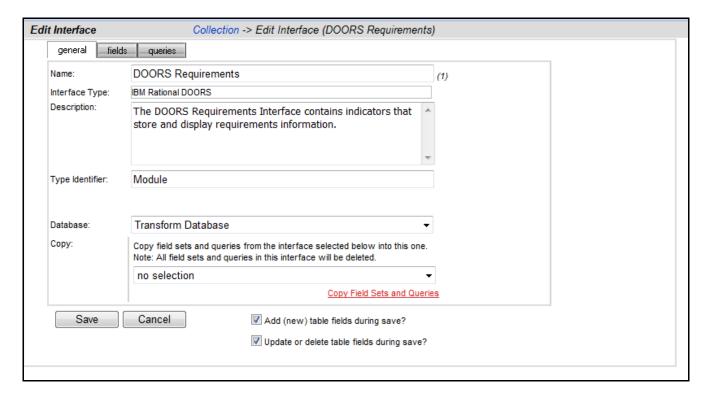
#### **Verifying the Interface in the Portal**

Upon opening the application, the Portal defaults to the Status page. The first step is to verify the Interface. Select the **Collection** tab, and then click on the **Interfaces** option on the left hand side.



From the Interfaces List, click on the **edit** button to open the DOORS Requirements interface.

The interface will open to the **general** tab. This is where all the information about what is being collected is stored. This specific interface is a default interface for IBM Rational DOORS. You will notice that a short description has been entered and the Transform Server has been selected as the Database. You will also notice the Type Identifier set to "Module". This value is how the Collector knows what to collect from a specific module in DOORS. This is the value that you put in the Dashboard Type attribute that you added to DOORS. Different interfaces may have different type identifiers so that you are able to collect different information from different modules.

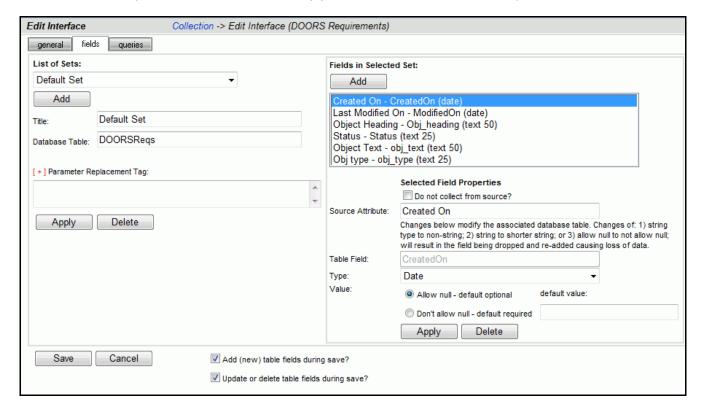


Next, click on the fields tab.

## **Setting up the Fields**

The information entered in the **fields** tab of the Interface defines the information that will be collected and where it will be stored. The list of sets (each containing a group of fields) and the database table where the information will be stored is located on the left section of the screen. A list of default fields, which are being collected by the Portal, is located on the right hand section of the screen. The list of fields that is displayed changes based on the set selected from the **List of Sets** drop down menu. These fields are the default values that all of the graphs will use to display the data.

Check the list of Fields for attributes that do not exist in your DOORS database. If there is a field in the list that is not in your DOORS database, you have three options. First, you could add the field to your DOORS modules. Each field helps to create different graphs within Dashboard. The second option is to click the "Do not collect from source?" box for each field that you do not have in your database. This will allow you to keep a list of the default field values for possible use later. The final option is to delete the field(s) from the list. The second option is recommended.

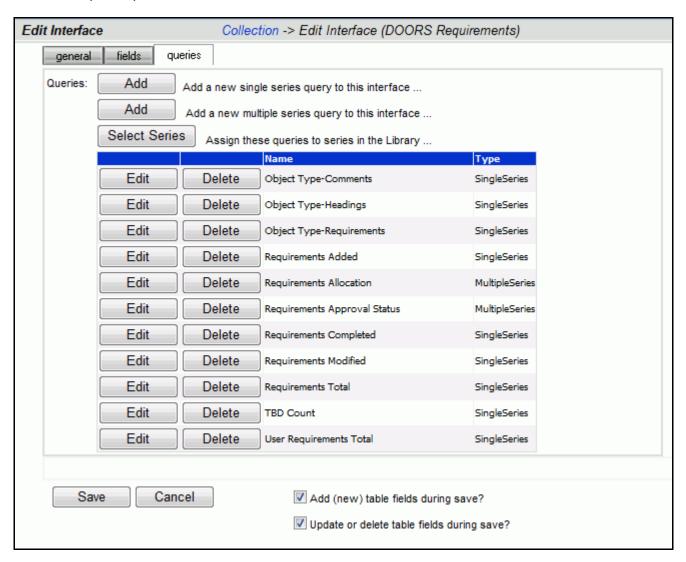


If you need to modify the list of attributes, you will potentially have to change the queries, and you will definitely have at least one graph that will not show data. The most common omission is the "Obj Type" attribute. This field is used in most of the queries, and if this is an attribute that you do not have, you will need to change the queries. The example below is how you would need to change the "Requirements Added" query to reflect a database that didn't have the "Obj Type" attribute.

Next, click on the queries tab.

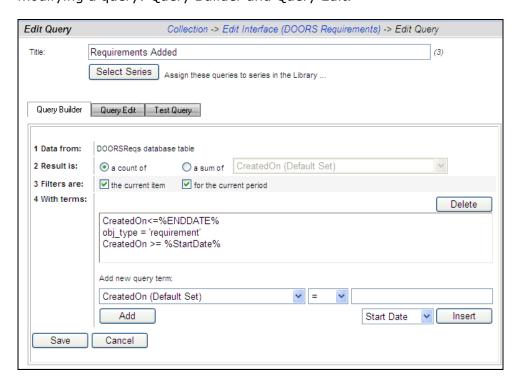
## **Modifying the Data Queries**

The Query tab will list all of the queries assigned to the Interface. These queries are used to count and quantify the data that is collected.

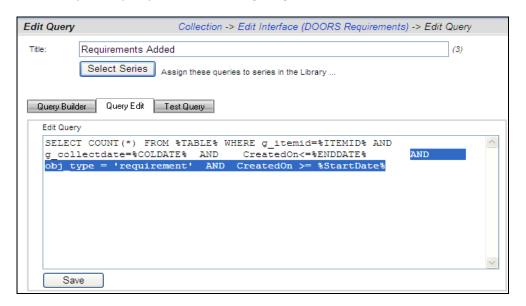


Clicking the **edit** button by a query in the main list will open the Edit Query page and allow the user to edit the selected query. Edit the "Requirements Added" query by clicking the **edit** button next to it.

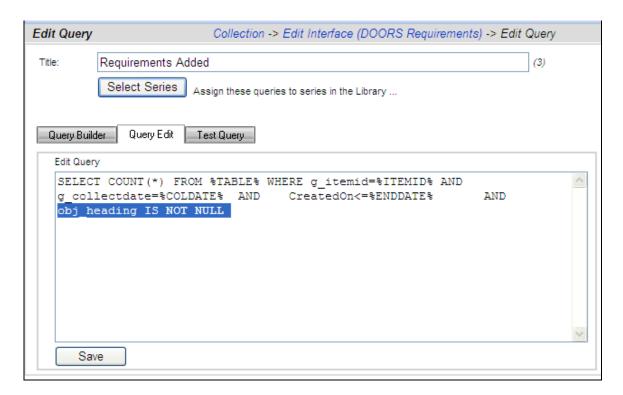
Below is the **Edit Query** page for Requirements Added. There are two options available when modifying a query: Query Builder and Query Edit.



To modify this query, click on the **Query Edit** button.



The Edit Query tab has a **text field** where the SQL statements can be entered, modified or deleted. You can place your cursor anywhere in the text field to add or modify the query. In this instance, the last case is the one that needs to change. Highlight and delete it. Next, type in the string "obj\_heading IS NOT NULL". This will bring back all requirements from your database. Be sure to save your changes.

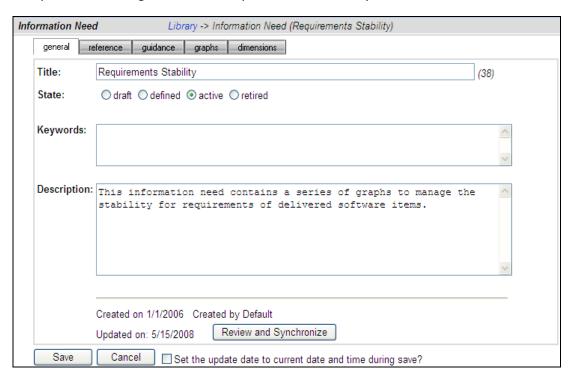


Similar changes would need to be made to other queries depending on what is in your DOORS database.

## **Verifying the Information Need**

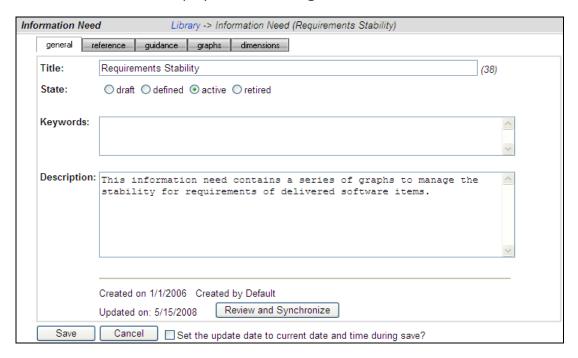
This step is optional, as no changes need to be made in the Information Need to help the Collector run. You can familiarize yourself with the graphs for which you will see data in the future. To see the Information Needs, click on the **Library** tab of the Portal.

There are two information needs that are setup to work with DOORS automatically. They are "Requirements Progress" and "Requirements Stability".

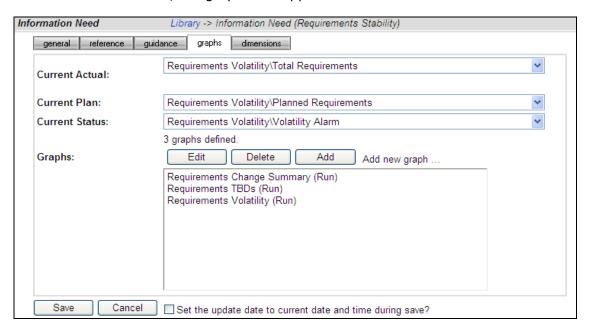


Let's take a look at Requirements Stability. This Information Need shows the stability and volatility of various requirements.

The information need display will show the **general** tab.



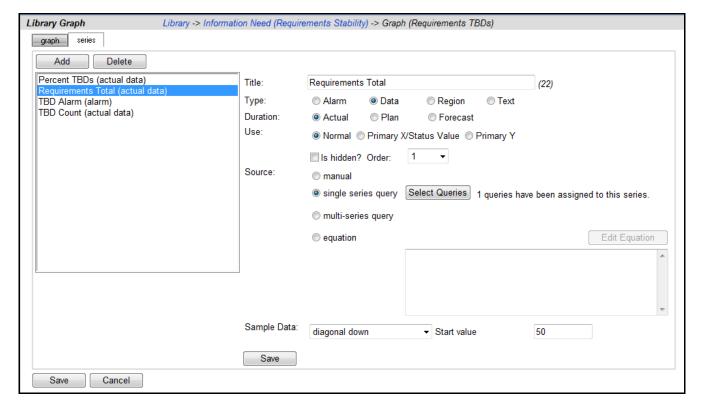
Selecting the **graphs** tab will list the graphs associated with the selected information need. In the sample below, Requirements Stability has three graphs defined. The various graph descriptions and series for each of the listed graphs can be edited here. When the Information Need is added to a unit, the graphs are applied to the data.



## **Assigning Interface Queries to a Library Series**

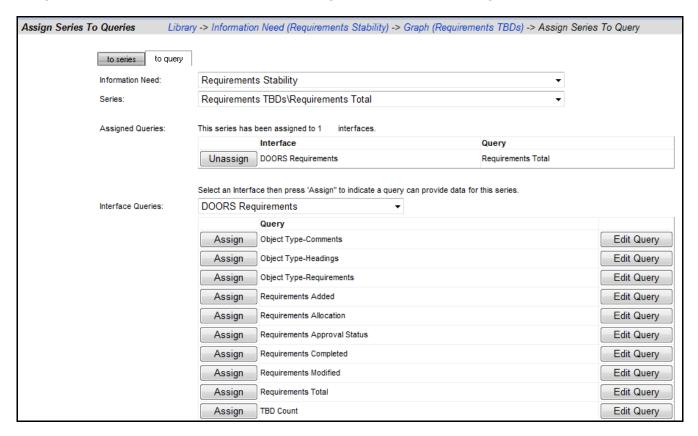
To enable data to be populated in a series, each series must have one or more interface queries associated with it. Once a query is associated with a series, the query is run after data collection to provide a data point for the series. Because a graph in the library is not specific to one interface (that is, a graph may have more than one interface that can provide data for it), you may select multiple interface queries for one series. So, you may assign a query from more than one interface to the same series in the Library. When the graph (that contains the series) is created in a Unit, the associated interface query is used.

For series with a data source of single-series or multi-series, you will see the number of Interface queries that have been assigned, and you can click on the "Select Queries" button to assign queries. If the Select Queries button is not enabled, make sure the source is single-series or multi-series (as appropriate) and then press the Save button. To simplify the process, the Portal provides you with the ability to either 1) assign series to queries or 2) assign queries to series. You can access this from either the Library Graph page (see next image) or the queries sub-tab in the Edit Interface page.



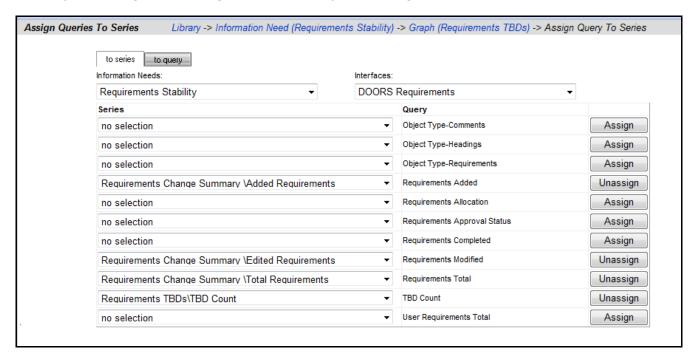
The Assign Series to Queries page allows you to assign one of more queries to a series in the Library. This page has two sub-tabs described below. Once you are done with the assignment, use the breadcrumbs at the top of the page to return to previous page.

On the "to query" subtab, you may select a series from the Library (select an information need and then a graph/series from the drop downs) and then review a list of Interface queries, if any, that have been assigned to the series. You may select an interface from the (lower) dropdown, and then assign one of the Interface queries to the currently selected series. This subtab is designed to review all the interfaces that a single series has been assigned to.



Notice in the image above that the Requirements Total series from the Requirements Stability information need is selected and has one query assigned to it.

On the "to series" subtab, you may select an information need and interface and then assign or un-assign the series to queries as needed. This subtab is designed to help assign all the queries in an interface at one time to the series in one information need. Below, the "Requirements Added" query from the DOORS Requirements interface has been assigned to the "Added Requirements" series of our new graph. Notice that the button on the appropriate column (below) now says "Unassign" indicating that has already been assigned.



When you have finished assigning queries to a series, or reviewing them, you use the breadcrumb to return to the previous page.

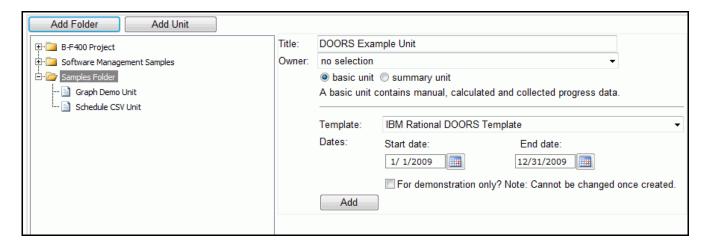
## Setup a unit with the DOORS Template

Once everything is set up correctly for the collection, the next step is to configure the Status tab to show the data results. A **unit** can be created for each project to display the data results and status for that project.

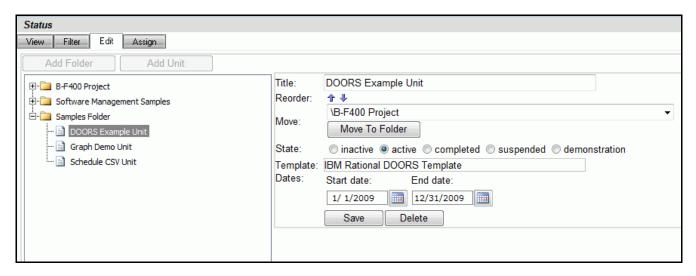


To start, click on the **Status** tab. To add a unit, click on the **edit** subtab to organize the data tree to include information on a project or projects. Create a folder, or use an existing one, and then add a unit.

To add a unit, click the **add unit** button above the tree. On the right hand side of the screen, enter a **Title**, **Owner**, **Start Date** and **End date** for the Unit. Select the **DOORS Template** from the drop down template list. In the sample below, we added a new Unit to the Samples Folder and assigned the DOORS Template.



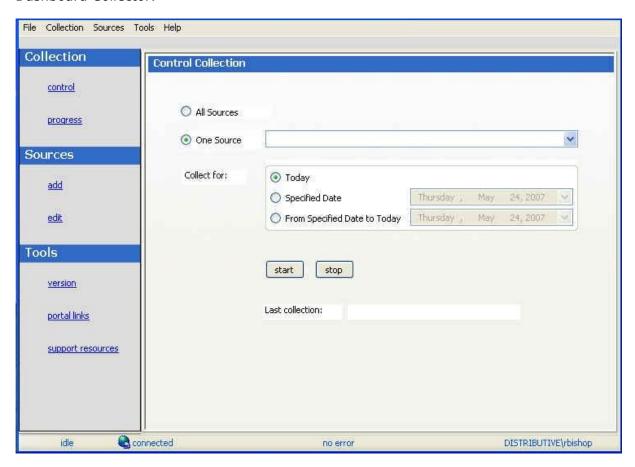
After you click the **add** button, the new unit will appear in the Status tree.



With the Portal configuration complete, you are ready to configure your Collector and collect data.

## **Configuring the Collector**

Open the Collector using Start > Programs > IBM Rational > IBM Rational Dashboard > Dashboard Collector.

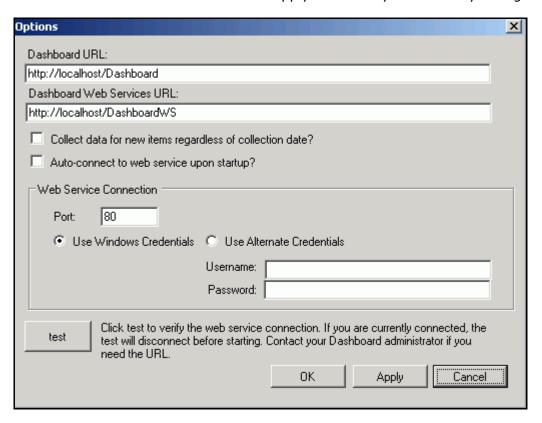


#### **Verify Connection to Web Services**

The Collector uses the Web Services to communicate with the Portal. To verify your connection to Web Services, click File, Options from the menu bar. By default the Web Services URL is set to:

http://localhost/DashboardWS

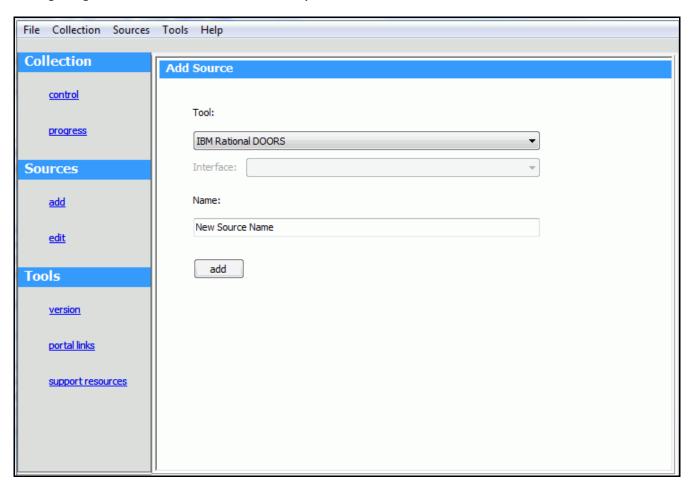
If you are running the collection from the server that is running the Portal then "localhost" will work fine. If you are running the collection from a machine other than the Portal server you will need to change the "localhost" part of the URL to the name of the server running the DataDrill EXPRESS Portal. Be sure to click the "Apply" button if you make any changes.



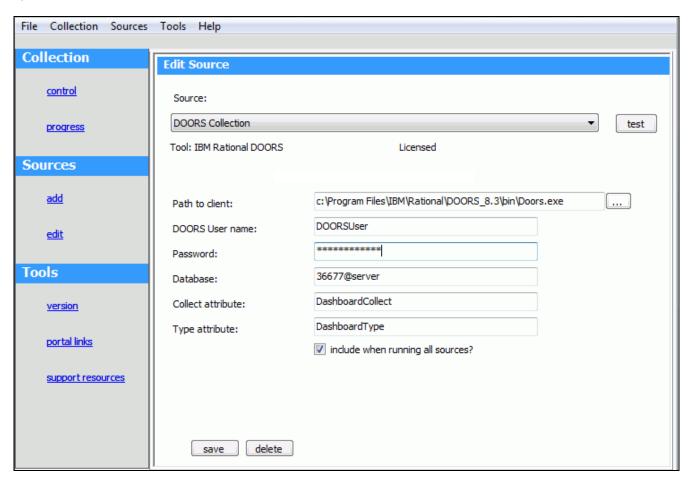
Click the test button to test the connection. If, after pressing the "test" button, you receive an error or warning message, review the message and your web services configuration to correct the problem. The web services configuration information is contained in the web.config in the Web Services folder.

#### Add a Source

Choose **Sources/add** from the left menu. Select IBM Rational DOORS as the Tool, and give your source a name. You will notice a drop down list of Interfaces below the Tool selection. This is used for many sources to delineate between different instances of a tool and to let the Collector know which Interface to use when collecting from a specific source. For DOORS, this box is grayed out because that delineation is made in setting up the Interface (see section on Configuring the Portal for more information). Click the **add** button.



The setup for IBM Rational DOORS requires some basic login information as well as some Portal specific information.



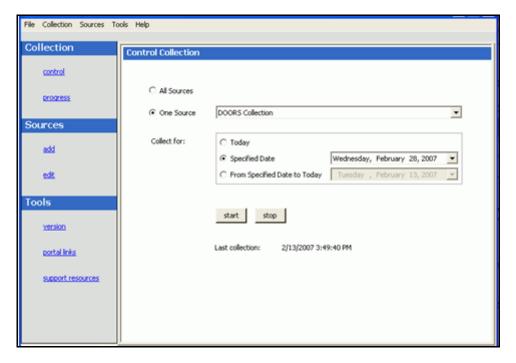
The "Path to client" is the location where IBM Rational DOORS client is installed on the local machine. Click the button to the side to browse for the file on the computer. The "User name" and "Password" should be a DOORS user who has access to all of the projects and modules from which data needs to be collected. The "Database" is the port number and the server name in the format <port number>@<server> of the DOORS database.

The "Collect attribute" and "Type attribute" are the two attributes that need to be added to the DOORS database as module level attributes. The Collector will only collect those modules that have the Collect Attribute set to true. The Type Attribute helps to define which Interface will be used to collect data from a module. Both of these values should match the attributes that were added in the Configuring DOORS section.

Be sure to save your settings by clicking the **save** button in the bottom left corner.

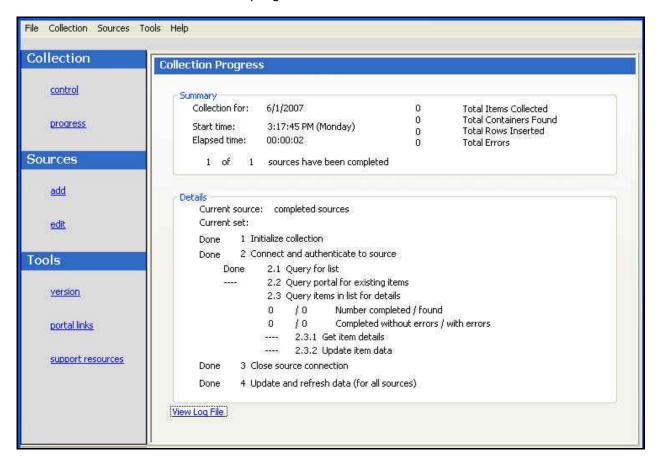
## **Running a Collection**

Once you've saved your configurations, you're ready to run your collection. Go to the **control** link in the Collection section. Click the radio button for **One Source** and select your source from the drop down on the right. Below the drop down, select "Specified Date" and choose a date that is a valid collection date in a period in the schedule you are using for the unit. This will allow you to see data in your graphs automatically. See the Help files for more information about how schedules affect the Collector.



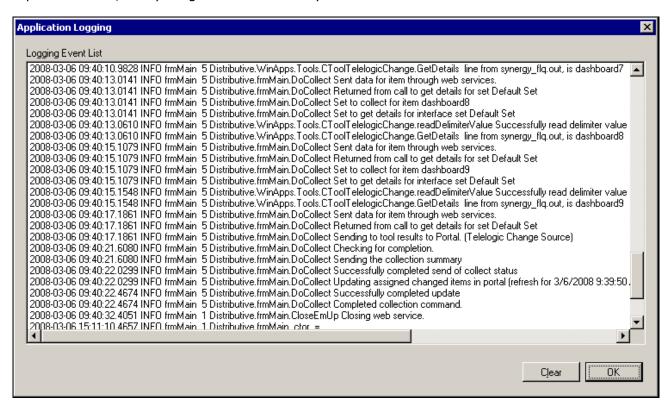
Once you've picked your source and your date, click on the **start** button.

The **Collection Progress** page will appear and you will be able to track your collection as it runs. You will see in the details on the bottom the number of **items** and **containers** that were found and see how far the collection has progressed.



Once your collection finishes, the **summary** box at the top of the collector will tell you information about the collection itself, how long the collection took, how many **items** were collected, how many rows were inserted into the database table(s) and how many errors were encountered, if any.

If your collection has errors, you can click on the "**View Log File**" link at the bottom of the progress page. This will open the log file. (The log can also be accessed with the File menu.) This log file gives you information on why a module may not have been collected. You also might notice that the number of found items is greater than the number of items completed. This is most likely caused by finding containers (which are folders for DOORS), and unless there is a report of errors, everything collected correctly.

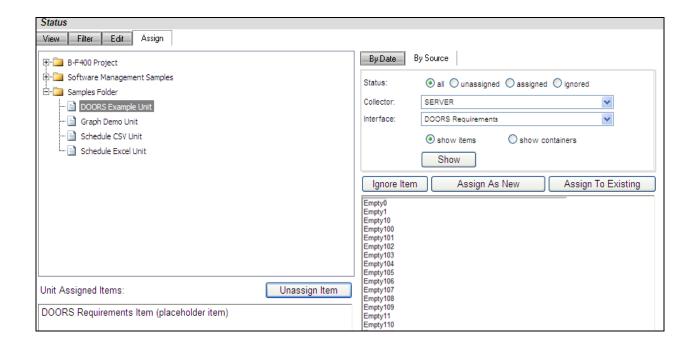


The next step is configuring the Unit.

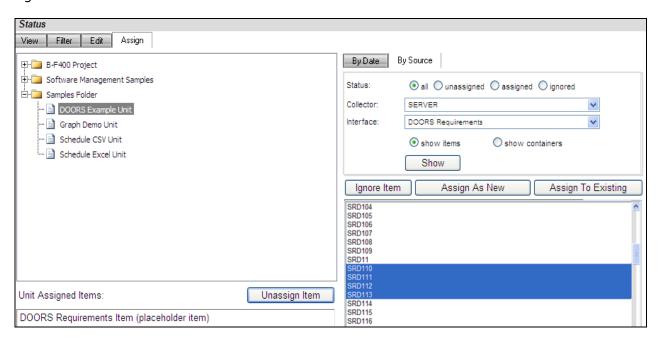
## **Configuring the Unit**

#### **Assigning Collected Items**

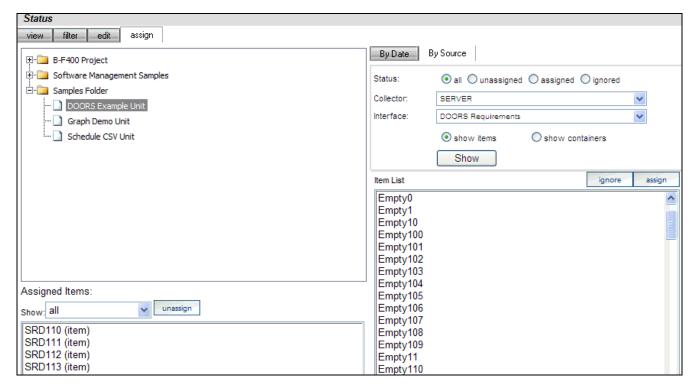
Once you have run your collection without errors, you are ready to add your **Items** to your **Unit**. Go back to the **Status** page and click on the **edit** subtab. Click on the Unit that you created earlier. On the right hand side, click on the **by source** subtab. From the drop down menus, choose your Collector and the interface that you are using to collect. When you've selected those options, click on the **show** button. In the list below you will see a list of all of the **items** that have been collected.



Click on the items that you want to add to this unit and then click on the **assign** button on the right hand side.



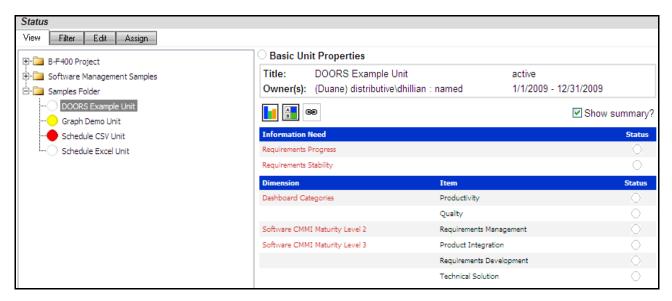
On the left hand side of the page, you will see a list of items that are **Assigned Items**.



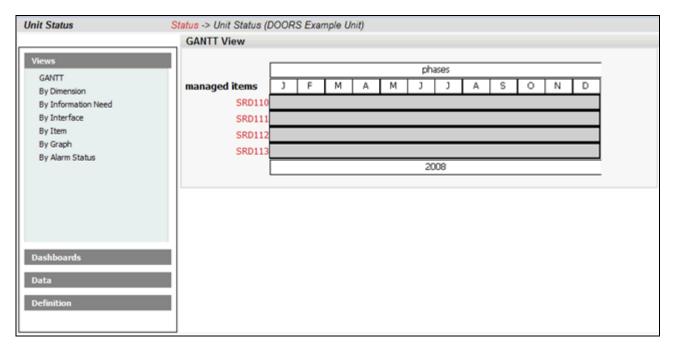
Now all you have to do is refresh the unit and you will see data in the graphs.

## **Refreshing the Unit**

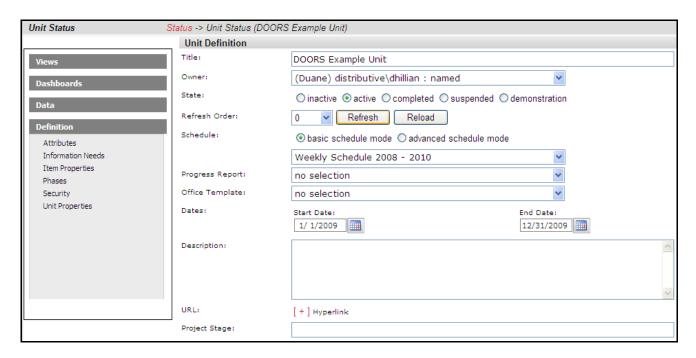
While on the Status tab, click on the view subtab and select your unit from the tree on the left hand side. On the right hand side of the page, click on the **Graph** button,



In the subsequent **Unit Status** page, you will see an empty GANTT chart with your items listed along the side. From there, click on the **Unit Properties** link under the Definition section.

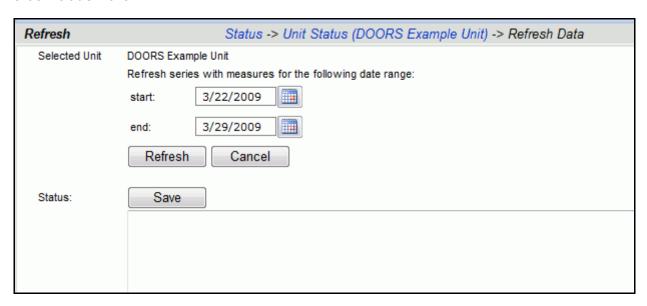


Next, click on the **refresh** button in the center of the page. This will let you refresh the data for all of the Items and their graphs over a period of time.



On the Refresh page, you need to choose the dates for refreshing the graphs. Since you've run a collection for only one date, you'd only need to refresh over that date. So if, for example, you ran your collection for March 27<sup>th</sup>, you would want to refresh over that date.

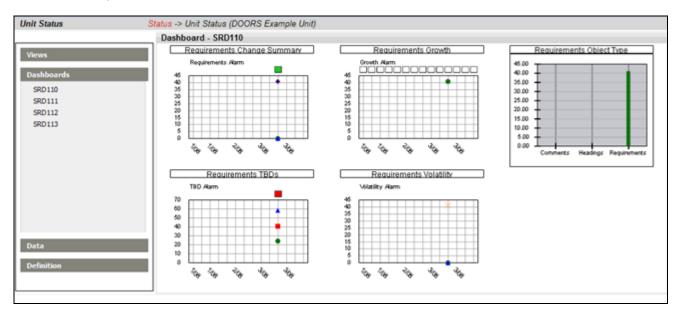
In this example, the refresh runs from March 22<sup>nd</sup> to March 29<sup>th</sup>, but it could be any span of dates that include March 27<sup>th</sup>.



After you have selected your refresh dates, click the **refresh** button. The Status box below will tell you when the refresh has completed. To return to your unit, use the bread crumbs or the **cancel** button. The **save** button will create a log file with the information in the Status box. This is useful if there were errors during a refresh.

#### **View Data in the Portal**

Now you are ready to see your data. Once back on the **status** page in your **Unit**, select a **managed item** in the Dashboards panel to view. You should see a data point in your graphs for the date that you ran the collection.



## **Contact Information**

This chapter contains the following topics:

- Contacting IBM Rational Software Support
- Prerequisites
- Submitting problems
- Other information

#### Contacting IBM Rational Software Support

If the self-help resources have not provided a resolution to your problem, you can contact IBM Rational Software Support for assistance in resolving product issues.

Note: If you are a heritage Telelogic customer, you can go to <a href="http://support.telelogic.com/toolbar">http://support.telelogic.com/toolbar</a> and download the IBM Rational Telelogic Software Support browser toolbar. This toolbar helps simplify the transition to the IBM Rational Telelogic product online resources. Also, a single reference site for all IBM Rational Telelogic support resources is located at <a href="http://www.ibm.com/software/rational/support/telelogic/">http://www.ibm.com/software/rational/support/telelogic/</a>

#### **Prerequisites**

To submit your problem to IBM Rational Software Support, you must have an active Passport Advantage® software maintenance agreement. Passport Advantage is the IBM comprehensive software licensing and software maintenance (product upgrades and technical support) offering. You can enroll online in Passport Advantage from <a href="http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html">http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html</a>.

- To learn more about Passport Advantage, visit the Passport Advantage FAQs at <a href="http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.html">http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.html</a>.
- o For further assistance, contact your IBM representative.

To submit your problem online (from the IBM Web site) to IBM Rational Software Support, you must additionally:

- Be a registered user on the IBM Rational Software Support Web site. For details about registering, go to <a href="http://www-01.ibm.com/software/support/">http://www-01.ibm.com/software/support/</a>.
- Be listed as an authorized caller in the service request tool.

# Submitting Problems

#### **To submit your problem to IBM Rational Software Support:**

1. Determine the business impact of your problem. When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting.

Use the following table to determine the severity level.

Severity	Description
1	The problem has a critical business
	impact: You are unable to use the
	program, resulting in a critical
	impact on operations. This condition
	requires an immediate solution.
2	This problem has a significant
	business impact: The program is
	usable, but it is severely limited.
3	The problem has some business
	impact: The program is usable, but
	less significant features (not critical
	to operations) are unavailable.
4	The problem has <i>minimal</i> business
	impact: The problem causes little
	impact on operations or a
	reasonable circumvention to the
	problem was implemented.

- 2. Describe your problem and gather background information, When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Rational Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:
  - What software versions were you running when the problem occurred?

To determine the exact product name and version, use the option applicable to you:

- Start the IBM Installation Manager and select File > View Installed Packages. Expand a package group and select a package to see the package name and version number.
- Start your product, and click **Help** > **About** to see the offering name and version number.
- What is your operating system and version number (including any service packs or patches)?
- Do you have logs, traces, and messages that are related to the problem symptoms?

- Can you recreate the problem? If so, what steps do you perform to recreate the problem?
- Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, or other system components?
- Are you currently using a workaround for the problem? If so, be prepared to describe the workaround when you report the problem.
- 3. Submit your problem to IBM Rational Software Support. You can submit your problem to IBM Rational Software Support in the following ways:
  - Online: Go to the IBM Rational Software Support Web site at <a href="https://www.ibm.com/software/rational/support/">https://www.ibm.com/software/rational/support/</a> and in the Rational support task navigator, click Open Service Request. Select the electronic problem reporting tool, and open a Problem Management Record (PMR), describing the problem accurately in your own words.

For more information about opening a service request, go to <a href="http://www.ibm.com/software/support/help.html">http://www.ibm.com/software/support/help.html</a>

You can also open an online service request using the IBM Support Assistant. For more information, go to <a href="http://www-01.ibm.com/software/support/isa/faq.html">http://www-01.ibm.com/software/support/isa/faq.html</a>.

- By phone: For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at <a href="http://www.ibm.com/planetwide/">http://www.ibm.com/planetwide/</a> and click the name of your country or geographic region.
- Through your IBM Representative: If you cannot access IBM Rational Software Support online or by phone, contact your IBM Representative. If necessary, your IBM Representative can open a service request for you. You can find complete contact information for each country at <a href="http://www.ibm.com/planetwide/">http://www.ibm.com/planetwide/</a>.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Rational Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Rational Software Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM Rational Software Support Web site daily, so that other users who experience the same problem can benefit from the same resolution.

# Other Information

For Rational software product news, events, and other information, visit the IBM Rational Software Web site on\_ http://www.ibm.com/software/rational/.

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