





Getting started with IBM Rational Focal Point

© Copyright IBM Corporation 1997-2009 U.S. Government Users Restricted Rights - Use, duplication, or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Getting Started with IBM® Rational® Focal Point<sup>TM</sup> 2(43)

## Table of Contents

Introduction	4
Prerequisites	5
Creating a module of elements	6
Adding attributes that describe the elements	8
Adding elements	12
Creating a view of the elements	14
Displaying the elements	18
Creating criteria for prioritizing your elements	24
Prioritizing your elements	29
Visualizing your results	31
Printing a report	36
Summary and steps forward	38
More information	40
Contacting IBM Rational Software Support	40
Prerequisites	40
Submitting problems	40
Notices	42
Trademarks	43

# Introduction

The objective of this document is to guide you as an inexperienced Rational Focal Point user through some of the basics in Rational Focal Point, from setting up a simple module, through prioritization and visualization, to printing. You will touch upon the basic decision-making mechanisms, and learn something about how to analyze and draw conclusions from the results. In concrete terms, you will add a module that can contain information about cars, add some cars, prioritize them with regards to design and cost, and then see which one is "best".

In order for you to better understand the terminology used, we first of all want to introduce you to some basic concepts:

- Module The repository in which you store all information is structured in a number of modules. Different types of information are handled in different *modules*. A module contains elements and all elements within the same module share the same set of attributes. It is therefore a good idea to build up a module for each type of information. It may also be a good idea to have different modules for different levels of information.
- Element Each module contains a number of elements. For example, a module called Cars contains the elements SAAB, Toyota, Porsche, Volvo, Audi, Mercedes, and Jaguar.
- Attribute All elements are built up by a set of attributes. For example, the element SAAB contains the attributes ID, Title, Description, Type, and Price.
- View a view is a way of displaying information stored in the repository (the modules). Only administrators have access to the repository normal users only see information through views that the administrator creates. A definition of a view is "what the user is *allowed* to see and it normally contains only a subset of the information in the repository". For example, a view can be defined to display only elements that have status New or all elements that have been assigned to a certain user etc.

# Prerequisites

To follow this guide, you need to be administrator for a workspace in a Rational Focal Point installation. You may either have installed a local version of the tool on your computer, or have access to a hosted installation. The example and the screenshots in this document are based on a completely fresh workspace, with no other modules than the ones that are created automatically with a new workspace. However, it is not a requirement to have an empty workspace; the module in the example could be created in any workspace.

The screenshots in this guide are based on Rational Focal Point version 6.4.

# Creating a module of elements

The first step is to create a module that can contain the elements that we want to manage. You need to be a workspace administrator to create and change the module definition. When the module is created you will be asked about what information attributes (e.g., size, speed, status) you would like the elements to contain.

- 510 **Rational Focal Point** Workspaces | Home | Preferences | Joe Smith | Help | Log Out Focal Point X 💙 About Focal Point - 0 Modules Reports Configure Members Information Advanced Welcome to IBM® Rational® Focal Point<sup>™</sup> 6.4 IBM® Rational® Focal Point™ has been further enhanced to support your daily work. Take a minute and read about what's new! Workflow Support **Trend Charts** The workflow feature helps your users Focal Point now supports trend charts for one or The work low relative nearby your because your because in the supports the large role of the or to more easily apply to the process. You several attributes. This will help you to quickly see can now enforce your process in Focal Point by limiting your options when you transfer an element from one state to hours spent on implementing a particular task. another. Web Services 2.0 Filter Enhancements The popular filter feature has been improved even further to include functionality such as advanced filters, the possibility to create filters from statistics With the new version of web services there is now support for all attribute types in Focal Point. You will also be able to use aliases and to access the selection and to filter on range of integer and float modules directly and not only via the values. views. Proceed Visit our Support Website Configure this page Deint
- 1. Click on **Configure** in the navigation bar and then **Modules**.

This brings up a list of all the available modules. (You may have other modules in your list than shown below)

2. Click on the Add Module button.

onfigure > Modules				M)	workspace
9	Click the mod	lule you want to	configure, or click Add Module to add a new mo	sdule.	
Modules	Name	Add Button Name	Description	May Be Configured By	ŧ.
Add	Ongin	Country			X 🖬 🕀
Display	Country		of elements. When a new module is added to the workspace it is always of this type.		
Prioritize	🐮 Criteria	Criterion	The module where the members add and organize	All Administrators	÷
Visualize			criteria. Criteria are used when members prioritize elementa or criteria.		
Reports	TL Releases	Release	The module where releases are stored. The releases are	All Administrators	-
Configure Workspace			the prerequisites when release plans are generated by the release planner.		
Modules	Saved	Baseline	The module where baselines are stored.	All Administrators	
Attributes	Baselines E Views	View	A module where the members add and organize any kind	All Administrations	
Notifications	ET? Views	View	or determine the members and and organize any kind of elements. When a new module is added to the workspace it is always of this type.	All Administrators	
Alies +i= Workflows	Checkpoints	Checkpoint	The module where the members add and organize checkpoints. Checkpoints are used when the members review elements.	All Administrators	9
Members		Resource Type	The module where resource types are stored. The	All Administrators	
Information	Types		resource types can be prerequisites when release plans	the transferration of the test	
Advanced	In second of	Chart	are generated by the release planner.	Al Administrators	
	Saved Cherts	Chart	The module where saved charts are stored.	Al Administrators	
	E Saved Reports	Report	A module where generated reports can be saved.	All Administrators	÷
	()) Members	Member	Users in the database must be members of a workspace to be able to access the workspace. All members of the workspace are lated in this module. Nembers get access to the elements in the modules via views. Members that also are administrators also have access to the modules.	All Administrators	÷
	報 Saved Plans	Plan	The module where release plans are stored. A release plan contains the results of a member's work with the	All Administrators	0

3. Give the new module a name, e.g. "Cars", a label for the "Add" button that will show up later, a short description.

Configure > Modules		My workspace is
Q	Enter information a	boot the new module, and click OK.
Modules	Name	Cars
Add	Add Button Name	Car
Display	Alias	
Prioritize	Alues	69cb520f-dbd0-4d1d-8741-1ece935501
Visualize	Description	~
Reports		
Configure Workspace		
G Modules		
Attributes	Position in Module List	Before Releases
Notifications	Prefix Attribute	ID
Alas	Icon Attribute	
+i+ Workflows	Sort Attribute	
Members	Display Folder Icon-	
Information	Default Icon	All of the sector busides interview.
Advanced	Contraction of the second second second second	Click to select another icon.
	May Be Configured By	Hembers     Joe Smrn
	Dizable Delete	
	Hide Add Views In Menu	
	Hide Module	
	OK Cancel	

## Adding attributes that describe the elements

Now, in the pop-up window, you will be asked to define attributes for your new module. Press OK to confirm the question. You will see a list of all pre-defined attributes. These are common and useful attributes that you probably want to leave in there. However, for various reasons we may for example want to carry information about the *Type* of car, and the *Price*. For this you need to add two more attributes to this list.

1. First we will add the Type attribute, which is a typical choice type of attribute since it can be only one of a predefined set, in this case: Sports, Sedan or Estate. Click Add Attribute and then Choice.

configure > Attributes						Ny w	arka	
9	Cars: Click the a	ttribute you want to configure, or	click Add Attri	bute to add	a new attribute.			
Modules	Name	Description	Administrator Notes	Туре	Log Changes Man	datory		
Add	ID	Unique ID		Unique id	Yes	1	8.7	¢ 🛊
Display Prioritize	Title	A short and concise explanation of the element.		Text	Yes	1	5	¢ 9
Visualize	Description	A thorough explanation of the element.		Test	Yes Yes	1	1.7	6 2
Reports	- Bally			Pro-la-				
Configure Workspace	Date			Date			a ,	¢.9
Modules	Type	Type of car		Chaice	Yes	1	3.3	¢ 9
Attributes	Price	The price of the car		Integer	Yes	1	1 2	< ±
Views Notifications	Element Information			Heading			3,	
Alias	Owner	The user who owns the element.		Element Information		1	33	¢ ÷
Hembers	Creator	The user who created the element.		Element		1	<b>B</b> 3	¢. (j
Information Advanced	Created Date	The date the element was created on.		Element Information		t	3 3	¢ ş
	Last Changed By	The user who last changed the element.		Element Information		1	3.2	¢ 🗧
	Last Changed Date	The date the element was last changed on.		Element Information		1	3 3	¢ 9
	Parent Folder	The parent folder of the element.		Element Information		1	3.3	¢ \$
	Perent folder once more	Displays parent folder		Text	Yes	1	11.3	6.8
	Type comment			Text	Yes	I	1	<b>\$</b>
	Origin countries	A mandatory link list.		Link List	Yes	1	2.7	4.0

1010

Mourney and the following attributes to this module           Hodules         Check box         A box that a member can select or clear to turn an option on or off.           Add         Check box         A box that a member can select or clear to turn an option on or off.           Display         File         A data value (for example 3/1/2010).           Prioritize         File         A downent, image or other file in the database, or a lot of such files. Maximum total size is 10 MB.           Visualize         File         A downent, image or other file (see dominant) for loyout purposes.           Wising the file         A data value (for example 3/1/2010).         The file           Configure         Float         A real number that contains a fractional part (se.p. 3.14).           Wising the file         Constigure         Informing Units         A list of elements that ink to this element.           Workspace         Index         A list of file from one element to another. The target can be either in this workspace, or in another workspace.           Workflows         Link         A list is a callection of whore text statibutes in a grid.           Motifications         Metrix         A mirrored value of another attributes in another sement.           Multichoice         A list of predefined items that a member may select multiple items from.           Members         Multichoice <tha items="" list="" of="" predefined="" th="" tha<=""><th>Configure &gt; Attributes</th><th></th><th>Hy workspace</th></tha>	Configure > Attributes		Hy workspace
Hodules       Aist of predefined items that a member may select a single item from (e.g. status).         Add       Date       A data value (for example 3/31/2010).         Display       File       A document, image or other file in the database, or a list of such files. Maximum total size is 10 MB.         Prioritize       Flaat       A real number that contains a fractional part (e.g. 3.14).         Visualize       Heading       An attribute consisting only of a title, used primarily for layout purposes.         Mistory       History can display attribute or element.       Incoming Uniks         Modifications       Integer       A real number that contains on fractional part (e.g. 42).         Modifications       Link       A list of elements that into this element.         Modifications       Link       A list is a collection of either text attributes or link attributes.         Modifications       Link       A list of orderined items that a mother attributes in a grid.         Modifications       Link       A minored value of another attribute items from.         Modifications       Link       A list of predefined items that a member may select multiple items from.         Modifications       List (text or link)       A list of predefined items that a member may select multiple items from.         Modifications       List (text or link)       A list of predefined items that a member manuse attributes item.<	Q	You may add the	following attributes to this module
Add       Choice       A list of predefined items that a member may select a single item from (e.g. status).         Display       File       A document, image or other file in the distables, or a list of such files. Maximum total size is 10 MB.         Prioritize       Fibat       A real number that contains a fractional part (e.g. 3.14).         Reports       Heading       An attribute consisting only of a title, used primarily for layout purposes.         Workspace       Heading       A real number that contains a fractional part (e.g. 4.2).         Workspace       Integer       A real number that contains no fractional part (e.g. 4.2).         Workspace       Integer       A real number that contains no fractional part (e.g. 4.2).         Workspace       Integer       A real number that contains no fractional part (e.g. 4.2).         Workspace       Integer       A real number that contains no fractional part (e.g. 4.2).         Workspace       Integer       A real number that contains no fractional part (e.g. 4.2).         Winsa       A lisk of elements to sonther. The target can be either in this workspace, or in another workspace.         Allas       Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Workflows       Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Multchoice       A list of predefined ite		Check box	A box that a member can select or clear to turn an option on or off.
Date         A data value (for example 3/31/2010).           Prioritize         File         A document, image or other file in the database, or a list of such files. Maximum total size is 10 MB.           Prioritize         File         A document, image or other file in the database, or a list of such files. Maximum total size is 10 MB.           Reports         Heading         An attribute consisting only of a title, used primarily for layout purposes.           Configure         Incoming Links         A list of elements that ink to this element.         Incoming Links           Modules         Integer         A real number that contains on fractional part (e.g., 42).         Link         A list of elements that ink to this element.           Modules         Integer         A real number that contains on fractional part (e.g., 42).         Link         A list in a collection of either text attributes or link attributes.           Modules         Link         A list is a collection of either text attributes or link attributes.         Members           Members         Link         A matrix attribute consists of several text, filoat or integer attributes in a grid.         Members is a grid.           Members         Text         A text field where a member may select multiple items from.           Members         Text         A text field where a member may select multiple items from.           Members         Text         A text field where		Choice	A list of predefined items that a member may select a single item from (e.g. status).
Prioritize         File         A document, image or other file in the distabase, or a list of such files. Maximum total size is 10 MB.           Visualize         Plaat         A real number that contains a fractional part (e.g. 3.14).           Reports         Heading         An and number that contains a fractional part (e.g. 3.14).           Configure         History can display attribute or element to the use of minimity for layout purposes.           Workspace         Incoming Links         A list of elements that ink to this element.           Modules         Integer         A real number that contains on fractional part (e.g. 42).           Mathibutas         Link         A list of elements that link to this element.           Modules         Integer         A real number that contains on fractional part (e.g. 42).           Integer         A real number that contains on fractional part (e.g. 42).           Motifications         Link         A list is a collection of either text attributes or link attributes.           Motifications         Merior         A mirrored value of another attribute in another element.           Motifications         Merior         A mirrored value of another attribute in another element.           Motifications         Merior         A mirrored value of another attribute submature attributes from.           Members         Hubchoice         A list of predefined items that a member may select	and the second sec	Date	A date value (for example 3/31/2010).
Visualize       Flaat       A real number that centains a fractional part (e.g. 3.14).         Reports       Heading       An attribute consisting only of a title, used primarily for layout purposes.         Configure       Intervy       History can display attribute or element history for an element.         Workspace       Integer       A real number that centains no fractional part (e.g. 4.21).         Workspace       Integer       A real number that centains no fractional part (e.g. 4.2).         Workspace       Link       A list of elements that link to this element.         Workspace       Link       A list of element to another. The target can be either in this workspace, or in another workspace.         Workspace       Link       A list is a collection of either text attributes or link attributes.         Workspace       Link       A matrix attribute consists of several text, float or integer attributes in a grid.         Multichoice       A list of predefined items that a member may select multiple items from.         Hembers       Text       A text field where a member may select multiple items from.         Information       Time Grid       Use this for calculations based on a time line.         Unique Id       A text field where the value must be unique. When new elements are created, the unique id attribute i automatically assigned a unique value.         Version       A number or character that automatically increa		File	A document, image or other file in the database, or a list of such files. Maximum total size is 10 MB.
Reports     Heading     An attribute consisting only of a title, used primarily for layout purposes.       Configure     History     History can display attribute or element history for an element.       Workspece     Incoming Dirks     A list of elements that link to this element.       Modifies     Integer     A real number that contains no fractional part (e.g. 42).       Attributes     Link     A link from one element to another. The target can be either in this workspace, or in another workspace.       Workspace     Link     A matrix attributes or sink attributes.       Workspace     Link     A matrix attribute consists of several text, float or integer attributes in a grid.       Workflows     Metrix     A matrix attribute consists of several text, float or integer attributes in a grid.       Members     Multchoice     A list of predicting items that a member may select multiple items from.       Time Grid     Use this for calculations based on a time line.       Multchoice     A link to a specific resource on the Internet (e.g. Mtp://www.ibm.com).       Unique id     A text field where a walue must be unique. When new elements are created, the unique id attribute i automatically increases based on changes in other attributes.       You may add the following special attributes to this module:     Lick       Lock     A election of attributes to this module:		Float	A real number that contains a fractional part (e.g. 3.14).
Configure       History and display attribute or element.         Workspace       Incoming Links       A list of elements that link to this element.         Middles       Integer       A real number that contains no fractional part (e.g. 42).         Middles       Link       A list is a collection of either text attributes or link attributes.         Middles       Link       A list is a collection of either text attributes or link attributes.         Middles       Link       A list is a collection of either text attributes or link attributes.         Middles       Midtink       A matrix attribute consists of several text, float or integer attributes in a grid.         Middles       Midtink       A matrix attribute consists of several text, float or integer attributes in a grid.         Midtholce       A list of predefined items that a member may select multiple items from.         Members       Text       A text field where a member may select multiple items from.         Information       Time Grid       Use this for calculations based on a time line.         Advanced       Unique Id       A lisk to a specific resource on the Interms! (e.g. http://www.ibm.com).         Unique Id       A text field where the value must be unique. When new elements are created, the unique id attribute i automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in		Heading	An attribute consisting only of a title, used primarily for layout purposes.
Workspece       Incoming Links       A list of elements that ink to this element.         Modules       Integer       A real number that contains no fractional part (e.g. 42).         Mathematical Antibutes       Link       A list in a collection of either text attributes or link attributes.         Notifications       Link       A list is a collection of either text attributes or link attributes.         Notifications       List (text or link)       A list is a collection of either text attributes or link attributes.         Workflows       Matrix attribute consists of several text, float or integer attributes in a grid.         Members       Multichoice       A list of predefined items that a member may select multiple items from.         Time Grid       Use this for calculations based on a time line.         UIL       A link to a specific resource on the Intermet (e.g. http://www.ibm.com).         Unique id       A text field where the value must be unique. When new elements are created, the unique id attribute i automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in other attributes.         Version       A number or character that automatically increas		History	History can display attribute or element history for an element.
Integer       A real number that contains no fractional part (e.g. 42).         Attributes       Link       A link from one element to another. The target can be either in this workspace, or in another workspace.         Wines       Link       A link from one element to another. The target can be either in this workspace, or in another workspace.         Workshows       Link       A list is a collection of either text attributes or link attributes.         Workshows       Methods       A matrix attribute consists of several text, float or integer attributes in a grid.         Members       Multichoice       A list of predictine items that a member may select multiple items from.         Information       Time Grid       Use this for calculations based on a time line.         URL       A link to a specific resource on the Internet (e.g. http://www.ibm.com).         Unique Id       A text field where a wave to unique when.         Variable       Unique Id       A text field where a wave to unique when evelocements are created, the unique id attribute i automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in other attributes.         You may add the following special attributes to this module:       Lick         Lick       A election of attributes to this module:         Lick       A election of attributes selected in the lock attribute cannot be edided and the element		Incoming Links	A list of elements that link to this element.
Attributes       Link       A link from one element to another. The target can be either in this workspace, or in another workspace.         IV yeas       Link (text or link)       A list is a collection of either text attributes or link attributes.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Matrix       A matrix attribute consists of several text, float or integer attributes from.         Text       A text field where a member mary select multiple items from.         Matrix       A lisk to a specific resource on the lintamet (e.g. http://www.ibm.com).         Ulit       A lisk to a specific resource on the lintamet (e.g. http://www.ibm.com).         Unique id       A text field where the value must be unique. When new elements are created, the unique id attribute.         Varation <td< td=""><td></td><td>A STATISTICS OF A STATISTICS</td><td>A real number that contains no fractional part (e.g. 42).</td></td<>		A STATISTICS OF A STATISTICS	A real number that contains no fractional part (e.g. 42).
In Notifications     In Notifications     Advanced     Interference     Interference		Link	
An obstications       Matrix       A matrix attribute consists of several text, float or integer attributes in a grid.         Workflows       Micror       A matrix attribute consists of several text, float or integer attributes in a grid.         Members       Multichoice       A list of predefined items that a member may select multiple items from.         Information       Time Grid       Use this for calculations based on a time line.         Advanced       UilL       A link to a specific resource on the Internet (e.g. Mtp://www.ibm.com).         UilL       A text field where the value must be unique. When new elements are created, the unique id attribute automatically increases based on changes in other attributes.         Version       A number or character that automatically increases based on changes in other attributes.         You may add the following special attributes to this module.       Lick         Lick       A election of attributes selected in the lick attribute cannot be edited and the element trannot be	III Viena		
gg/prime       Mirror       A mirrored value of another attribute in another element.         ew Workflows       Multichoice       A list of predefined items that a member may select multiple items from.         Hembers       Text       A text field where a member may select multiple items from.         Advanced       Time Grid       Use this for calculations based on a time line.         UIL       A link to a specific resource on the Internet (e.g. http://www.ibm.com).         Unique id       A text field where the value must be unique. When new elements are created, the unique id attribute automatically assigned a unique value.         Version       A number or character that automatically increases based on changes in other attributes.         You may add the following special attributes to this module:       Lock         Lock       A election of attributes selected in the lock attribute cannot be edited and the element to antibutes selected in the lock attribute cannot be element to antibute selected and the element to antibute cannot be element to a throway select attribute cannot be element to a selection of attributes terms due to be coled from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element to attributes to the cole attribute cannot be element to anothele	A Notifications	and the second s	
Multichoice     A list of predefined items that a member may select multiple items from.       Members     Text     A text field where a member enters and edits text.       Information     Time Grid     Use this for calculations based on a time line.       Advanced     URL     A list of predefined items that a member may select multiple items from.       Unique id     A text field where a member enters and edits text.       Unique id     A text field where the value must be unique. When new elements are created, the unique id attribute automatically assigned a unique value.       Version     A number or character that automatically increases based on changes in other attributes.       You may add the following special attributes to this module:     Lock       Lock     A election of attributes selected in the lock attribute cannot be edited and the element cannot be	Alias	20000	
Hembers         Text         A text field where a member enters and edits text.           Information         Time Grid         Use this for calculations based on a time line.           Advanced         URL         A link to a specific resource on the Internet (e.g. http://www.ibm.com).           Unique id         A text field where the value must be unique. When new elements are created, the unique id attribute automatically assigned a unique value.           Version         A number or character that automatically increases based on changes in other attributes.           You may add the following special attributes to this module.         Lock         A extention of attributes text can be locked from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element cannot be	<ul> <li>Warkflows</li> </ul>		
Information Advanced Time Grid Use this for calculations based on a time line. URL A link to a specific resource on the Internet (a.g. http://www.ibm.com). URL Unique Id A text field where the value must be unique. When new elements are created, the unique Id attribute automatically assigned a unique value. Version A number or character that automatically increases based on changes in other attributes. You may add the following special attributes to this module. Lock A election of attributes selected in the lock attribute is activated for an element the attributes cannot be edited and the element cannot be	Hembers	Calify - 1010000	
Advanced UIIL A link to a specific resource on the Internet (e.g. http://www.ibm.com). Unique id A text field where the value must be unique. When new elements are created, the unique id attribute automatically assigned a unique value. Version A number or character that automatically increases based on changes in other attributes. You may add the following special attributes to this module. Lock A extention of attributes to this module.	Information		
Unique id         A text field where the value must be unique. When new elements are created, the unique id attribute automatically assigned a unique value.           Version         A number or character that automatically increases based on changes in other attributes.           You may add the following special attributes to this module.         A extention of attributes that can be locked from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element to attribute selected and the element to attribute cannot be edited.	Advanced	Time Grid	김 가장 그는 것 같은 것은 것은 것은 것 같은 것 같은 것 같은 것 같은 것 같은
Yersion         A number or character that automatically increases based on changes in other attributes.           You may add the following special attributes to this module.           Lock         A selection of attributes that can be locked from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element cannot be		URL	그는 것 같은 것 같
You may add the following special attributes to this module. Lock A selection of attributes that can be locked from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element cannot be		Unique id	
Lock A selection of attributes that can be locked from editing. When the lock attribute is activated for an element the attributes selected in the lock attribute cannot be edited and the element cannot be		Version	A number or character that automatically increases based on changes in other attributes.
element the attributes selected in the lock attribute cannot be edited and the element cannot be		You may add the	following special attributes to this module
		Lock	element the attributes selected in the lock attribute cannot be edited and the element cannot be
		( < Back	following alphal attributes to this module

2. Edit the name and the description of the attribute, and then click to add choice items

51 Rational Focal P	oint	Workspaces   Home   Preferences   Jue Smith   Help   Log Out
Configure > Attributes		My workspace w
Q	Cars: Add Choice attribute	
Modules	General Settings	
Add	Name	
Display	Alias 1703b53e-28ed-4fb9-a	204-0a3295d46
Prioritize		
Visualize	Description Type of carl	
Reports		
Configure Workspace		99
Modules Attributes	Administrator Notes	0
Views		
Notifications	Position Before Last	
-> Workflows	Value Settings	
Hembers	Default Value	
Information	Items Click here to add and en	dit choice items
Advanced	Visual Settings	
	Sort Alphabetically	
	Allow Group By	
	Propagate Settings	
	Propegete	
	Cascade Settings	
	Cascade No V	
	Display Parents	
	Item Separator	
	< Back OK	

3. For each of the three items: Sports, Sedan, Estate, click Add Item and fill in the name:

Add Choic	ce Item
Name	Sports
Description	
Position	Last 💙
Icon	Click to select another icon.

You should now have a list like this:

Click an i a new ite	item to edit it, or click Add Item to ad em.	d
Name	Description	
Sports	×	$\bigtriangledown$
🗌 Sedan	×	¢
Estate	×	

4. Then click OK twice to get back to the list of attributes. Note that the Type attribute is positioned last in the list. You may move it up and down the list by clicking the arrows in the list.

orfigure = Attributes					My sector poor
a	Type comment		Text	Yes	13 × 0
Nodules	Origin countries	A mandatory link list.	Unit List	Yes	E × e
bb	About the country		Matrix	Yes	<b>E X</b> +
visplay	First	The first attribute	Text	Yes	<b>X 0</b>
isualtze	Second	Dapleys the value of "First"	Text	Yes	<b>X X a</b>
eports		sub-state and a sub-			
onfigure	Third		Text	Yes	E × 0
Morkspace	Platrix/WriterTisal	This matrix will show the origin country attributes "title" and "regimed by"	Test	Yes	E5 × 0
Attributes	My File		file	Yes	TI ¥ #
Notifications	My text list		Text List	Yes	E × #
Alies	Commercia		Text List	Yes	E × =
<+ Horidows	Fet Choice	This business rule will automatically set 'Status' to 'Go'	Text		E X :
tembers		wherever a comment is added in the Comments ++			
information Idvanced	State	Didicates whether the car is in the state stop, go or idle	Choice	Yes	<b>= ×</b> 0
	Hy link attribute	Required to test mirror attributes	Link	Yes	<b>E</b> × e
Ny link Sat mirror	Ny link Sat mirror	taut	Nimor		ES 🗶 0
	Start Date		Date		E × 0
	My test metrix		Matrix	Yes	<b>13 × </b> 0
	Matrixtexttest		Text		<b>11 ×</b> ÷
	Country links		Incoming Links	Yes	E × #
	Version		Version		TE × 👳
	Status	A generic status attribute that can used for requirements	Choiot	Ves	15 X 0
	Туря	Type of car	Choice	Yes	E × e

5. Now, add the Price attribute. This is a typical integer. Click Add attribute and select Integer. Enter the name "Price" and description "The price of the car."

6. We now have a module that contains elements representing car information. Let's see what it looks like.

					/workspace
\$v*	Click the m	odule you want to	configure, or click Add Module to add a new module.		
Modules	Name	Add Button Name	Description	May Be Configured By	v.
Add	🌿 Criteria	Criterion	The module where the members add and organize criteria. Criteria are used when members prioritize elements or criteria.	All Administrators	ŧ
Display Prioritize	% Releases	Release	The module where releases are stored. The releases are the prerequisites when release plans are generated by the release planner.	All Administrators	÷
Visualize Reports	Saved Baselines	Baseline	The module where baselines are stored.	All Administrators	
Configure Workspece	E Views	View	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.	All Administrators	*
Attributes	2 Checkpoin	ts Checkpoint	The module where the members add and organize checkpoints. Checkpoints are used when the members review elements.	All Administrators	9
Alias	M Resource	Resource Type	The module where resource types are stored. The resource types can be prerequisites when release plans are generated by the release planner.		
+++ Workflows	in Saved	Chart	The module where saved charts are stored.	All Administrators	
tembers information	Saved Reports	Report	A module where generated reports can be saved.	All Administrators	
Advanced	(#) Nembers	Nember	Users in the database must be members of a workspace to be able to access the workspace. All members of the workspace are listed in this module. Hembers get access to the elements in the modules via views. Hembers that also are administrators also have access to the modules.	All Administrators	\$
	웹 Saved Plan	ns Plan	The module where release plans are stored. A release plan contains the results of a member's work with the release planner.	All Administrators	+
	Cars	Car	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this have.	All Administrators	×d¢

7. Click Modules in the left navigation bar and then Cars, which brings us to the tree view of cars. This is of course empty still. To add cars to your module, click the Add Car button at the lower frame

odules > Cars								Hy workspace
★ Cars(304) ★ Cars(304) ★ Cars(304) ★ Cars(304) ★ Cars(304) ★ Cars(3004) ★ Cars(3004)	110		on about the	hew	Car, then	click OIC		
Hodules Some off								
Criteria 002 Toyo			SAAB					
Acleases     Checkpoints     Checkpoints     Construct Types     Construct Types     Construct Types     Construct Types     Construct Types     Construct Types     Construct Module     Constru	o Desi iedes iar v aut sa sa sat Dete						10 B	
Saved Charts 017 Hold	len Astra							
Saved Reports - 018 Citro	an Ele	ment Inform	ation					
- 10 0201.esu		67	Joe Smith		♥ Lookup			
Display - 10 021 Hum		etor.	Joe Smith					
Prioritize - D 023 Peut		sted Date	2009-05-13					
Visualize - 10 024 Ferra	ari Lest	Changed By	Joe Smith					
Reports - 20 028:3444	411 Last Date		2009-05-13					
Configure	200 C 100 C		Cars	10	Lookup			
Hembers	1.414	are a secondar	Caro	- 20	LDDRUIT			

# Adding elements

1. Add the following cars by filling out the Title, Type and Price attributes (neglect the rest until later) according to the following:

Title (make)	Туре	Price
SAAB	Sports	10000
Toyota	Sedan	13000
Porsche	Sports	26000
Volvo	Estate	14000
Audi	Sedan	18000
Mercedes	Estate	20000
Jaguar	Sports	28000

Confirm each addition by clicking OK.

2. After this is done, you will have a module with 7 elements:

ational Focal Point				Workspaces   Home   Preferences   Joe S	imith   Help   Log Out
Modules > Cars					My workspace 🔽
% T	Cars(1/7)	Cars ID			₽ £ [] /
%_ Criteria ∰ Releases		Title	Cars		
Checkpoints	006:Mercedes	Description			
Origin Country Cogo		Туре	Sedan		
LinkByText Module		ł	?		
Continents		Element Info	rmation		0
號 Saved Plans L Saved Charts D Saved Reports		Creator Created Date	2008-08-13		
Saved Baselines		Last Changed B			
Display All cars		Last Changed Date	2009-04-17		
Prioritize Visualize		Parent Folder	Cars		
Reports Configure					
Members Information					
Advanced					
	Add Car Add Country Add I	Folder Imp	ort Cars		

#### Creating a view of the elements

So far, you have been working with the Focal Point repository directly. You can add, delete and change elements in the repository, but to start exploring the unique features of Focal Point, you have to define a view of the elements. Unless you are a workspace administrator you will not have access to the repository directly, but always via views defined by the administrator. Views thus define what the user is *allowed* to see.

You can define a view that only shows Estate cars, only those costing less than 20000, or only those that a specific user created after a specific date etc. However, we will now create a view that shows *all* the elements.

1. Click on the Views in Configure, and then on the button Add View. Fill in the Title and Description fields:

Configure > View       Extended in the new View, then click CHL         Description       Description         Modules       Add         Display       Prior item         Prior item       Ad are         Description       Item information about the new View, then click CHL         Display       Prior item         Prior item       Ad are         Description       Item information about the new View, then click CHL         Description       Item information about the new View, then click CHL         Prior item       Description         If item       Ad are         Description       Item information about the new View, then click CHL         Prior       Ad are         Description       Item information about the new View, the Cars module         Mandatory Attributes       Item information about the items of the items of the items of the item of the it	4 Rational Focal Point		Workspaces   Hume   Preferences   Joe Smith   Help   Log D
Produles         Add         Display         Prioritize         Visualize         Reports         Configure         Workspole         W	Configure > Views		Hy worksteam
Produles       Add         Display       Title       All carle         Description       Image: State and the state and t	1. Views(1.5.	Enter information	about the new View, then click OK.
Add       Description         Prioritize       Prioritize         Visualize       Reports         Configure       Prioritize of the cars module         Workspace       Prioritize of the cars module         Add       Include the view in the dat menu.         Display       Include the view in the Review menu.         Prioritize       Include the view in the Review menu.         Prioritize       Include the view in the Review menu.         Prioritize       Include the view in the Rammeru.         Oriteria       Coke To Add Unix         Beichne       Prioritize of the carse of the care of th	and the second se	10	***
Biselany   Prioritize   Susalize   Reports   Configure   Workspore   Workspore <t< td=""><td></td><td>Title</td><td>All cars</td></t<>		Title	All cars
Prioritize         Vasualize         Reports         Configure         Whotspace         Display         Display         Produce the view in the Plan meru.		Description	Carl Carling Law
Washington       Image: Second and a second		25242324281	terror between the set of the set
Configure       Indextiguity         Indextiguity       Mandatory Attributes         Add       Induce the view in the Add menu.         Diaglary       Induce the view in the Add menu.         Diaglary       Induce the view in the Review menu.         Privation       Induce the view in the Review menu.         Privation       Induce the view in the Visuable menu.         Oviewe       Colore Close To Add Unix         Bedeline       Induce the view in the Item menu.         Oviewe       Close To Add Unix         Bedeline       Induce the view in the Item menu.         Oviewe       Close To Add Unix         Bedeline       Induce the view in the Item menu.         Oviewe       Close To Add Unix         Mumber de Accesse       P         Nu	Visualize		This view shows all elements in the Cars module.
Modulas  Modulas Modulas Modulas  Modulas Modulas  Modulas Modulas  Modulas	Reports		
Mandatory Attributes     Mandatory Attributes     View Definition     This attribute is added in when the element is seven!     Adv     Advenced     Advenced     Number of Notice the view in the Add menu.     Display	Workspace Workspace Addition A		
Newsbar       View Definition       This attribute is addable after the alement is seved.         Information       Add       Include the view in the Add menu.         Display       Include the view in the Add menu.       Display         Review       Include the view in the Review menu.       Review         View/Review       Include the view in the Review menu.         Winuber       Include the view in the Review menu.         View/Review       Include the view in the Prioritize menu.         View/Review       Include the view in the Prioritize menu.         View/Review       Include the view in the Prioritize menu.         Oriteria       Criteria         Oriteria       Criteria         Oriteria       Criteria         Access Information       Free Accesse         Free Accessed By       -         Number of Accesse       ?         Number of Accesse       ?		Manufactures Attach	uter
Information         Idvenced			
Advanced  Display  Di	Contract of the second s	and the second s	
Review Induce the view in the Cost of view menu,  Review Induce the view in the Review menu,  Prioritize Induce the view in the Prioritize menu.  Visuates Information  Plan Induce the view in the Manimenu.  Oriteria Cost To Add Unk Bateline Induce the view in the Manimenu.  Access Information  First Accessed By -  First Accessed By -  Number of Accesse 7		Distant	
Prioritize  Prior			
Visualize Visual		Review	Dirichade this view in the Review menu.
Pan Pan Oriteria Ori		Prioritize	Include this view in the Prioritize menu.
Conterine Costs To Add Unix Beteline Costs To Add Unix Beteline First Access Information First Accessed By - First Accessed By		Visuelize	Include this view in the Visualize menu.
Bateline  Access Information  First Accesse  First Accesse  Number of Accessee  Y		Plan	Include this view in the Plan menu.
Access Information First Accessed By Number of Accesse 7		Oriteria	Click To Add Unk
First Access - First Accessed By - Number of Accesses 7		Bajeline	
First Accessed By - Number of Accesses 7		Access Informati	00.
Number of Accesses 7			
		and and provide the provide the provide the second second second	
Last Access -			
Last Accessed By -			

2. Leave all the other attributes as they are and click OK. This will bring you to a list of available modules, where you define what module the view should be applied to:

		PV worksoo
W*	Click the module from whi	ch you want to view elements.
todules	Name	Description
dd	Criteria	The module where the members add and organize criteria. Criteria are used when members prioritize elements or criteria.
isplay	Releases	The module where releases are stored. The releases are the prerequisites when release plans are generated
vioritize		by the release planner.
lisualize	Saved Baselines	The module where baselines are stored.
eports Configure	Views	A module where the members add and organize any kind of elements. When a new module is added to the workspace k is always of this type.
Workspace	Checkpoints	The module where the members add and organize checkpoints. Checkpoints are used when the members review elements.
Attributes	Resource Types	The module where resource types are stored. The resource types can be prerequisites when release plans are generated by the release planner.
Viewe	Seved Cherta	The module where saved charts are stored.
A Notifications	Sevel Reports	A module where generated reports can be saved.
Workflows	Members	Users in the database must be members of a workspace to be able to access the workspace. All members of the workspace are lated in this module. Numbers get access to the elements in the modules via views. Members that also are administrators also have access to the modules.
Information	Saved Plans	The module where release plans are stored. A release plan contains the results of a member's work with the release planner.
Advanced	Cars	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.
	Drigin Country	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.
	Loge	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.
	LinkByText Module	This is the configuration module for the business rule LinkSyText
	Customers	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.
	Support Issues	This is a mockup module to illustrate the LinkByText business rule.
	Continents	This module collects links from the module Origin Countries

3. Select the module Cars in the list of Modules on the left. This starts a wizard that guides you through a series of steps. First in this series is a general selection rule:

Define the rule, the	n click OK.	
Show elements whose	type is a folder	*
is	False 💙	

For tips on how to define view rules, refer to the online help.

This text means that the view should show all the elements that are not folders. The elements can be structured in a folder hierarchy, and sometimes these should be shown and sometimes not. Just leave the defaults and click OK.

4. Now, click the Next > button, which brings you a window where you can define what attributes should be visible and editable via the view:

							Hy warkape
¥•	Defin	e the a	coess ]	evel for the attribut	es in All cars, then click Finish.		
Hodules	None	Visible	Editable	Attribute	Description	Administrator Notes	Type
Add	0	۲		10:	Unique ID		Unique Id
Display		0		Title	A short and concise explanation of the element.		Taxet
Prioritize		0	0	Description	A thorough explanation of the element.		Text
Visualize Reports	0	0	0/	Туре	Type of car		Choice
Configure	0	0		Price	The price of the car		Integer
Workspace Modules	0	0		Element Information			Heading
Attributes	0	۲	0	Owner	The user who owns the element.		Element Information
Notifications	۲	0		Creator	The user who created the element.		Element Information
Alias	۲	0		Created Data	The date the element was created on.		Element
Hembers	۲	0		Last Changed By	The user who last changed the element.		Element
Information Advanced	0	۲		Last Changed Date	The date the element was last changed on.		Element
	0	0	۲	Parent Folder	The parent folder of the element,		Element Information
	E			Use the arrow button	s to assign access for all attributes.		
	Misca	dianeo	us sett	ings			
	E 4	low elem	ents to b	e turned into folders and	folders into elements when using the Display menu.		

Since there are several administrative attributes that we may not be interested in, let's hide some of them. Make the choices between None, Visible and Editable according to the above selection.

5. By clicking the Finish button we will be brought back to the tree structure of the Views and the view definition is shown: "All elements in the Cars module whose type is a folder is false".

Rational Focal i	POINT		Workspaces   Home   Proferences   Joe Smith	
				Ny morkesas
	Carl Mowar 1/6	All cars		9000
19200		10	013	R
dules d				
play		Title	All care	. 8/
pritize		- second state of the second		
alize		Description	This view shows all elements in the Cars module.	111
arts				
figure		Allowed a Barriers of	100-71	
Workspace		Mandatory / View Definition		~
Hodules		- Vew Dennoon	As elements in the Cars mobule wrose type is a rober is raise	1
Attributes Views			Visible attributes:	
Notifications				
Alse			D     Title	
Workdisses			• Type	
bers			Price     Element Information	
renation			Owner	
anced			Last Changed Data     Parent Folder	
			Editable attributes:	
			Title	
			• Type	
			Price     Parent Folder	
			· Patient rouger	
		Add	No	
		Display	Yes	
		Review	No	
		Prioritize	Ne	
		Vidualize	No	
		Plan	No	
		Criteria	All orderia	
		Baselina	No	1
		Access Info	mation	
		First Access	2004 IN 19	
		First Accessed	Dy -	
		Number of Accesses	,	
		Last Access	30 <sup>18</sup>	
		Last Accessed	av -	
		Toolbar Setup	Disalay	-
			Tree, Table, Relational Graph, Attribute Statistics, Tracehility Matrix, Ganti Chart, Choice Attribute Matory, What's New?, Synchronize, Create and Activate Beseline Comment Beneficier, Charter Definition	

6. Since we defined that the view should be visible in Display menu section (this was set by default in the first step of creating a new view), it should now appear if we click Display in the navigation bar. So click Display and then "All cars" to show the contents of the view you just created.

# **Displaying the elements**

Focal Point has several very powerful display techniques that are suitable in various situations. Let's just go through a few of them. One common display mode is the tree view which we have already seen in the Cars Module (the repository). However, as we now use the view definition that we created, some of the attributes are hidden.

Allowing and Annual				-
apley > All cars				My works
74 Modules	Cars(37)	to the second		
Display	🕷 📥 Some cars	SAAB		9 L Q L Q L Q L Q L Q L Q L Q L Q L Q L
All cars	a Dome other cars	10	001	8
eports @Generate Report	002.Toyota 003.Porsche	Title	SAAB	
Configure	DIS Auto	Type	Sporta	14
Add member Members Nembers	Di Obi Mercedes Di Obi Jaguar	Price	10 000	1
Online Members		Element Info	ormation	
aformation	ind Member	Owner	Joe Smith	
Advanced		Last Changed Date Parent Polder	2009-05-13	
<sup>1</sup> ] <sup>3</sup> Broadcast Message				
	(Delete )			
	L'BIRIN .			

All display modes are available at a click of the mouse:



From left to right, these modes are called: **Tree**, **Table**, **Relational graph**, **Attribute statistics**, **Traceability Matrix**, **Gantt**, **History**, and **What's New**. Not all these modes make much sense with our small Cars example, so some of them, will be shown with other data, just to give an idea of what they can be used for.

1. Let's start with the Table mode  $\blacksquare$ :

D	<ul> <li>Title</li> </ul>	Туре	Price	Owner	Last Changed Date	Parent Folder
001	SAAB	Sports	10 000	Joe Smith	2009-05-13	Cars
102	Toyota	Sedan	13 000	Joe Smith	2009-04-17	Cars
003	Porsche	Sports	26 000	Joe Smith	2009-05-06	Cars
004	Volvo	Estate	14 000	Joe Smith	2009-04-17	Cars
005	Audi	Sedan	18 000	Joe Smith	2009-04-17	Cars
006	Mercedes	Estate	20 000	Joe Smith	2009-04-17	Cars
007	Jaguar	Sports	28 000	Joe Smith	2009-04-17	Cars

- 2. Here, you get a good overview of all the elements and all the visible attributes. You may also sort the elements on any attribute. To sort the elements alphabetically according to Title, just click Title.
- 3. In the Relational graph is you may dynamically see all relationships between the element, either structural (e.g., by type of car, as below) or linked (but there are no links in our example yet). Please note the settings in the bottom frame to get this view:



Browse Attribute	Layout	Text Depth	Node Width	Display Links
Туре 💌	Balloon 💌	3 💙	Medium 😪	

4. The Attribute statistics mode can be used to summarize facts about your elements, such as how many cars are Sports cars in our Cars example, how many of your requirements have the status "New", or how many requirements is currently in particular status of development, in another example.

Гуре	Quantity	Share
Estate	2	28,6%
Sedan	2	28,6%
Sports	3	42,9%

5. The Traceability matrix *can be used to show relationships between elements:* 

<b>5.1</b>	PR:HR Systems Restru	< PR:Wireless Network	PR:Software Montor.	C 🔗 PR:Clarity	💪 🔷 PR:Telesales Return	💪 🎇 PR:Enhancements to t	PR:Gold, Silver, Bro	PR:Mobile Enhancemen	PR:Preface Map (Your	🖒 📀 PR:Pricing Rules for	R. Travel and expens	L < PR:Enhanced Listing	PR:Rate Card restruc	L 🍀 PR:Sponsored Listing	🗜 < PR:FYR V 3	🗜 👼 PR:Portfolio Approac	PR:Insurance Proposi	PR:Recruitment Softw	🔒 🔗 PR:Printed Product	C 🍪 PR: Clarity 5.1 analy	💾 💈 PR:Central fulfilmen	PR:Classification Ma	11
5.2			لې					لۍ			لم	لم	الم				الم	لې				لې	
5.3	لے	لے					لې		الم														8 4
<b>0</b> .0	<b>~</b>	•																					
i <b>n</b> 515	-																						
I 20	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	

Note! This example is based on other data!

6. The Gantt mode is suitable when the time dimension is important, such as when a set of release projects should be viewed:



Note! This example is based on other data!

7. The History mode Real may show how attributes of the type Choice have changed over time, for example. The following example shows how the Status attribute of a set of requirements have changed, so that conclusions can be drawn about the development process:

From	То	Number of Times Number	of Elements Ave	rage Time
***New	ab Draft	13	12	497
**New	New	72	23	2776
**New	✓Approved	11	9	328
**New	Completed	3	3	270
**New	₿In Progress	6	6	60
**New	💋 Withdrawn	1	1	<1
www.New	Reviewed	12	10	457
Draft	2 Withdrawn	1	1	329
Draft	Completed	1	1	145
ADraft	""New	7	7	520
Draft	Approved	1	1	21
Draft	Reviewed	4	4	162
Reviewed	***New	14	12	2273
Reviewed	a Draft	1	1	2283
Reviewed	Approved	2	2	138
✓Approved	Completed	1	1	21
✓Approved	💋 Withdrawn	1	1	23
Approved	***New	14	10	1978
Approved	SIN Progress	2	2	509
📴 In Progress	Reviewed	1	1	19
In Progress	HEW New	4	4	4633
In Progress	Completed	3	3	523
Completed	Postponed	1	1	1612
Completed	***New	4	4	4190
Completed	Approved	3	3	73
Postponed	💋 Withdrawn	1	1	49
Postponed	HEW New	1	1	3357
💋 Withdrawn	epostponed	1	1	338
🖉 Withdrawn	Approved	1	1	305
🖉 Withdrawn	***New	2	2	2137
Time is displayed in hou	irs.			
уре	Attribute Perspec	tive		_
Number of Changes	Status V Hours	~		

Note! This example is based on other data!

8. Finally, the What's New mode may be used to spot changes that, for example, have been made since you last logged out, or for the last 8 hours and only the Type attribute, as in the following:

play > All cars					My workspace
	日田光三日日	1 18 9 🔷   1	A   3		
lodules	What's New in All car				
isplay All cars eports	Date 2009-05-13 17:16 2009-05-13 17:16	Member Joe Smith Joe Smith	Element 001:SAAB 001:SAAB	Attribute Type Price	Changed To Sports 10 000
onfigure lembers nformation dvanced	Displaying changes since				
	Time Scope	Mer	nber Scope	Attribute Scope	

## Creating criteria for prioritizing your elements

A unique feature of Focal Point allows you to prioritize elements in a structured way. Many situations in for example Product Management or Requirements Management require that you make decisions based on your information. For instance, which features should go into the next release? What risks are most severe? What competitors constitute the largest threat? etc.

Whereas some attributes, such as *Price* and *Type*, are represented by facts, some attributes are more relative. If we were to add information about the design of our cars, for example, how should that be represented? This is where the criteria come in.

Let's create two criteria: Design appeal and Price, and then use these to do some comparisons of the cars.

- 1. To create criteria go to Criteria in Modules, and then click Add Criterion
- 2. Enter a name for the criterion and short description. Make sure the type is set to Maximize, since this is a positive criterion. Also, enter a question that illustrates this criterion. Then click OK

3. Now, create Price criterion. Since we already know the price of each car, we may simply want to use that number instead of making subjective judgments about it. Focal Point can handle this situation as well, by linking the criterion to the Price attribute. We will do that in the next step, but first, just create the criterion, and define it as a negative criterion that should be minimized:

4 Rational Focal Point			Workspaces   Hame   Preferences   Joe Smith   Help   Log Cut
Nodules > Criterie			Hy workspace 💙
× []	Contenta (1/1.)	Enter Information	about the new Criterion, then click 0%.
Modules *_Criterie		Title	Price
Checkmans     Support Issues     Contineents		Owenchapteon	<ul> <li>(a) (b) (a) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c</li></ul>
5) Seved Plans Seved Charts Seved Reports Seved Reports		Objective Type	Mainze
Display All cers		Question	
Reports		Estimate	This attribute is adiable after the element is seved.
Configure Members			
Information		Element Informat	
Advanced		Owner	Los Smith 😸 Loskup
		Creater Created Date	Joe Smith 1009-06-15
		Last Changed By	Joe Smith
		Last Changed Date	2008-05-15
		Parent Folder	Criteria M. Lookup
	OK Canal		

Click OK.

4. Once the criterion is created, you may now set the link between it and the Price attribute of the Cars elements. This is done by editing the Estimate attribute. Click  $\swarrow$  next to Estimate.

4 <sup>12</sup> Rational Focal Poil	nt		Brathapieces   Harne   Preference	es   Joe Smith   Hely   Lug Cut
Rodules = Criteria				By worksport A
3/1	Criteria(1/2)	Price		9467
Hodules	CORRESPONDE	1D	004	8
* Criteria * Asiasona V Chackpointa		Tèle	Price	11/
Aesource Types		Description	This orderion is based on the Price attribute in the Cars module.	H /
Crigie Caultry		Objective	1 Minimiza	81
UnitByText Module		Туре	see Public	
Support Issues		Question		8/
TE Saved Plane		Estimate	·	87
Saved Reports		Element Inform		
Display		Owner	Jos Smith	1
Reports		Creator	Jos Smith	
Configure		Created Date	2009-05-15	
Workspace		Last Changed By	Joe Smith	
Attributes		Last Changed Date	2009-06-15	
Ales		Parant Folder	Criteria	1
Hembers				
Information				
Advanced				
	Add Criterion Ad	d Polder Turn Into Polder	Delete Import Ortene	

5. Select the Cars module:

a Rational Focal Poi	nt		Workspaces   Home   Preferences   Jue Smith   Help   Log C			
Hodules > Criteria \			My workspace			
%	Criteria (1/2)	Select the module th	at contains the estimate attribute.			
Hodules	004 Price	Ortaria	The module where the members add and organize criteria. Criteria are used when members prioritize elements or oritoria.			
*_Criterie *1. Releases		Reference	The module where releases are stored. The releases are the prerequisites when release plans are generated by the release planner.			
Checkpoints		Seved Sevelines	The module where beselines are stored.			
Resource Types		Views	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.			
Crigin Country		Checkpoints	The module where the members add and organize checkpoints. Checkpoints are used when the members review elements.			
LinkByText Module		Resource Types	The module where resource types are stored. The resource types can be prerequisites when release plans are generated by the release planner.			
Bupport Issues		Seved Charts	The module where seved charts are stored.			
Continents		Saved Reports	A module where generated reports can be saved.			
E Gaved Plans		Hembers	Users in the database must be members of a workspace to be able to access the workspace. All members of the workspace are kitled in this module. Members get access to the elements in the modules via views. Nembers that also are administration also have access to the modules.			
Saved Reports		Seved Plana	The module where release plans are stored. A release plan contains the results of a member's work with the release planner.			
Display		Cars	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.			
All cars Prioritize		Origin Country	A module where the members add and organize any kind of elements. When a new module is added to the workspece it is always of this type.			
Visualize Reports		Logo	A module where the members add and organize any kind of elements. When a new module is edded to the workspace it is always of this type.			
Configure		LinkSyText Hodule	This is the configuration module for the business rule LinkByText			
Hembers		Customers	A module where the members add and organize any kind of elements. When a new module is added to the workspace it is always of this type.			
Information		Support Issues	This is a mockup module to illustrate the LinkByText business rule.			
Advanced		Continents	This module collects links from the module Origin Countries			
		The attribute value is not	Ist.			
		If this value is not set, pairwise comparisons determine the elements' priorities for this orderion. It value is set, the values of the selected attribute determine the priorities. The attribute must be in t module as the elements.				
	Cancel					

6. Select the Price attribute (which is the only one available because there is only one integer attribute in the Car element):



7. Now, we need to specify that All Cars should be available for prioritization and Visualization. This is done in the view that we have defined just a moment ago. Let's go back to Views in Configure and edit our All Cars view:

			My w	orkspace
•	■ C Views(1/4) 003:Logo 005:All countries	All cars ID	013	
splay	ipace	Title	All cers	111
nfigure Workspace		Description	This view shows all elements in the Cars module.	<b>N</b> /
Attributes		Mandator	y Attributes	
Notifications Alias		View Definition	All elements in the Cars module whose type is a folder is false Visible attributes:	1
embers			• 1D	
formation			Title     Type	
dvanced			Price     Element Information     Owner     Last Changed Date     Parent Folder  Editable attributes:     Title     Type     Price     Price     Price	
		Add	No	1
		Display	Yes	1
		Review	No	1
		Prioritize	No	1
		Visualize	No	1
		Plan	No	1
		Criteria	All criteria	1

8. We need to edit some of the attributes. First, set the Prioritize and Visualize attributes to Yes, by clicking their respective "edit" icon to the right – or by double-clicking the attribute field – and changing the option:

Prioritize	Yes	Ø
Visualize	✓ Include this view in the Visualize menu. □	Ø
	Lets the users visualize prioritization results and estimates in charts.	

By doing this, the Prioritize and Visualize menus appear in the navigation bar, and the *All cars* view is made available.

The criteria attribute is by default set to "All criteria" so in this case we don't actually need to edit that, since we only have two criteria in the criteria module. However, you may have many criteria for all sorts of element types. In that case you may select what specific criteria are relevant, by defining a view of the relevant criteria and linking this attribute to the view.

Now we are all set to start prioritizing.

### Prioritizing your elements

The decision support mechanisms are based on the fact that humans are not very well equipped to consider several elements according to several criteria at the same time. We tend to have difficulties even focusing exclusively on one criterion at a time, for example. Focal Point helps us to focus on two alternatives according to one criterion at a time, and then combines these simple choices to present the larger and more complex situation.

In our example, it may be difficult to just look at the list of cars and decide which one is "best", and yet we only have two criteria and a few elements (and you are the only stakeholder). But with a few more elements, a few more criteria and a few more stakeholders it's indeed difficult to get a fair overview without Focal Point.

1. To start the decision-making process, open up the Prioritization view of All cars by clicking Prioritized on the left and then choosing the All Cars view:

ational Focal P	oint		Workspace	si   Home   Preferences	i   Joe Smith   Help   Log O
rioritize > All cars					My workspace
***	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Modules Display Prioritize	(	Which car lool			
Visualize All cars	Jaguar ID 007	946 /	Audi ID	005	908 /
Reports	Title Jaguar	10	Title	Audi	1
Configure	Sports	1	Type	Sedan	1
Hembers	Price 28 000	1	Price	18 000	1
Information					
Advanced	Element Information		Element	Information	
	Owner		Owner		
	Last 2009-04-17 Changed Date		Last Changed Date	2009-04-17	
	Parent Cars Folder	1	Folder	Cars	1
	Completed: 0. Required: 6. Recomm	nended: 13.		Number of el	ements: 7. Companison: 1.
	Criteria Design appeal (public)	Delete This Compar	ison	Delete All Comparis	ons

There are a few things to note in this window. First of all, you are presented with a question which is based on what criteria you are currently considering. Your task is to

consider these two elements (in this case the Porsche and the Audi) and indicate which one looks better. You indicate your judgment by marking the scale. If you think the Porsche looks better, place the mark to the left, and vice versa.

Note also that there are no units, nor an absolute scale. Placing your mark to the extreme left doesn't mean that the Porsche looks twice or three times as good as the Audi. The scale is relative, as is your judgment.

2. Now, do the pairwise comparisons for the Design appeal criterion by placing your marks and pressing OK. After 13 comparisons you will get a pop up message saying that you may now visualize the result. Click OK.

# Visualizing your results

The support you get for making decisions in Focal Point is very visual. Priorities are represented as bars, as "bubbles", as lines etc, with size and length relative to their priority. In the first example, we can see which car is best from a design perspective (*Note that you may of course have other priorities! Otherwise we wouldn't need Focal Point...*)

1. Select Visualize and the All Cars from the navigation bar, and make sure that the leftmost visualization mode is selected

Modules Display Prioritize All cars Members Information Advanced	0 * 1 1 * 1	B & # B	R I th	
bisplay reioritize All cars All cars infigure tempers information Idvanced I 0002 Toyo I 0002 Toyo				
Al cers Al cers Al cers Al cers Al cers anniers onfigure embers stormation dvanced IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII				X: Design appeal (Public)
All cars sualize All cars sports infigure embers formation formation ivanced I © 002: Toyo I © 005: Audi I © 005: Audi I © 003: Pop I © 003: Pop I © 003: Pop I © 003: Pop				100%
All cars sports sonfigure embers formation dvanced IF 10 002: Toyou IF 10 002				
infigure imbers formation Ivanced III (002: Toyo III (005: Audi III (007: Jagu III (007: Jagu				
infigure imbers formation Ivanced III (002: Toyo III (005: Audi III (007: Jagu III (007: Jagu				
imbers         imbers           formation         imposed           lvanced         imposed           imposed         <				
Ivanced II 002: Toyo II 006: Merc II 005: Audi II 007: Jagu II 007: Jagu II 007: Jagu II 003: Pop II 003: Pop II 003: Pop				
₩ 10.02 1000 ₩ 10.006 Merc ♥ 10.007 Jagu ♥ 10.007 Jagu ♥ 10.007 Jagu ♥ 10.007 Jagu				
97 🔝 006: Merco 197 🔝 005: Audi 197 🔝 007: Jagu 197 🔝 003: Perp 197 💽 001: Balas				
₩ 1007: Jagu ♥ 1007: Jagu ♥ 1003: Pop ₩ 1001: 64				
[문] (1) 007: Jagu [면] (1) 003: Ports [문] (2) 001: 6위46	185			
🔽 🔝 003: Ports				
🔽 🔝 003: Ports	e l			
🖬 🗟 001: 6446				
the second se	10			
<b>₩</b> 1804: Voho				
		2		
5.0	10%	15% 20%	25% 30% Design appeal (Public)	
			Design appeal (Public)	

This diagram, called the **Bar chart**, shows only one criteria. Here, Toyota is clearly better looking than Volvo. In fact the "best" ones are marked with a green checkbox. The scale shows relative design appeal in percentages, so the lengths of all bars sum up to 100%.

As you can see, there are several visualizations to choose from, and as previously there are no real guidelines in terms of what visualization techniques to use in what situations. However, in this example we will only try out one more, which is the **Stacked bar chart**.

2. Press the button to see the Stacked bar chart.



In the **Stacked bar chart** we may see more than one criterion at a time, and this is where Focal Point starts to show its real strength. In the visualization above we see that considering both cost and design, the relative rank is different. The bar at the top is "best" and the one at the bottom is "worst" considering both criteria.

We could of course have many more criteria, such as "Versatility", "Environmental friendliness", "Safety", "Build quality" etc. Or, we might have more stakeholders that should have their own opinions represented. All these could be shown at the same time in the Stacked bar chart.

3. Now, let's do some analysis. Try selecting and clearing some of the check boxes and see what effect that has on the value indicators in the top right corner. As you select and deselect the cars, the value indicators will reflect the fact that you don't get all the relative value ("looks") and not all the relative cost. In this example, this makes little sense, but if we instead had a set of features that we considered for implementation in a software product, you would be able to see exactly what features should be considered to get for example 60% of the value for 30% of the cost.

In our example we will instead consider what happens if the Price criterion is really more important to us that the design criterion. Currently, both criteria have the same weight, but we may think that cost is in fact more important, or the other way around. In the rightmost frame, right-click and select Criteria Scenarios from the menu that pops up:



4. The Criteria Scenarios window comes up, which allows you to try out different scenarios. What if, for example, cost is twice as important as design? Drag the Price slider to the right until the value shows, e.g. 80%.



9. Look at the black triangles indicating the rank of the elements 📮. Click 💷 again to refresh the order of elements on the Stacked bar chart.



In the example above, we see that if we consider Price to be so much more important than design, that the Toyota is the best. This is indicated by the fact that the black triangles on the Toyota bar are the most to the right. In fact, the Jaguar turns out to give the least "design for the money". In other situations you may consider issues as: "What if we need to cut the budget—how would that affect our planning?", or "How robust is our risk analysis?" You can play around with these criteria to see the effects of such scenarios.

If you close the Criteria Scenarios window, the relative weight of the criteria will be fixed, but can be changed again by recalling the Criteria Scenarios window.

## **Printing a report**

Focal Point has a powerful built-in report generator which is highly customizable. But there is also a simple way to create a quick report.

1. In Display, All cars, click the button, which will bring up a window where you may fill in some basic administrative information (or leave it as is):

Focal Point - Windows Internet Explorer	
Select report format.	
Format	RTF (Rich Text Format)
Paper Size	A4 🗸
Drientation	Portrait 🐱
Jse header, footer and font from template TPE templates are currently not available in quick reports).	Er Standard two views

Click Next

C Fo	cal Point - V	Windows Internet Explorer		
Hea	der			
E	Header			
	Table Cell	Document type (e.g. Limited Internal) Document name		
	Table Cell	Document number		
	Table Cell	Approved by	Joe Smith	
	Table Cell	Checked		
	Table Cell	Revision		
	Table Cell	Reference		
G	enerate Rep	Close		

Press the Generate Report button and follow the instructions



#### Summary and steps forward

Now you have completed all the steps in this "Getting Started..." guide. You have created a module (called Cars), added information (attributes) about its elements (the cars), displayed the information in various ways, prioritized them according to a couple of criteria (design and cost of owning), done some scenario analysis and printed a report. This is really only a scratch on the surface of what Focal Point provides. The areas that *have not* been explored include:

- 1. **Filtering**, which allows the end-user to filter out relevant information. Whereas views define what the user is *allowed* to see, the filters can be defined by end-users to select a subset of that.
- 2. Linking information together. Information elements are almost always linked to other elements in reality. Products to customers to releases to markets to requirements and so on. Linking information together and displaying these relationships is just a matter of pointing and clicking in Focal Point.
- 3. **Business rules**, which allows almost unlimited data manipulation. With business rules you can create workflows, do quality control, notify members via email on certain events etc.
- 4. **Role-based access**, so that Product Managers, Developers, Customers etc. can add, change, prioritize and display information relevant for them.

- 5. **Release planning**. Focal Point provides automatic release planning, where optimal sets of requirements are selected for several release projects and linked to to these projects.
- 6. **Review support** for information, where e.g. requirements can pass a review process to within an organization to secure clarity, understanding and quality.
- 7. **Versioning and baselining**, where changes to information elements can be tracked (and rolled back if necessary) down to attribute level.

However, you are now ready to explore all these powerful features of Focal Point. As you do that, please use the help system by clicking the Help link placed in the top right corner.

# More 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, a single reference site for all support resources is located at <u>http://www.ibm.com/software/rational/support/telelogic/</u>

#### Prerequisites

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

•To learn more about Passport Advantage, visit the Passport Advantage FAQs at <a href="http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.html">http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://www.ibm.com/software/lotus/passportadvantage/brochures\_faqs\_quickguides.http://wwww.ibm.com/software/lotus/passportadvantage/broc

•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 <u>http://www.ibm.com/software/support/.</u>

•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 1	<b>Description</b> The problem has a <i>critical</i> 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 <i>some</i> 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 <u>https://www.ibm.com/software/rational/support/</u> 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 <u>http://www.ibm.com/software/support/help.html</u>

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

•By phone: For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at <u>http://www.ibm.com/planetwide/</u> 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>.

#### Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service. IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing

**IBM** Corporation

North Castle Drive

Armonk, NY 10504-1785

U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send written inquiries to:

Intellectual Property Licensing Legal and Intellectual Property Law IBM Japan, Ltd. 3-2-12, Roppongi, Minato-ku, Tokyo 106-8711

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states to not allow disclaimers of express or implied warranties in certain transaction, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

Licensees of this program who wish to have information about it for the purpose of enabling (i) the exchange of information between independently created programs and

other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Intellectual Property Dept. for Rational Software IBM Corporation 1 Rogers Street Cambridge, MA 02142 U.S.A

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under the terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the supplier of those products.

All statements regarding IBM's future directions or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

#### Trademarks

IBM, the IBM logo, ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at <a href="http://www.ibm.com/legal/copytrade.html">www.ibm.com/legal/copytrade.html</a>.

Other company, product or service names may be trademarks or service marks of others.