Rational. Dashboard





CSV Walkthrough

Before using this information, be sure to read the general information under the "Notices" section on page 43.
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 CSV Walkthrough for IBM Rational Dashboard!

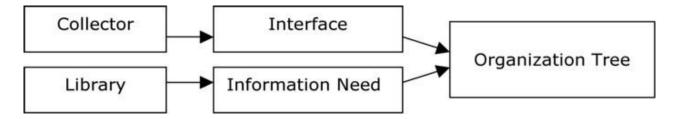
IBM Rational Dashboard brings software management best practices within reach of every organization and every manager. Manage requirements, schedule, budget, quality, configuration management and size in one place; keeping total control of the drivers that keep projects on time and within budget.

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 Rational Synergy, IBM Rational Change, Rational ClearQuest, Microsoft Project, Oracle Databases, Microsoft SQL Databases, Microsoft Access, Microsoft Excel, ODBC, CSV, and HP Quality Center.
- The **Transform** is a Microsoft 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 **Queries**.

- 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.

# **CSV Sample Walkthrough**

This sample describes the necessary steps to configure and collect data from CSV files. This sample walks a new user through all required steps needed to see graphs with data points populated from CSV files.

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

- Formatting the CSV File
- Portal Configuration
  - o Examine/Configure an Information Need
  - o Create an Interface in the Portal
  - Setup a Unit with Information Needs (or use a template)
  - o Assign Schedules to a Unit
- Collector Configuration
  - o 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
  - View collected data graphs in the Portal

## Formatting the CSV File

The Portal requires that a certain format be applied to the CSV file. This format is the basic format applied to CSV files, so most exported files will be compatible. The format requires that the first line of the file be the "column" headers, or the definition of what is in the file. For example, in the Schedule CSV file that will be used as an example throughout, the header line looks like the following:

#### ScheduleMilestone,Task\_Start\_Date,Task\_Finish\_Date,Task\_Act\_Start,Task\_Act\_Finish

Notice that there are commas between each field, and no comma at the end. The header line should be on a line by itself. Each consecutive line should have data that lines up to the fields in the header, is separated by commas, has no comma at the end of the line, and be on a line by itself. This is the basic format that the Portal is expecting. Once your CSV file is set up correctly, you are ready to move on to configuring the Portal.

# **Portal Configuration**

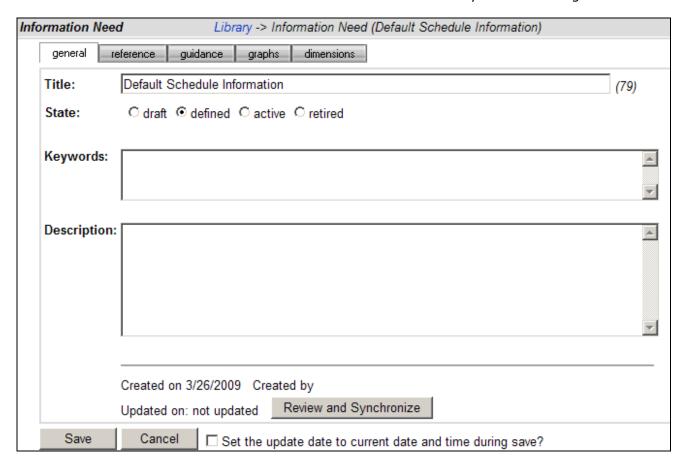
The Portal provides the user the ability to describe which data to collect, how to analyze it and then how to display it. Before information can be analyzed or displayed, the Portal must be configured to collect the information from a CSV file.

# **Examine/Configure an Information Need**

Upon opening the application, the Portal defaults to the Status page. Click on the **Library** tab and select the **Information Need List** option. This will open the list of Information Needs that are currently available for use. For this example, we'll create a new Information Need, though we could use an existing one.

#### **Adding an Information Need**

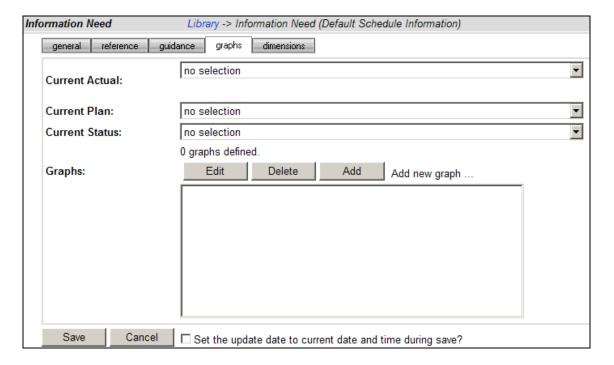
From here, click on the **add** button above the list. On the **general** subtab, name your information need and choose a state for the Information Need that you are creating.



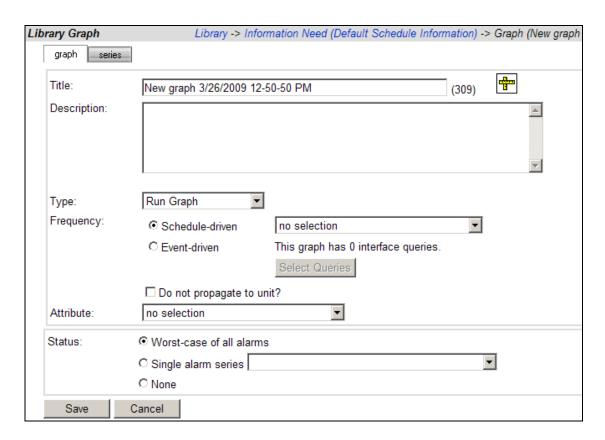
All other information on the general subtab is optional. Additionally, the information on the **reference** and **guidance** tabs are for use within your company, generally for conveying information about an internal metrics plan, or utilizing best practices that have been collected when you're reviewing and creating a metrics plan. Save the Information Need and then reopen it. This is done so that no data is lost when you create a graph in the Information Need.

#### Adding a Graph to the Information Need

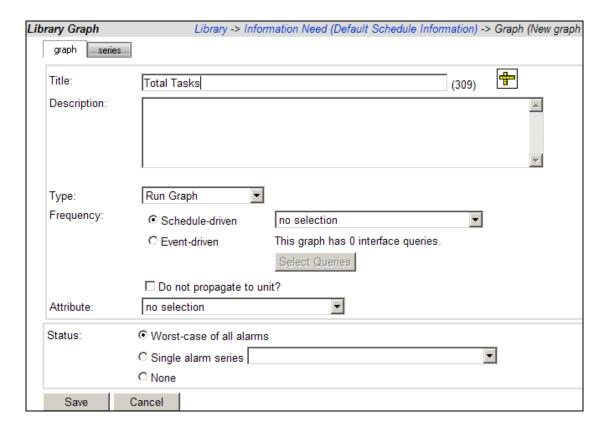
Within the Information Need, you have the ability to add graphs that are all related to the information area associated with an Information Need. One or more graphs can be added. The drop down fields on the graph subtab will be addressed later. To create the graph, select the add button on the **graphs** subtab.



Selecting the **add** button, opens the Library Graph window for the new graph. The Library graph window defaults to the **graph** subtab.



On the **graph** subtab, all of the basic information about the graph is set. Enter a name for the graph in the **Title** field. The **Description** field may be left blank or filled in as desired. The **Type** of graph is chosen from a drop down list. We will be using a run graph for this example. (For more information on graph types, see the help files.)

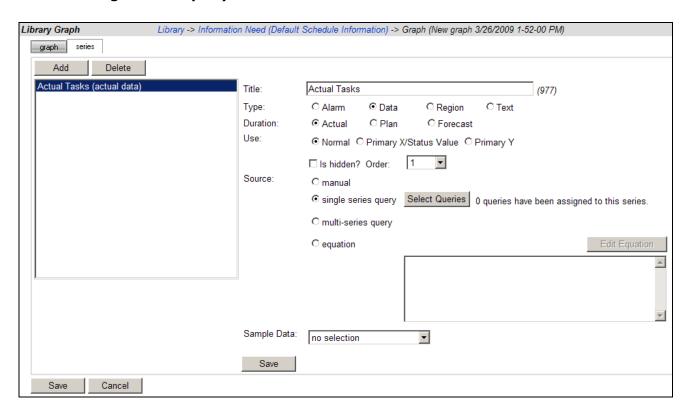


Next, a **frequency** needs to be chosen. There are two options available for this field: schedule-driven or event-driven. An **event-driven** graph does not have a pre-defined and consistent schedule. Examples of event-driven frequencies may include software releases or peer reviews. **Schedule-driven** graphs are based on a static and consistent schedule, such as a daily, weekly, or monthly data collection. The selected graph schedule is used to populate the information on the x-axis of the graph. If no schedule is selected, the graph will default to the same schedule as the item to which it is assigned. This is the option that will be used for this example.

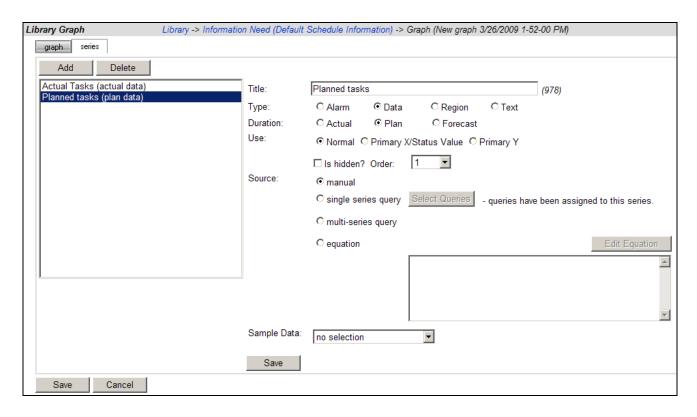
Finally, there is the **Status** option. A change to this option would be necessary for one of two reasons: more than one alarm on the graph or to inhibit the status of this particular graph from affecting the status of the Information Need as a whole. For this example, the status will be left at the default selection, worst-case of all alarms.

To add a series to the graph, select the **series** subtab. This is where the information that will be displayed on the graph is going to be displayed. The example graph will be very basic and will include three series: Actual, Plan, and Alarm.

To create the Actual series, click on the **add** button. Enter the name of the series, **Actual Tasks**, in the Title field. This series is a **Data** type series, and is an **Actual** duration, meaning that it should only show data from a given date, backwards. It is a **Normal** series, and for the source select the **single series query** radio button. Save the series.



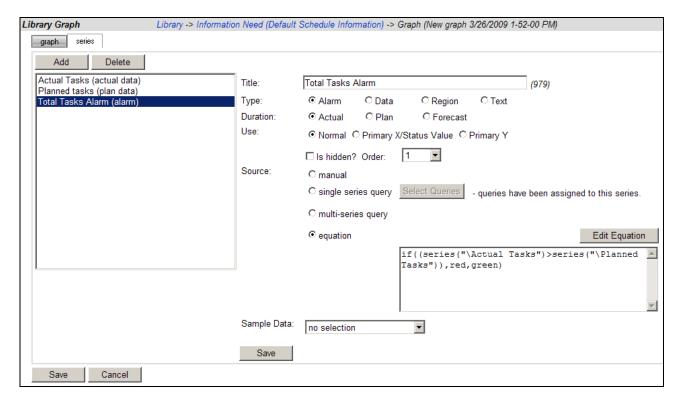
Create a second series and call it "Planned Tasks". Again this series is a Data type series, but this series is going to use the Plan duration, which means that it can have data for both before and after the current date. This series is also normal, and we will leave it as a manual entry series. Click the **save** button to save the series.



Now create a third series and call it "Total Tasks Alarm". This series is going to be an Alarm type series. Select Actual for the Duration and Normal for the Use.

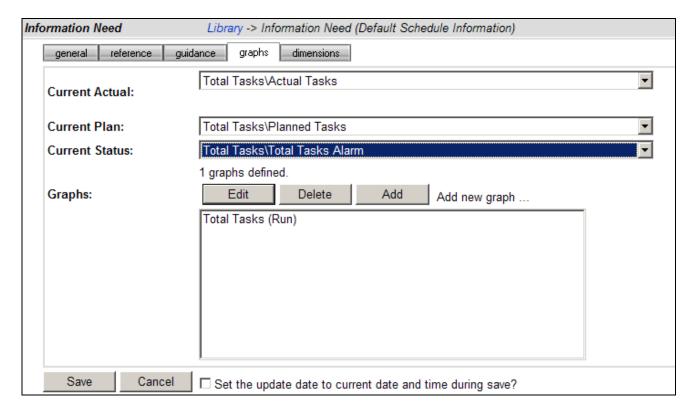
For this series, the source is going to be an equation, so select the equation radio button. In the equation box, type if((series("\Actual Tasks")>series("\Planned Tasks")),red,green). (**Do not copy** the query out of this document as Word documents change the quotation marks to an image character that is not accepted in the equation.) After you've saved the series once, you can also use the **Equation Editor** to create or edit the equation for the alarm.

For the equation in this example, the alarm shows red if the total number of tasks is more than the planned number of tasks.



Once you've created all three series, save the graph.

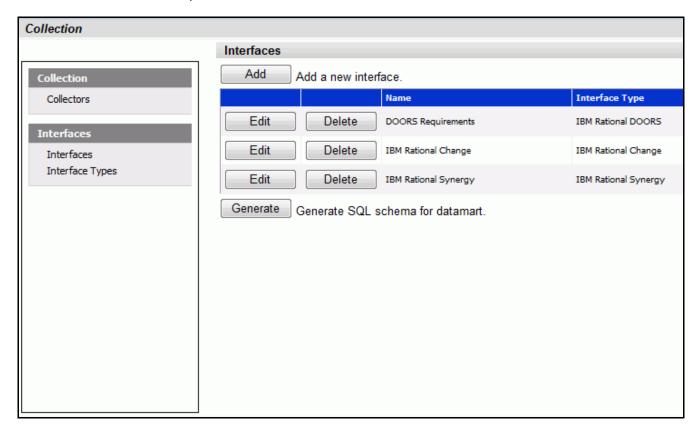
The final step in configuring an Information Need is to set the Information Need status drivers, using the dropdown fields on the graphs tab. These three areas drive the status for the Status page displays. In this case, set the Actual Tasks series as the **Current Actual** value, Planned Tasks as the **Current Plan** value, and the Total Tasks Alarm as the **Current Status** value. Save the Information Need.



Now that the Information Need is configured, let's create an interface.

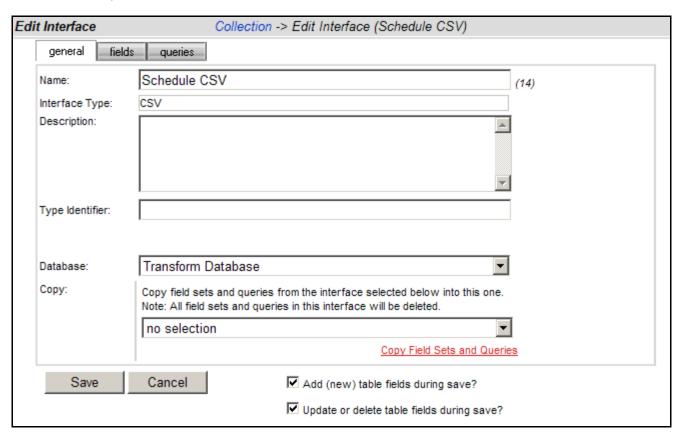
# **Creating the Interface in the Portal**

The next step is to create a unique Interface for the CSV file. Select the **Collection** tab, and then click on the **Interfaces** option on the left hand side.



From the Interfaces List, click on the **add** button. This will create a new **Interface**. An Interface includes the type of information that will be collected from the data source (in this case, fields from a CSV file), where the information will be stored as well as the queries that can be executed against the data collected.

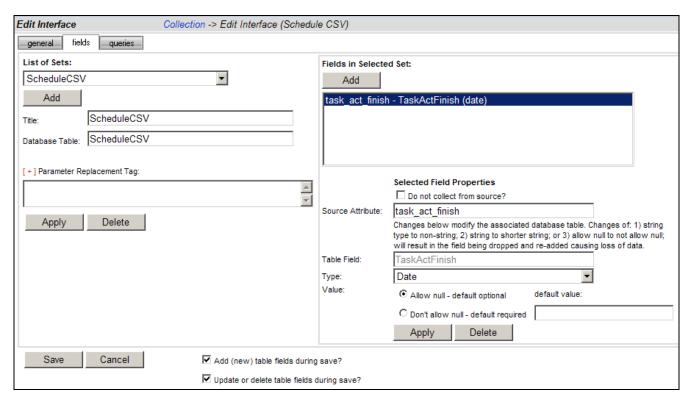
On the **general** subtab of the interface, enter a name for your interface. The name for this example is Schedule CSV. For CSV files, the Description and Type Identifier are optional fields which will not affect the collection. Select the Database where the collected data will be stored. This is normally the Transform Database.



The next step is to set up the fields in the Interface.

## **Setting Up the Fields**

The Collector uses the information found in the **fields** subtab of the interface to determine what information to collect. Select the **fields** subtab. Notice that it is possible to have multiple **sets** of data collected from this tab. This is mainly used for database type sources that collect information from multiple tables and will not be used with CSV files. The Default set should be used, but can be renamed if desired by changing the Title.



On the left side of this page, enter the name of the database table where the data will be stored. For this example, we will use "ScheduleCSV". The Parameter Replacement Tag field is also mainly used for database type sources and will not be used for CSV files. To save any changes to the Title or Database Table fields select the Apply button under the Parameter Replacement Tag field.

On the right hand side, you will input a list of columns from the CSV file to be collected by the Portal. For CSV files, each column heading should be added as a field. When you add a field, you are asked for a few pieces of information. The first is the Source Attribute. This value is what the column name is in the CSV file. For this example, we'll use the last column in our file, which is named task\_act\_finish. Below the Source Attribute, you see the Table Field. This is what the column in the database will be named; in this case we'll use TaskActFinish, though it can be the same as the Source Attribute. The only requirement for the Table Field is that it be unique for this table and that it follows SQL Server naming convention which means no spaces in the word.

The next item to fill in is the Type of field that you're collecting. This will be used in creating the schema for the database. Make sure that the type that you choose here is equivalent to the Source type. For example, since the task\_act\_finish is a date, you would choose either DateTime or Date as the Type. Finally, the Value area lets you determine how to handle null values. You can choose to allow the field to have nulls (blanks) as acceptable values or disallowing nulls. If you choose to not allow nulls you are required to input a default value that is the same type of value as you choose for

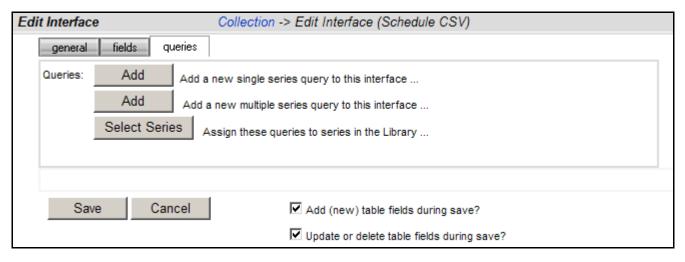
the Type. For example, if we wanted to not allow task\_act\_finish to be null, you could use "3/18/2007" for the default value, but not "today". Once you've completed setting up your field, click the save button below the field to save any changes.

Once you've created your field, you cannot make any changes to the field except to change the Source Attribute value (if you incorrectly entered it or the value changes). Once you've finished adding all of the Fields from the CSV, you're ready to move on to writing queries for your data.

# **Defining Data Queries**

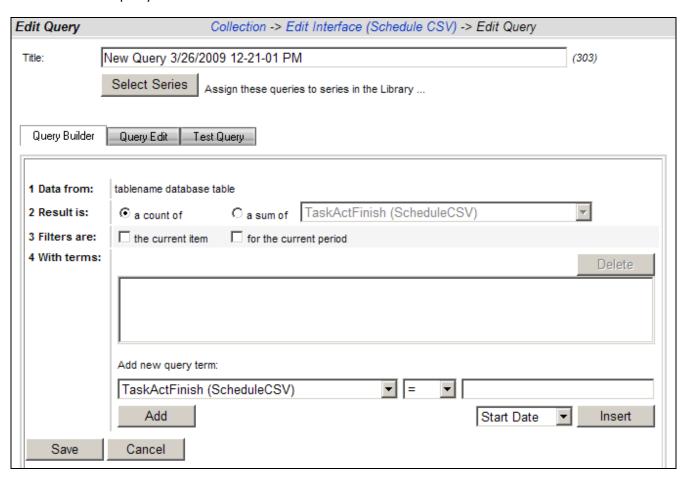
The final tab of the Interface is the **queries** subtab. The queries tab is used to define how data is counted or treated to show the information that is desired. This is done through SQL queries, with the help of a handy **Query Builder**. Most of the queries can be built with little or no knowledge of SQL, though cursory knowledge would definitely be helpful for troubleshooting.

The first step is to create a Query. You have a choice of two types of queries: **single series** and **multiple series**. A single series query returns a single value for one series in a graph and is the more common query to use. Multiple series queries are used when you're either not sure of what data you're going to be collecting, or you'll be running the same basic query with a single difference. For example, if you wanted a graph that would display Defects by Priority, but you weren't sure how many different priorities were being used, you could use the multiple series to first retrieve the different priorities, use those to create series for a graph and then count the number of defects for each priority. Or if you knew the priorities, but there were a good number of them you could use the multiple series query for the same use.



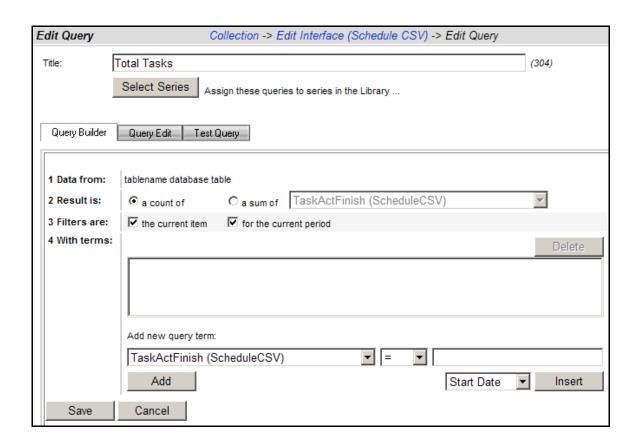
In this example we'll create a single series query. Click the **add** button for the single series query.

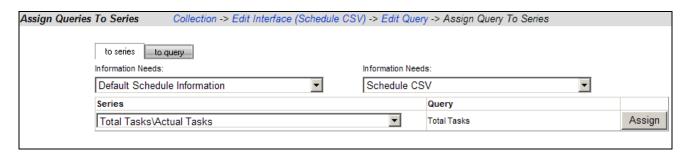
Notice the new query created below.



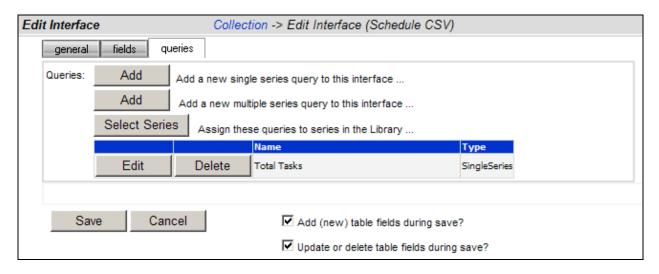
Enter a name in the **Title** field that will be meaningful when it is used at a later time.

For this query, the information that we want to get is a count per period of all of the tasks in the file, but only for this one file. To get this, select the radio button for **a count of**, and click both the check boxes for **the current item** (which restricts the data collection to just this one file) and **for the current period** (which restricts the data collection to the data collected for the specific time period). Most of the time, you will want to use the check boxes for both the current item and the current period.





Use the Edit Query breadcrumb to return to the query builder. This query is now complete and can be saved.

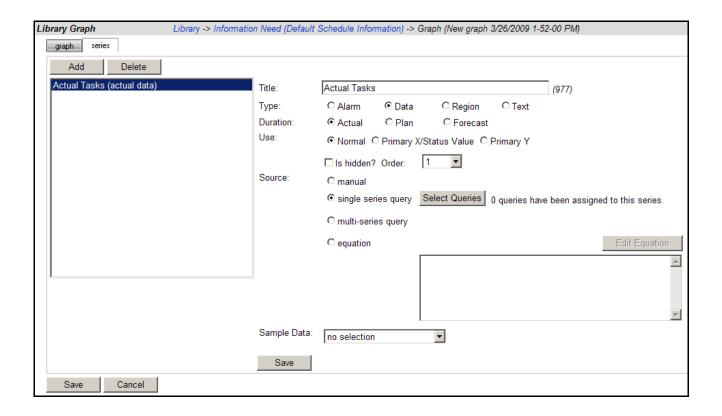


You can create other queries to provide a different count of data from the CSV interface, using different fields/columns or different selection terms. (For more information on setting up queries in the Portal, check the help files.)

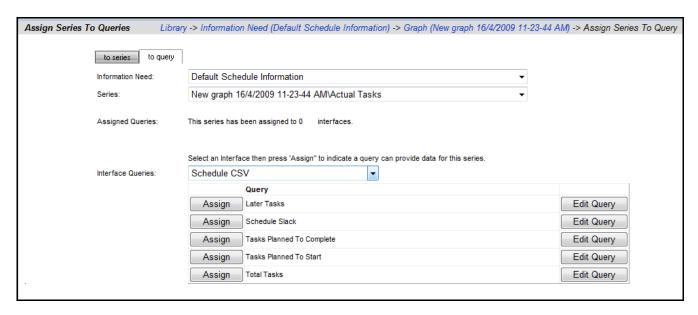
# **Assigning Interface Queries to a Library Series**

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 (see image above).

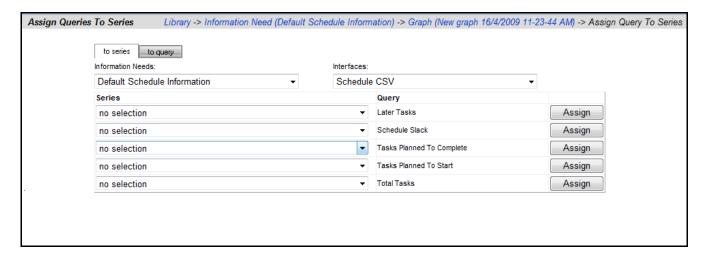


The Assign Series to Queries page allows you to assign one of more queries to a series in the Library. This page has two sub-tabs described below. Once you are done with the assignment, use the breadcrumbs at the top of the page to return to previous page.

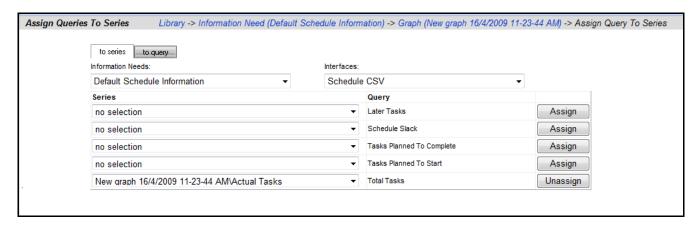


On the "to query" sub-tab, you may select a series from the Library (select an information need and then a graph/series from the drop downs) and then review a list of Interface queries, if any, that have been assigned to the series. You may select an interface from the (lower) dropdown, and then assign one of the Interface

queries to the currently selected series. This sub-tab is designed to review all the interfaces that a single series has been assigned to.



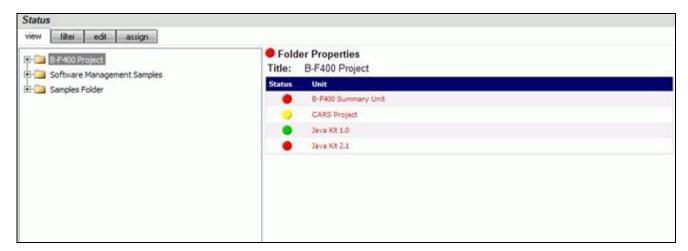
On the "to series" sub-tab, you may select an information need and interface and then assign or un-assign the series to queries as needed. This sub-tab is designed to help assign all the queries in an interface at one time to the series in one information need. Below, the "Total Tasks" query from the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



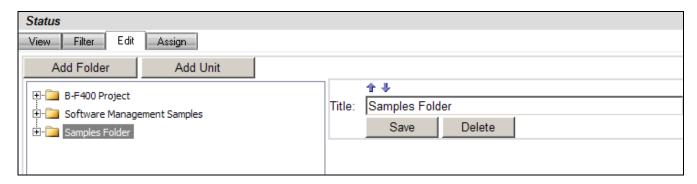
When you have finished assigning queries to a series, or reviewing them, you use the breadcrumb to return to the previous page.

# Set Up a Unit

Once you've finished configuring the Information Need and Interface, it's time to set up a Unit to display the results you'll get from data collection. Begin by adding a new Unit.

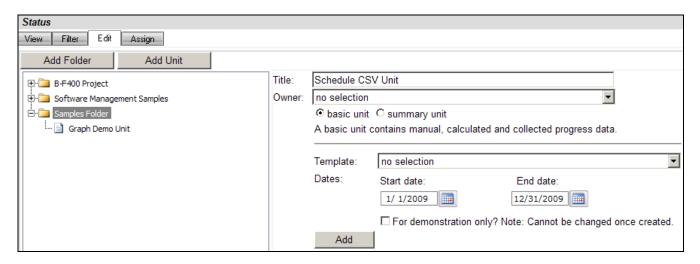


Head back to the Status tab. To add a unit, click on the **Edit** subtab. This is where your data tree gets organized.



Create a folder, or use an existing one, and click the **add unit** button. On the right hand side, you will see information about the Unit that you're adding.

Give the unit a **title**, and set an **owner** (this value can be changed later). You can leave the template set to no selection since no template has been setup for the new interface. A template automatically assigns Information Needs and other information to your Unit and can be used to easily create homogenous units.

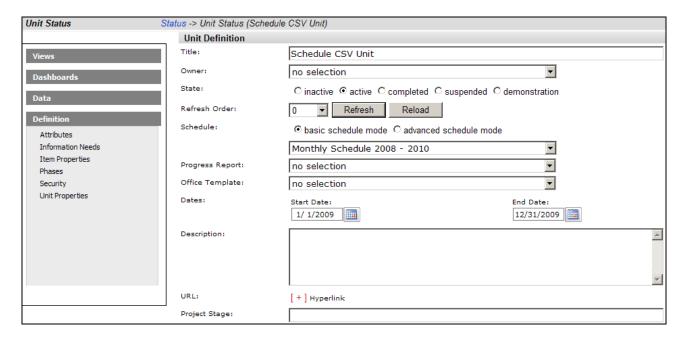


Click the Add button. Now that you've created a unit, you're ready to assign a schedule to the unit.

# Assign a Schedule to a Unit

The schedule assigned to a unit becomes the default schedule for any items assigned to the unit as well as the graphs associated with them. The unit schedule is used in the Gantt View to determine the time period shown. The unit schedule is also used to update the status of the unit.

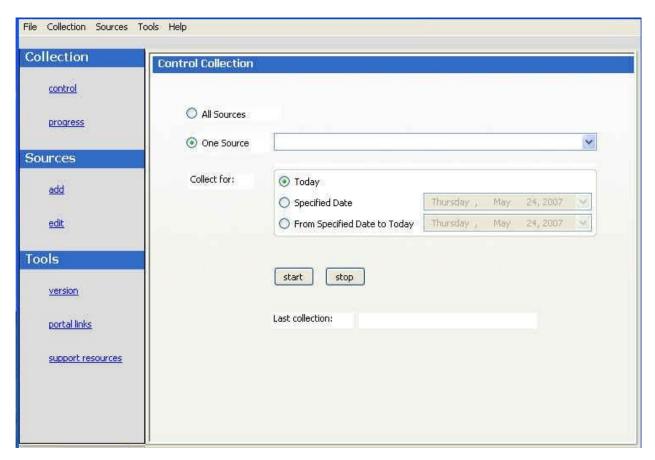
To assign a schedule, first go to the Status tab's **View** subtab and select the **unit**. Then click the **Details and status** icon. This will open the Unit Status page with the Gantt view displayed. Under the **Definition** section, select the **Unit Properties** option. The Unit Definition screen will open for the selected unit. Notice, the **Schedule** field is already set to basic schedule mode. Select Monthly Schedule 2008-2010 from the dropdown list. In the Dates fields, enter a **Start Date** and **End Date** for the schedule. Remember to save any changes to the schedule by selecting the **Save** button.



At this point, you're ready to configure your Collector and collect your data.

# **Configuring the Collector**

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



The next step is to verify the connection to Web Services.

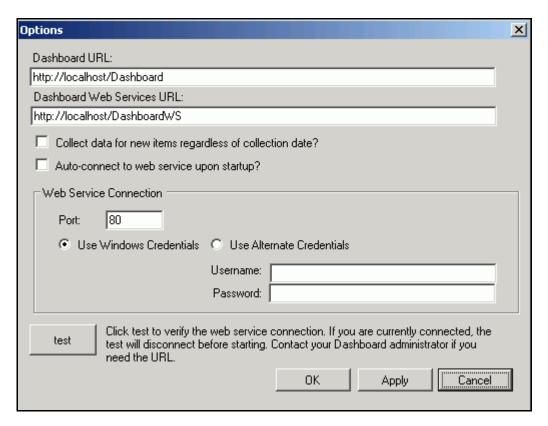
## **Verify Connection to Web Services**

The Collector uses the Web Services to communicate with the Portal. To verify your connection to the Web Services, click File, Options from the menu bar. By default the IBM Rational Dashboard 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 IBM Rational Dashboard Portal. Be sure to click the "Apply" button if you make any changes.

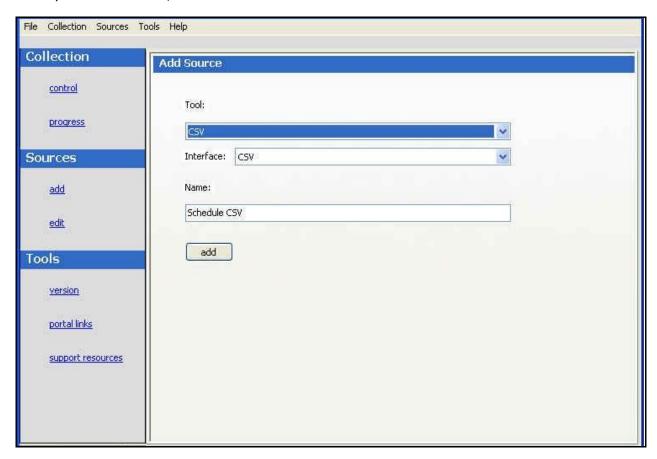
Click the test button to test the connection.



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

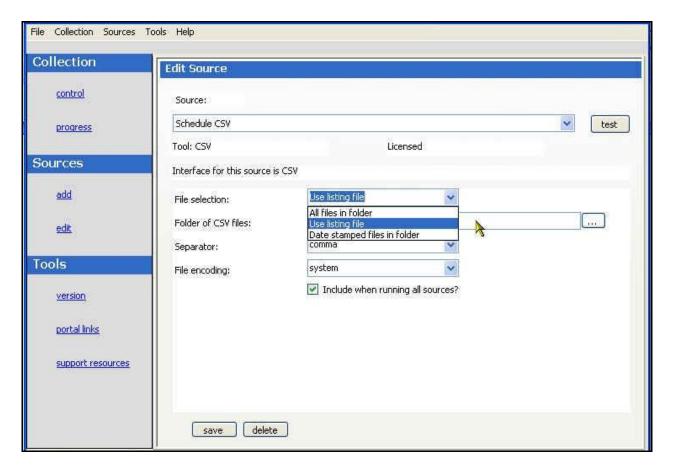
Choose sources/add from the left menu. Select CSV as the Tool, and give your source a name. You will notice a drop down list of Interfaces below the Tool selection. This is used for to delineate between different instances of a tool and let the Collector know which Interface to use when collecting from a specific source. You'll want to select your CSV Interface from this drop down. Once you've done that, click Add.



The next step is to setup the collector.

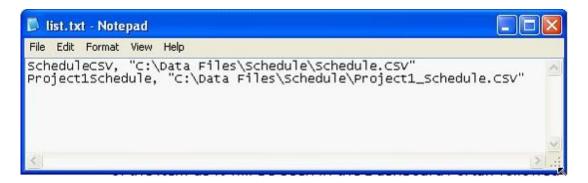
## **Set Up the Collector**

The setup for a CSV requires some basic information about the file. First of all, there are several ways to bring in a CSV file. The first is "All Files in a Folder". For this option you chose a folder in the file system and the Collector will try to collect the fields that you set up in the Interface from all of the CSV files in that folder. One use for this would be if the same report was coming in from several different projects but had the same structure and similar data. In this case you could have all of the projects put their files in the same folder and the Collector would collect them individually. The folder that the files are in should be selected as the "Folder of CSV Files".



The second option is "**Use Listing File**", which uses a file called list.txt file to list all of the files to collect. Each line in the listing file consists of a title in double quotes of the item as it will be seen in the Portal, followed by the full path to the file.

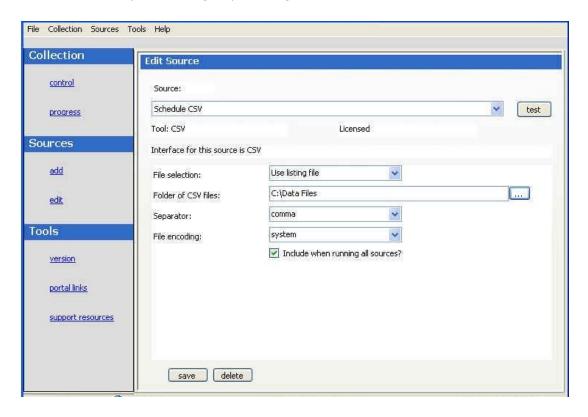
An example is show in the image below.



You must create this file and choose which folder this file is contained within.

The final option is using "Date Stamped Files in a Folder". This option allows you to put files in a given folder that have a date stamp on them showing when they should be collected for. The format for these file names should be <filename>\_yyyymmdd.csv. The dates should match the Collection date for the schedule that is assigned to your item. The default schedule has a collection date of the last day of the month, so an example would be schedule\_20070131.csv, which would have data for the month of January in 2007.

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



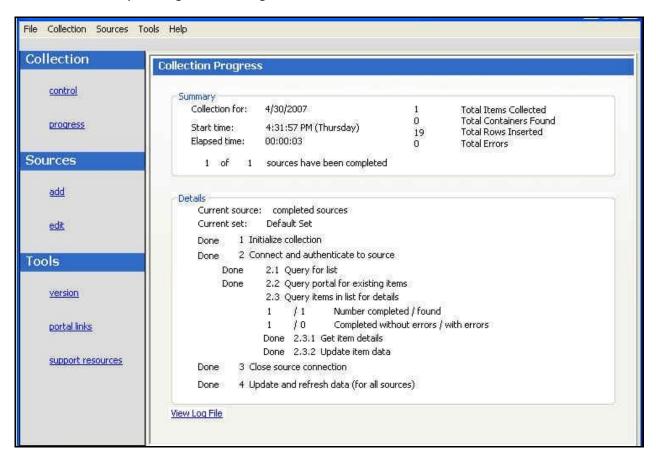
The next step is to run a collection.

# **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 CSV source from the drop down on the right. Below the drop down, select "Specified Date" and choose the last day of the previous month. The default schedule for the Portal is a schedule that collects data on the last day of the previous month, so selecting this date will let you automatically see data in your graphs once the default information is applied. See the Help files for more information about how schedules affect the Collector.

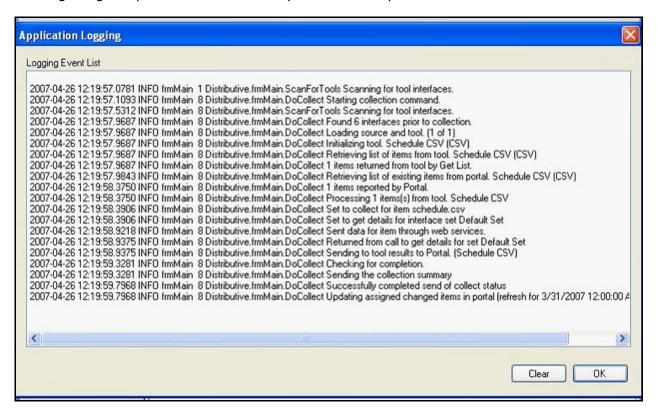
Once you've picked your source and your date, click on the **start** button.

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



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 tables and how many errors were encountered, if any.

If your collection does have errors, you can click on the "View Log File" link at the bottom of the progress page. This will open up the log file (which can also be reached under the File menu). This log file gives you information on why a module may not have been collected.

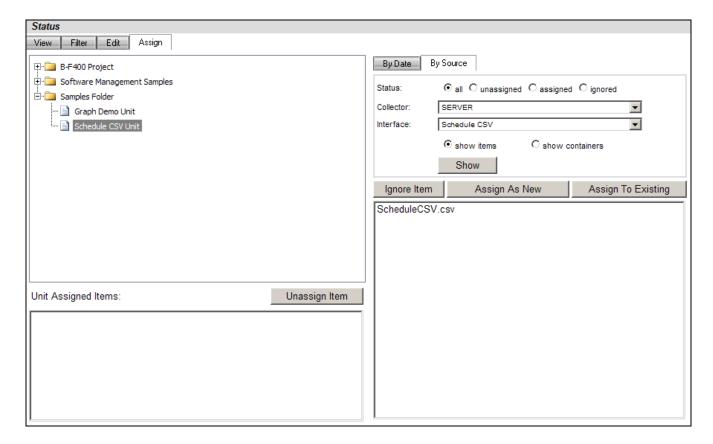


The next step is to configure the unit.

# **Configuring the Unit**

#### **Assigning Collected Items**

Once you've run your collection without errors, you're ready to add your **Items** to your **Unit**. Go back to the **Status** page and click on the **Assign** subtab. Click on the Unit 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're 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 As New** button (since we haven't yet assigned an information need to this unit).



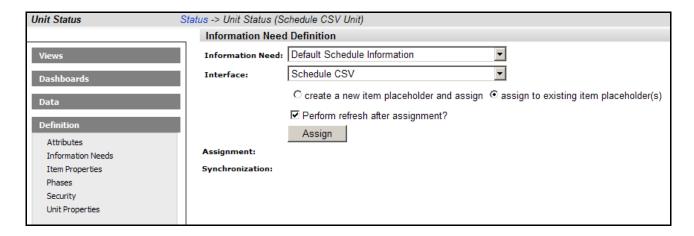
Now, if you look on the left hand side, you'll see your list of items set as Unit Assigned Items. Now all you have to do is assign the Information Need you created earlier to this unit and you will see data in your graphs.

# **Assigning the Information Need to the Unit**

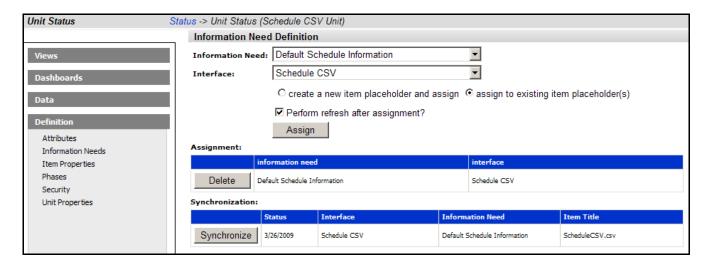
Staying on the Status tab, click on the **View** subtab and select your unit from the tree. On the right hand side, select the **Details and status** icon.



This will open the Unit Status window and display an empty GANTT chart with your items listed along the side. From there, click on the **Information Needs** link under the Definition section.



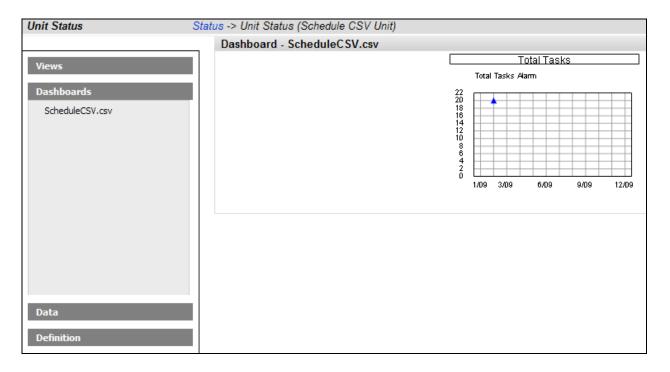
From the drop down lists, select the **Information Need** and the **Interface** that you are using. Be sure that the **assign to existing item placeholder(s)** radio button is selected. Then, click the **Assign** button.



The next step is to view your data in the Portal.

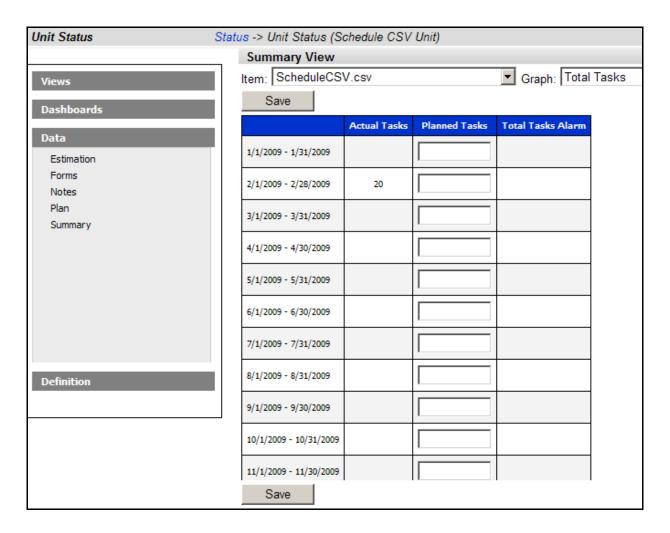
## **View Data in the Portal**

Now you're ready to see your data. From the Dashboards section, click on one of your items to view its data and graphs. You should see a data point in your graphs for the date that you ran the collection.

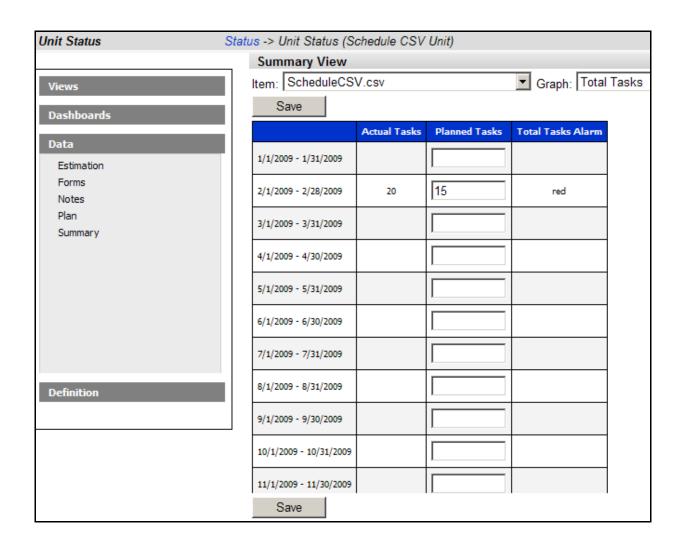


For our example, since we were using a manual data entry series for Panned Tasks, we will need to edit the data for the graph before an alarm status will show.

From the Data section, click on Summary to open the Summary View.

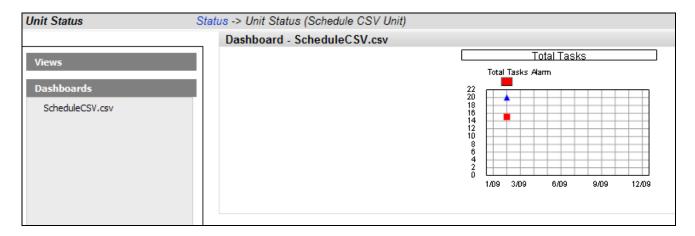


Enter data for the Planned Tasks series in the Planned Tasks column. In the example below, the data value entered turns the alarm red as can be seen in the Total Tasks column after saving.



Be sure the data changes are saved, and return to the graph view from the Dashboards section.

You should now see Planned Tasks and Total Tasks Alarm on the graph.



Congratulations! You've successfully set up a CSV integration.

# **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\_guickguides.html">http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_guickguides.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 <i>significant</i>
	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 <a href="http://www.ibm.com/software/rational/">http://www.ibm.com/software/rational/</a>.

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