Rational. Dashboard

Getting Started Guide

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Before using this information, be sure to read the general information under the “Notices” section on page 531.

This edition applies to **VERSION 4.0**, **Rational Dashboard** and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this manual

Welcome to IBM Rational Dashboard, a powerful tool to measure, analyze and manage the complete development lifecycle.

Typographical Conventions

The following typographical conventions are used in this manual:

Typeface or Symbol	Meaning
Bold	Book titles, important items, and selectable objects, including buttons and menus. For example: Click **Yes** to continue.
Courier	Commands, files, and directories; computer output. For example: Edit your `.properties` file.
>	A menu choice. For example: Select File > Open. This means select the File menu, then select the Open command from it.

Related Documentation

The following table describes where to find information in IBM Rational Dashboard documentation set:

For information on	See
How to install IBM Rational Dashboard and set up licenses to use it.	Installation Guide
General features and operation	Online Help
How to use IBM Rational Synergy	Using Synergy
How to use IBM Rational DOORS	Using DOORS

You will find PDF versions of the manuals on:

- The IBM Rational documentation CD
- Our web site at https://www.ibm.com/software/rational/support/

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1 Introduction

This document provides an introduction to IBM Rational Dashboard.

1.1 Overview

Today's organizations strive to meet the demands of their market while delivering quality products in a timely manner. To achieve this end, managers are required to review an overwhelming and often conflicting volume of reports to meet deadlines. Without adequate plans and the ability to evaluate the performance of a program or project against that plan, it would be increasingly difficult to make proper adjustments, learn from previous mistakes, and ensure that the project meets its ultimate goal and achieve business success.

IBM Rational Dashboard is a performance measurement application, accessible via a web browser. It allows executives, software managers, and project managers to keep track of the development of their applications, their resources, and the delivery of their products. It provides solutions for measurement and metrics, collects data from disparate teams and applications, and presents intuitive summary charts of key information in a single view. This consolidated view allows users to analyze trends, to manage by exception, and to drill down for more information when necessary.

IBM Rational Dashboard has built-in data collection interfaces for common file formats (such as CSV and Excel), databases (such as ODBC, Microsoft SQL and Oracle), as well as commercial applications (such as Microsoft Project, IBM Rational Change, Synergy, and DOORS). It has the ability to display up-to-date project status information in a graphical multi-level format from all these applications so that managers can focus on decision making rather than manually gathering data and compiling reports to ensure the success of their business.

1.2 What is Measurement?

Measurement is the process used by managers to monitor and control the processes, resources, and products that are part of their program. The purpose of measurement is to:

- Characterize (baseline performance)
- Evaluate (actual vs. plan)
- Predict (estimation and prediction)
- Improve (process improvement)

Managers need a mechanism to document expectations and plans for key aspects of their program**,** have confidence that the product will be delivered on time**,** and ensure that past mistakes will not reoccur. Engineering tools do not provide a way to setup a plan line, evaluate processes against the plan, and do management by exception, which is why measurement applications like IBM Rational Dashboard are necessary for a project's success.

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Primary software measurement guidance is provided by ISO/IEC Software Measurement Processes, DOD PSM Practical Software and Systems Measurement and CMMI. These processes tell organizations how well they are doing in specific areas. They do not outline *how* to do measurement and *which* measurements must be deployed. They simply provide an organization with general guidelines in reaching compliance.

IBM Rational Dashboard helps in all process areas of deploying measurement: from planning to setting up your project accurately to monitoring to controlling. It helps establish measurement objectives; define measures; data collection procedures; analysis procedures; collect data; helps analyze and store data and results; and communicate the results to your team.

1.3 IBM RATIONAL Dashboard High Level Features

IBM Rational Dashboard is a performance measurement application that provides a number of key features to managers, allowing them to control and monitor their projects, including:

- Standard items that simplify and speed up the deployment of popular standards and maturity models
- Automated extraction and analysis of data
- Dashboards based on lifecycle phase, ensuring managers have the most relevant and up-to-date information
- Delivery of Dashboards to managers using a standard web browser
- Extensive tailoring capabilities to support organizational-specific processes, products and measurement requirements
- Security features to control access to data
- A set of licensed interfaces for data collection
- Two types of user licenses (managers and administrators)

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2 Application Overview

2.1 Major Components

IBM Rational Dashboard consists of two components which perform the functions required to collect, analyze, and report measurement data. These two components are the Portal and the Collector. The following figure (Figure 1) depicts the relationship between these two components.

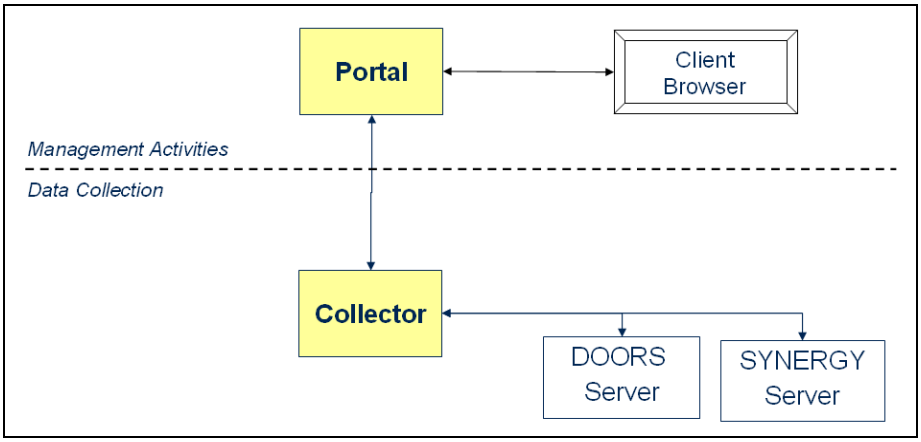

Figure 1

2.2 Collector

The IBM Rational Dashboard Collector (Figure 2) is responsible for retrieving data from all applicable data sources. For organizations interested in data collection from IBM Rational products, the IBM Rational Dashboard Collector requires a IBM Rational DOORS and/or IBM Rational Synergy Windows client (and associated license) with which to extract data. The Collector collects data according to the Interfaces defined in the Portal. Collectors can be installed on any suitable Windows platform and use web services to retrieve Interface details from the Portal and to return the collected data to the Portal.

The Collector is configured locally with details such as the location of the DOORS and/or Synergy client, database, web services and user credentials. The Collector can operate either in GUI or command-line mode, the latter is useful for scheduling unattended collections.

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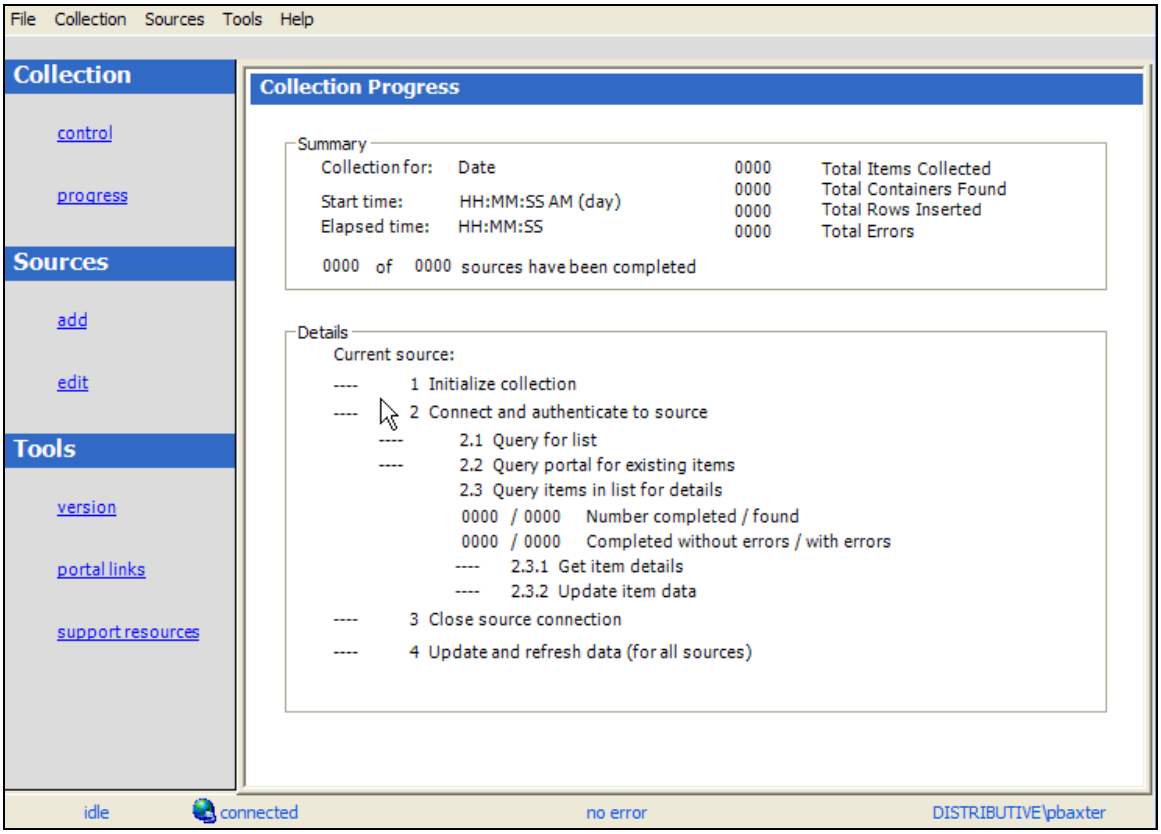

Figure 2

The DOORS and Synergy repositories and server can exist on any of the IBM Rational supported platforms (e.g. Linux or UNIX). The Collector is a rich-client .NET application that runs only on Windows.

2.3 Portal

The IBM Rational Dashboard Portal delivers information to managers via the web, no plug-ins or applets required. The IBM Rational Dashboard Portal (Figure 3) consists of five main tabs: Status, Collection, Library, Reports, and Admin.

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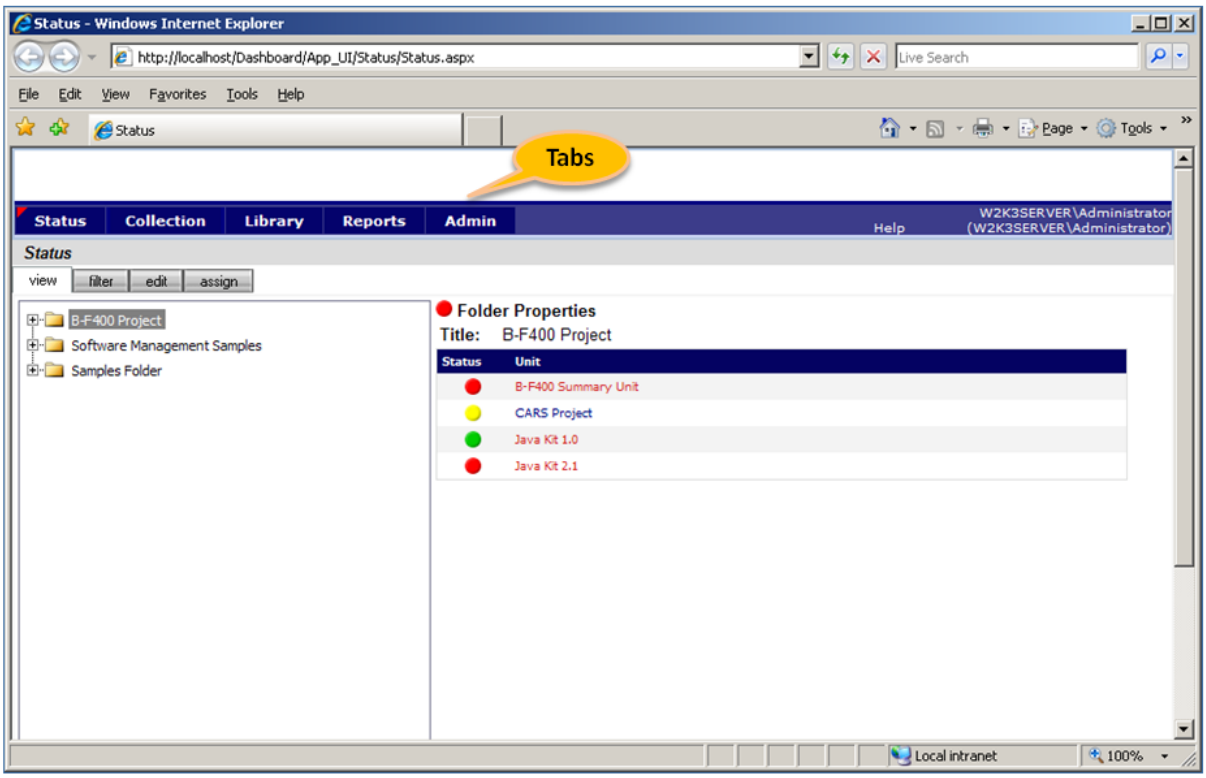

Figure 3

2.3.1 The Status Tab

The Status tab provides managers with an overall picture of on-going project performance. A manager can review the status of their products under development and act on project progress based on status information from a variety of views: GANTT, Dimension, Information Need, Interface, Item, Graph, or Alarm Status.

The Status tab contains the organization tree consisting of Folders and Units that depict the structure of an organization.

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2.3.2 The Collection Tab

The Collection Tab (Figure 4) is used to configure the Interfaces used by IBM Rational Dashboard Collector(s) and to monitor the status of collections. The date and time of a collection, the number of items that were collected, errors, and other detailed information on the accuracy of the collection are available.

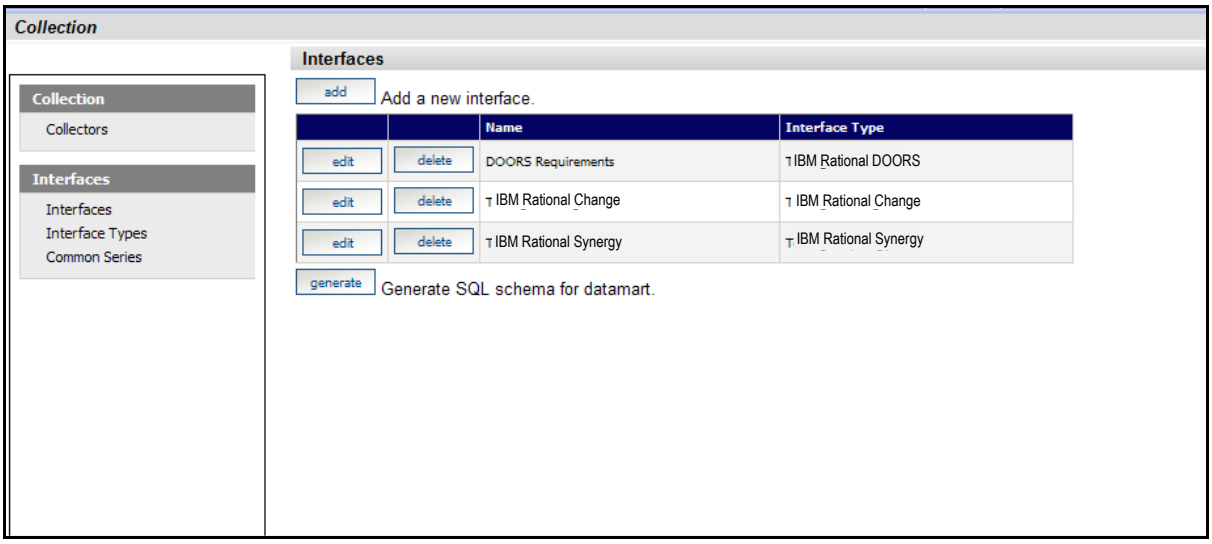

Figure 4

2.3.3 The Library Tab

The Library tab (Figure 5), which contains built-in best practices, allows users to define or select Information Needs, Dimensions, and Unit Templates. Information Needs contain graphs and status which address a single management need. Dimensions are used to give a collective view of the status provided by Information Needs. Finally, Unit Templates simplify the creation of Units by allowing the "pre-definition" of Information Needs, attributes, roles, users, default schedule and phases.

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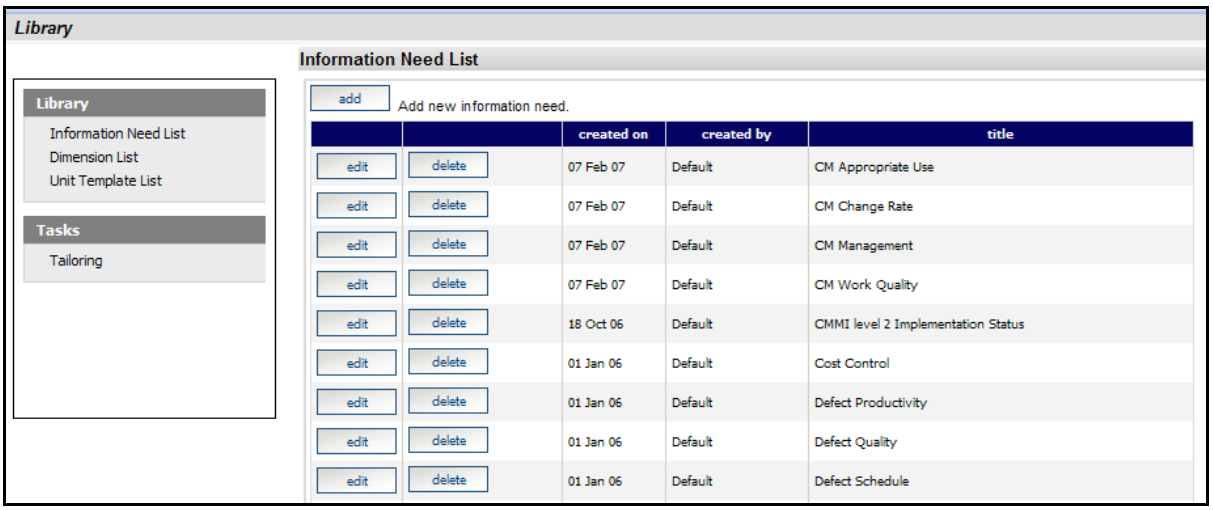

Figure 5

Tailoring Wizards provide guided support for the following common tasks:

- Configuration of a new attribute and series to be collected from an existing Interface and displayed on an existing Graph
- Modification of an existing equation
- Modification of an existing SQL query in an Interface
- Verification of an existing SQL query against collected data

2.3.4 The Reports Tab

The Reports tab (Figure 6) allows users to register for notifications that will provide them with specific alerts following a collection. Alert types include: collection complete, collection complete with errors or with new items, folders or Units created or deleted and alarm change to yellow or to red. An Alert notification list is present in the Alert Tab following a collection if the user has registered for alerts.

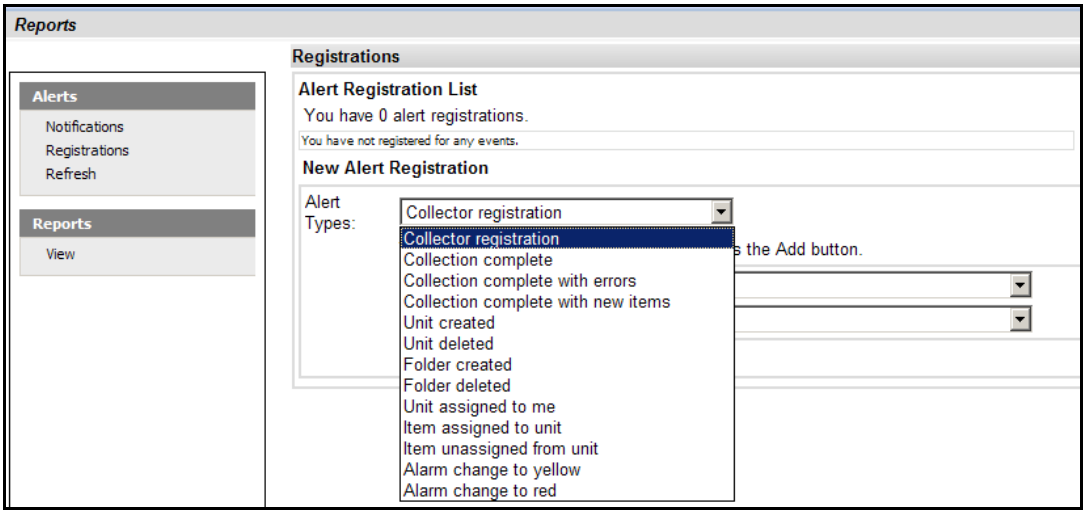

Figure 6

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Alerts can be sent via email using SMTP. Each Alert email contains a URL that navigates to a page providing additional information on the associated alert.

IBM Rational Dashboard provides a set of built-in reports that provide visibility into the definition and configuration of the measurement process. The reports give up to the minute information on all aspects of IBM Rational Dashboard such as: Interfaces, Collectors, Information Needs, Units, Unit Templates, Accounts, Roles, and Servers. Reports can be printed to a Windows printer or exported to RTF, Excel, or Acrobat/PDF format. Access to reports can be restricted to users with particular Roles.

To add custom reports to the Portal they must first be designed using Crystal Reports Designer 11.5 (which is not included with the Portal) and then placed in the Accessories\Reports folder within the Portal website on the Portal server. A facility is provided on the Admin Tab to manage Report Groups (which are containers for these report design files) and to setup the associated access controls.

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2.3.5 The Admin Tab

The Admin tab (Figure 7) allows an administrator to manage the application in accordance with the needs of their organization. Administrative functions performed on this tab include: adding user accounts, roles for security, attributes to be used for filtering information, schedules, servers and reports. The administrator can also view version information and the Portal and Web Services log files for important troubleshooting information.

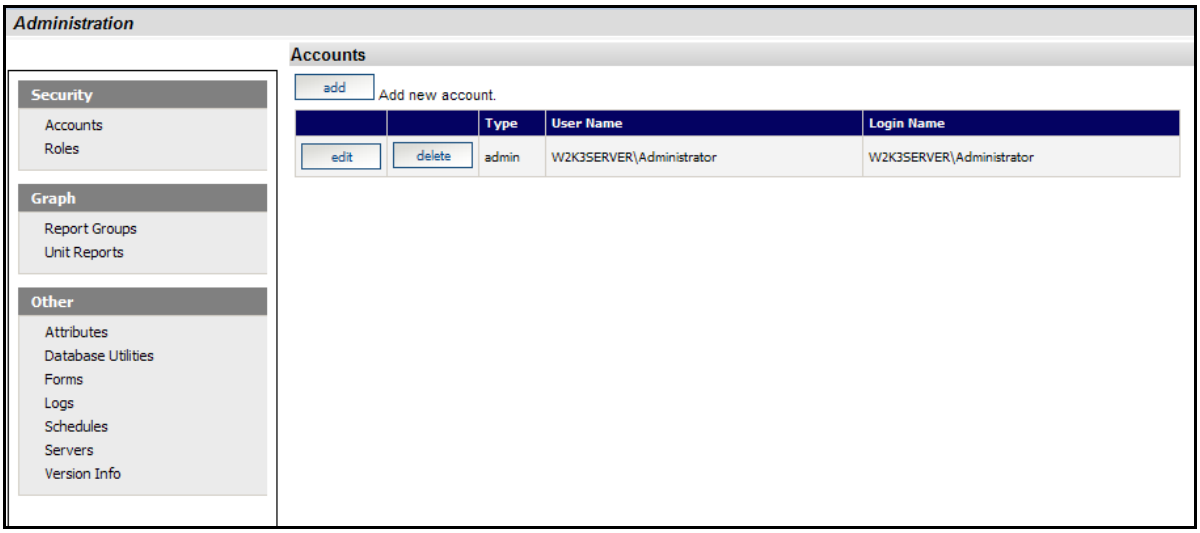

Figure 7

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3 Terminology

Organization Tree
The Organization Tree is located on the left side of the main Status Tab. IBM Rational Dashboard utilizes a single tree for organizing information to provide managers with a controlled method of accessing data. This Organization Tree contains a hierarchy of Folders, Sub-folders and Units. Folders can be nested to represent the structure of the organization and the projects managed. Units represent departments, programs, projects or any group of resources that needs to be managed.

Folder
A Folder is a hierarchical container in the Organization Tree for Units and other Folders. When a Folder is selected in the Status Tab, a summary of the status of each Unit contained within the Folder is displayed. A Folder is typically used to represent a logical group within the organization (e.g. a department responsible for a number of projects).

Unit
A Unit in the IBM Rational Dashboard correlates to a project. You can create as many Units as you like and arrange them in the organization tree to form the management cockpit by which managers can monitor what is important to them. There are two types of units, basic and summary. Summary units provide a roll-up or aggregation of status contained in basic units.

Units contain data (Managed Items) collected by managers for a specific purpose. Managers assign Information Needs (e.g. Requirements Stability) to Units to provide a pre-defined way to access and display measurement data. Information Needs can be assigned individually or via a Unit Template (available when the Unit is first created).

Unit Template
Unit Templates provide a quick and easy way to deploy a new Unit re-using common Information Needs and other Unit properties.

Unit Templates are ideal for projects that need to manage similar information. For example, if an organization is tracking five projects, with each project collecting the same data on cost, schedule, and requirements, then an administrator could create a Unit Template including Information Needs, Attributes, Phases, Roles and a default Schedule to meet the needs of all of the projects. When creating the Unit associated with their project a manager can then simply assign the Unit Template thereby ensuring that data collected for that project is displayed consistently.

The IBM Rational Dashboard contains several pre-defined Unit Templates, including the DOORS Template containing Information Needs relevant to requirements management and IBM Rational Change/Synergy templates containing Information Needs relevant to change and configuration management. Unit Templates are managed though the Library Tab.

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Form
A form is a set of data, such as a set of risks or actions items, of interest to a manager. Forms are provided in the Portal to reduce or eliminate the need to store project data in other locations, such as spreadsheets. A unit may have any number of forms (including zero) as needed by management policy. Managers may create new form data records and review them as needed. Each form and form data record has a color-coded status to speed review and problem resolution.

Items
An Item is a piece of collected data, for example a project schedule file, a risk plan, a DOORS module or a Synergy release. A Managed Item is an Item that has been assigned to a Unit. Managed Items support the Information Needs for the Unit and are related to the sources of collected data through Interfaces. From the Managed Item, you can drill down to corresponding graphs which show different representations of the information collected.

Information Need
An Information Need is a collection of Graphs, series, status (current actual, target and alarm), and measurement guidance that a manager needs to assess one aspect of a project status. For example, if a manager wanted to control progress of project requirements, the Information Need would be a collection of graphs, series, and guidance that shows requirements progress.

Multiple Information Needs can be assigned to a Unit. A typical Unit for a software project would likely include the following Information Needs: schedule, requirements, cost, defects, testing, risk, configuration management, software size, and productivity.

IBM Rational Dashboard is shipped with a library of Information Needs and you can also create your own via the Library Tab.

Dimensions
A Dimension allows status captured in Information Needs to be organized in user-defined categories. For example, the Information Needs could support three company standards such as a company management policy, a compliance standard, and a maturity model level. In this case, there would be three Dimensions corresponding to each of the three company standards.

A Dimension consists of one or more Dimension Elements, where each Element represents a sub-category of status. In our example, the Dimension “Company Management Policy” could be created with three Dimension elements (“Quality”, “Productivity”, and “Product size”). Dimensions and their associated Dimension Elements are created via the Library Tab.

Dimension Elements are assigned to Information Needs via the Library Tab. Each Information Need can have one or more Dimension Elements assigned to it. For example, the Information Need “Requirements Progress” could be assigned the Dimension Element “Requirements Management” which is part of the “Software CMMI Maturity Level 2” Dimension. When an Information Need is assigned to a Unit, the associated Dimensions and Dimension Elements are automatically created within the unit from the definitions in the Library. Users are able to view Unit status by Information Need and Dimension Element.

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Through Dimensions, IBM Rational Dashboard can support any number of standards, policy, maturity model, quality model, or compliance documents. For example, a Dimension can be created for company development policy, ISO-9000, one of the maturity levels in the SEI's CMMI, a government regulation, or an industry practice. Each one of these documents becomes a Dimension, and the major elements, sub-categories or process areas become a Dimension Element. The Portal then displays the status provided by the associated Information Needs against the related Dimension and Dimension Elements.

Graphs

Graphs are defined and associated with Information Needs via the Library Tab. The predefined Information Needs have a set of associated Graphs which can be used "as is" or re-configured to meet your requirements. You can also create and associate new Graphs with existing or new Information Needs.

When a Managed Item is assigned to a Unit, Graphs are automatically created for the Item based on the Information Needs associated with that Unit.

Users can tailor the appearance of graphs, enter data, or expand the definition of graphs. The Portal allows users to perform data entry (for manual data entry only) and change all visual aspects of the graph using the built-in graph formatting pages.

Interface

Interfaces create the relationship between the data to be collected from a data source (e.g. DOORS attributes). The Portal includes pre-defined Interfaces (such as Microsoft Project, IBM Rational DOORS, IBM Rational Change, and IBM Rational Synergy) which contain data definitions for the attributes required for the pre-defined Information Needs.

To support tailoring, you can modify existing interfaces or create a new one to match an interface to the processes and tools in use at your organization. Each Interface has a unique set of policies describing what data is to be collected from each (external) application.

Interfaces are managed from the Collection Tab and are intended primarily for those users responsible for data collection.

GANTT View

The Gantt view provides a compact, color coded status summary of the Items within a Unit. With the Gantt view, a manager can review the plan and progress for the Unit, including start date, end date, and status for each Managed Item. This provides a quick summary of past performance, current status, and future plans.

Phases

Phases are periods between a Unit's start and end date which can be used for labeling graphs. For example, typical project phases are: Plan, Requirements, Build, Test, and Deploy. Seeing Phase titles is useful to managers and other stakeholders to indicate what Phase the Unit is currently in, what Phases have completed, and what Phases are up coming.

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Each Phase has a title, start and end date, where the Phase dates cannot overlap with another Phase. There is no limit to how many can be created, but practically, five to seven Phases.

Schedules
Schedules play an important part in defining when data is collected and how it is displayed. An administrator can create as many schedules as needed by your organization. A schedule is simply a named collection of periods. Each schedule period consists of a start date, an end date, and a collect date. The collect date is either the same as the end date or after. There are two primary uses for schedules: collection and display.

The Collector uses the collect date for a schedule to determine when to actually collect item data. For example, if you assign an Excel document (as an item) to a Unit, and that item uses a weekly schedule, then the Collector will process the Excel data for only one day of each week regardless of how many times the Collector runs. The specific day would, in this example, be based on the collect date. So, if you had set all the periods in the weekly schedule to start on Monday, end on Sunday, and collect on Sunday, the Collector will collect the Excel data on Sunday.

Schedules are also used for displaying data. Each schedule-based graph has a schedule assigned to it. Event-based graphs don't use schedules. The graph schedule defines the possible data points for each series in the graph. For example, the most common application of a schedule is as the X-axis in a run graph. Along the bottom of the run graph are the periods of the schedule, each period having a data value for each series. Notice that in a run graph, you can select a date range of the available data to see, for example, only this year or a rolling date range (e.g. 12 months back and 3 months forward). The data is still maintained for the entire schedule, though some of it is hidden based on the date range.

Status
The status of Units, Items, Dimensions, and Graphs are all driven by the Alarm series assigned to Graphs. All status in Portal is based on the worst-case status of Alarms, the period of performance, and the alarm color ranking.

Period of Performance
The last completed period in the schedule is used to determine Status. The Alarm series on a graph typically displays the full history of Status but only the last completed period is used for the Unit, Item, Dimension, or Graph status indicators. For example: A Graph with a monthly schedule is reporting from January 1, 2006 to December 1, 2006. The current date is May 15, 2006. Even if data has already been inserted for May, the last completed period is April. The alarm color reported in April is the status that will be used.

Worst-case
Status in IBM Rational Dashboard is reported using the worst-case value, starting at the Graph level and rolling up to the Unit.

Some Graphs may have more than one Alarm series. In this case, an option is available to use a specified Alarm series to report Status or to use the worst-case indicator across all Alarm series on the Graph. For example: a Graph may have one Alarm series that reports the status of the actual data compared to the plan data. Additional Alarm series could be added to report missing

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data, a value out of range or a data pattern. These additional Alarm series may not directly indicate status and would not be used in reporting.

Alarm Color Ranking
Alarm color ranking determines a value or the "good" or "bad" worth of a color. To quickly inform users the current health of their project, the status colors are displayed on the GANTT, Unit, Item, Dimension, and Graph views as well as an individual graphs as alarm series.

Alerts
Alerts are the mechanism for notifying a user that something they are interested in has changed. Alerts help mangers administer the system and manage their projects. An alert is a notification that explains what happened and includes a URL to go see, fix, and/or review an event. Alerts save time by pin-pointing problem areas. There are two parts to the alert system: Alert Registration and Alert Notification.

An Alert Registration is an indication that a user wants to see a specific Alert. A user selects one of the available Alert Event Types, along with any parameters, and adds it to their list of Registrations. The application then keeps track of the events that each user has registered for and generates Alert Notifications when the user clicks the process button.

The Alert Notification List is a table of Alerts that have occurred and that are ready for review by the user. Users can view individual Alerts by clicking on the Alert in the Alert Notification List. Once an Alert is selected, the information regarding the alert will display below. Five descriptive fields are displayed to inform the user why the alert was triggered:

- Source - displays the collector that was used for the collection.
- Event - displays the alert event.
- Date/Time - indicates when the failure took place.
- URL - displays the URL that failed.
- Description - details the reason the alert was triggered.

The user may clear an Alert to remove it from the list.

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4 Overview of the Status Tab

This Chapter provides a high level walkthrough of the Status Tab to familiarize you with navigating IBM Rational Dashboard.

4.1 Checking Progress on the Status Tab

The Status Page is the main IBM Rational Dashboard portal page. All users have access to this tab. This page contains sub-tabs, a tree, called an Organization Tree, and a details panel which displays properties of what was selected in the tree.

The four sub-tabs are view, filter, edit and assign. The first two sub-tabs are shown to all users, while the last two are shown only to administrators. Let's take a look at the sub-tab that is displayed when you enter the Status tab, the view sub-tab.

4.2 The Organization Tree

On the left hand side of the Status page is the Organization Tree, containing your organization structure, grouped into folders, sub-folders, and units. Your Organization Tree should represent a structure that is familiar and easily recognized by your managers. Included with the Portal, sample folders and units (Figure 8) show predefined Information Needs and utilize the "demo data" within the portal.

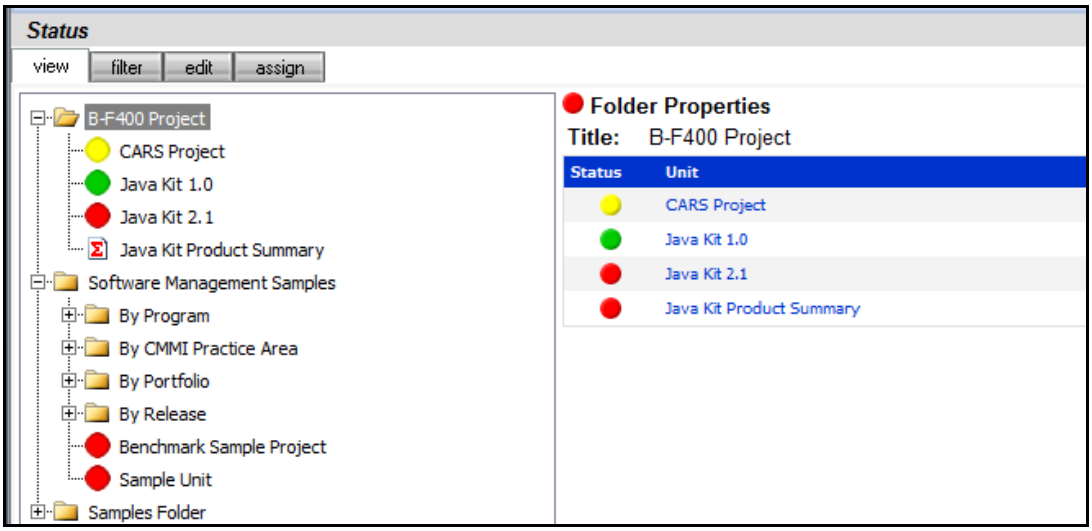

Figure 8

The sample Units are visible to users whose Accounts have been assigned the standard "Sample View" Role via the Admin Tab.

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4.3 Folders and Sub-Folders

In the Organization Tree (Figure 9) notice that there are three top-level folders, *B-400 Project*, *Software Management Samples* and *Samples Folder*. Each top-level folder has a plus-sign icon located to the left of it to allow the node to be expanded. Expand the *Software Management Samples* folder and then click on the *Software Management Samples* node in the tree. The contents of the selected folder are shown on the right hand side, with each entry having a color code.

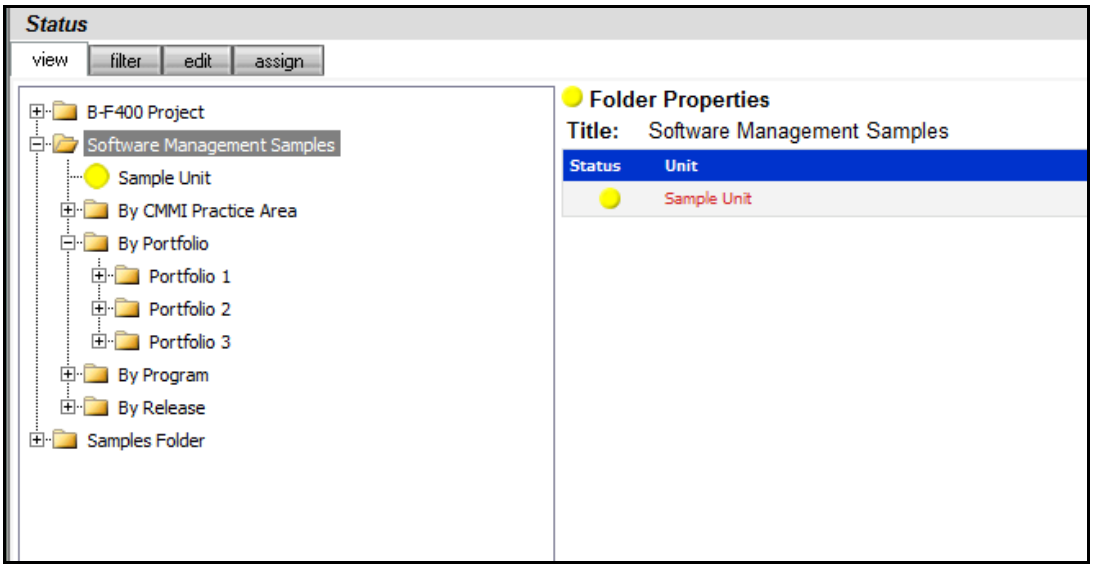

Figure 9

4.4 A Basic Unit

In the Organizational tree (Figure 10) expand the *Software Management Samples* folder. Highlight the *Sample Unit* by clicking on it. The Unit Properties for that Unit will be displayed on the right-hand side of the page. Review the status tab and take note of the following highlights:

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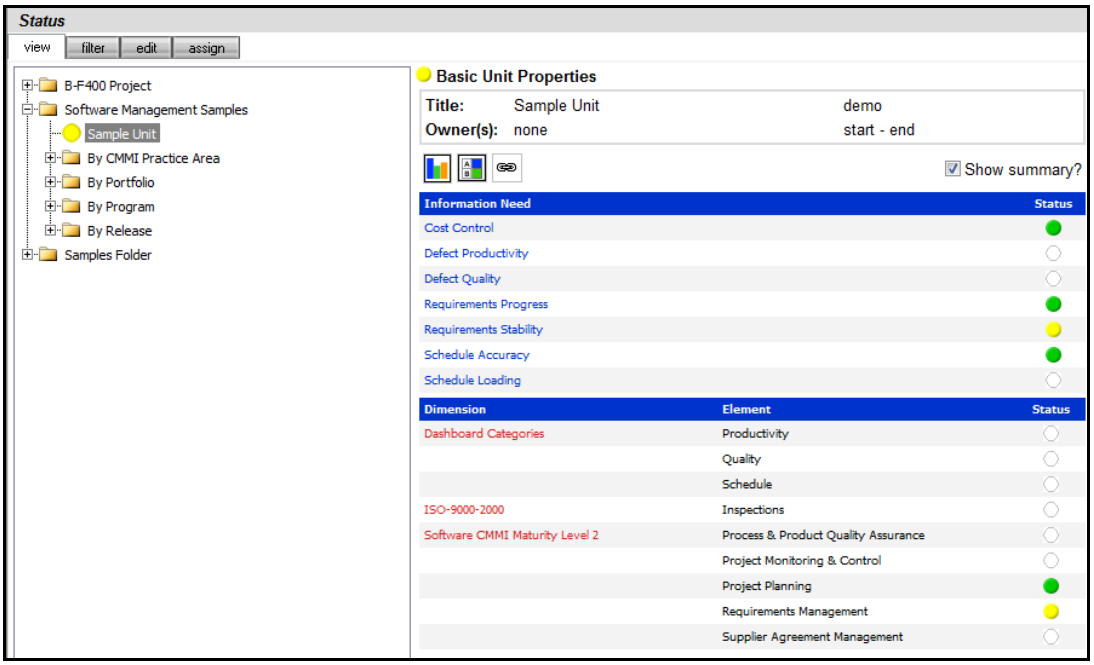

Figure 10

Currently the Unit is assigned to seven Information Needs: Cost Control, Defect Productivity, Defect Quality, Requirements Progress, Requirements Stability, Schedule Accuracy, and Schedule Loading. Each Unit in the Organization Tree may have a different set of Information Needs, depending on how the Unit is to be managed (and which Information Needs were selected for it). A color-coded Status for each Information Need is shown for the selected Unit.

Status according to Dimension and Dimension element is also shown below the Information Need list. Remember that the Dimensions and Elements seen for the Unit are those which are assigned to the Information Needs for the Unit.

4.5 A Summary Unit

To view a summary unit, expand the BF-400 folder and then click on the Java Kit Product Summary. On the right side, the contents and status of the summary unit are displayed in two grids: an information need grid and a form grid (Figure 8).

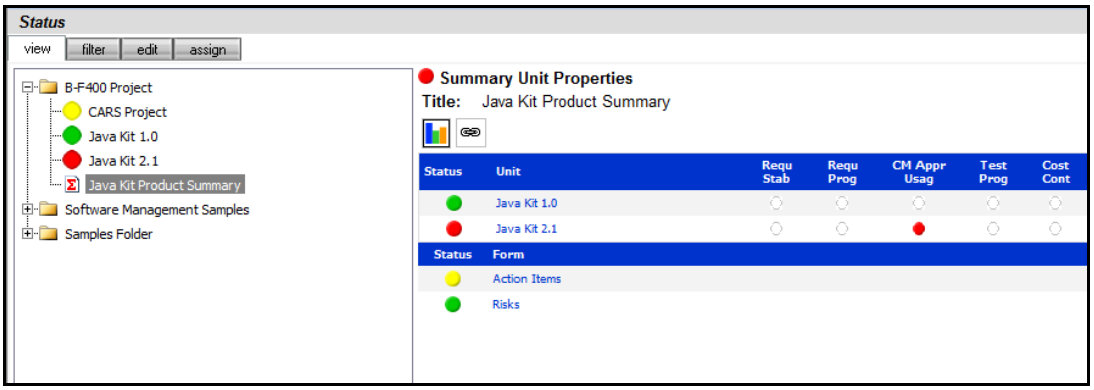

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Figure 8

Like a basic unit, a summary unit contains information needs, which are displayed as columns in the top grid. Along with information needs, a summary unit also contains one or more basic units. In the example shown above, the Java Kit Product Summary unit contains two basic units Java Kit 1.0 and Java Kit 2.1. These are shown as rows in the top grid. There are five information needs whose abbreviated titles are shown as columns as follows Requ Stab, Requ Prog, CM Appr Usag, Test Prog and Cost Cont.

The second grid contains a list of forms used by the summary unit, with the status being calculated as the worst case of the basic units. Above there are two forms Action Items and Risks.

4.6 The Filter Sub-tab

The Filter Sub-tab (Figure 9) allows units to be searched using a variety of filter criteria. The left side of the page contains filter criteria such as the Unit state, the Alarm status, one of the descriptive properties, an attribute or unit content.

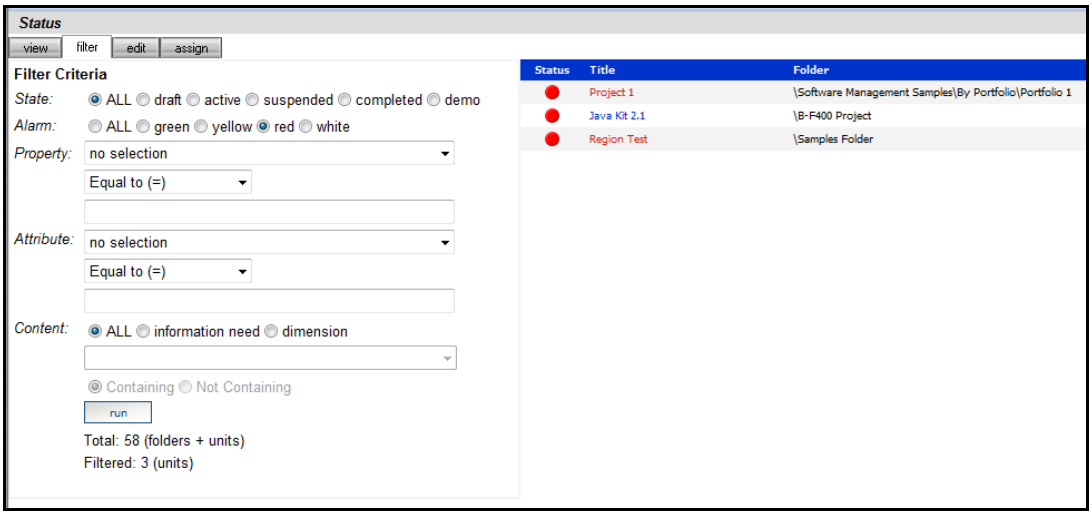

Figure 9

In Figure 12 above, the list of Units having red status is shown by selecting the red radio button for the Alarm filter, and then pressing the Apply button. The resulting units are shown on the right side of the page, with each title being a hyperlink that navigates to the unit having a red alarm status. In the example, there are 3 units having an Alarm status of red.

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5 Navigating a Basic Unit

This Chapter provides a high level walkthrough of the Unit Status Page to familiarize you with reviewing and configuring a project. Remember that in IBM Rational Dashboard, a project is called a unit. This Chapter describes how to navigate a "basic unit", which supports data collection and data analysis.

5.1 Unit Status Page for a Basic Unit

On the Unit Properties page, basic units are displayed in folders in the Organization tree. In the Tree, the basic unit is displayed as a colored circle while the summary unit is displayed as a colored sigma sign. In the *Software Management Samples* folder, click on the *Sample Unit* (Figure 10).

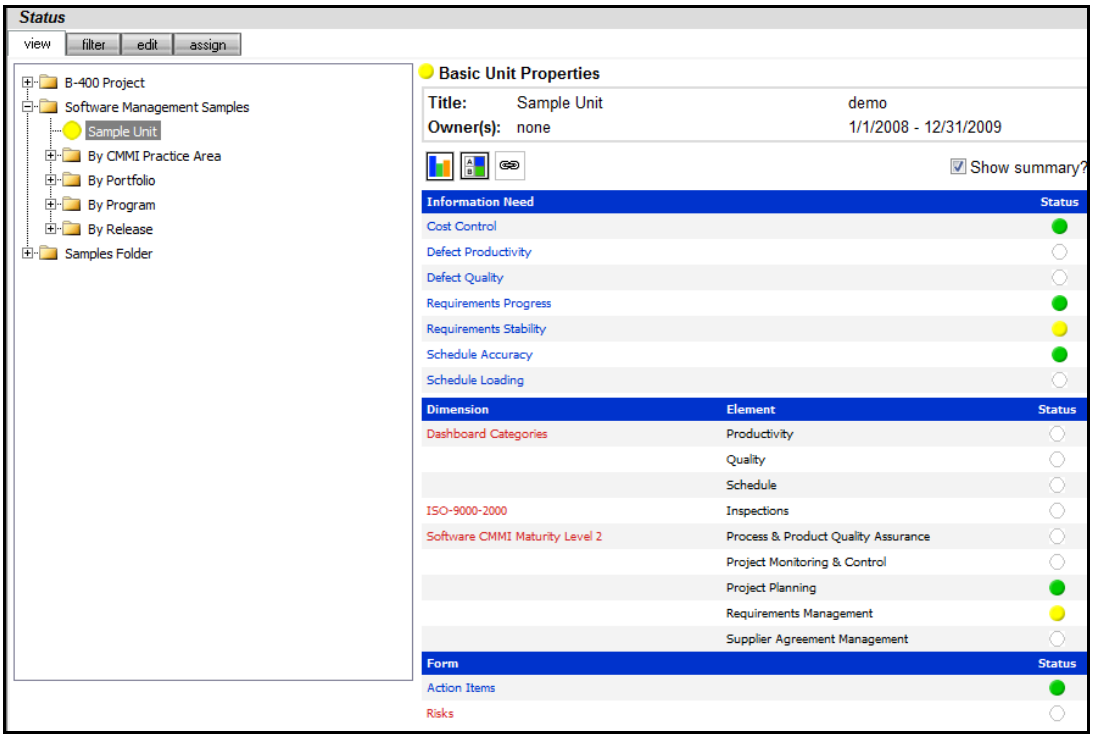

Figure 103

There are several methods to drill into more detail for the *Sample Unit*, as follows:

- The details icon (the left-most of three icons located above the text Information Need, on the right hand side)
- An information need hyperlink (in the Information need column)
- A dimension hyperlink (in the dimension column)
- A form hyperlink (in the form column)

The Unit page provides commands to navigate, configure and secure a unit, as well as enter plan, actual, analysis/notes and form data.

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By pressing the Details icon, the Unit Status Page first displays the Gantt View (Figure 11). The Views panel (on the left-hand side) provides a number of other commands to review status and progress.

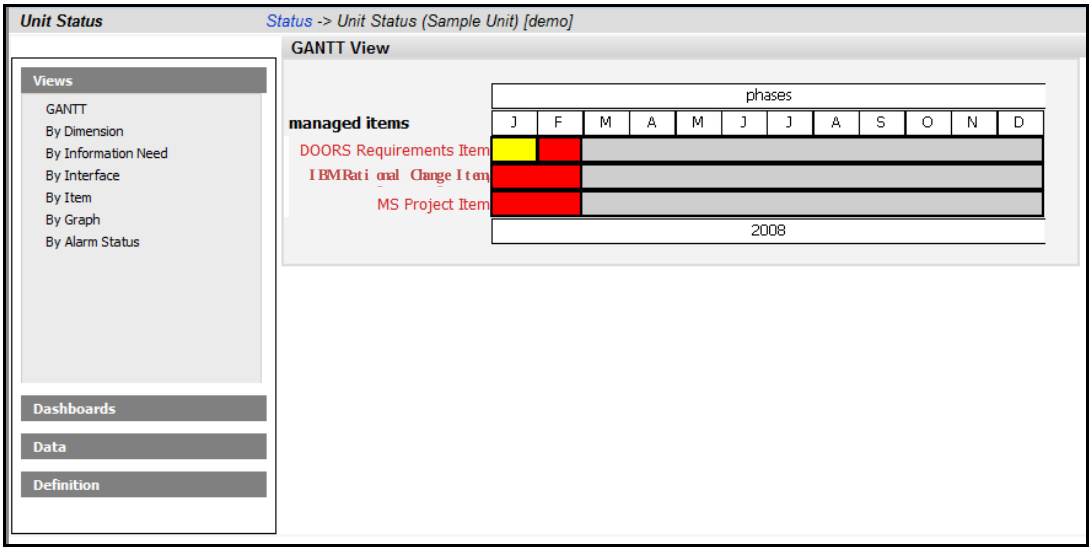

Figure 114

Unit data is presented in a variety of ways with *views*. This flexibility tailors the data presentation to the manger's style of managing instead of forcing the manager to rely on a prescribed way of receiving information. Use the navigation bar to review each of the available *views*: Gantt, By Dimension, By Information Need, By Interface, By Item, By Graph, and By Alarm Status.

Click on the different types of view on the navigation bar in the left pane to explore the different views available (Figure 125).

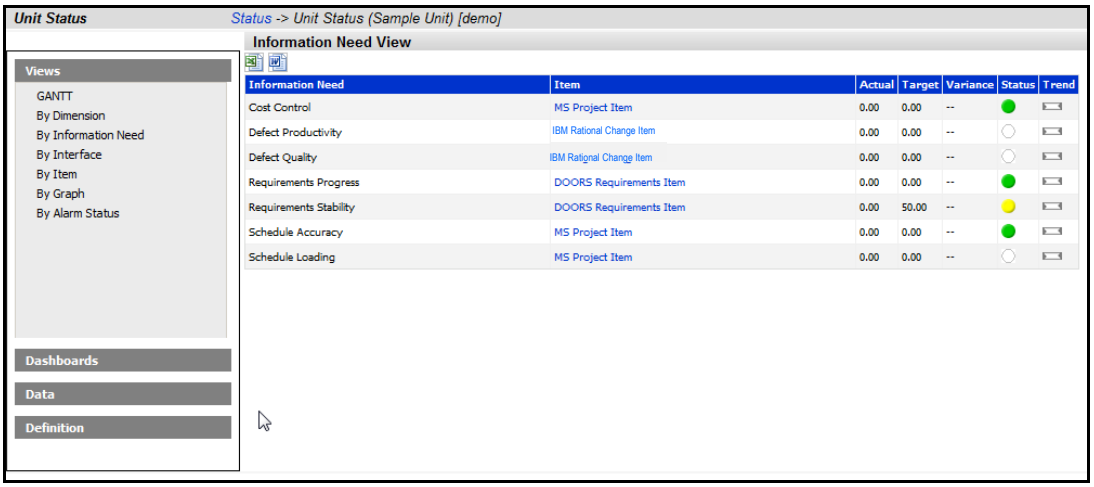

Figure 12

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5.2 Unit Dashboards

Unit Dashboards are created automatically as items and information needs are assigned to a basic unit. Every item assigned to the unit has its own dashboard, with the graphs in the dashboards being defined by the information needs that were assigned.

Click the Dashboards panel on the left and then click the *IBM Rational Change Item*. All graphs associated with the relevant Information Needs will be displayed in the Dashboards panel (Figure 16).

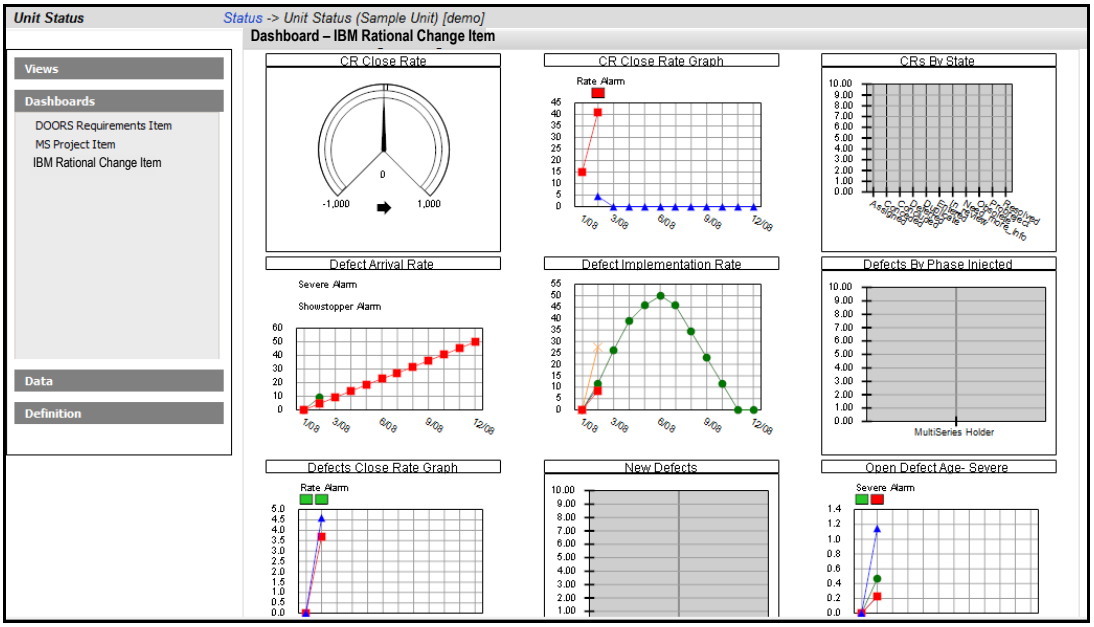

Figure 136

Take a moment to look at the graphs.

Once you're done, click on *MS Project Item* in the Dashboards panel on the left side and you will see graphs similar to those on Figure 17.

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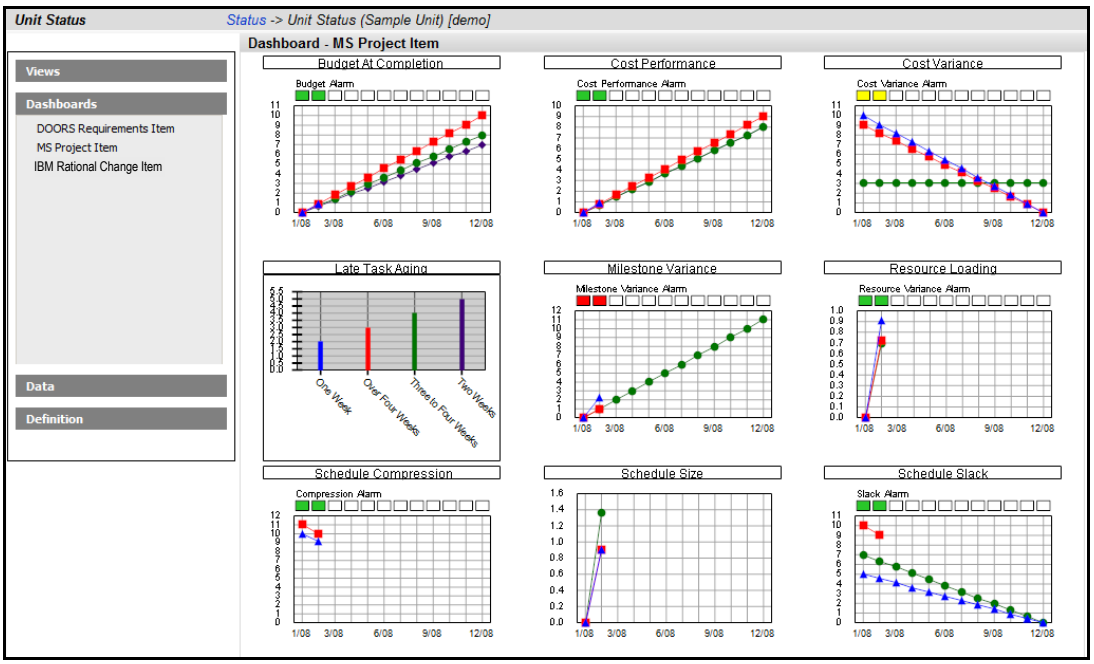

Figure 147

And finally, click on *DOORS Requirements Item* in the Dashboards panel. All Graphs associated with the relevant Information Needs will be displayed in the Managed Item Dashboard (Figure 18).

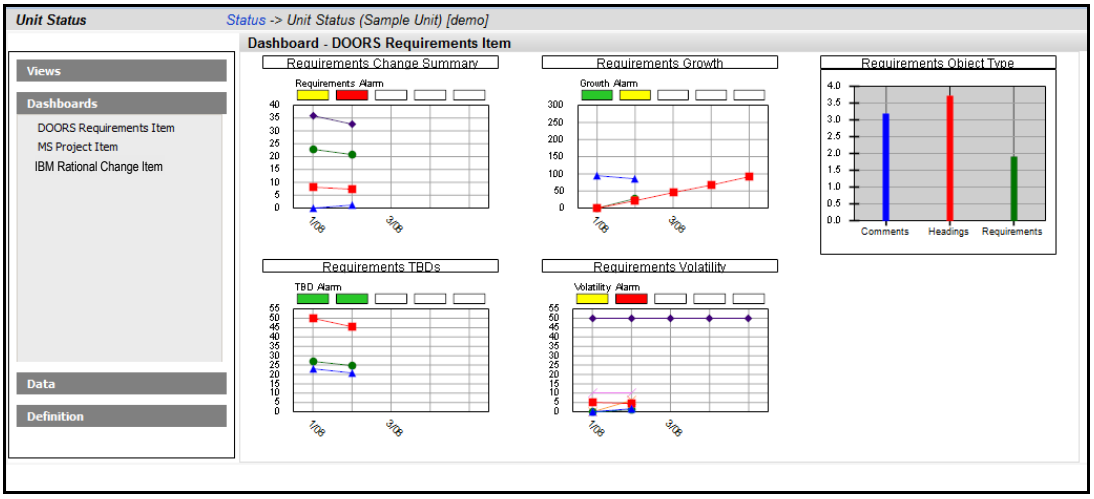

Figure 18

5.3 Graphs

Click on the Requirements Volatility graph in the DOORS Requirements items to view the graph in more in-depth detail on the Graph Display Page (Figure 19).

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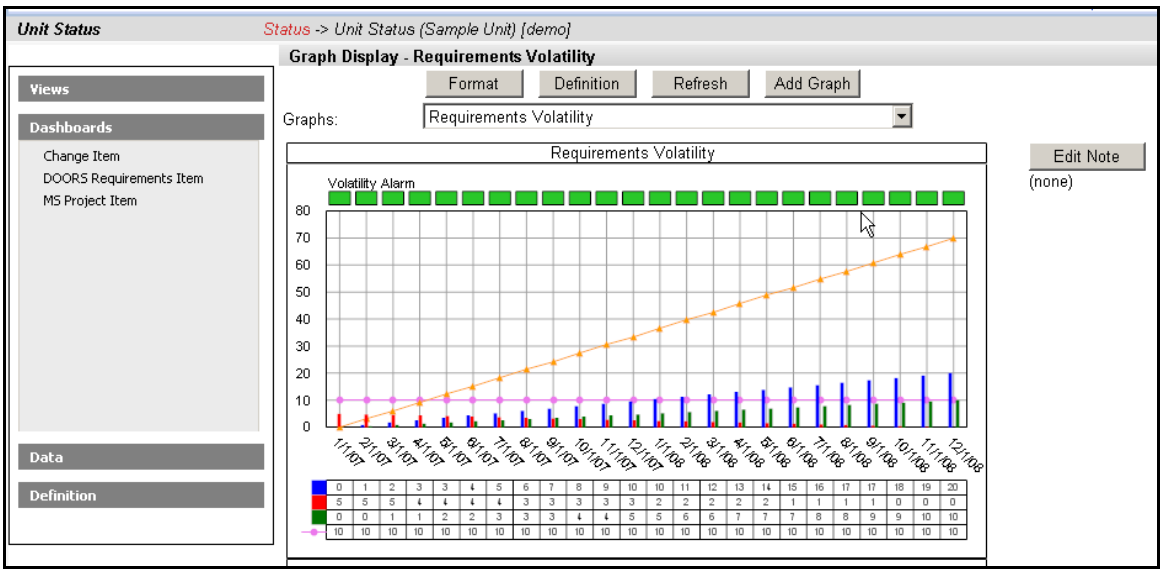

Figure 19

On the Graph Display Page you see four buttons on top of the graph, representing options available to modify this graph.

The first button ("Format") allows the user to manage the format and visual layout of the graph.
The second button ("Definition") allows the user to define and enter data for the graph.
The third button ("Refresh") allows the user to refresh the graph for the most current data and status available.
The fourth button ("Add Graph") allows you to add a new graph.

Notice in our sample graph, Requirements Volatility, we have an alarm for Volatility, a planned series, and several series based on collected data. The flexibility in graph formatting, as well as the large selection of graph types, allows a manager to view status and data in a manner which is most productive for their management style.

5.4 Form Data

In the Data Panel in the left pane, the Form command displays the forms used by the current unit and the form data records for the selected form (when possible). The Form View (Figure 15) page shows two forms, Action Items and Risks. Notice that the worst-case status of each form is shown in the top grid, with Action Items being yellow and Risks being green. To select a form, click on the corresponding item in the Title column, which will display the form data records for the selected form.

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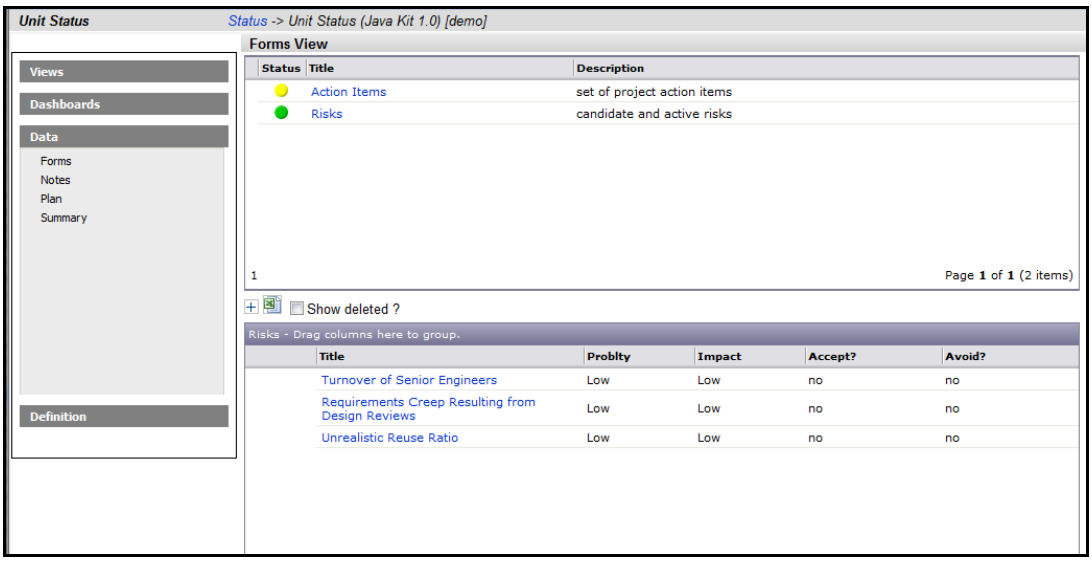

Figure 150

In the above figure, notice that the Risk form contains three form data records, shown in the grid at the bottom. To edit a form data record click on the title in the corresponding record. To add a form record, click the "+" icon located above the bottom grid.

5.5 Plan Data

Also in the Data Panel in the left pane, the Plan command provides a location to review and enter plan data for all graphs in the current basic unit. The Plan View (Figure 161) shows the graph and series names for plan series as well as the technique previously used to enter data for each plan series (or "none" if the plan has not been initialized).

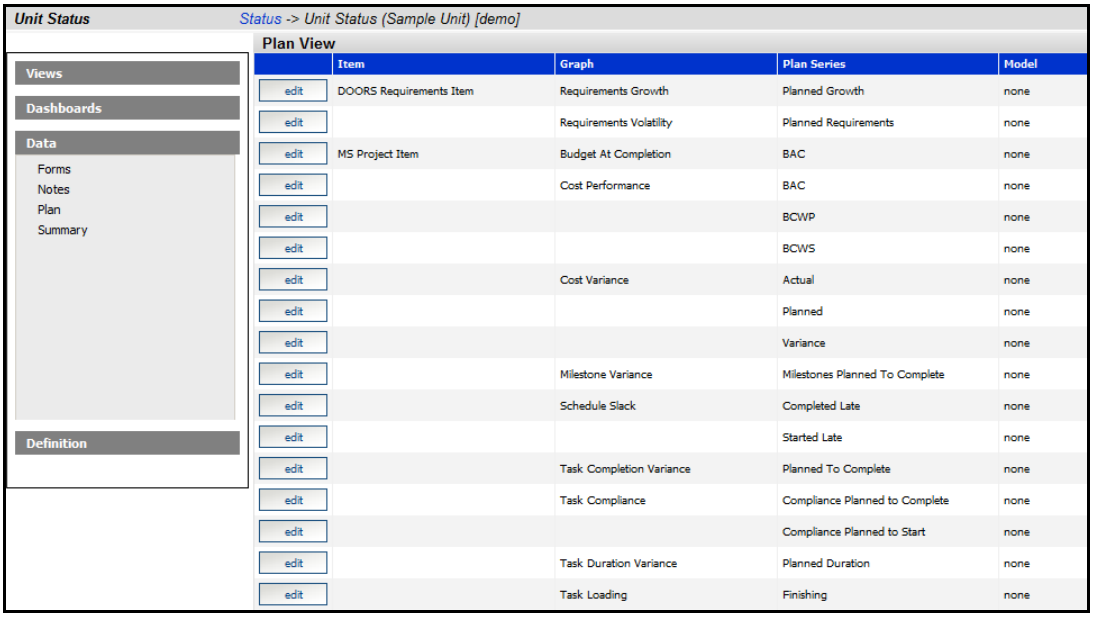

Figure 161

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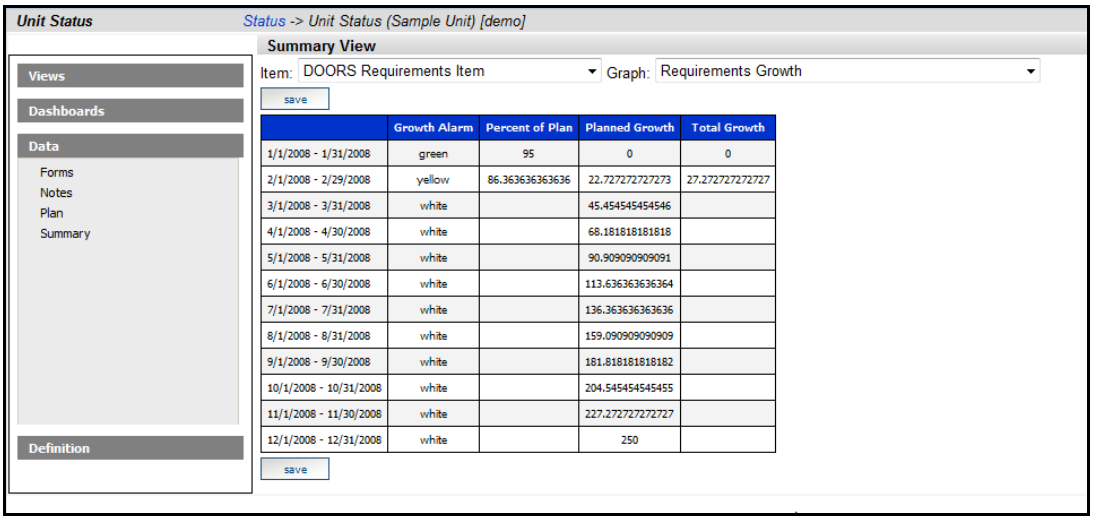
You can edit the plan data for each series by clicking on the Edit button which opens the Planning Wizard. This provides several convenient techniques for specifying plan data.

5.6 Summary Data

Click on the Data panel and then the Summary command to view data for a graph and edit manual data associated with the Unit – Data Summary View (Figure 22). To view data for another graph, select another item or graph from the drop down lists located under the caption "Summary View".



	Growth Alarm	Percent of Plan	Planned Growth	Total Growth
1/1/2008 - 1/31/2008	green	95	0	0
2/1/2008 - 2/29/2008	yellow	86.363636363636	22.727272727273	27.272727272727
3/1/2008 - 3/31/2008	white		45.454545454546	
4/1/2008 - 4/30/2008	white		68.181818181818	
5/1/2008 - 5/31/2008	white		90.909090909091	
6/1/2008 - 6/30/2008	white		113.636363636364	
7/1/2008 - 7/31/2008	white		136.363636363636	
8/1/2008 - 8/31/2008	white		159.090909090909	
9/1/2008 - 9/30/2008	white		181.818181818182	
10/1/2008 - 10/31/2008	white		204.545454545455	
11/1/2008 - 11/30/2008	white		227.272727272727	
12/1/2008 - 12/31/2008	white		250	

Figure 172

In the Summary Data page, data which is set to a manual data source is displayed using edit boxes. Data which is collected or calculated is shown as static, un-editable text. For manual alarm data, you can enter the text "white", "red", "yellow" or "green".

5.7 Unit Definition and Properties

This section provides an overview of commands available in the Definition panel.

5.7.1 Basic Unit Properties

Each unit can optionally contain a list of phases, which are periods within the unit's start and end date that identify periods of time - an analysis phase or testing phase for example. In the Definition panel, the Phases command displays the Unit Phases page (Figure 23) that allows any number of phases to be added, modified or removed. Each phase has a title, an abbreviation, a start date and an end date.

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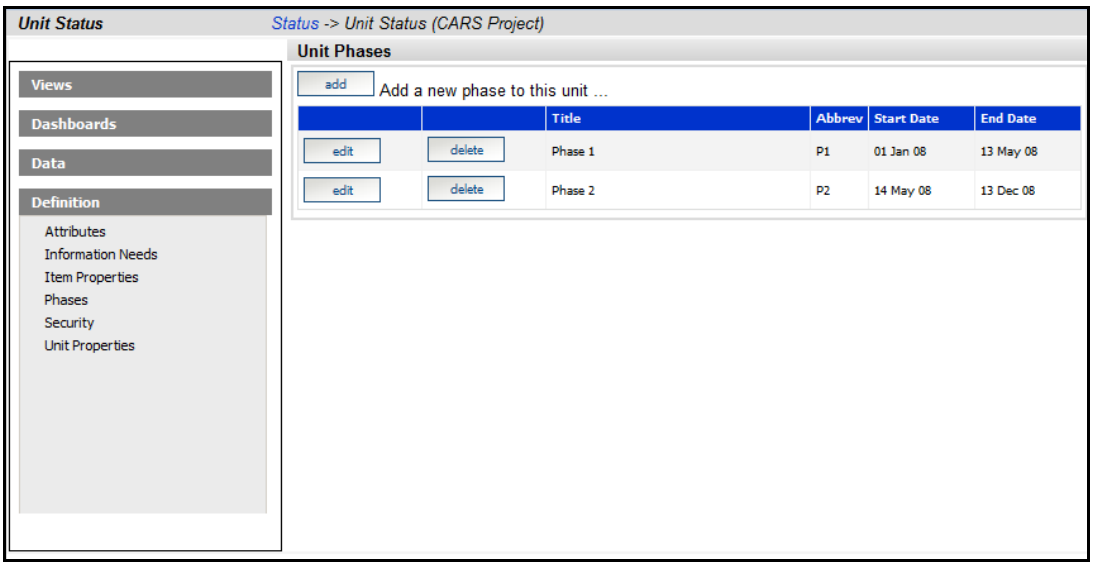

Figure 183

The initial list of phases can be populated automatically using a Unit Template that contains phases.

5.7.2 Basic Unit Security

In the Definition panel, this command displays the Security page (Figure 24) to review and configure the rights that accounts and roles have for the current unit.

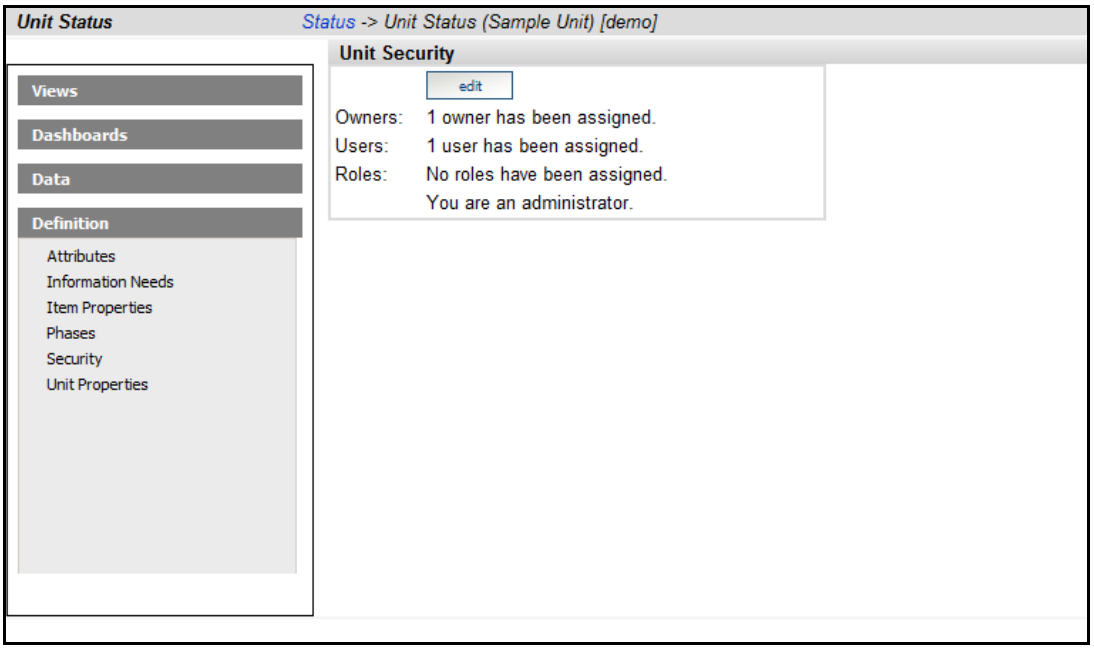

Figure 194

Using the Unit Security page, you can assign rights to either an account (which is a single user) or a role (which is a group of accounts). Available rights are as follows:

- None – user has no access

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- Read-only – user can view but not modify (including add or delete)
- Edit – user can view and modify (but not add or delete)
- Define – user has edit rights, plus the capability to add and delete
- Full/Owner – user has edit right plus the capability to configure security

The initial list of accounts and roles (along with an associated edit right) can be populated automatically using a Unit Template that contains security.

5.7.3 Basic Unit Properties

The Unit Properties page provides the tools to configure properties of the current unit, including name, state, schedule and descriptive information. Clicking on the Definition panel, in the navigation bar, accesses the Unit Definition options: Attributes, Information Needs, Item Properties, Phases, Security, and Unit Properties (Figure 205).

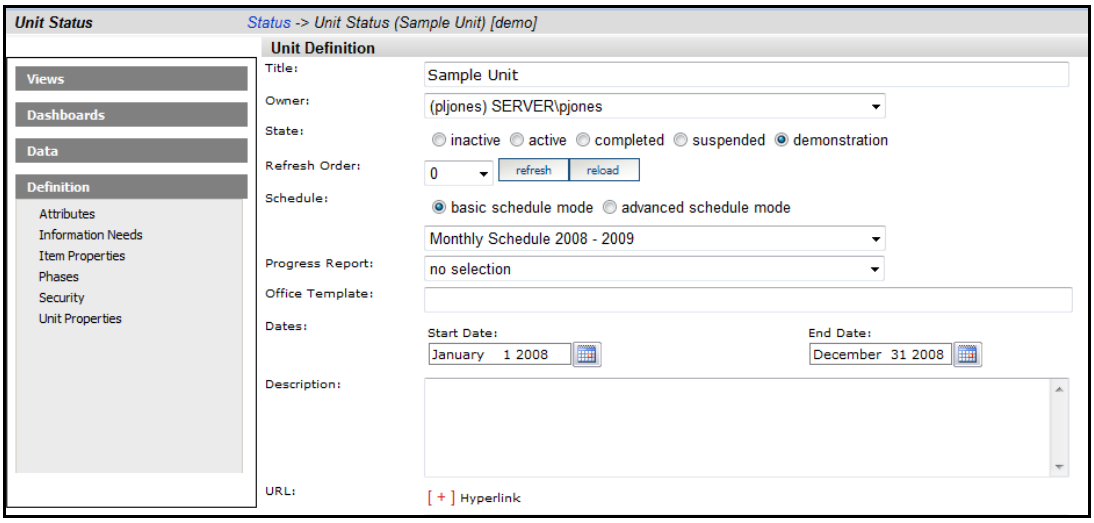

Figure 205

A number of descriptive information fields (Figure 216) are also available. These fields can be included in filters as well as placed in output reports. They are for information purposes.

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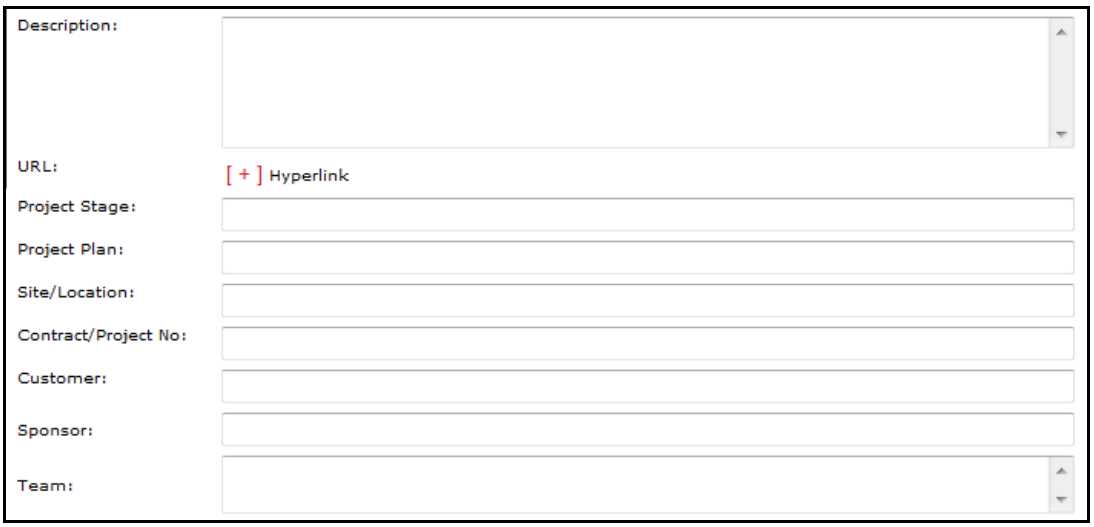

Figure 216

Finally, the Unit Properties page provides a mechanism to select and unselect forms in the current unit. Simply set or clear the checkbox next to the corresponding Form name (Figure 227). Note that an Administrator can create a new form or modify the fields of an existing one on the Admin tab.

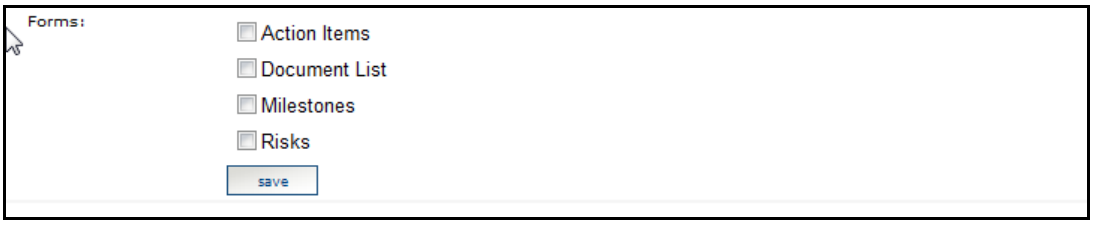

Figure 227

Once all unit properties have been specified, press the Save button.

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6 Creating a Project

Once IBM Rational Dashboard has been installed and your Administrator has established Interfaces for the Collector(s), security and default settings, managers can create and track their own project in IBM Rational Dashboard. This chapter shows you how to setup a basic Project (Unit), assign collected Items and Information Needs to it and display the resulting Graphs.

It is quite simple to get started. Let's follow these steps to create a new project:

1. Create a Folder
2. Create a new Unit within the Folder
3. Set a default Schedule for the Unit
4. Assign collected Items
5. Assign Information Needs to your Unit
6. Refresh the data within the Unit
7. See Your Graphs

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6.1 Create a Folder

The Organization Tree defines the structure of Units. It can be edited by clicking the Edit sub-tab on top of the organization tree.

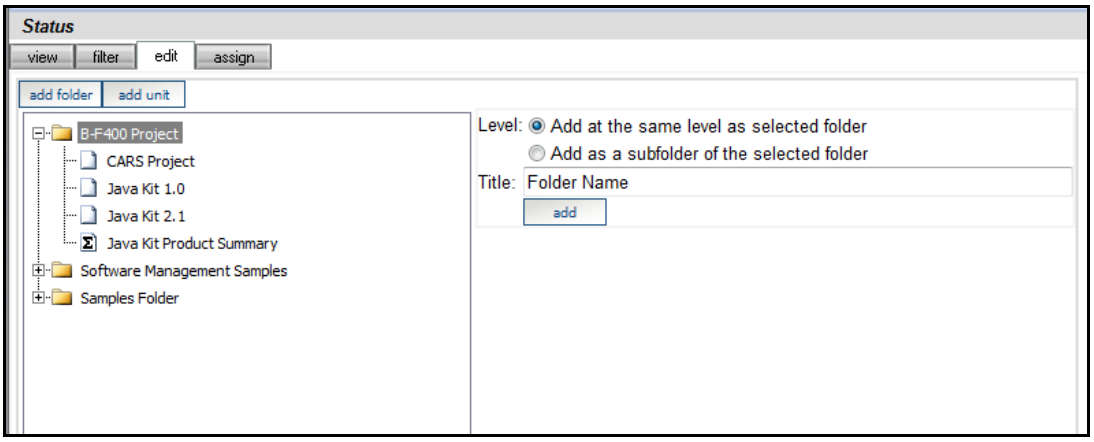

Figure 238

1. Select the folder in which you want to create a new folder. In this example, the B-F400 Project Folder.
2. Click on the add folder button on the top of the tree
3. On the right hand side of the page, select the level you want to create the folder at:
   - Same level as selected folder – this will place the folder on the same level as the folder selected in the organizational tree.
   - Subfolder of the selected folder – this will place the folder on level below the selected folder in the organizational tree.
4. Enter the Title. Enter a title name for the new folder (e.g. JIM Project)
5. Click add. This will create a new folder in the designated location

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6. Once the folder has been added, you may (optionally) add descriptive and other information to it.

With the Edit sub-tab still showing, the folder created in the last step is displayed.

1. Enter Description. Enter a description that describes the folder (optional)
2. Enter Reference URL. Enter an URL that is tied or related to the folder (optional)
3. Click Save.

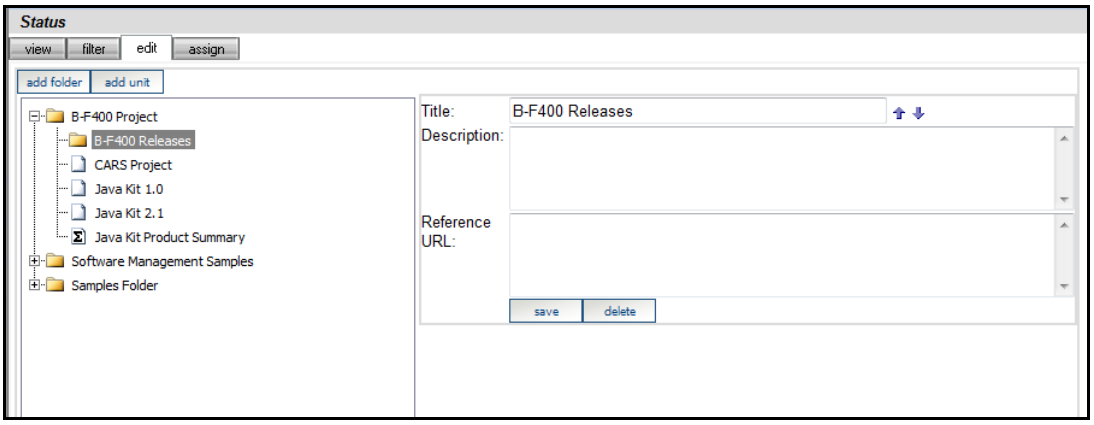

Figure 29

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6.2 Create a New Basic Unit within the Folder

Ensure that you select the folder in which you want to create a new basic unit (Figure 240).

1. Click on the Edit sub-tab.
2. Click on the add Unit button.

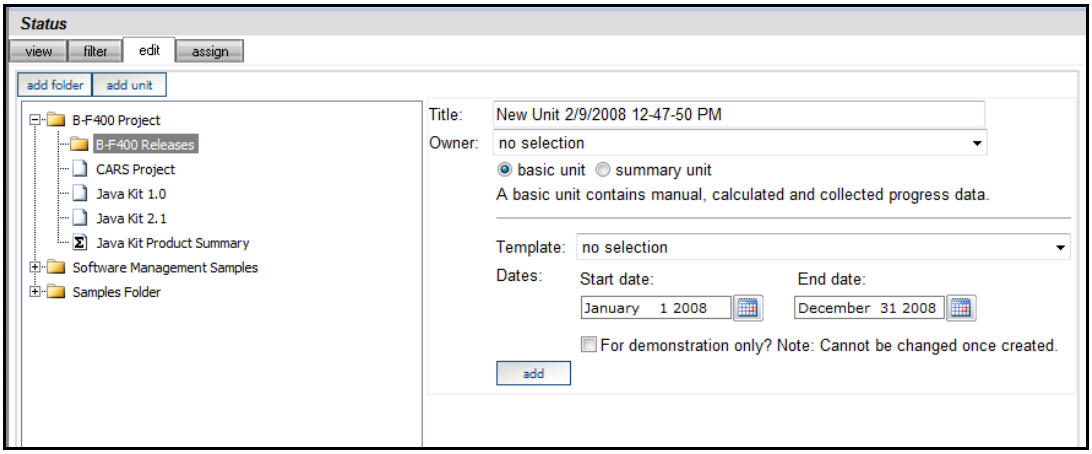

Figure 240

3. Enter a Title for the Unit (e.g. Project A1)
4. Select the Owner of the Unit (e.g. your login account)
5. Select "basic unit" in this example.
   - A basic unit uses manual and collected data to update the graphs and status of its information needs.
   - A summary unit uses data from basic units to update the status of its information needs.
6. Select a Unit Template (if any) to be applied (e.g. DOORS Template). If you don't specify a Unit template at Unit creation then Information Needs will need to be manually assigned to the Unit later.
7. Set the Start Date and End Date for the Unit (e.g. Jan 1, 2009 and Dec 31, 2009)
8. Set the "For demonstration only?" checkbox
   - The purpose of the "For demonstration only?" option is to create the Unit with the sample data built into the IBM Rational Dashboard. In the event that you do not have any collected data in the repository and you would simply like to browse the IBM Rational Dashboard to become familiar with its interface, check this box.
   - If you do have collected data and would like to use that data, leave this box unchecked.
9. Click add

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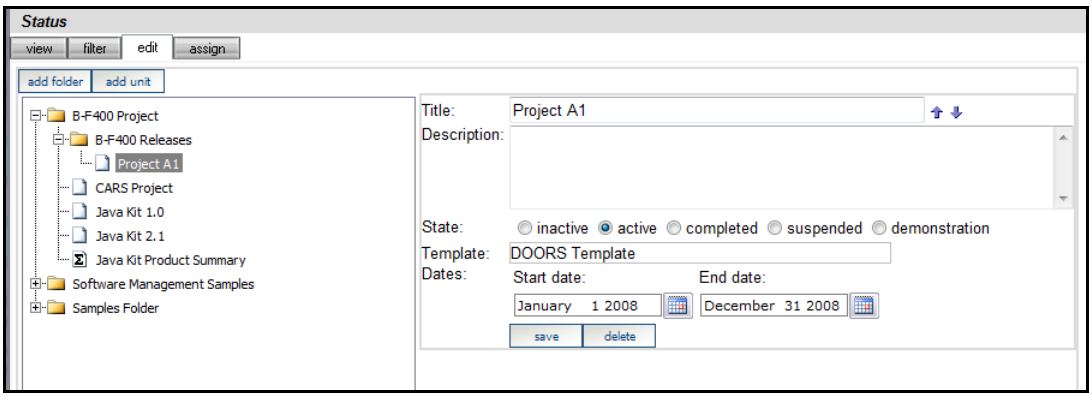

Figure 251

Once the Unit has been created:

1. Enter Description. Enter a description for the Unit (optional)
2. Enter State of Unit. Select one of these states:
   - inactive – Unit is being configured for use but data will not be collected
   - active – Unit currently active and data is collected and updated for the Unit (default)
   - completed – Unit has completed, no further action
   - suspended - Unit collection and refresh processing will not be performed
   - demonstration - Unit is not for actual project management - sample data is generated for all graphs and no collection is performed
3. Click Save

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6.3 Set the Default Schedule for the Unit

You may need to specify a default Schedule for the Unit. The default Schedule is applied to all items assigned to the Unit. If you specified a Unit Template that contains a default Schedule, then you can skip this step. The standard "DOORS Unit Template" does not have a default schedule. The standard "Sample Unit Template" does have a default schedule.

1. Select the *view* sub-tab on the Status tab
2. Ensure the desired Unit is selected (Figure 262)

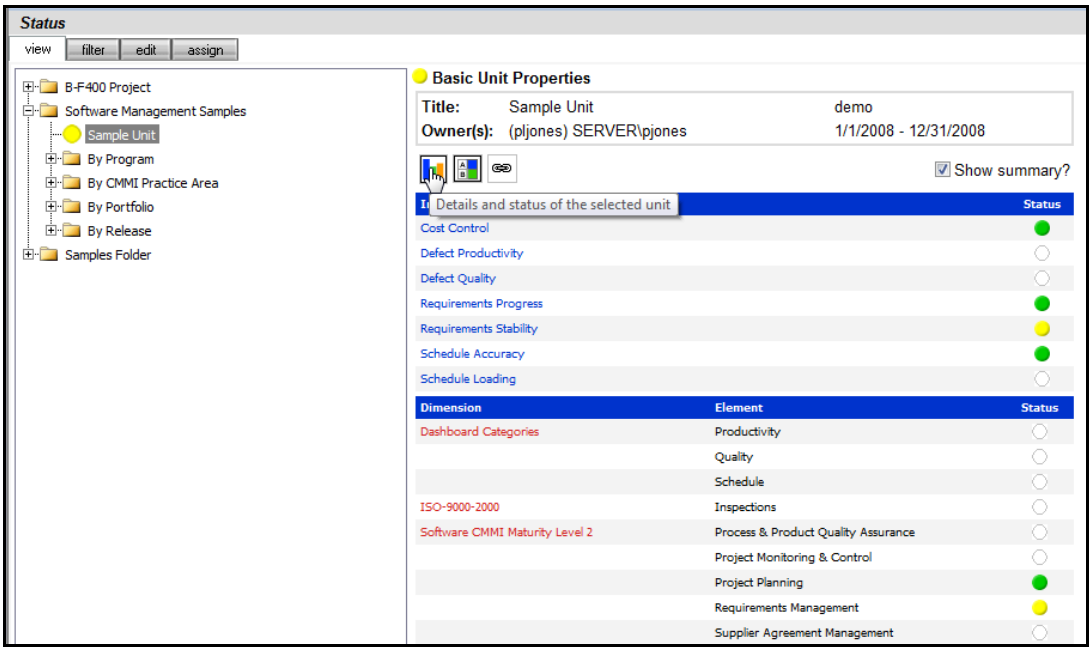

Figure 262

3. Click the details button (the vertical bar icon)

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4. Click on the Definition Panel on the left-hand side (Figure 27)
5. Click on Unit Properties
6. Choose the *basic schedule mode* radio button and *Monthly Schedule 2008 – 2009* from the drop-down list
7. Click save

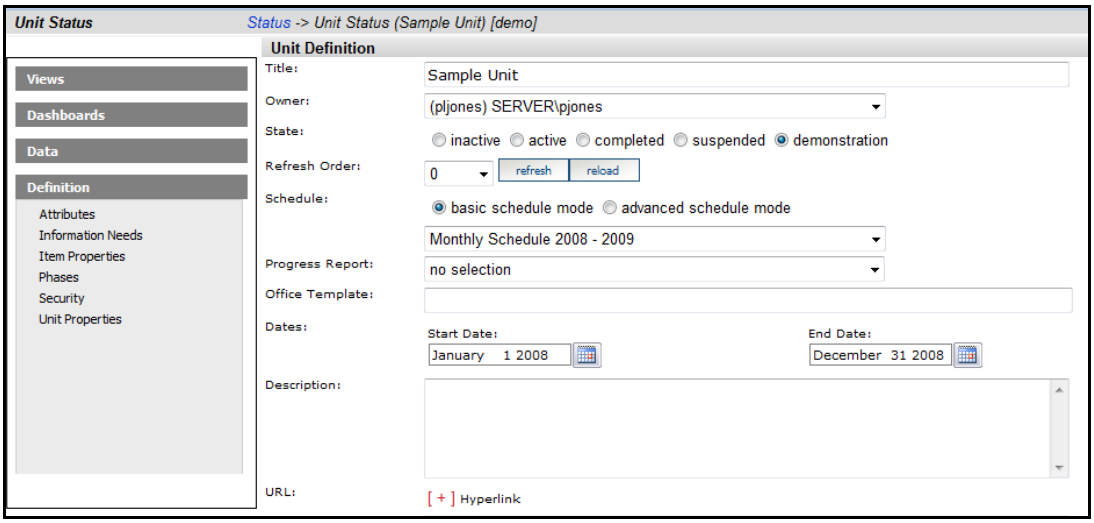

Figure 273

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6.4 Assign Collected Items

The assign sub-tab is used to assign collected items to the Unit. Once you click on assign, you will see two sub-tabs on the right hand side: by date and by source each containing an Item List. The Item List (on the right side) will be empty until a collection is performed. If there are no items shown, then you must run a collection prior to this step.

Please refer to the IBM Rational Dashboard online help for further information on how to run a collection from a source application most relevant to your project.

You can either assign items using the by date sub-tab or the by source sub-tab. Both are explained in the following subsections.

6.4.1 Assign Sub-Tab with By Date Options

The "By Date" options (Figure 284) allow you to select items that have been collected by using their collect date.

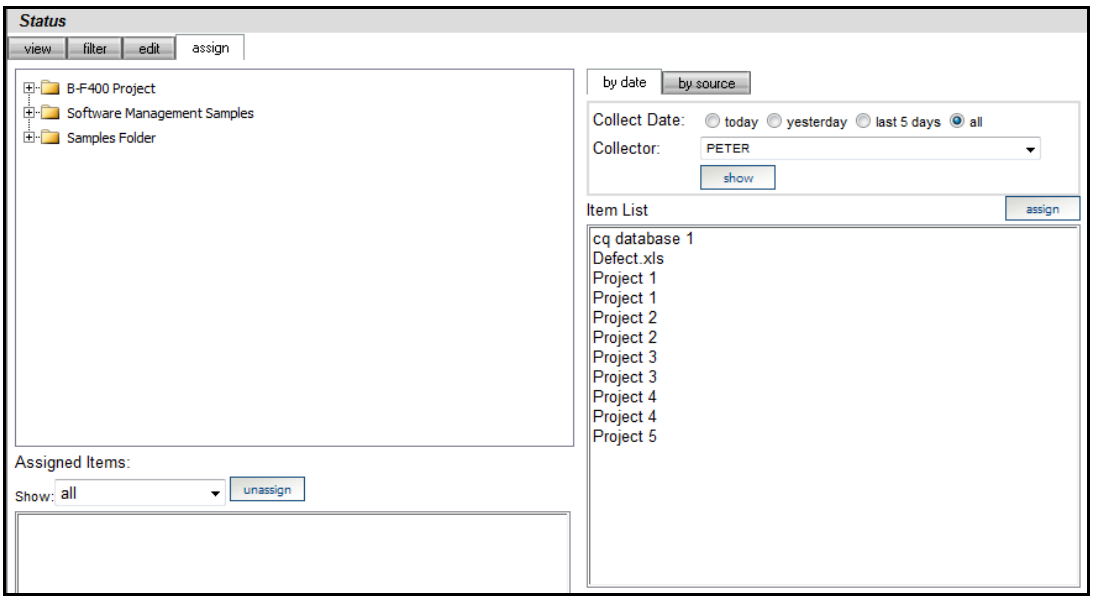

Figure 284

Collect Date: Select one of the following options:

- today – show items collected today
- yesterday – show items that were collected yesterday
- last 5 days – show all items collected in the last 5 days
- all – show all collected items

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Collector: Select the collector from the drop down list
Show: Once the Collect Date and Collector are selected, click the show button to display the corresponding items in the Item List.

For some Interfaces, e.g. DOORS, “containers” could also be listed. Containers are collections of items, e.g. DOORS projects, and, if selected, may assign multiple items to the Unit.

Ensure that you select a basic unit on the left (below, the “Project A1” unit) and an item on the right (below, the “Defects.xls” item), and then press the Assign button from the right side.

Assign: Click on the item(s) you wish to assign to the Unit in the Item List and click the assign button. The item(s) will be added to the Assigned Items list below the Organization Tree

6.4.2 Assign Sub-Tab with By Source Options

The operation of the “by source” assignment is similar to “by date” assignment, but differs in the method for locating collecting items. The “By Source” options allow you to review and optionally assign items that were collected from a selected data source.

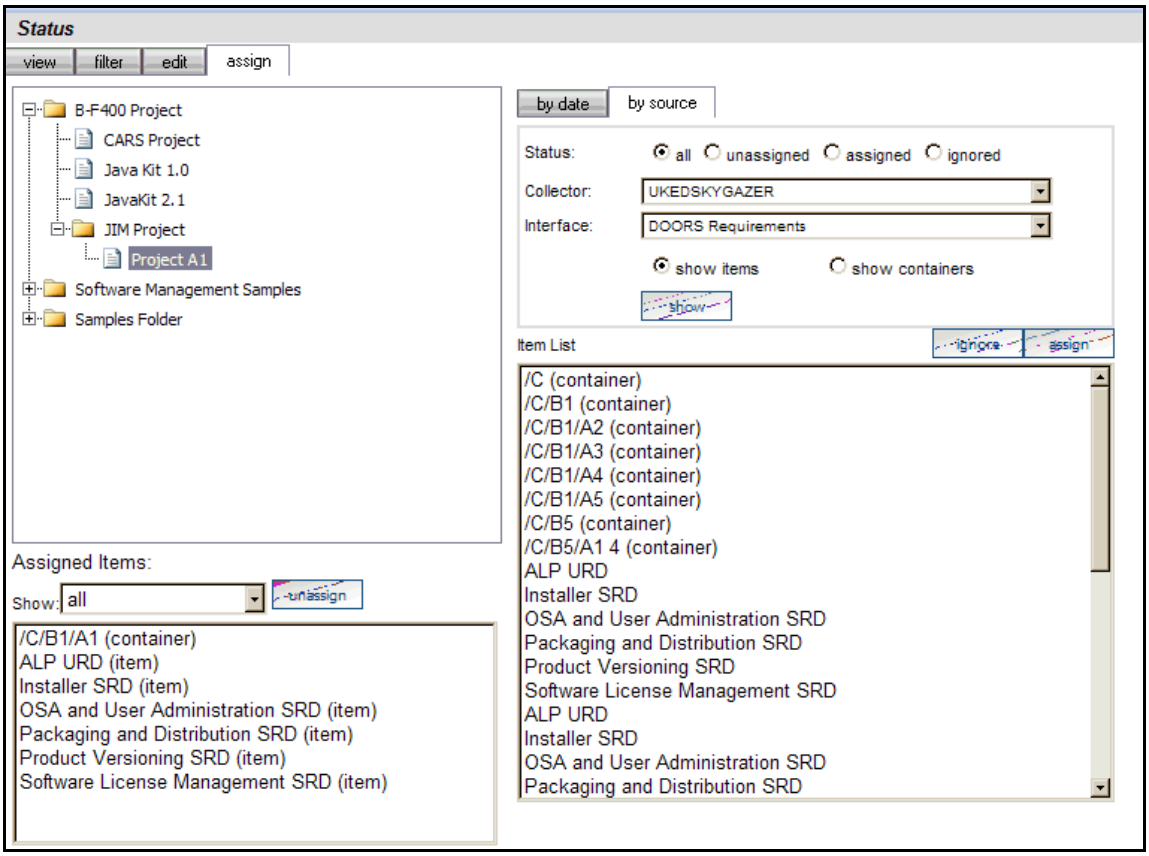

Figure 295

Status: Click on a radio button to choose the Status of those items to be displayed:

- all – Displays all of the items for the specified Collector and Interface.

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- unassigned – Displays all unassigned items for the specified Collector and Interface
- assigned – Displays all of the assigned items for the specified Collector and Interface
- ignored – Displays all of the items that have been marked as ignored for the specified Collector and Interface

Collector: choose the Collector from the drop down list

Interface: choose the Interface from the drop down list

Select either “show items” or “show containers” radio button, to show the list of individual collected Items (for example DOORS modules) or a list of collected Containers.

Depending on the storage structure of data within the source, containers may not be present in the collected data. Assigning a Container to a Unit results in the assignment of all Items within the container. For example, if you assign a DOORS Project (which is a container) to a unit, then all modules within the DOORS project are assigned to the unit.

Show: Click on the show button to display the Item List

Ensure the Unit you wish to assign items to is selected in the organization tree

Select item(s) in the Item List and click the assign button to add them to the Unit.
To remove an item from the list of items, select the item from the Item List and click the ignore button. Once the item has been marked as “ignored,” it will no longer display in the Item List.

Assigned items will display in the Assigned Items list below the Organization Tree.
To remove an assigned item, select the item from the Assigned Items list and click on the un-assign button. The item will be removed from the list on the left side.

If your Item List is empty, then either the collection has not run or hasn’t run successfully.

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6.5 Assign Information Needs to your Unit

If a Unit Template was applied when creating the Unit then Information Needs may have already been automatically added to the Unit. The standard DOORS Template contains two Information Needs (Requirements Progress and Requirements Stability). If you specified this template (or another one which contains Information Needs) when the Unit was created then you may skip this step.

To add Information Need(s) to a Unit they must already exist, either by default (shipped with the Portal) or have been created in the Library tab.

1. Click on the Status tab (view sub-tab)
2. Click on the Unit in the Organization Tree. Unit Properties will appear on the right pane

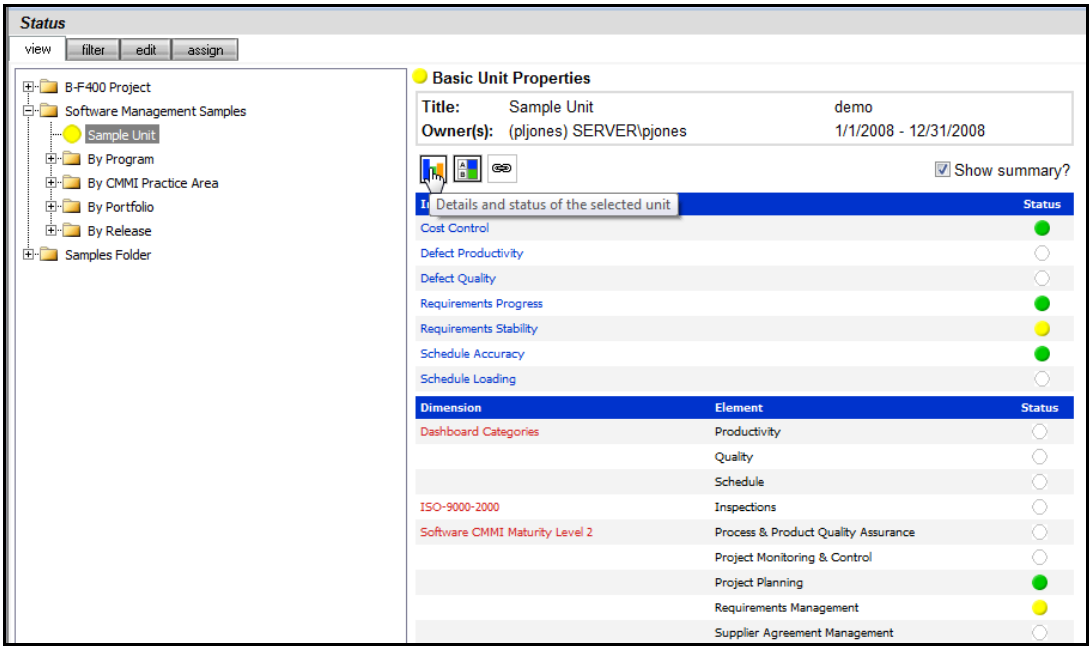

Figure 306

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3. Click on the details button to view the Unit Status page (Figure 37)

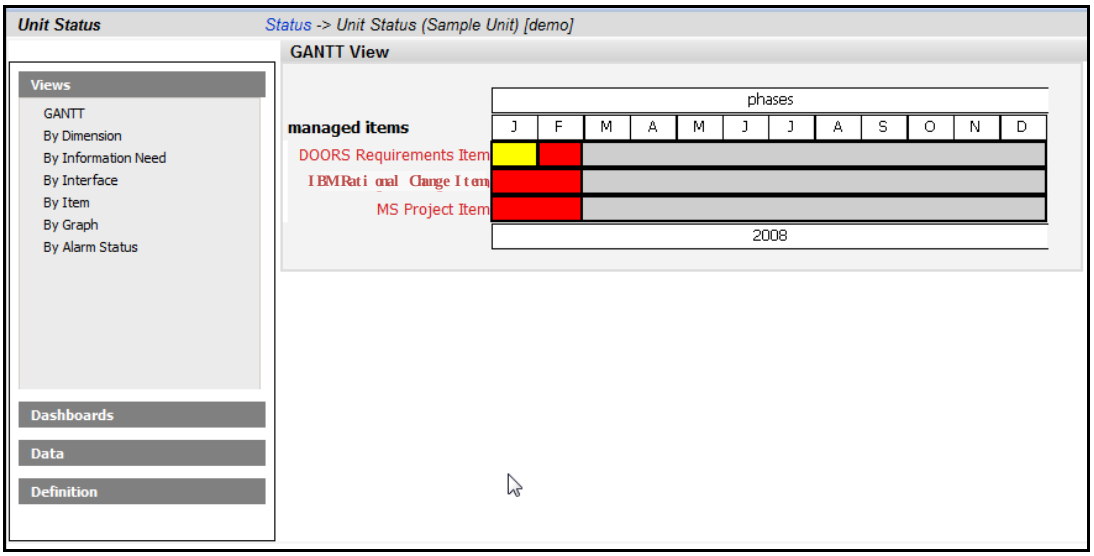

Figure 317

4. On the Unit Status page, click the Definition panel on the left navigation pane
5. Click the Information Needs command (Figure 328)

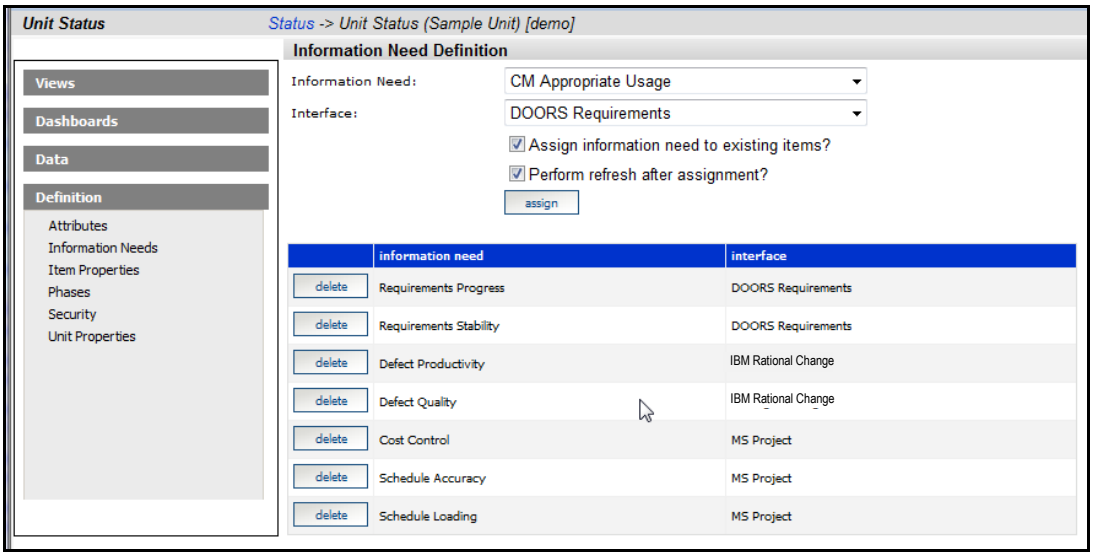

Figure 328

From the Information Need Definition page on the right-hand side:

6. Select the Information Need (choose one such as Requirements Progress) from the drop down list
7. Select the Interface from the drop down list
8. Check the 'Assign information need to existing items?' box
9. Check the 'Perform refresh after assignment?' box
10. Click the assign button to add the Information Need to the Unit

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6.6 Refresh Data within the Unit

The next step is to ensure that the data and graphs contained within the Unit are refreshed and up-to-date.

1. Select the view sub-tab on the Status tab
2. Ensure the Unit is selected (Figure)

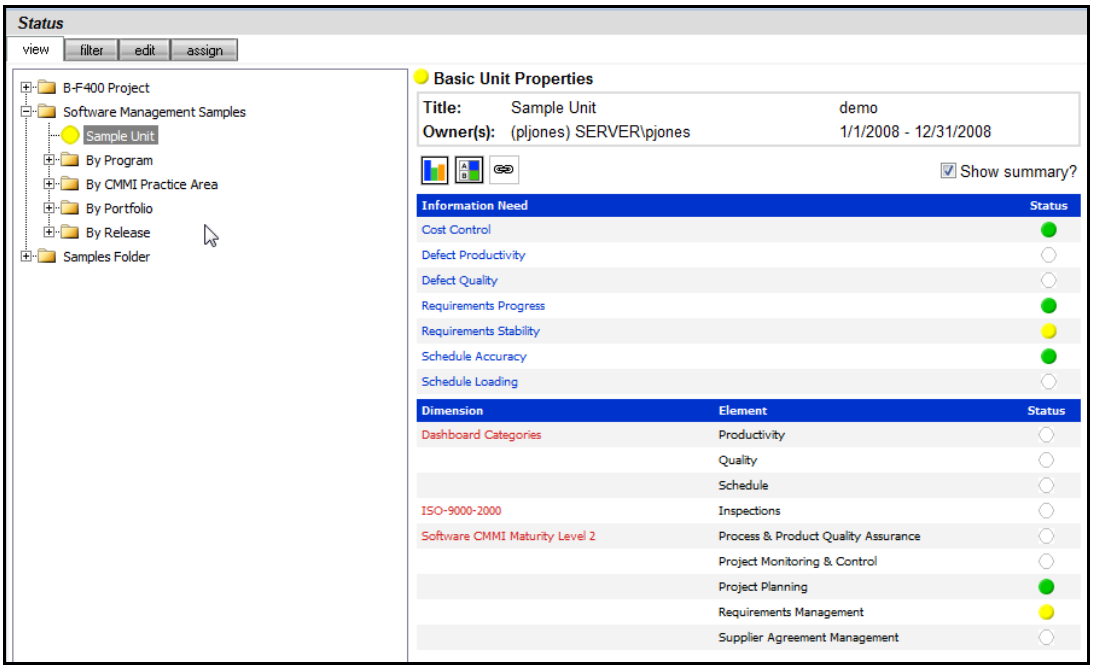

Figure 39

3. Click the details button
4. Click the Definition panel to expand the commands in that panel

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5. Click the Unit Properties command (Figure 330)

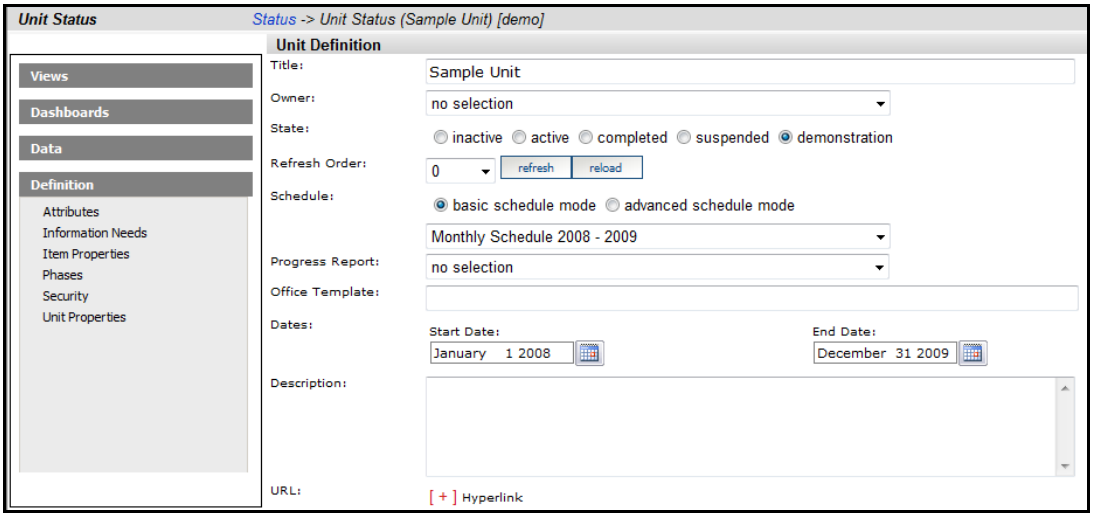

Figure 330

6. Click the refresh button to display the Refresh page (Figure 341)

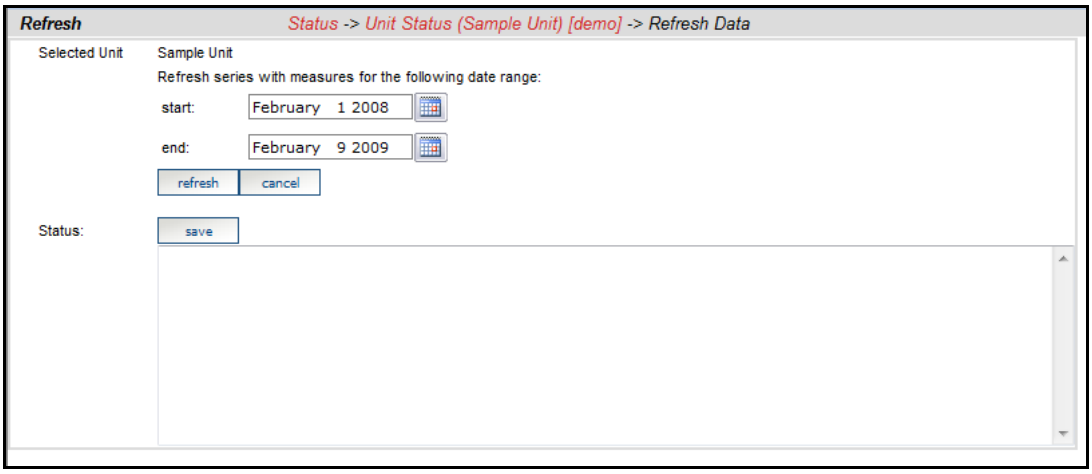

Figure 341

7. Select the start and end date for the refresh
8. Click the refresh button

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6.7 See Your Graphs

Unless the Unit has been created with demonstration data, an Information Need and one or more collected Items must be assigned to the Unit before any Graphs will display.

If a Unit Template was applied when creating the Unit, then Information Needs may have already been automatically added to the Unit.

From the Unit Status page, select on your Item in the Dashboards panel in the left hand navigation bar. Providing that the data collection has successfully completed, the data should now show in the Graphs. If data is not displaying, please consult your administrator.

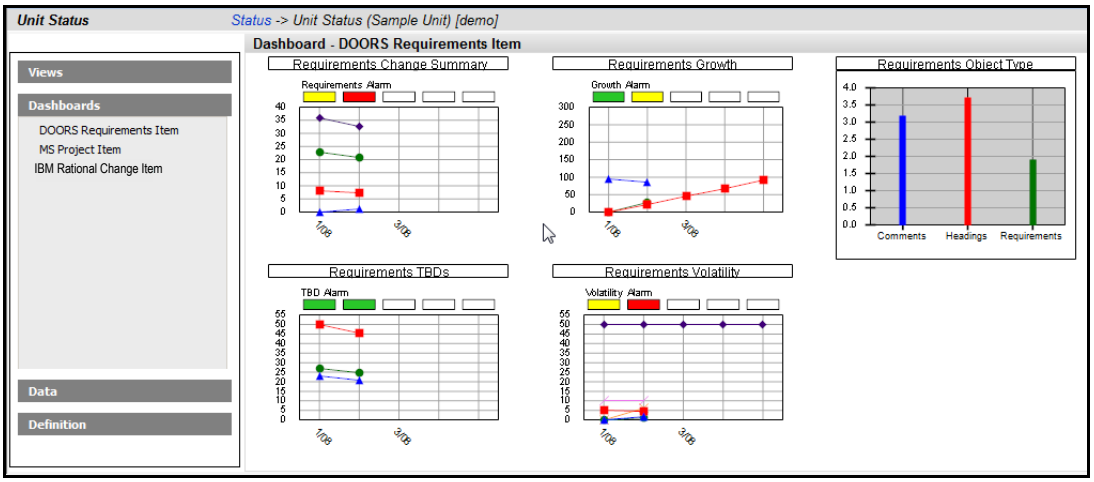

Figure 352

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6.8 Create New Graph

IBM Rational Dashboard provides a standard set of Graphs based upon Information Needs. Should you need to develop new graphs these can be added in two ways:

- Add additional graphs to current Information Needs
- Add a new Information Need and then establish the graphs for that particular Information Need.

For example, say a Unit has the Information Need "Cost Control" assigned. When reviewing that Information Need, a manager sees that three graphs are assigned: Budget at Completion, Cost Performance, and Cost Variance. The manager would also like to see additional information regarding Scheduled Performance.

To add a graph for Scheduled Performance a user with administrative rights could either:
a) create a new graph and add it to the current Cost Control Information Need
or,
b) create a new Information Need, assign the new Scheduled Performance Graph to the Information Need, and then assign the Information Need to the Units that require it

For information on how to create and format Graphs please consult the IBM Rational Dashboard online help.

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7 Summary

7.1 Support for Engineering Management

IBM Rational Dashboard provides a framework for performance measurement and compliance tracking during normal project execution. A common compliance model is the Maturity Model framework from SEI. A built-in Software CMMI Level 2 Dimension tracks the Information Needs against CMMI Level 2 KPAs. The Dimension reports CMMI Level 2 compliance using the Information Needs and status generated during normal project execution. Using the built-in Information Needs and Dimensions, project management compliance becomes a by-product of effective ongoing management using Dashboard.

In IBM Rational Dashboard, a Dimension corresponds to one of the organization's written sources for compliance. Managers may create as many Dimensions as needed based on their organizational strategy. Within a single compliance source, typically number of sub areas exists. For example, in a maturity model, several process areas exist such as requirements management or software quality. Dimensions were created in IBM Rational Dashboard to reflect each of these process areas.

The Library contains a set of software project management best practice Information Needs for common engineering process, such as requirements engineering and configuration management. These Information Needs can become a part of templates used to quick-start project performance measurement for a customer organization.

For instructions on how to create and add Information Needs and Dimensions, please refer to the online help.

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8 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 http://support.telelogic.com/toolbar 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 http://www.ibm.com/software/rational/support/telelogic/

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 http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html.

- To learn more about Passport Advantage, visit the Passport Advantage FAQs at http://www.ibm.com/software/lotus/passportadvantage/brochures_faqs_quickguides.html.
- 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 http://www-01.ibm.com/software/support/.
- Be listed as an authorized caller in the service request tool.

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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 *minimal* 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?

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- 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 https://www.ibm.com/software/rational/support/ 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 http://www.ibm.com/software/support/help.html

     You can also open an online service request using the IBM Support Assistant. For more information, go to http://www-01.ibm.com/software/support/isa/faq.html.
   - **By phone**: For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at http://www.ibm.com/planetwide/ 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 http://www.ibm.com/planetwide/.

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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