



Windchill® Business Reporting

Real-time access to the information to analyze and optimize product development processes, across the enterprise

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Agenda

- What is Business Intelligence?
- Success Factors of Business Intelligence
- Windchill Business Reporting (WBR)
- Key benefits/features of WBR
- When to use WBR
- Different Report types
- Steps for Report
- Detail Steps/Demo
- WBR: Schedule based Report generation
- Q & A

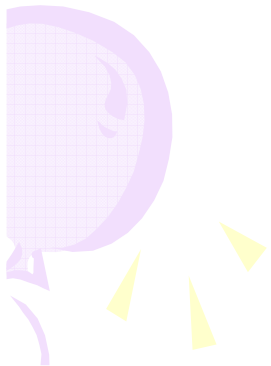


What is Business Intelligence?

- **Business intelligence (BI)** refers to computer-based techniques used in spotting, digging-out, and analyzing business data
- **Architecture :**



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What is Business Intelligence? (cont.)

- **How are we doing?**

- Reports
- Dashboards monitor business metrics
- Scorecards

- **Why are we doing it?**

- Ability to look at historic as well as real time data and trends
- Understand the anomalies

- **What should we be doing?**

- Analyzing, Planning and Forecasting
- 



What is Business Intelligence? (cont.)

- **Who benefits from BI/ Reporting?**

- Executives

- Get At-a-glance Dashboards – Investigate details when needed

- Business Managers

- Understand status, can't measure or improve process without the ability to measure and report on KPIs

- Professional Authors

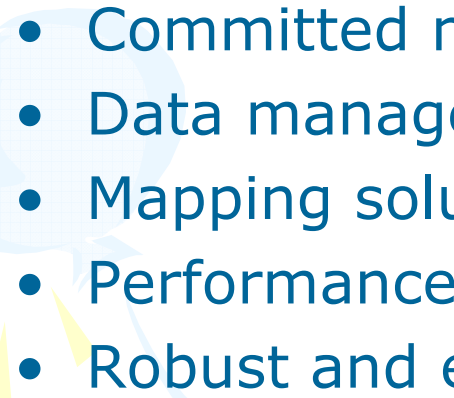
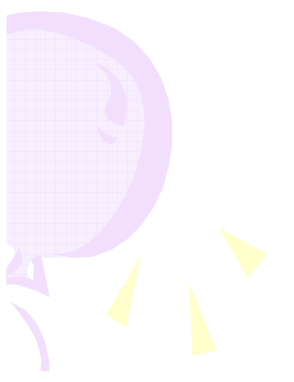
- Provide real-time access to critical data, formats, distribution options, etc

- IT Administrators

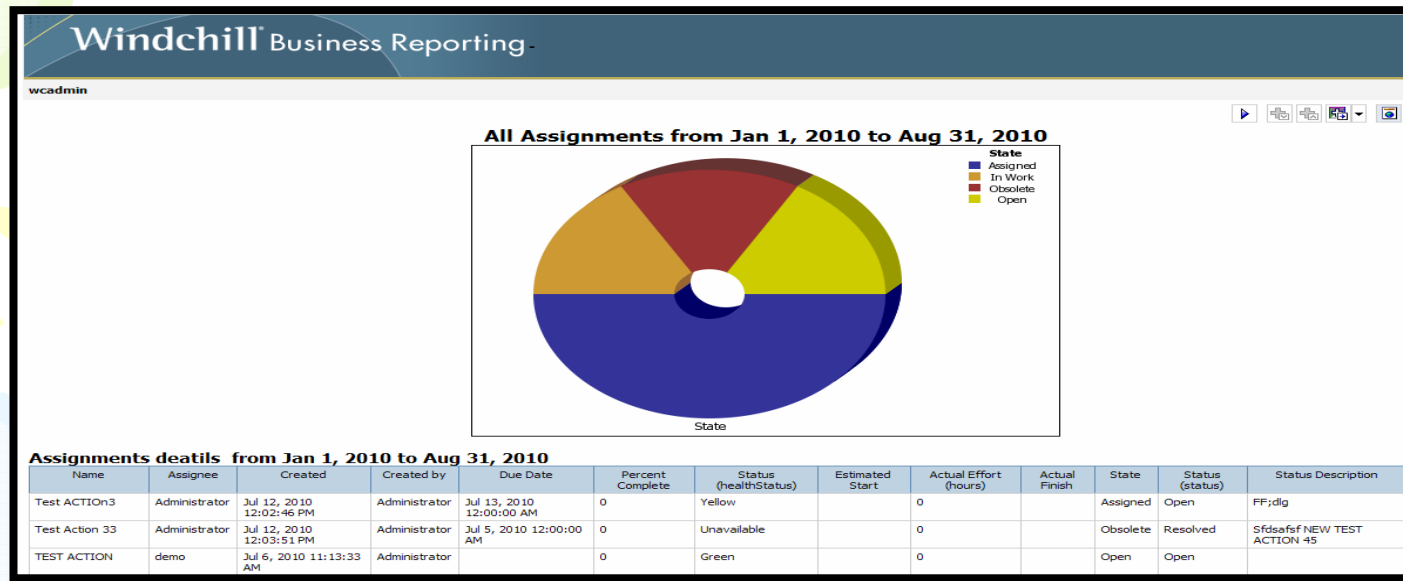
- Simplified Web Architecture, Extendable Solution



Success Factors of Business Intelligence

- Business-driven methodology and project management
 - Clear vision and planning
 - Committed management support & sponsorship
 - Data management and quality
 - Mapping solutions to user requirements
 - Performance considerations of the BI system
 - Robust and expandable framework
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Windchill Business Reporting (WBR)



- Windchill reporting capabilities provide real-time access to the information to analyze and optimize product development processes.
- Used to enhanced reporting capabilities using Cognos 8 BI
- The Windchill business reporting solutions used to rapidly develop and distribute product and process information across the enterprise.

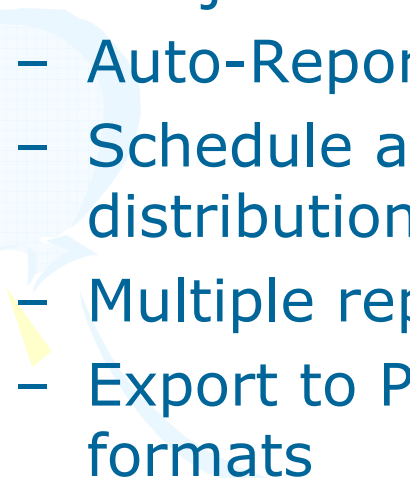
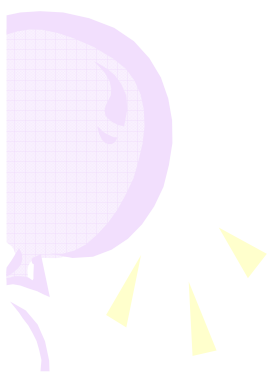


Key benefits/features of WBR

- **All the power and flexibility of Cognos BI, embedded in Windchill**
 - Easily and quickly create new reports
 - Automate the process of distributing information
 - Securely access key business and product metrics
- **Pre-built UI and data integration**
 - eliminates the need for customers to develop a custom BI solution
 - Pre-built reports accelerate time-to-value
 - Meet some of the most common information needs
 - The number and types of pre-built reports will grow release over release
 - Can be used as templates to author new reports
 - Create graphical and tabular reports easily and quickly
 - Extensive, easy-to-use report formatting capabilities
 - Charts and graphs (e.g. pie charts and dash boards)



Key benefits/features of WBR (cont.)

- Drill-down to the details
 - Develop reports with hyperlinks and drill-down to not just see a problem, but actually solve it
 - Auto-Report Generation & Distribution
 - Schedule automated report generation and email distribution of reports
 - Multiple report formats
 - Export to PDF, HTML, Excel, XML, and other formats
- 
- 



When to use WBR

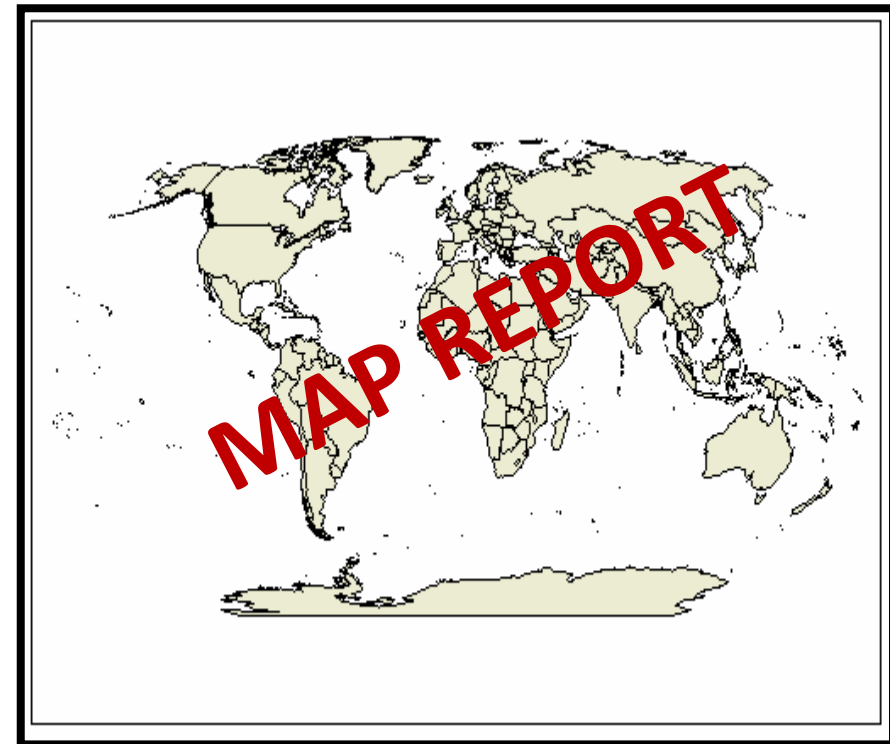
- Information output is an aggregation of data from several areas in Windchill
- Aggregation of reports showing data trends is a requirement
- Users need data in multiple formats (email, html, pdf, csv, xml, Excel)
- Quantitative data is too complex to analyze
- Tabular output can not display relationships between data values
- Data output needs to be scheduled at regular frequency
- Data needs to be printed for arriving at an informed decision
- Data need to send over internet, e-mail, etc.

Different Report types

- List
- Crosstab
- Charts and Chart Configurations
- Map
- Dashboards
- Additional Reports
 - Drill-through reports
 - Burst reports
 - Conditional Reports (and layouts)

Name	Created by	Created	Assignee	Due Date
Test ACTION3	Administrator	Jul 12, 2010 12:02:46 PM	Administrator	Jul 13, 2010 12:00:00 AM
Test Action 33	Administrator	Jul 12, 2010 12:03:51 PM	Administrator	Jul 5, 2010 12:00:00 AM
TEST ACTION	Administrator	Jul 6, 2010 12:00:00 AM	demo	
NEW TEST ACTION 45	Administrator	Jul 12, 2010 12:03:12 PM	Administrator	Jul 27, 2010 12:00:00 AM
TT1	Administrator	Aug 16, 2010 1:00:06 PM	Administrator	
TT2	Administrator	Aug 16, 2010 1:00:27 PM	Administrator	

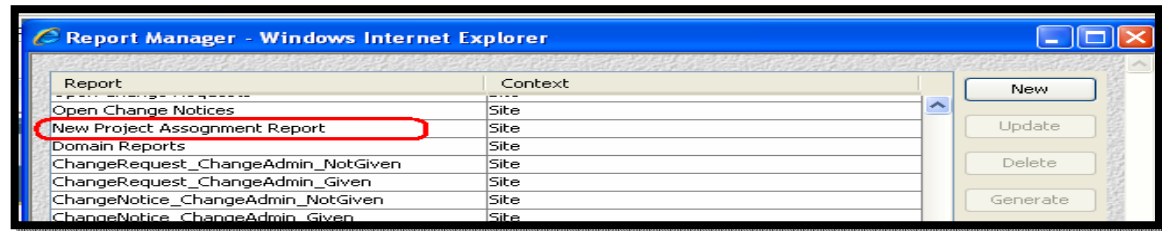
	Name	Asia	Europe	America
10	Administrator	1		
7724	demo		1	
16071	wbradwin			1
50083	Test User			1



Steps for Report

- **Windchill Data Query**

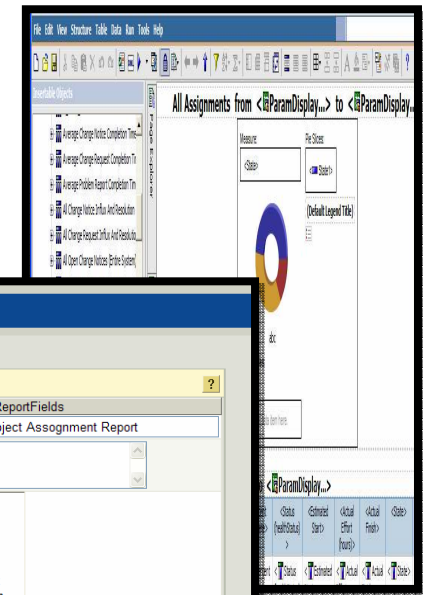
- Query Builder
- Info*Engine



- **Update Cognos with Latest Windchill Queries**

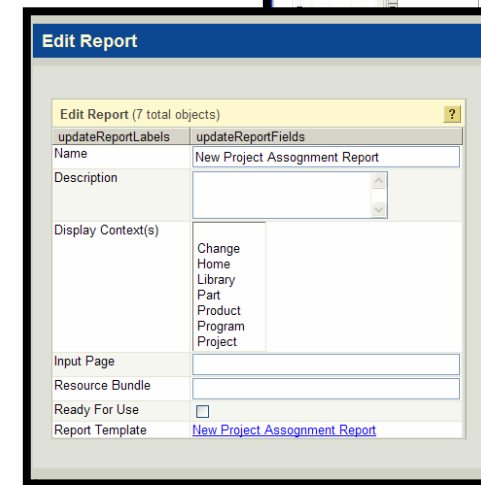
- Windchill Shell or JMX

- **Define Report in Cognos Report Studio**



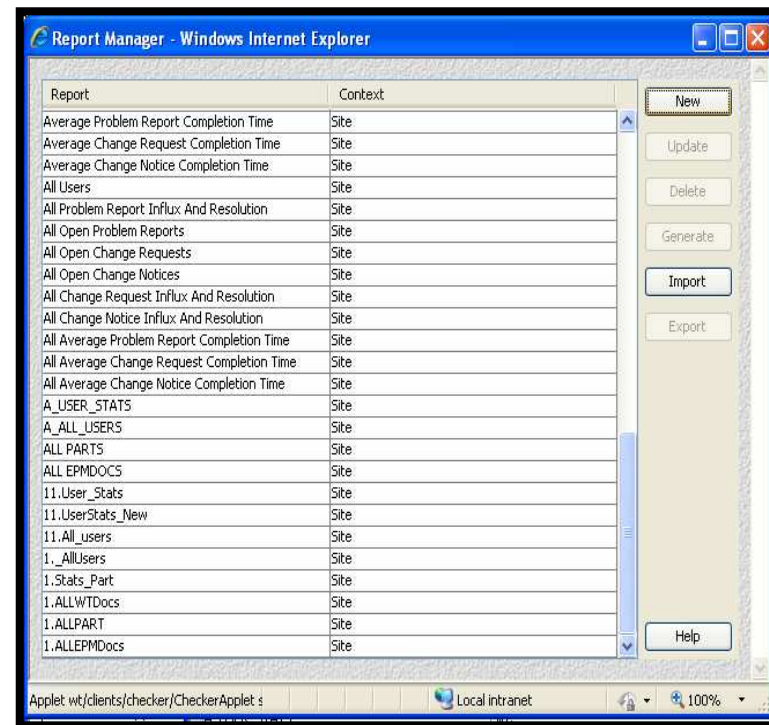
- **Make Available in Windchill UI**

- Site – Reports – Edit
 - Ready for Use
 - Select Available Contexts
- Custom Actions Menus



Detail Steps/Demo

- Login to Windchill server (<https://<windchill>/Windchill>) with site administrator (wadmin)
- Go to Site > Utilities and Open Report Manager.
- Create a report query using Report Manager (Query Builders)
- Save the query/ report



Detail Steps/Demo (Cont.)

- Now open a JCONSOLE, Tomcat should run as a Process not as a Service.
- Now on JCONSOLE connect to Tomcat Process (**Process Name:** org.apache.catalina.startup.Bootstrap start)



Detail Steps/Demo (Cont.)

- On Tomcat Process in MBean, Select Update Model Operation as shown below

The screenshot displays the Java Monitoring & Management Console interface. The left pane shows a tree view of MBeans under the 'com.ptc' package, with the 'updateModel' operation highlighted under the 'ReportingSystem' MBean. The right pane shows the 'Operation invocation' details for 'updateModel'.

Operation invocation: void updateModel ()

MBeanOperationInfo

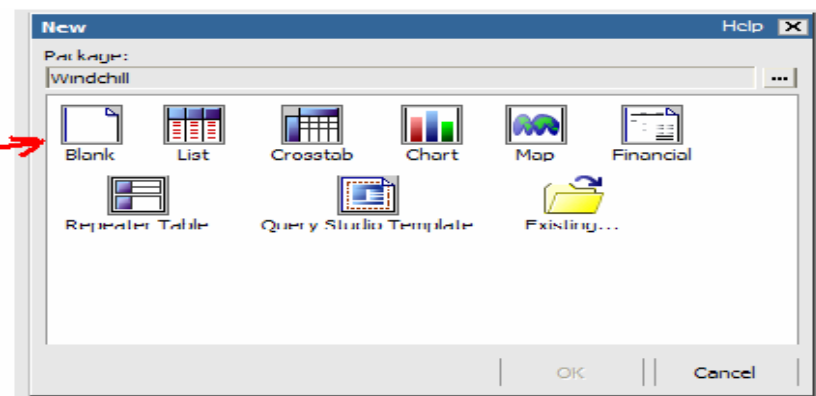
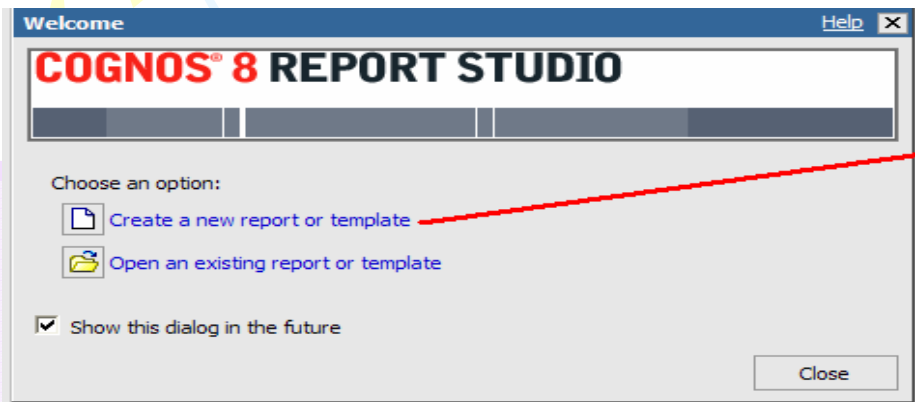
Name	Value
Operation:	
Name	updateModel
Description	Update third-party reporting system's knowledge of Windchill data model.
Impact	ACTION
ReturnType	void

Descriptor

Name	Value
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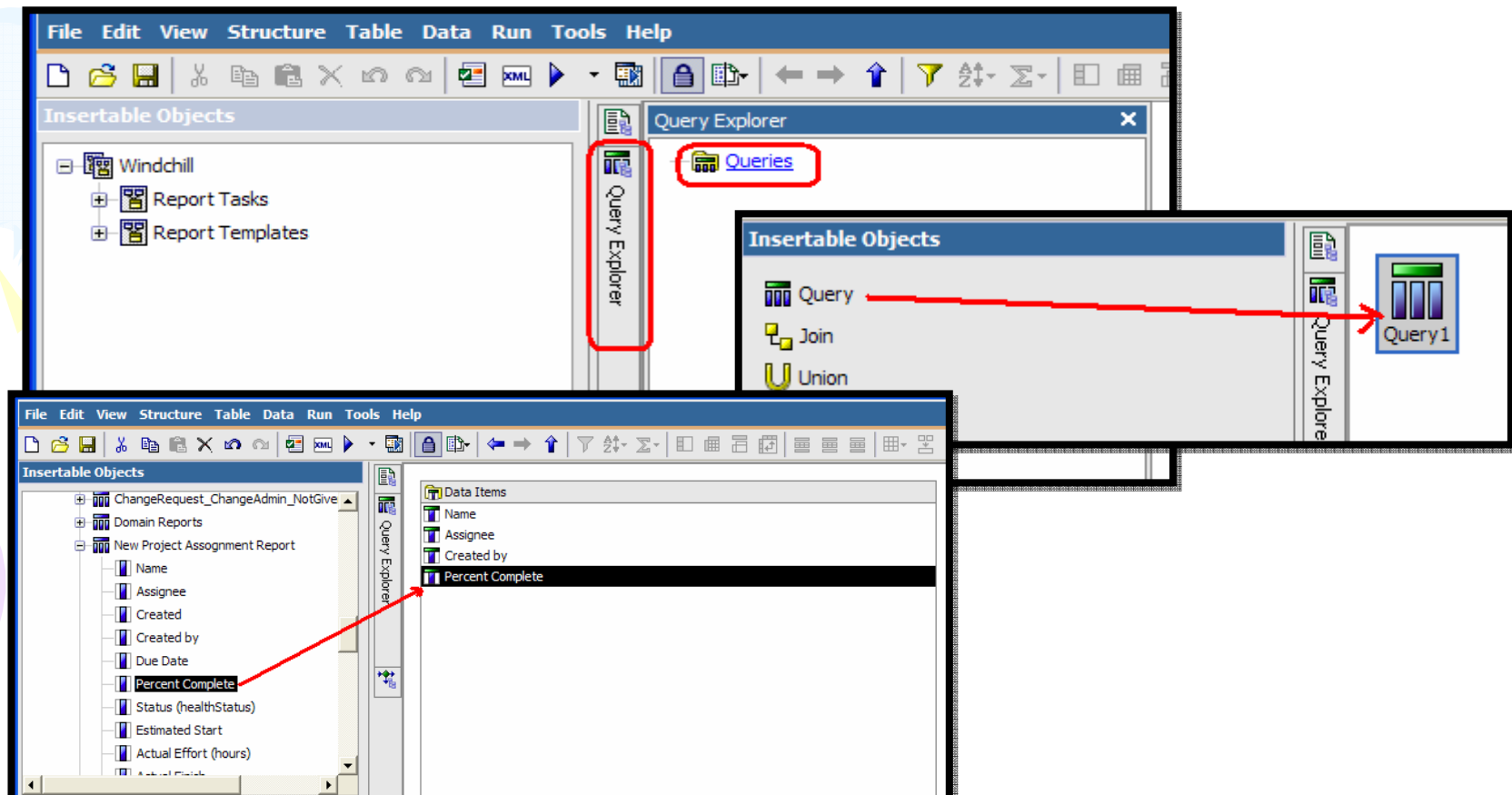
Detail Steps/Demo (Cont.)

- Now click on updateModel and wait for some time to execute this method.
- If you get Method Successful message; click on OK, disconnect Tomcat Process and close Jconsole.
- As an alternate to Jconsole; run method directly from Windchill shell
- Now Login to Windchill WBR server with Cognos administrator (wbradmin).
- Open a Report Studio
- Create a New report; blank report or select any existing template.



Detail Steps/Demo (Cont.)

- In Queries select Query and drag it in working area.
- Go to Query Explorer and select Queries
- Double click on Query1
- Now browse to the Insertable Objects and select data items from one of the Report Template and drag it into Data Items



Detail Steps/Demo (Cont.)

- Now select Data Items and drag above created query in Working area.
- Now go to the Page Explore and click on Page1
- Save a report in Windchill or any other folder
- Open a WBR and browse a report and click on Run option.
- Report output will be as below
- Select different options and click on Run

The screenshot illustrates the process of saving and running a report in Windchill. It features three main windows:

- Save As:** A dialog box for saving the report. The 'Save in' location is 'Windchill'. The file name is 'TEST REPORT'. A list of files in the folder is shown, with 'TEST REPORT' highlighted by a red box.
- Page Explorer:** A window showing the report's structure. The 'Page Explorer' tab is selected, and 'Page 1' is highlighted with a red box.
- Run with options - TEST REPORT:** A dialog box for configuring the report run. The 'Format' is set to 'PDF', the 'Language' is 'English (United States)', and the 'Delivery' options are 'View the report now' (selected), 'Save the report', 'Print the report in PDF format', and 'Send me the report by email'. The 'Prompt values' section is checked for 'Prompt for values'. The 'Run' button is highlighted with a red box.

Additional elements include a 'Properties' window at the bottom with a red box around the 'Run' icon, and a table of report data in the background:

Report Name	Date
Report View of MYNEW TEST	July 7, 2010 9:39:49 A
Test	July 13, 2010 8:46:37
TEST REPORT	August 16, 2010 9:49:
TEST USER LISTsss	July 20, 2010 11:13:4
TOTAL PARTS	July 7, 2010 11:19:16

Detail Steps/Demo (Cont.)

- Now again connect to Tomcat Process using JCONSOLE
- On Tomcat Process in MBean ,Select exposeReport Operation as shown below
- Now click on exposeReport and wait for some time to execute this method.
- If you get Method Operation Return Value more than 1; click on OK, disconnect Tomcat Process and close Jconsole.
- Login with Site admin and Go to Site > Utilities > Report
- Above created report will be available here.
- From report edit action Select different Options such as Ready For Use, Display Context, etc.

Reports (15 of 32 total objects)

Name	View report	Actions	Description
ALL PARTS		Actions	
ALL EPMDOCS		Actions	
Project Assignments Report		Actions	
1.ALLPART		Actions	
New Project Assognm		Actions	
1.WindchillStatisticsR		Actions	
TEST REPORT		Actions	
Multi-Level BOM Report		Actions	
Problem Report Status		Actions	
Change Request Status		Actions	

Edit Report

Edit Report (7 total objects)

updateReportLabels	updateReportFields
Name	TEST REPORT
Description	
Display Context(s)	Change Home Library Part Product Program Project
Input Page	
Resource Bundle	
Ready For Use	<input type="checkbox"/>
	TEST REPORT

* Indicates required fields.

OK Cancel

Java Monitoring & Management Console - pid: 1932 org.apache.catalina.s

Connection Window Help

Overview Memory Threads Classes VM Summary MBeans

Catalina

- JMImplementation
- Users
- com.ptc
- WebAppContexts
 - /Windchill
 - Attributes
 - Operations
 - Notifications
 - Dumper
 - Emailer
 - InfoEngine
 - Loader
 - Logging
 - LogsDirViewers
 - Monitors
 - DirContexts
 - GarbageCollection
 - IeCalls
 - Memory
 - ProcessCpuTime
 - RMICalls
 - ReportingSystem
 - Attributes
 - Operations
 - emailThisMBean
 - exposeReports**
 - pingReportingSystem
 - resetPingData
 - updateModel

Operation invocation

int exposeReports ()

MBeanOperationInfo

Name	Value
Operation:	
Name	expose
Description	Create
Impact	ACTIO
ReturnType	int

Descriptor

Name	Value
------	-------

WBR: Schedule based Report generation

- Select New Scheduler
- Go to the WBR folders and Select More action

The screenshot displays the Windchill web interface. On the left, a file explorer shows a list of reports under 'Public Folders > Windchill'. The 'TEST REPORT' folder is selected. A context menu titled 'Perform an action - TEST REPORT' is open over this folder, with 'New schedule...' highlighted in a pink box. To the right, a table of report entries is visible, with the 'More...' button for the 'TEST REPORT' entry also highlighted in a pink box.

Name	Actions
Program Item Status Report	[Icons] More...
Program Status Report	[Icons] More...
Project Assignment Report	[Icons] More...
Project Item Status Report	[Icons] More...
Project Status Report	[Icons] More...
Report View of MYNEW_TEST	[Icons] More...
Test	[Icons] More...
TEST REPORT	[Icons] More...
TEST USER LISTsss	[Icons] More...
TOTAL PARTS	[Icons] More...

WBR: Schedule based Report generation (Cont.)

- Select different options as shown below

Schedule - TEST REPORT

Schedule this entry to run at a recurring date and time. You can run using the default values or specify the options. You can disable the schedule without losing any of its details.

Disable the schedule

Frequency:
Select the frequency by clicking on a link.

[By Day](#) | **By Week** | [By Month](#) | [By Year](#) | [By Trigger](#)

Every week(s) on:

Monday Tuesday Wednesday Thursday
 Friday Saturday Sunday

Options

Override the default values

Formats:

HTML
 PDF

Orientation:
Default

Paper size:
Default

Excel 2000 Single Sheet
 Excel 2002
 Delimited text (CSV)
 XML

Start:
Aug 16, 2010
10 : 19 AM

End:
 No end date
 End by:
Aug 16, 2010
10 : 19 AM

Languages:
English (United States) [Select the languages...](#)

Delivery:
Select at least one delivery method. For burst reports, the email recipients are determined by the burst specification.

Save:

Save the report
 Save the report as a report view [Edit the save as options...](#)
... > Report View of TEST REPORT

Print the report in PDF format:
 [Select a printer...](#)

Send a link to the report by email [Edit the email options...](#)
wadmin (Administrator)

Prompt values

Override the default values
No values saved

OK Cancel

Start and End Dates

Schedule Frequency

Output Formats

Run with Present Prompts

Language and Delivery Options



Windchill Business Reporting

Q & A

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