

Presenter: Else Robberechts – Technical Sales Specialist BA

New & Improved

IBM Cognos TM1 10.2





Themes: IBM Cognos TM1 V10.2

What's New?

Performance

Enable faster insight and sharper execution through dramatic performance gains made in query processing, LAN and web performance.

Measurement

Integrate metrics and scorecards into the high participation planning, forecasting, and profitability analysis to drive closed-loop performance management processes.

Engagement

Engage the entire workforce from the regular management contributor to the most sophisticated business analysts with the tools and software profiles they require, eliminating delay, wasted effort, and offline-shadow systems.

Deployment

Drive performance management through every part of the organization – whether starting in finance or operations – with one easy to design, deploy, and run package on premise or via cloud.





Themes: IBM Cognos TM1 V10.2

What's New?

Performance	Measurement	Engagement	Deployment
Multi-Threaded Query	Scorecards	TM1Web	Operations Console
TM1Web Java-based	Impact Diagrams	Cognos Insight	Transfer
CAFE	Strategy Maps	CAFÉ	TM1 on Cloud
		Mobile Client	TM1Web
		Performance Modeler	CAFÉ
			CP to TM1 Utility





A Performance Management System

Enable faster insight and sharper execution through dramatic performance gains made in query processing, LAN and web performance.

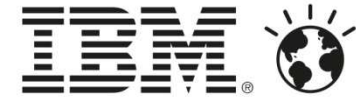
Performance

Measurement

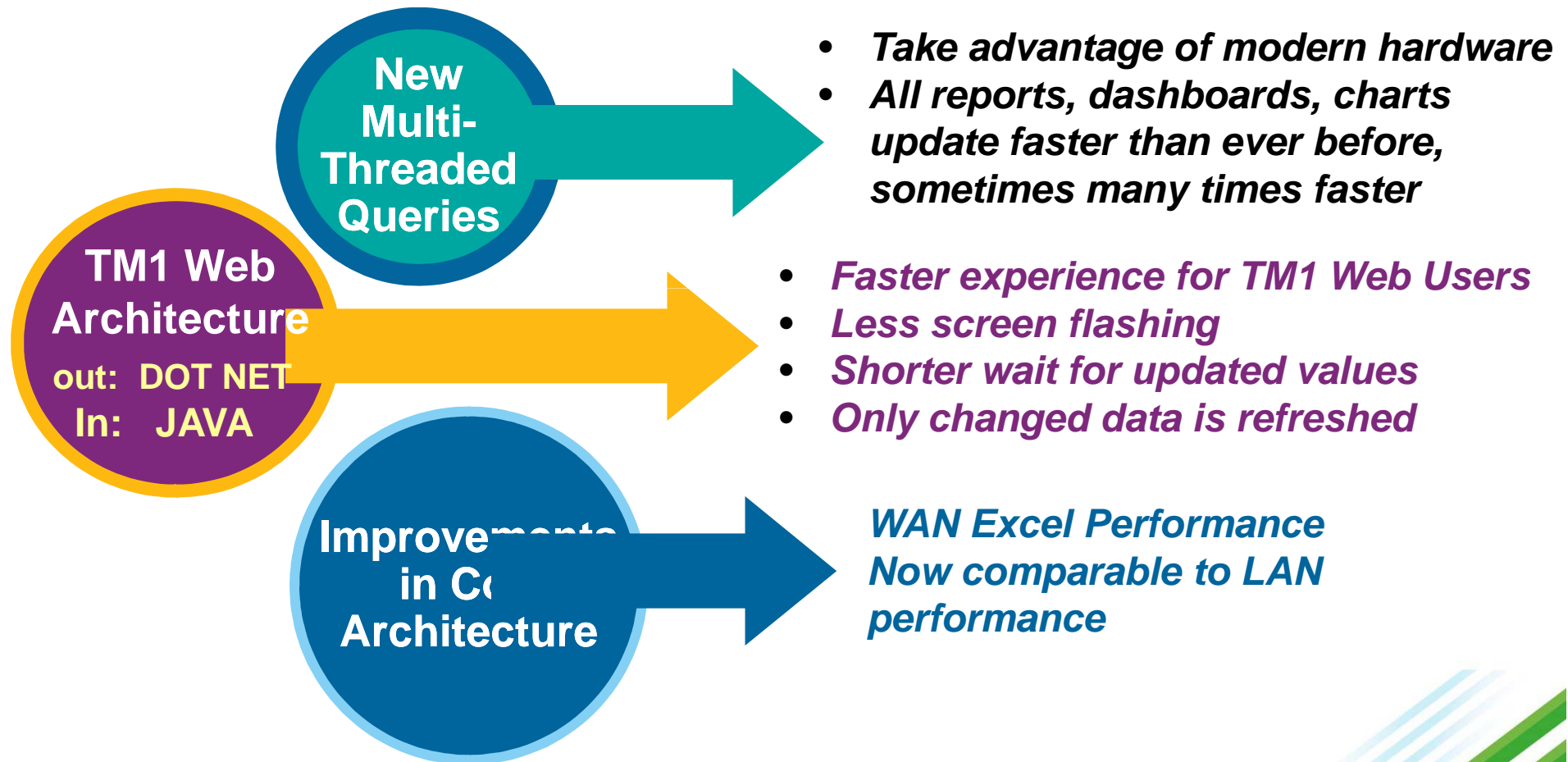
Engagement

Deployment





IMPROVED - Cognos TM1 10.2 performance gains



IMPROVED Performance: Multi-Threaded Queries



TM1 10.1.x



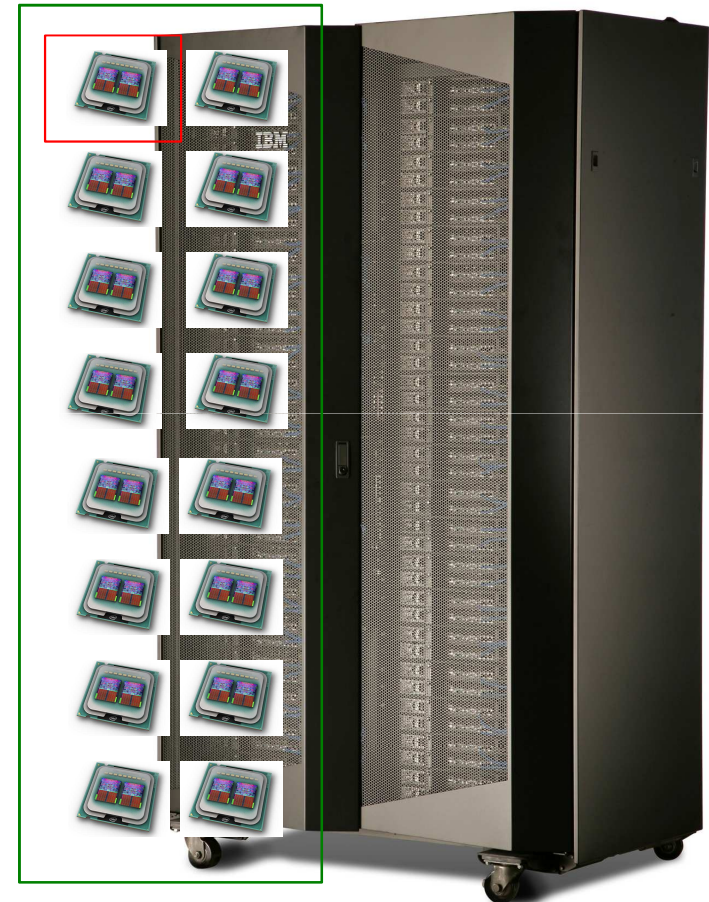
- Single Threaded Query
- 1 core
- Time = 64 seconds



TM1 10.2



- Multi Threaded Query
- *All* cores
- Time = 4 seconds





IMPROVED Performance: Multi-Threaded Queries

- You can now potentially improve the processing performance of queries by allowing them to split into multiple processing threads.
- Multi-threaded queries allow TM1 to automatically load balance the application of cores by running each query on a separate core.
- This multiple processing can improve efficiency and processing time for large queries and rules.





IMPROVED Performance: TM1 Web

- Formerly .Net:
 - Build entire .HTML sheet on webserver
 - Send entire sheet to browser to render
 - Every recalc would rebuild the entire webpage on the webserver for every user
- From .Net to Java®
 - Platform independent
 - Ajax technology: client side sheet rendering (much less memory and CPU needed)
 - Incremental updates: only changed values sent to client
 - No Excel on Web server





IMPROVED Performance: TM1 Web

IBM Cognos TM1 Web Welcome: admin About | Help | Log Out

Projection X

Rows: product [product] Columns: Month [Month] Context: Retail [Channel] Massachusetts [organization] Units Sold [Revenue] 2012 [Year] Budget [Version]

	Year											
	Q1			Q2			Q3		Q4			
	Jan	Feb	Mar	Apr	May	Jun						
Product Total	120,736	29,953	10,502	9,699	9,752	29,566	9,764	9,842	9,961	30,229	30,988	
Clinical System Analyzers	7,620	1,968	648	654	666	1,815	600	605	609	1,877	1,960	
Classic Analyzers	5,153	1,348	441	449	458	1,196	392	399	405	1,265	1,344	
B30 Analyzer	600	149	50	50	50	150	50					
B31 Analyzer	1,050	400	129	133	138	196						
B40 Analyzer	994	221	71	74	76							
B45 Analyzer	28	8	3	3	2							
B60 Analyzer	473	104	34	34	35							
B65 Analyzer	142	38	13	13	12							
B66 Analyzer	458	99	32	33	34							
B70 Analyzer	1,103	247	82	82	83							
B76 Analyzer	305	82	27	27	27							
21010 Guy1	0	0	0	0	0							
Spectrum Analyzers	1,992	491	164	162	165	456	167	165	164	456	500	
V500 Analyzer	901	244	83	81	81	234	80	78	76	219	204	
V700 Analyzer	1,091	247	81	81	85	262	87	87	88	279	303	
Seo Analyzers	476	129	44	43	42	123	42	41	40	115	109	
All System Analysis Packs	110,034	27,284	9,623	8,812	8,848	27,011	8,922	8,990	9,099	27,564	28,176	
Classic Analysis Packs	44,618	12,089	5,084	3,502	3,503	10,761	3,568	3,579	3,613	10,867	10,901	
Spectrum Analysis Packs	36,035	7,800	2,066	2,851	2,882	8,922	2,895	2,983	3,044	9,378	9,936	
V-Pack T1 12ct	6,453	1,431	451	486	494	1,592	511	535	546	1,659	1,771	
V-Pack T1 16ct	5,576	1,291	413	437	441	1,347	444	448	454	1,441	1,497	
V-Pack T2 12ct	5,328	1,332	444	444	444	1,332	444	444	444	1,332	1,332	

A data spread to Q1 / B31 Analyzer changes data in 20 visible cells. Java TM1Web only updates the browser with cell values that have changed ... which is 8% of the visible cells.

Data network traffic is reduced by 92%!

Page 1 of 1

✓ Faster user experience



IMPROVED Performance: CAFÉ Is Fast across the WAN



TM1 10.1.x



- Excel Add-In
- WAN Latency problematic
- Remote Desktop required for WAN users



TM1 10.2



- New CAFÉ interface
- *Uses REST interface: Best Practice Standard for high performance network interfaces*

REST





A Performance Management System

Integrate metrics and scorecards into the high participation planning, forecasting, and profitability analysis to drive closed-loop performance management processes.

Performance

Measurement

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Deployment

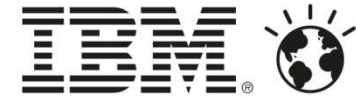




NEW - Scorecards in TM1

- Scorecards based on the technology of TM1
 - Linking to data already in TM1: align plans, budgets, results, metrics in one solution
 - Single, centralized data store
 - *metrics created once and used many times, history store*
 - Powerful multi-dimensional platform
- Status, trend indicators, diagrams, tables auto-generated
- Model metrics, scorecards, strategy maps in performance modeler
- Surfaced in multiple interfaces
 - (Cognos Insight, TM1web and in BI through Cognos Workspace)
- Visualize and navigate the performance problem – diagrams and detail
- Explore impact of one metric on another – impact analysis report





Examples: Scorecards Available In Cognos Insight

branch performance metrics.cdd - IBM Cognos Insight - Connected

	Status	Trend	Actual	Target	Tolerance	Variance
% Account Growth	Red		6.09%	7.50%	0.10	-1.41%
% Revenue Growth	Red		5.79%	110.16%	0.10	-104.36%
Balance Retention	Green		98.89%	95.00%	0.10	3.89%
Efficiency Ratio	Red		20.05%	766.22%	0.10	-746.17%
Elite Customers	Red		0%	12%	0.10	-12%
Net Income	Red		\$1,082,410.47	\$1,987,078.97	0.10	(\$904,668.51)
Net Interest Margin	Red		\$1,032,145.03	\$1,150,841.70	0.10	(\$118,696.68)
New Accounts	Green		765	727	0.10	38
Number of FTE's	Red		49.0	806.8	0.10	-757.8
Profit Margin	Yellow		\$885,352.18	\$921,707.16	0.10	(\$56,354.98)
Revenue	Red		\$682,393.87	\$1,219,651.43	0.10	(\$537,257.56)
Customer Service Score	Yellow		59.20	64.00	0.10	-4.80
Staff Incentive Payment	Green		\$7,784.30	\$0,430.85	0.10	(\$654.47)

Months: Nov-10, Dec-10, Jan-11, Feb-11, Mar-11, Apr-11, May-11, Jun-11, Jul-11, Aug-11, Sep-11, Oct-11, Nov-11, Dec-11

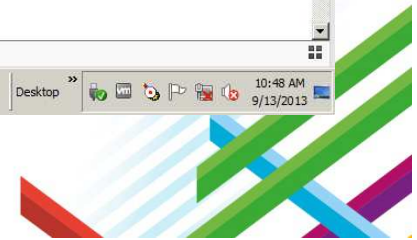
Metrics Dimension: % Account Growth, % Revenue Growth, Balance Retention, Efficiency Ratio, Elite Customers, Net Income, Net Interest Margin, New Accounts, Number of FTE's, Profit Margin, Revenue, Customer Service Score, Staff Incentive Payment

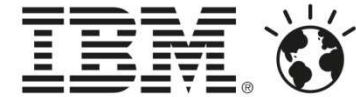
Profit Margin | Fashion Branch | Apr-11

Manhattan View | Fashion Branch View

The diagram illustrates the causal relationships between various metrics. It is divided into three categories: Financial, Customer, and Profit Margin. Financial metrics include Profitability (1 Green, 1 Yellow, 3 Red) and Sales (1 Green, 3 Red). Customer metrics include Customer Service (1 Green, 1 Yellow, 2 Red). Profit Margin metrics include % Account Growth (Red), New Accounts (Green), Staff Incentive Payment (Green), Elite Customers (Red), Balance Retention (Green), Net Interest Margin (Red), and Revenue (Red). Arrows indicate the flow of impact: Customer Service impacts Sales and Profitability; Sales impacts Profitability; Profitability impacts Revenue; Revenue impacts Net Interest Margin and Profit Margin; Elite Customers and Balance Retention impact New Accounts; New Accounts impacts Revenue; Staff Incentive Payment impacts Revenue. A legend at the top indicates that dashed lines represent negative impact and solid lines represent positive impact.

Start | Desktop | 10:48 AM 9/13/2013

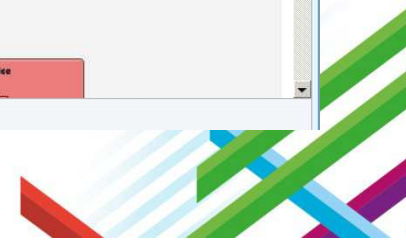


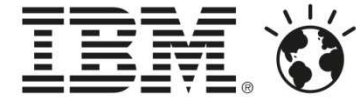


Examples: Scorecard, Impact Diagram and Filters in Cognos Workspace

	Status	Trend	Actual	Target	Tolerance	Variance
% Account Growth	Red square		3.94%	7.50%	10.00%	-3.56%
% Revenue Growth	Red square		3.34%	62.45%	10.00%	-59.11%
Balance Retention	Green circle		98.49%	95.00%	10.00%	3.49%
Efficiency Ratio	Red square		22.92%	592.97%	10.00%	-570.05%
Elite Customers	Red square		0%	12%	10%	-12%
Net Income	Yellow diamond		\$18,877,590.76	\$19,946,268.12	\$0.10	(\$1,068,677.37)
Net Interest Margin	Green circle		\$17,752,228.79	\$12,307,257.16	\$0.10	\$5,444,971.63
New Accounts	Green circle		9718	9232	0	486
Number of FTE's	Red square		529.2	7980.4	0.1	-7451.3
Profit Margin	Green circle		\$14,544,128.05	\$9,898,058.05	\$0.10	\$4,646,070.01
Revenue	Red square		\$11,206,602.27	\$13,292,238.99	\$0.10	(\$2,085,636.72)
Customer Service Score	Yellow diamond		853.80	896.00	0.10	-42.20
Staff Incentive Payment	Red square		\$130,683.10	\$109,896.44	\$0.10	\$20,786.66

Revenue (Metrics Dimension)	Apr-11 (Months)
Financial	Profitability: Green circle 2, Yellow diamond 1, Red square 3
Customer	Customer Service: Red square 3
	Sales: Green circle 1, Red square 3





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Engage the entire workforce from the regular management contributor to the most sophisticated business analysts with the tools and software profiles they require, eliminating delay, wasted effort, and offline-shadow systems.

Performance

Measurement

Engagement

Deployment





Performance

Measurement

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Deployment

Engage the entire workforce from the regular management contributors to the most sophisticated business analysts with the tools and software profiles they require, eliminating delay, wasted effort, and offline-shadow systems.

- Common Excel exp. for Cognos TM1 and BI users
- Analyze, Explore, Input
- Access all Cognos TM1 objects
- Leverage 100% Excel
- Cool formula free mode

Cognos
Analysis for
Excel

- Desktop Modeling
- Offline Planning
- What-If Explorations
- Visualizations, Reporting
- Extend with Local Data

Cognos
Insight

- Contributor at the iPad
- Full status view for approvers
- Value and status updates in real time
- Visualizations

Cognos
Mobile
Contributor

- Build Cognos TM1 templates using familiar Excel formats and objects
- Build custom formats while retaining worksheet familiarity

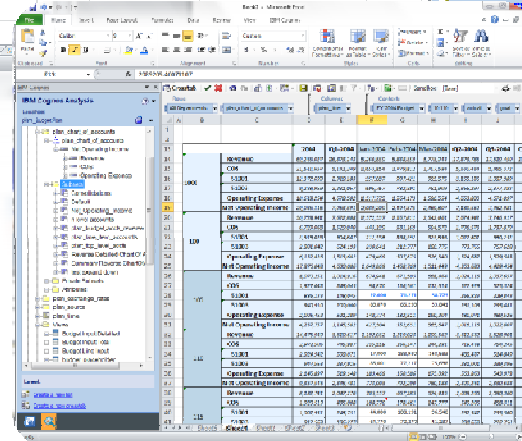
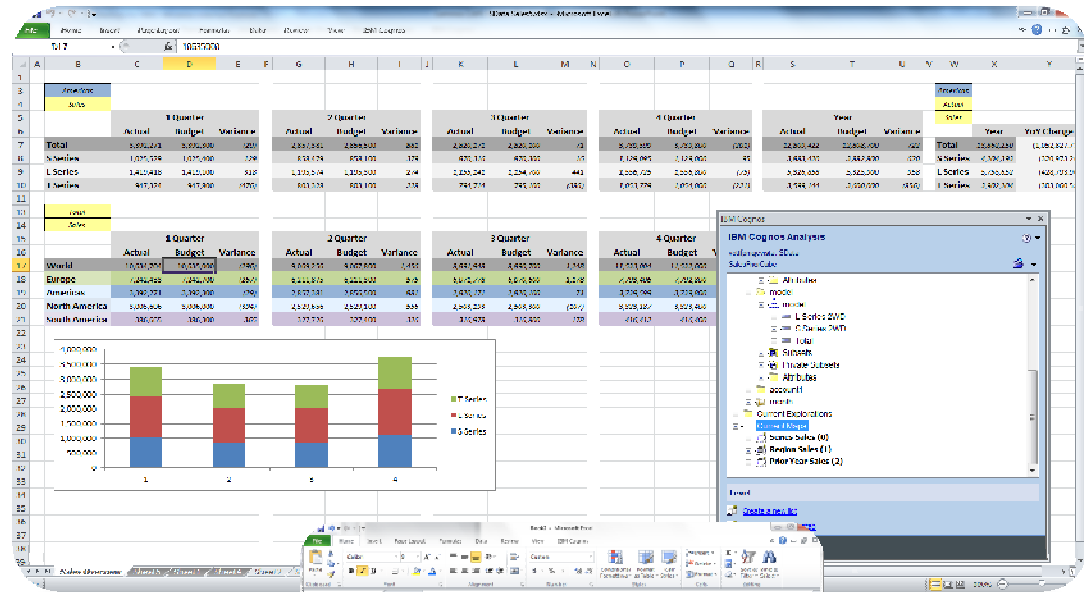
Cognos TM1
Web





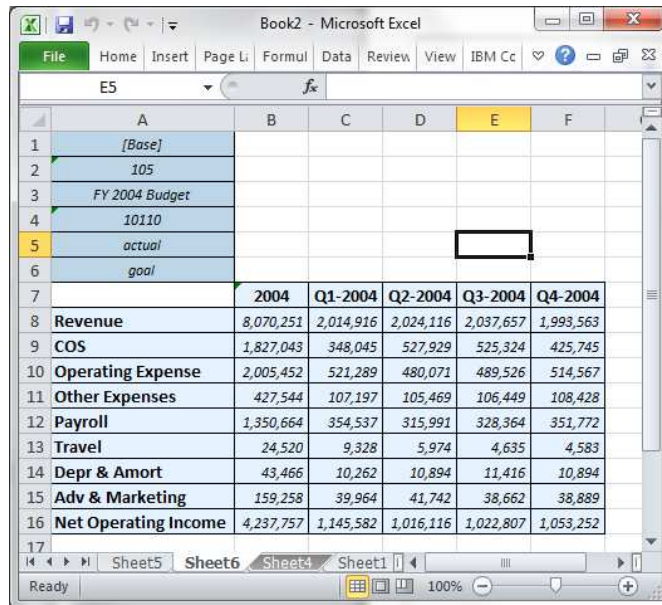
NEW - Excel Interface (CAFÉ)

- ✓ Business analyst friendly with full use of Excel for report authoring and data input
- ✓ Build complex multi-cube reports with new formula-free mode
- ✓ New capabilities to quickly explore and discover data, trends, opportunities
- ✓ Bring together BI data with TM1 data in one report



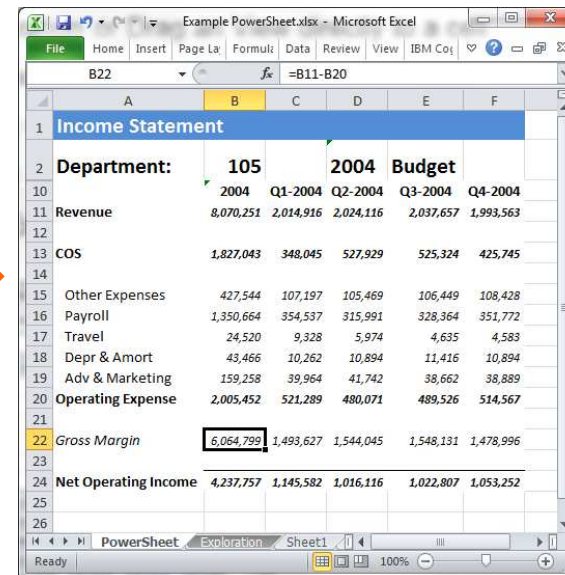
NEW – CAFÉ: Flex Views

- ✓ Convert an Exploration or Drag a View directly to a cell
- ✓ Use Set Editor and Drag & Drop to change members or just type names in cells
- ✓ Bring BI data in from Formula mode
- ✓ Add Excel Formats, Calculations, Insert row/column anywhere
- ✓ Multiple views and cubes on the same sheet
- ✓ Link data directly in cell with Excel functions and Cell References



	2004	Q1-2004	Q2-2004	Q3-2004	Q4-2004
Revenue	8,070,251	2,014,916	2,024,116	2,037,657	1,993,563
COS	1,827,043	348,045	527,929	525,324	425,745
Operating Expense	2,005,452	521,289	480,071	489,526	514,567
Other Expenses	427,544	107,197	105,469	106,449	108,428
Payroll	1,350,664	354,537	315,991	328,364	351,772
Travel	24,520	9,328	5,974	4,635	4,583
Depr & Amort	43,466	10,262	10,894	11,416	10,894
Adv & Marketing	159,258	39,964	41,742	38,662	38,889
Net Operating Income	4,237,757	1,145,582	1,016,116	1,022,807	1,053,252

Augment with
formatting and calcs



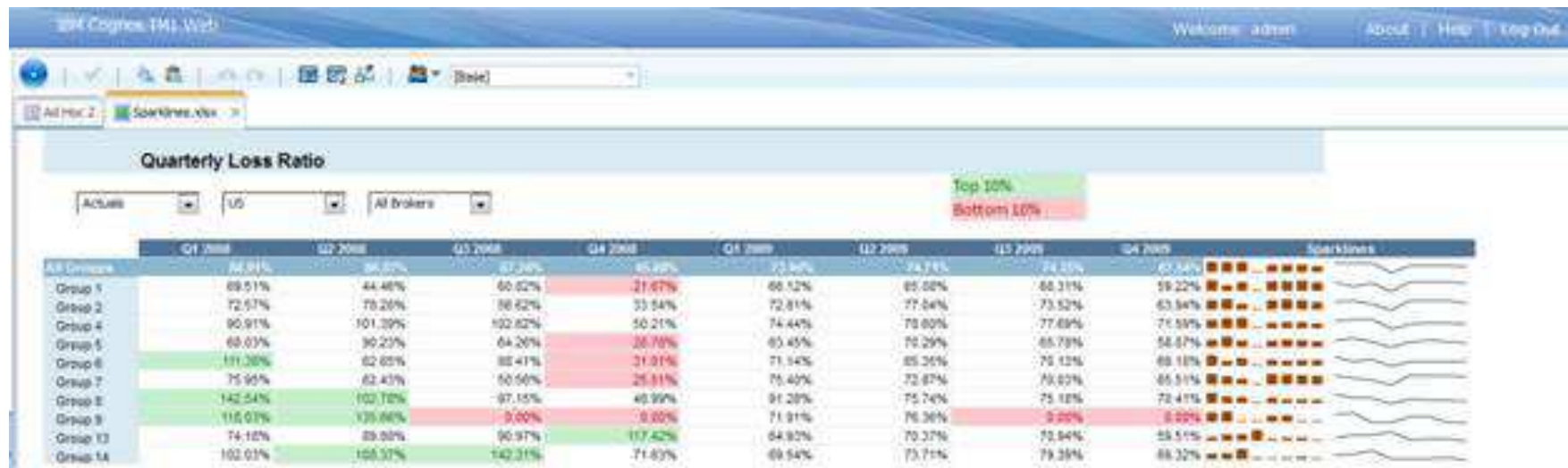
Department:	105	2004	Budget		
	2004	Q1-2004	Q2-2004	Q3-2004	Q4-2004
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Gross Margin	6,064,799	1,493,627	1,544,045	1,548,131	1,478,996
Net Operating Income	4,237,757	1,145,582	1,016,116	1,022,807	1,053,252



IMPROVED – TM1 Web

✓ **Excel Related New Support:**

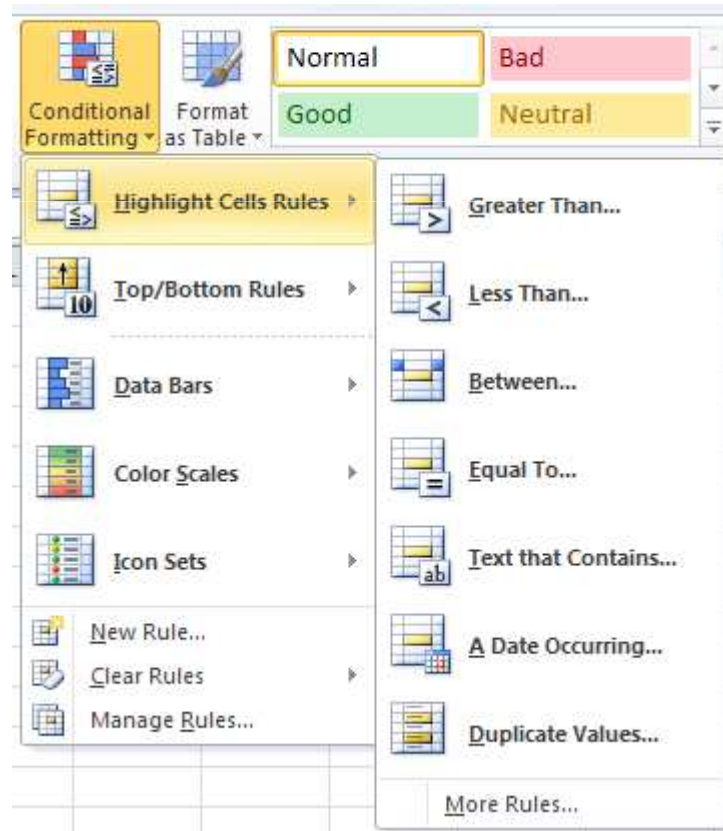
- Support for Excel's greatly enhanced number of rows and columns.
- **Sparkline Support.**



IMPROVED – TM1 Web

✓ *Excel Related New Support:*

- **Additional Conditional Formatting.** In addition to any of the Highlight Cell Rules, Top/Bottom Rules are now supported. You are no longer limited to the 2003 restriction of having only 3 rules per cell and the Stop if True condition also now works.

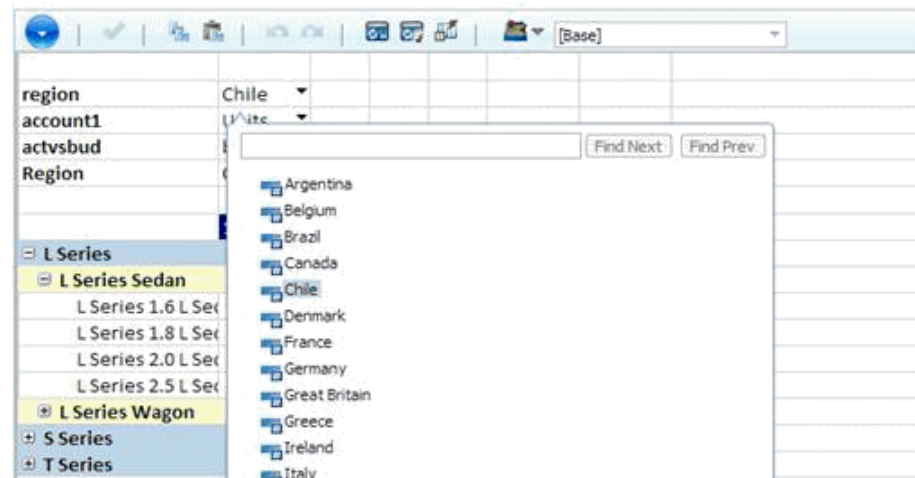




IMPROVED – TM1 Web

✓ **Improvements:**

- Better Excel to Websheet affinity: a.column data is less likely to come over with ##### signs.
- Labels fit better in the columns.
- Excel Chart support: TM1 Web now uses the Aspose technology for websheet charting: charts are rendered much closer to the Excel version than previously.
- Percentage Input: This feature is consistent with Excel's handling: what you see in Excel is also what displays in TM1Web 10.2.
- SUBNM drop downs in the context area of a cubeview, or on a websheet: no longer renders in a separate window.

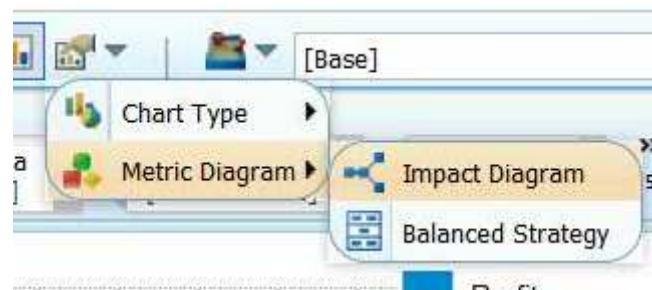




IMPROVED – TM1 Web

✓ **Improvements:**

- Break back in worksheets (the ability to directly type a value in a consolidated cells), which was previously only available in web cubeviews, is now available. If the consolidated cell's leaves are all null, data entry performs an equal leaves spread. If any of the consolidated cell's leaves have a value, data entry performs a proportional spread.
- Exporting is generally faster and no longer relies on Excel or the ExcelService. Exporting is no longer single threaded, and a single user can even have multiple exports running at the same time. A cancel option displays for longer exports.
- Export from cube views to Excel includes the data formatting.
- For relational drills, there is now an option to export the results to Excel.
- TM1 Web Cube Views support Scorecarding Visualizations: Impact Diagrams and Strategy Maps.





IMPROVED – Cognos Insight Client

- ✓ **Print and export workspaces**
You can now print and export to PDF any tab of a Cognos Insight Workspace.
- ✓ **Combination charts**
You can now display multiple measures on a single chart by using combination line / bar charts.
- ✓ **Work with attributes**
If you've imported member attributes with your data set you can now filter by them, create new attributes and display them on a workspace.
- ✓ **Spread data**
The ability to spread data by a number of new methods. This includes relative proportional spread, equal leaves, equal spread, repeat, straight line, and growth percentage.
- ✓ **Support for bidirectional languages and digit shaping**
Expect improved multi-lingual support with bidirectional language and operating system determined digit shaping.

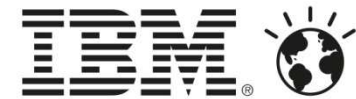




IMPROVED – Cognos Insight Client

- ✓ Import external data into TM1 plans
When using Cognos insight as a TM1 client and contributing to a plan, you can import external data from a text file and incorporate it into your plan.
- ✓ Drill through to view details
You can now right-click crosstab a crosstab cell and drill through to view related data in another cube. In order to enable this new feature your IBM Cognos TM1 administrator should create drill through links in IBM Cognos TM1 Performance Modeler.
- ✓ Distributed mode improvements
In the IBM Cognos TM1 Applications portal, you can now start IBM Cognos Insight in distributed mode from a parent element. You can also now open a Central application type in distributed mode.
- ✓ Scorecards
With the move of Metrics Studio and scorecarding to the TM1 platform, you can now view and use scorecards that your administrator has created in IBM TM1 Performance Modeler.





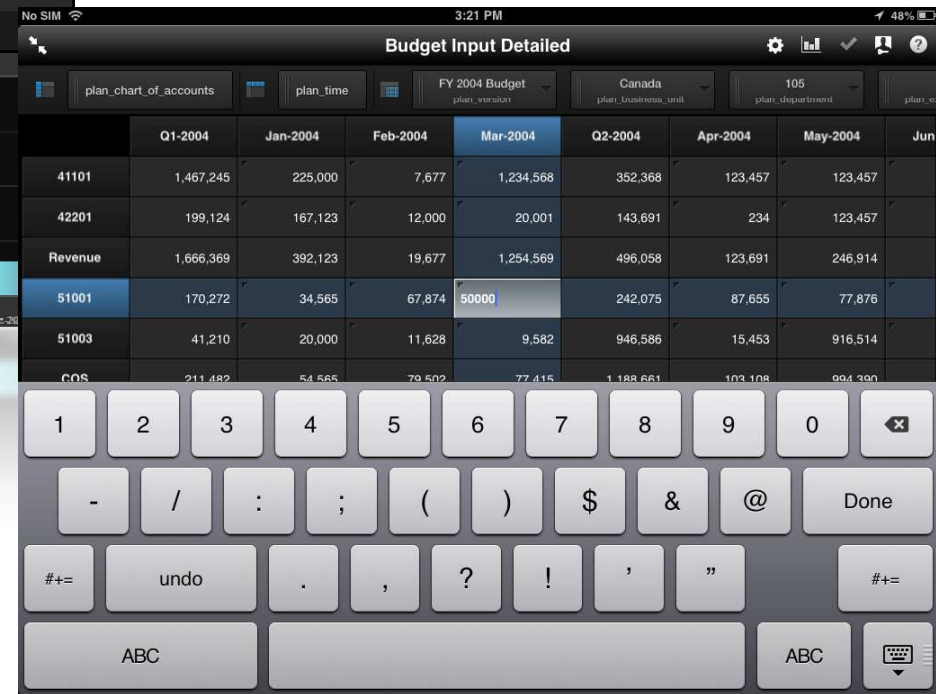
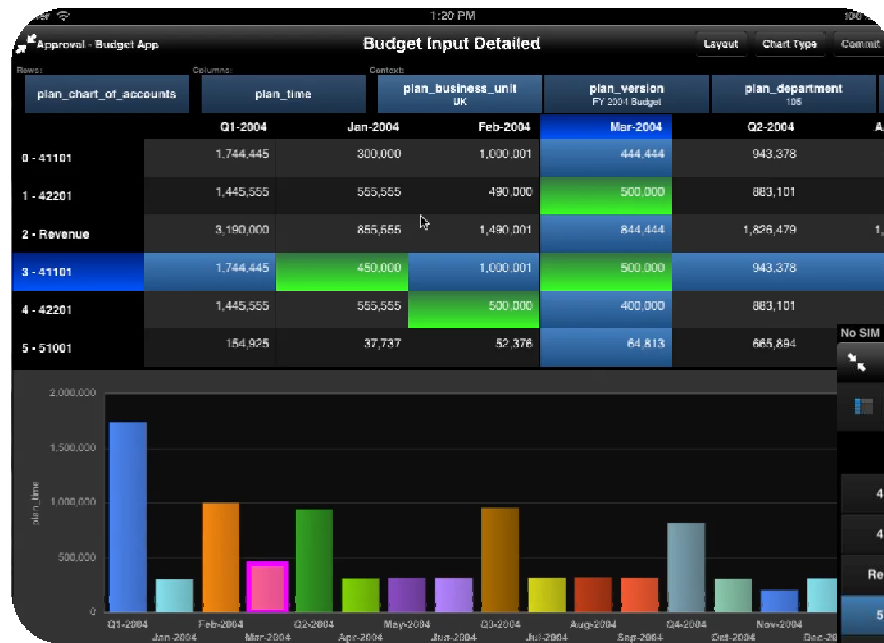
NEW – TM1 Mobile Contributor

- ✓ Plan/Forecast contribution and review on IPAD
- ✓ What can users do?
 - Open applications
 - Track Status
 - Navigate the workflow hierarchy
 - Open views
 - Interactive RAVE Visualization
 - Write-back (visual clues to changed data)
 - Drag/drop to change the view and perform limited analysis
 - Submit data
 - Review data, approve, reject and annotate





NEW – TM1 Mobile Contributor





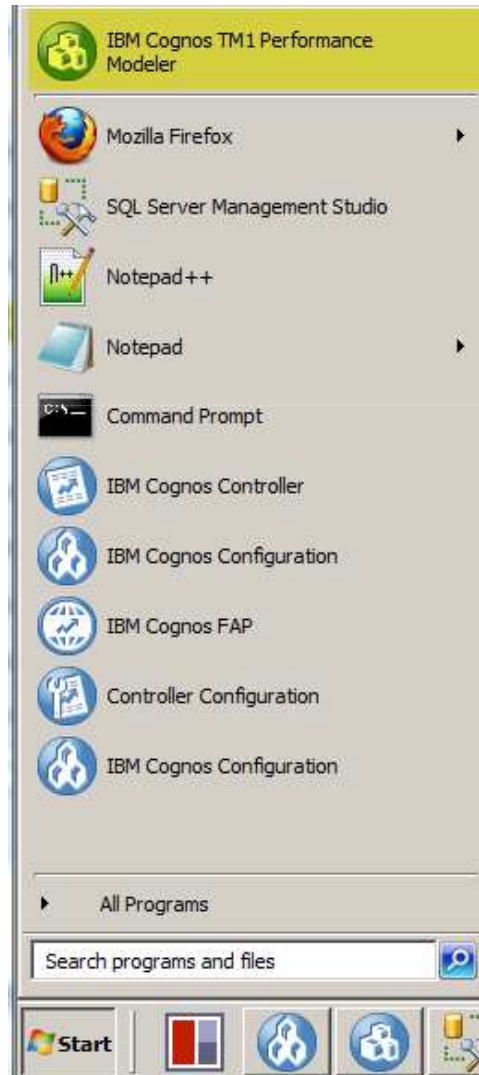
IMPROVED – TM1 Performance Modeler

- ✓ TM1 Scorecarding
- ✓ Cube calculation across full dimensionality
- ✓ Feeder optimization: generate proposed set
- ✓ Data Flow model diagramming
- ✓ Full picklist capability
- ✓ Drill-through link type
- ✓ Easier access setting
- ✓ Trace calculations and feeders
- ✓ Link editing improvements
- ✓ Reuse of approval hierarchies
- ✓ Restrict views to reviewers or contributors
- ✓ Processes triggered from workflow actions
- ✓ TM1 Applications maintenance utility (deployment)
- ✓ Improved transfer capability (deployment)
- ✓ Import of Cognos Planning models (deployment)

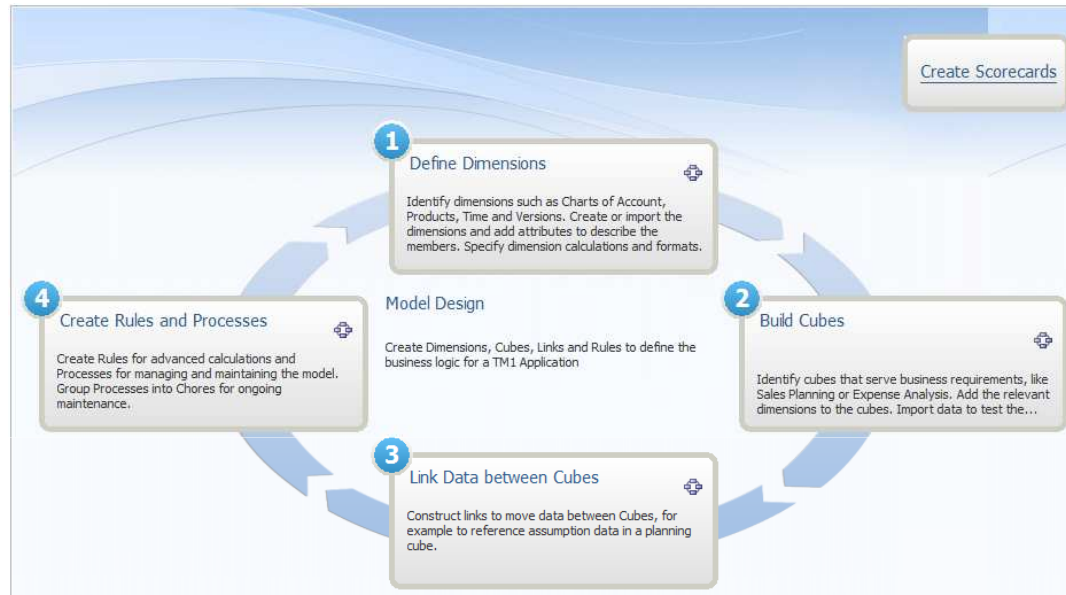




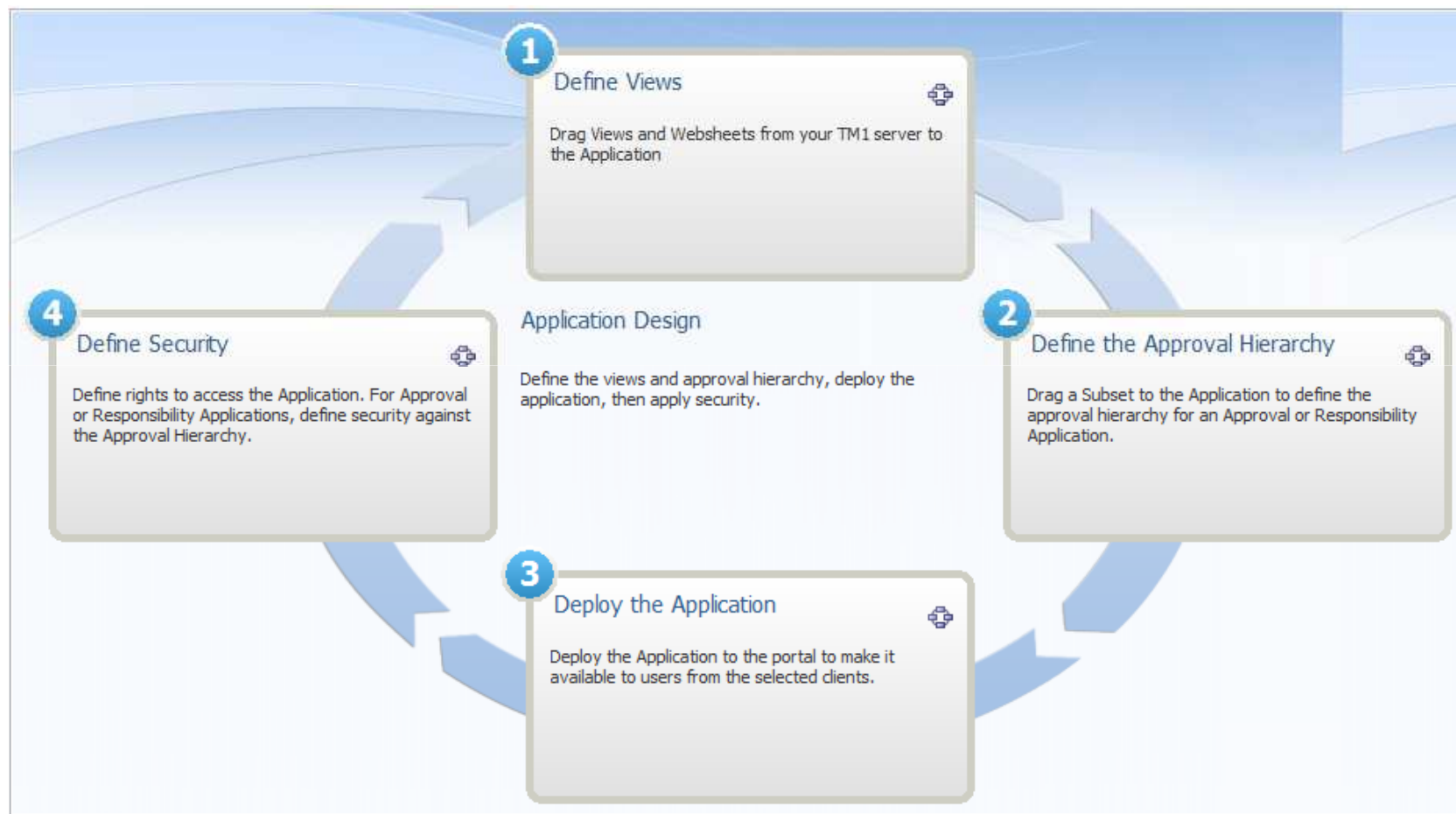
Launching from the Start Menu



TM1 PM Model Design Flow



TM1 PM Application Design Flow



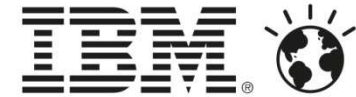


IMPROVED – TM1 Performance Modeler

Cube Calculations

- ✓ Cube calculations are a way of simplifying the creation of rules to complete common modeling operations
- ✓ A calculation can be scoped across the full dimensionality of a cube
 - Invoking from the grid
 - Simple or complex
 - Apply to the Leaf or Consolidated levels
 - Apply to String elements
 - Reference data from other cubes
 - Retained when cubes are re-structured
 - Reference element attributes
 - Use TM1 functions (extended list in 10.2)





IMPROVED – TM1 Performance Modeler

Cube Calculation inherits context of selection in the grid (but can be changed later).

Working Subset: Products | Working Subset: Cities | Context: Gross Revenue Net Revenue | Feb Months | Actual Last Version

	Great Britain		England					
			London	Liverpool	Bristol	Newcastle	Birmingham	Manchester
Total of Products	79,495	46,605	14,075	3,826	3,261	6,195	7,864	11,384
Artful Artifacts	29,950	17,170	5,690	1,800	1,110	1,030	3,080	4,460
Whacky Widgets	3,036	1,884	564	144	108	324	300	444
Thoughtful Things	17,878	11,102	3,000	1,000	1,000	1,000	1,000	1,000
Potty Possessions	14,535	8,145	2,000	1,000	1,000	1,000	1,000	1,000
Ominous Objects	14,096	8,304	2,000	1,000	1,000	1,000	1,000	1,000

Properties

Property	Value
Name	Net Revenue
Type	Cube

- Cut (Ctrl+X)
- Copy (Ctrl+C)
- Paste (Ctrl+V)
- Hold
- Release All
- Edit Format (b:#fCO|0|D)
- Edit Member (Actual Last Year)...
- Edit Member (Feb)...
- Edit Member (Gross Revenue)...
- Edit Member (London)...
- Edit Member (Whacky Widgets)...
- Create Cube Calculation...
- Open Cube Calculation
- Delete Cube Calculation
- Trace Calculation
- Trace Feeders
- Check Feeders





IMPROVED – TM1 Performance Modeler

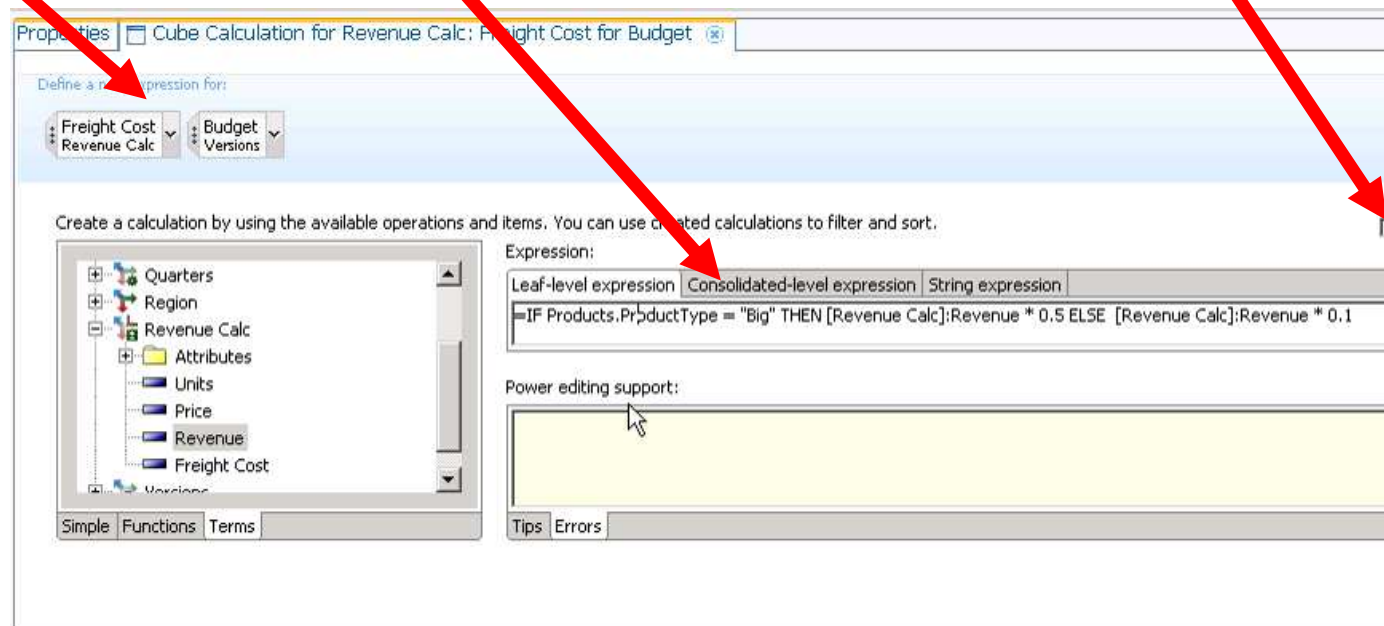
Cube Calculation expression dialog

Note that there are **tabs** for:

- leaf level
- consolidated level
- string expressions

Plus **checkbox** to combine leaf and consolidated so that expression applies to both

Scope can be changed by reselecting from dimensions in the context area.





IMPROVED – TM1 Performance Modeler

Linking data from other cubes using import link

- ✓ In the Cube Calculation dialog select Import terms to link to another cube and use values from this in cube calculations.
- ✓ Import Terms are specific to this cube calculation and can not be re-used in other cube calculations.

The screenshot displays the 'Cube Calculation for Net Revenue: Gross Revenue' dialog box in the TM1 Performance Modeler. The main window shows a list of terms under 'Define a new expression for:' with 'Actual Last Year, Actual Last Year-1, Target Versions' selected. A red arrow points to the 'Import terms...' button in the left-hand pane. A modal dialog box titled 'Create term import link' is open, prompting the user to 'Enter a name for the calculation link'. The text 'listprice for Gross Revenue' is entered in the input field. The dialog has 'OK' and 'Cancel' buttons at the bottom.

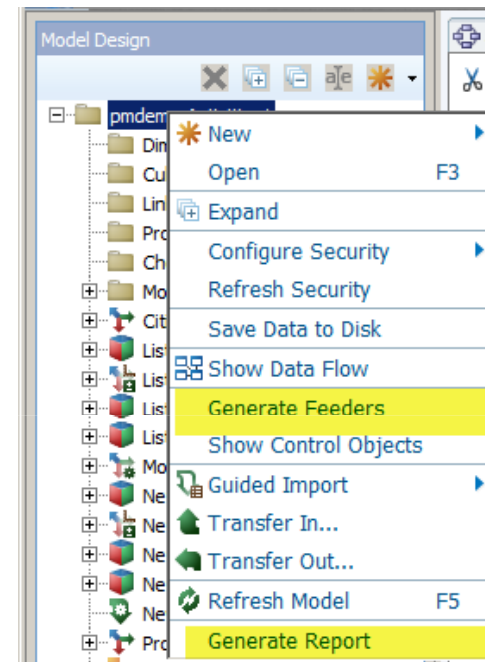




IMPROVED – TM1 Performance Modeler

Feeder generation

- ✓ Performance Modeler can automatically generate a proposed set of feeders for all cubes on a server, whether the rules were defined **manually by the modeler or generated automatically from calculations and links.**
- ✓ Feeder generation – the **Generate feeders automatically** property of the server is set to **Only automatically generated rules** by default
- ✓ The other options:
 - No – no feeders are generated automatically
 - All Rules – feeders are created for both manual and automatically generated rules.



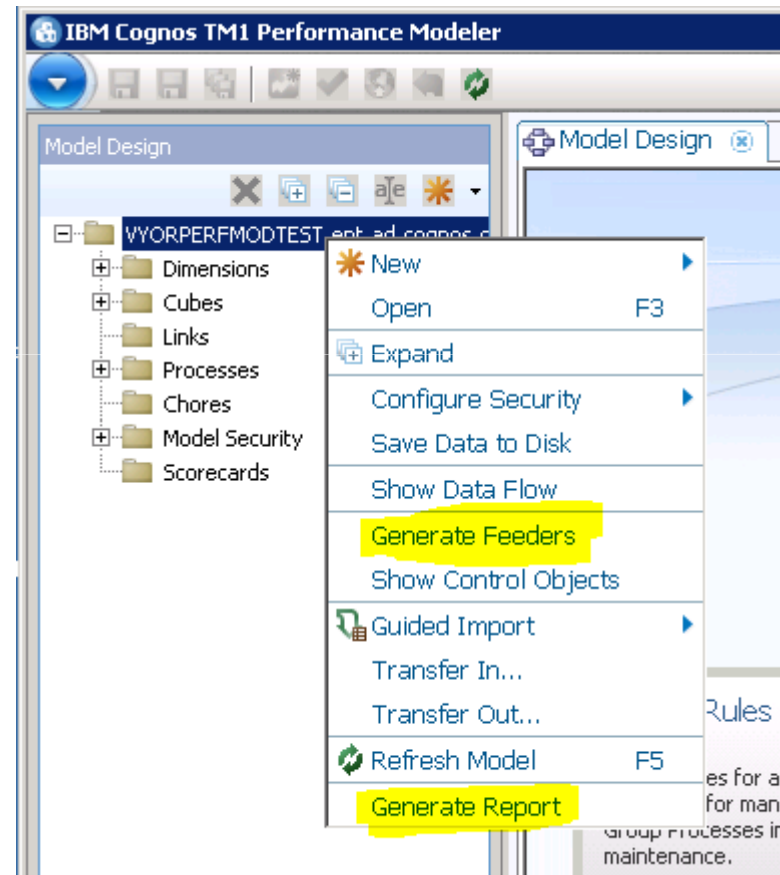
Property	Value
Name	Activities1
Type	TM1 Server
Generate feeders automatically	Only automatically generated rules
User	No
Authentication	Only automatically generated rules
Settings	All rules



IMPROVED – TM1 Performance Modeler

Feeder analysis report

- ✓ Feeder analysis report – on demand (in HTML format)
- ✓ You can also export a feeder analysis report to see the feeders that are recommended for your model before committing to the creation of feeders

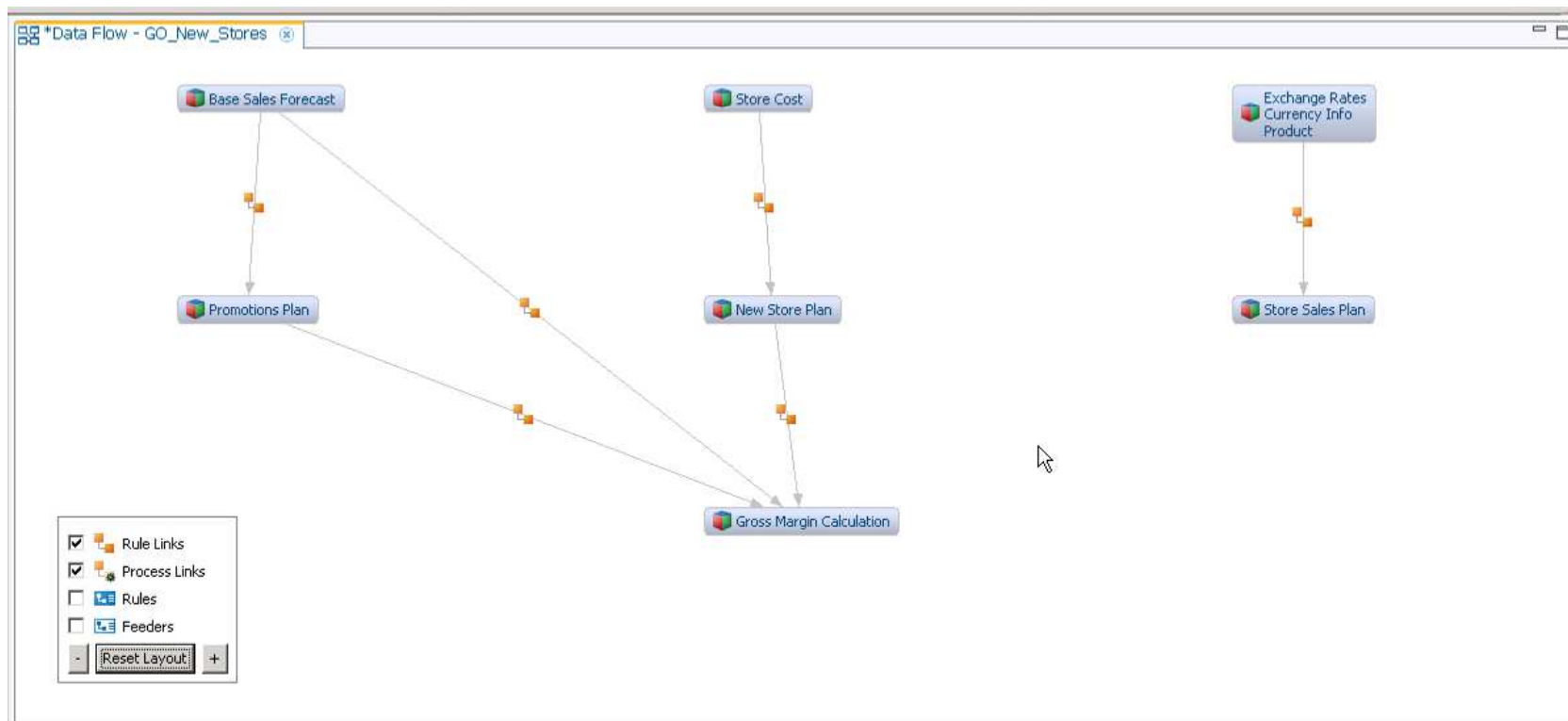




IMPROVED – TM1 Performance Modeler

Model Diagramming

- ✓ Use the data flow diagrams to more easily visualize the structure of your IBM Cognos TM1 cubes and dimensions.
- ✓ Apply an automatic layout for your model diagram or set your own layout.





IMPROVED – TM1 Performance Modeler

Model Diagramming Continued

- ✓ Create data flow diagrams from:
 - Ad hoc selections of cubes
 - Complete contents of a folder
 - An Application
- ✓ Once created you can:
 - Grouping and ungrouping cubes
 - Zoom in and out
 - Choose which data flow relationships to show (e.g. Links, Rules)
 - Launch objects from the data flow diagram



IMPROVED – TM1 Performance Modeler

Full picklist support

- ✓ Can set static pick lists
- ✓ Can set pick lists on numeric cells
- ✓ Subset-based pick lists will obey aliases

Edit Picklist ✕

Static List

0

1

2

3

Dimension or Subset

...

None

Element Type

Text Numeric

*Calculations and Picklists

Rows: All Members Calculations and picklists

Columns: All Members Month

Total Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Grade	5.00	0.00	0.00	0.00	0.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00
Size												

Magasin grande taille

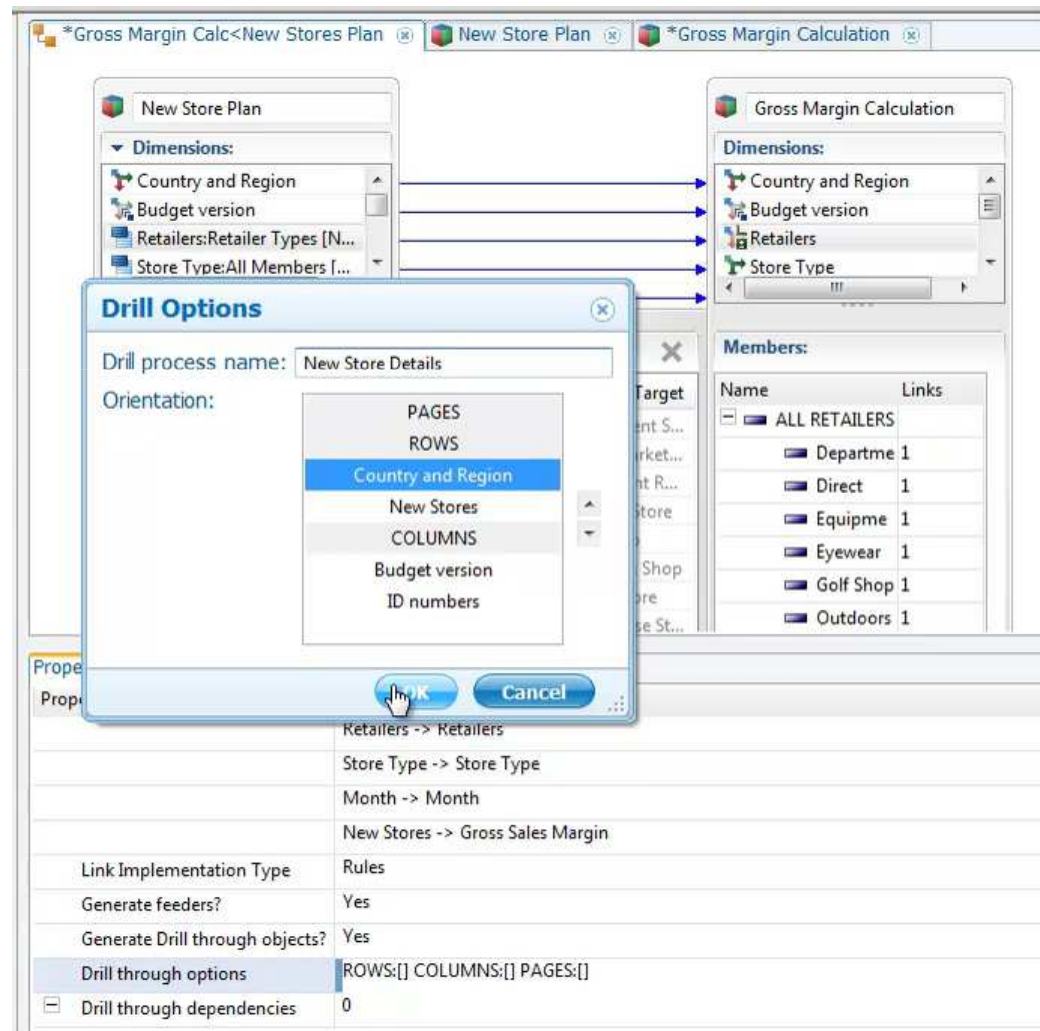
Magasin petite taille



IMPROVED – TM1 Performance Modeler

Define a drill-through from a Link

- ✓ Optionally create a Drill relationship from a Link
- ✓ Define the orientation of the drill result view



The screenshot shows the TM1 Performance Modeler interface with two cubes: 'New Store Plan' and 'Gross Margin Calculation'. A 'Drill Options' dialog box is open, allowing the user to define a drill-through relationship. The dialog is configured with the following settings:

- Drill process name:** New Store Details
- Orientation:** Country and Region

The background interface shows the 'Dimensions' and 'Members' sections for both cubes. The 'Members' section for 'ALL RETAILERS' includes the following items:

Name	Links
ALL RETAILERS	
Departme 1	1
Direct	1
Equipme 1	1
Eyewear 1	1
Golf Shop 1	1
Outdoors 1	1

At the bottom of the interface, there is a table showing the link implementation details:

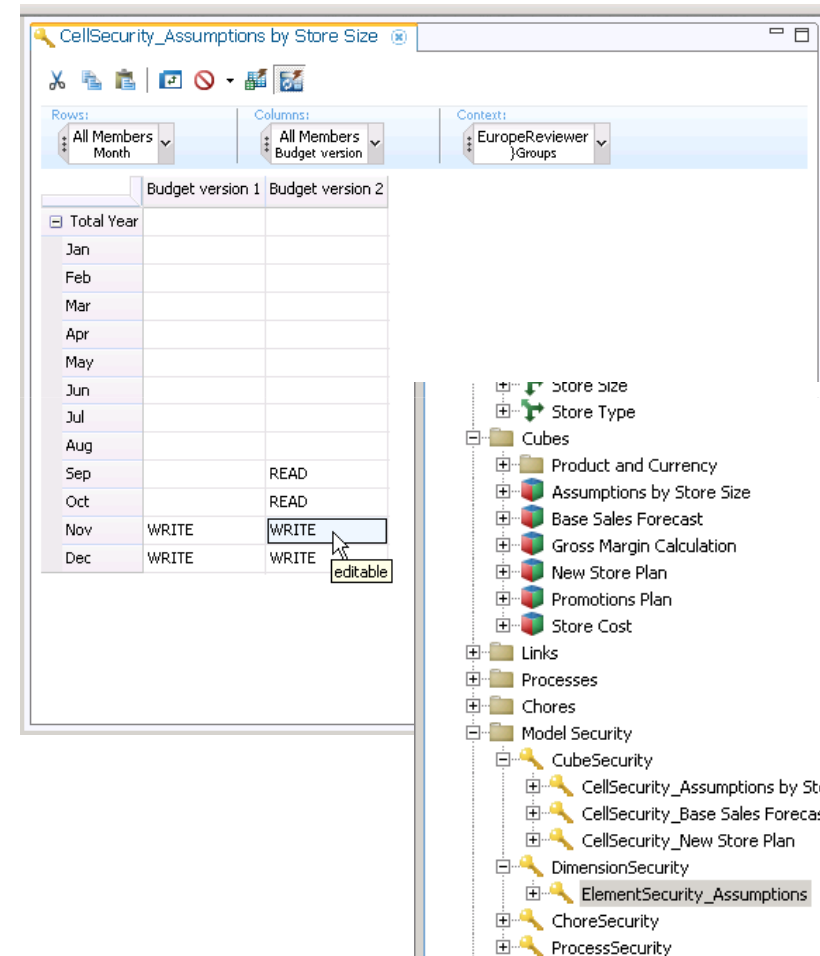
Link Implementation Type	Rules
Generate feeders?	Yes
Generate Drill through objects?	Yes
Drill through options	ROWS:[] COLUMNS:[] PAGES:[]
Drill through dependencies	0



IMPROVED – TM1 Performance Modeler

Easier access setting

- ✓ Model Security folder showing types of security being used
- ✓ Ability to delete unwanted Cell Security and Element Security cubes
- ✓ Ability to specify Cell Security using only a subset of the dimensions in the parent cube
 - Support for new TM1 Server feature





IMPROVED – TM1 Performance Modeler

Trace Calculations and Feeders

- ✓ The trace calculations and Trace/check feeders functionality now available from Performance Modeler.

The screenshot displays the TM1 Performance Modeler interface. At the top, there are dropdown menus for 'Rows' (Working Subset plan_currency), 'Columns' (Working Subset plan_exchange_rates), and 'Context' (Jan-2003 plan_time). Below these is a data table with columns: local, beginning, ending, planning, spot, and actual. The rows represent different currencies: JPY, EUR, USD, GBP, and AUD. A context menu is open over the USD row, showing options like Cut, Copy, Paste, Hold, Release All, and Trace Calculation. The 'Trace Calculation' dialog box is open, showing a table with columns 'Cell', 'Value', and 'Type'. The table contains two rows: 'plan_ExchangeRate(USD,beginning,Jan-2003)' with a value of 1.0 and type 'Calculated', and 'plan_Control(Corporate Currency,Setting)' with type 'Simple'. Below the dialog box, a 'Trace Rule' is defined: `=IF(!plan_currency @= DB('plan_Control','Corporate Currency','Setting'),1, STET);`

Cell	Value	Type
plan_ExchangeRate(USD,beginning,Jan-2003)	1.0	Calculated
plan_Control(Corporate Currency,Setting)		Simple

```
=IF(!plan_currency @= DB('plan_Control','Corporate Currency','Setting'),1, STET);
```





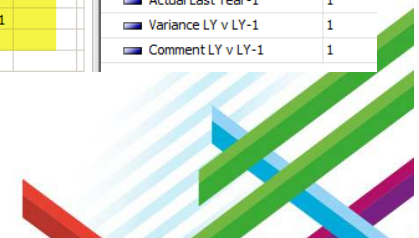
IMPROVED – TM1 Performance Modeler

Link editing improvements

- ✓ New option **Convert to Manual Mapping**.
 - automatically populates the mappings but converts to manual for future use. (**Switch to Manual Mapping** leaves mapping area clear)
- ✓ Can Specify source and target members separately in a manual mapping
- ✓ Can paste mappings in from an external source (e.g. Excel worksheet)

The screenshot illustrates the TM1 Performance Modeler interface with three objects: 'List Price', 'Net Revenue', and another 'Net Revenue' object. The 'List Price' object has dimensions: Products, Months, Versions, and List Price. The 'Net Revenue' objects have dimensions: Products, Months, Versions, Cities, and Net Revenue. A context menu is open over the 'List Price' object, showing options: 'Break connection', 'Switch to Generic Mapping', 'Switch to Manual Mapping', and 'Convert to Manual Mapping'. A 'Mappings' dialog box is also visible, showing a table of mapped sources and targets.

Mapped Source	Mapped Target
Budget	Budget
Target	Target
VarianceBudvTar	VarianceBudvTar
CommentBudvTar	CommentBudvTar
Actual Last Year	Actual Last Year
Actual Last Year-1	Actual Last Year-1
Variance LY v LY-1	Variance LY v LY-1
Comment LY v LY-1	Comment LY v LY-1



IMPROVED – TM1 Performance Modeler

Further TM1 Application design flexibility

- ✓ Re-use of Approval Hierarchy dimensions
- ✓ Optional use of a Control Dimension to designate Version slices to Read from and Write to
- ✓ Independent TM1 Applications writing data to the same cube

*Budget Input Test

Rows: All Business Units (plan_business_unit)

Columns: Working Subset (plan_version)

	FY 2004 Budget	FY 2004 Forecast	FY 2005 Forecast
Total Business Unit	1,964,342	2,445,459	2,445,459
Europe	638,527	1,030,034	1,030,034
UK	211,878	295,919	295,919
Germany	627,099	734,035	734,035
North America	313,306	485,415	485,415
Canada	70,897	99,890	99,890
US	242,609	326,223	326,223
PacRim	208,929	283,807	283,807
ROW	603,580	705,530	705,530

plan_business_unit is Approval Hierarchy
plan_version is Control Dimension





IMPROVED – TM1 Performance Modeler

Addition of Reviewer Views

- ✓ When adding views to an application you can now specify
 - views for the contributors
 - views for the reviewers
- ✓ This allows reviewers to have access to views specific to their needs (E.g only to summary level views)

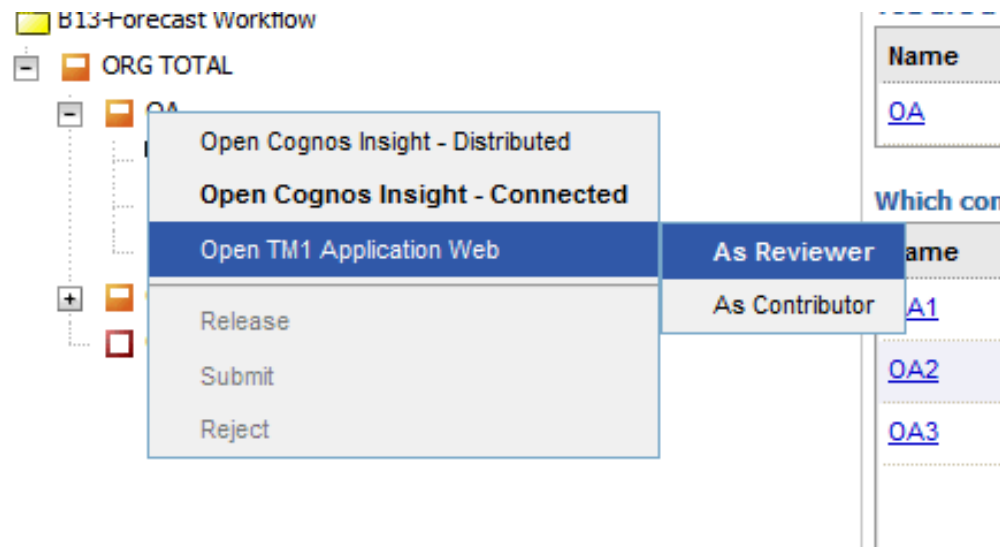




IMPROVED – TM1 Performance Modeler

TM1 Web and Reviewer Views

- ✓ If you have defined both Contributor and Reviewer views, then the context menu will change (if you pause and hover for a moment) for Reviewer node.
- ✓ The default behavior of just clicking the Reviewer level node is to open As Reviewer; if you want to open As Contributor, you have to pause, and wait for the extra fly-out and then select from there





IMPROVED – TM1 Performance Modeler

TurboIntegrator processes triggered from workflow actions

- ✓ You can now initiate a TurboIntegrator process either immediately before or immediately after a workflow action takes place.

For example, you can trigger a TurboIntegrator process to do a data validation test before a Commit action. Or you can move data for a specific approval hierarchy node to a different application immediately after a Submit action.

- ✓ You can design the workflow action trigger in the Cognos® TM1® Applications server without editing any system-related objects.



IBM Cognos TM1 Performance Modeler

Application Design

Design

- ibmdemo.demos.ibm.com:Future Chips Plan
 - Applications
 - Corporate
 - Expenses and Workforce
 - FCI Scorecard
 - Revenue and Marketing
 - Approval Hierarchy
 - Contributor Views
 - Drill Processes
 - Reviewer Views
 - Control Dimension
 - Rights
 - Manual Dependencies

TM1 Objects

- ibmdemo.demos.ibm.com:Future Chips Plan
 - Dimensions
 - Links
 - Processes
 - Chores
 - Control Objects
 - Model Security
 - Modules
 - Websheets
 - Scorecards

Model Design

Application Design

Transfer Design

1 Define Views
Drag Views and Websheets from your TM1 server to the Application

4 Define Security
Define rights to access Applications, define

Custom Processes Settings

Custom processes to perform on workflow actions

	Enabled	Pre Process	Enabled	Post Process
Own	No		No	
Release	No		No	
Commit	No		No	
Submit	No		No	
Reject	No		No	
Annotate	No		No	
Offline	No		No	
Online	No		No	

Post Process dropdown list:

- Add_Expense
- Add_Language
- Add_Language_CopyCustUI
- Add_Workforce
- Add Asset
- Copy_CubeData_Generic
- Copy_Data_Geography
- Copy_Data_Price and Cost
- Copy_FinancialVersion
- Copy_ProductData
- CopyTargetAUX_To_Target
- Create_CustomozeEnabledView
- Create_Forecast_Cube
- CreateNewProduct
- CreateVersion
- Cube_Update Predictive Forecast
- DeleteProduct
- DeleteVersion
- Dim_CreatelanguageAttributes
- ProcessFeeders_TargetSetting
- Remove_Language
- SetCompareVersion

Define the Approval Hierarchy
Drag a Subset to the Application to define the approval hierarchy for an Approval or Responsibility Application.

Properties

Property

Help Text

Last Saved: September 30, 2013

Last Saved - User: pm

Clients: TM1 Application Web (Default), Cognos Insight - Connected, Cognos Insight - Distributed

TM1 Server: ibmdemo.demos.ibm.com:Future Chips Plan

Advanced Modeling: Yes

Ownership change behaviour: Warn on active user

Commentary: cdd; csv; doc; docx; htm; html; mpp; odt; odp; ods; pdf; ppt; pptx; rar; bxt; vsd; xls; xlsx; xslm; zip

Custom Processes

Errors: 0

Warnings: 0

Desktop 2:14 AM



A Performance Management System

Drive performance management through every part of the organization – whether starting in finance or operations – with one easy to design, deploy, and run package on premise or via cloud.

Performance

Measurement

Engagement

Deployment

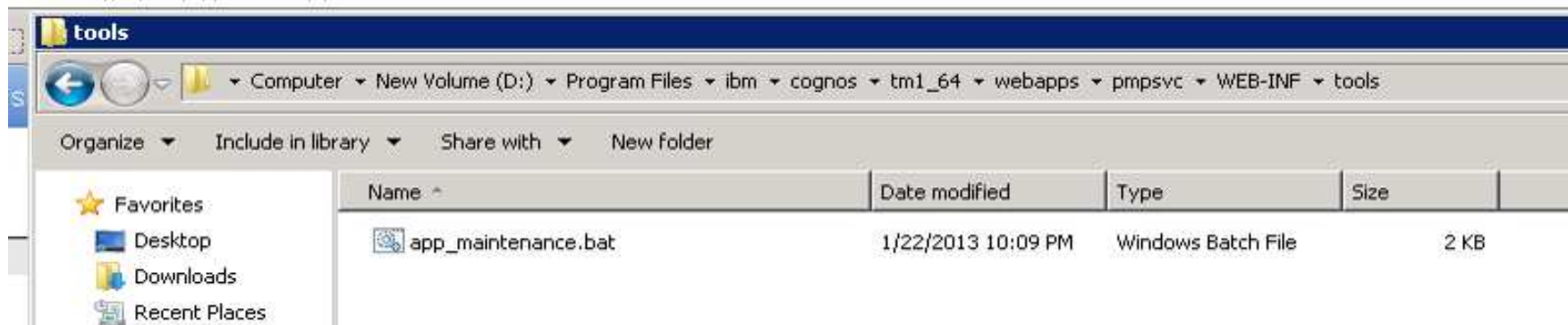




IMPROVED – TM1 Performance Modeler

Automation of Application operations

- ✓ Deploying the command line utility
- ✓ Operations that can be automated:
 - Activate and Deactivate
 - Deploy
 - Import Rights
 - Refresh Rights
 - Disable or Enable a TM1 Server
- ✓ Passing encrypted credentials
- ✓ Running the command line tool from a TI Process





IMPROVED – TM1 Performance Modeler

Transfer Out / In

- ✓ **Easier migration path from Test/Development environment to Production**
- ✓ **Transfer Specification Editor**
You can use the intuitive editor to select specific model objects or applications to copy from a source system to a target system. You can preview the transfer to change selections before the transfer.
- ✓ **Better handling of model object dependencies**
Even if you are not familiar with the business logic of an application, you can copy the model object and its dependencies to ensure that all the required elements for a cube are transferred.
- ✓ **Creating transfer specifications**
You can define the model structure that you want to transfer by saving the selection of objects as a transfer specification. By using the transfer specification, modelers, contributors, or other authorized users can run the transfer process at scheduled intervals.
- ✓ **Automating the transfer process**
You can create a batch file that is based on the definition of a transfer (transfer_specification.json) and use the command-line utility to run the transfer process at a scheduled time.
- ✓ **Transferring cell data**
In addition to the selected model object, you can transfer the associated cell data and metadata when you transfer the structure of a model to a source or to a target system.
- ✓ **Transferring large model structures**
You can copy model structures up to 1,000 dimensions in a single transfer process before you exceed temporary RAM.





IMPROVED – Operations Console

- ✓ Multi user / Multi Server Monitoring
- ✓ Allows basic and enhanced monitoring of TM1 activity
- ✓ Gives users the ability to kill threads in TM1 (requires admin access)
- ✓ Monitors Application Servers as well as TM1 Server
- ✓ Alerting - “notifications” when configurable events take place.
- ✓ “Watch Dog” – Automatically cancel threads based on rules.
- ✓ UI layout persistence
- ✓ View TI / Chores execution cube
- ✓ Enhanced Monitoring Context - The ability to see a client identifier





IBM Cognos TMI Operations Console

Welcome admin | About | Help | Log Out

Server Health Status | **Monitors** | Logging

localhost-edata Status : Basic

Health Check : ● Online Number of threads : 5 Number of wait threads : 0

Memory Statistics: Memory Used: Garbage Memory:

Filter OFF... Showing states: All

ID	User	State	Function	Obj Lock Status	User Lock Status	Time (s)
2612	ThPseudo	Idle	*	-	-	-
9196	ThDynamicConti	Idle	*	-	-	-
12208	Admin	Idle	*	-	-	-

localhost-agg_best_bill Status : Basic

Health Check : ● Online Number of threads : 4 Number of wait threads : 0

Memory Statistics: Memory Used: Garbage Memory:

Filter OFF... Showing states: All

ID	User	State	Function	Obj Lock Status	User Lock Status	Time (s)
7288	ThPseudo	Idle	*	-	-	-
3584	ThDynamicConti	Idle	*	-	-	-

localhost-current_week_bill_model Status : Basic

Health Check : ● Online Number of threads : 4 Number of wait threads : 0

Memory Statistics: Memory Used: Garbage Memory:

Filter OFF... Showing states: All

ID	User	State	Function	Obj Lock Status	User Lock Status	Time (s)
10652	ThPseudo	Idle	*	-	-	-
10748	ThDynamicConti	Idle	*	-	-	-

localhost-go_new_stores Status : Basic

Health Check : ● Online Number of threads : 4 Number of wait threads : 0

Memory Statistics: Memory Used: Garbage Memory:

Filter OFF... Showing states: All

ID	User	State	Function	Obj Lock Status	User Lock Status	Time (s)
5920	ThPseudo	Idle	*	-	-	-
6572	ThDynamicConti	Idle	*	-	-	-

TMI Environment

- My TMI Demo
 - localhost
 - edata
 - agg_best_bill
 - current_week_bill_model
 - go_new_stores
 - tmi application server
 - Development
 - User Acceptance Test
 - Production



NEW – TM1 on Cloud

IBM® Cognos® TM1® on Cloud V10.2 is the planning, analysis, and forecasting software that delivers flexible solutions to address requirements across the enterprise, as well as real-time analytics, reporting, and what-if scenario modeling. IBM Cognos TM1 on Cloud V10.2, software as a service (SaaS) enables:

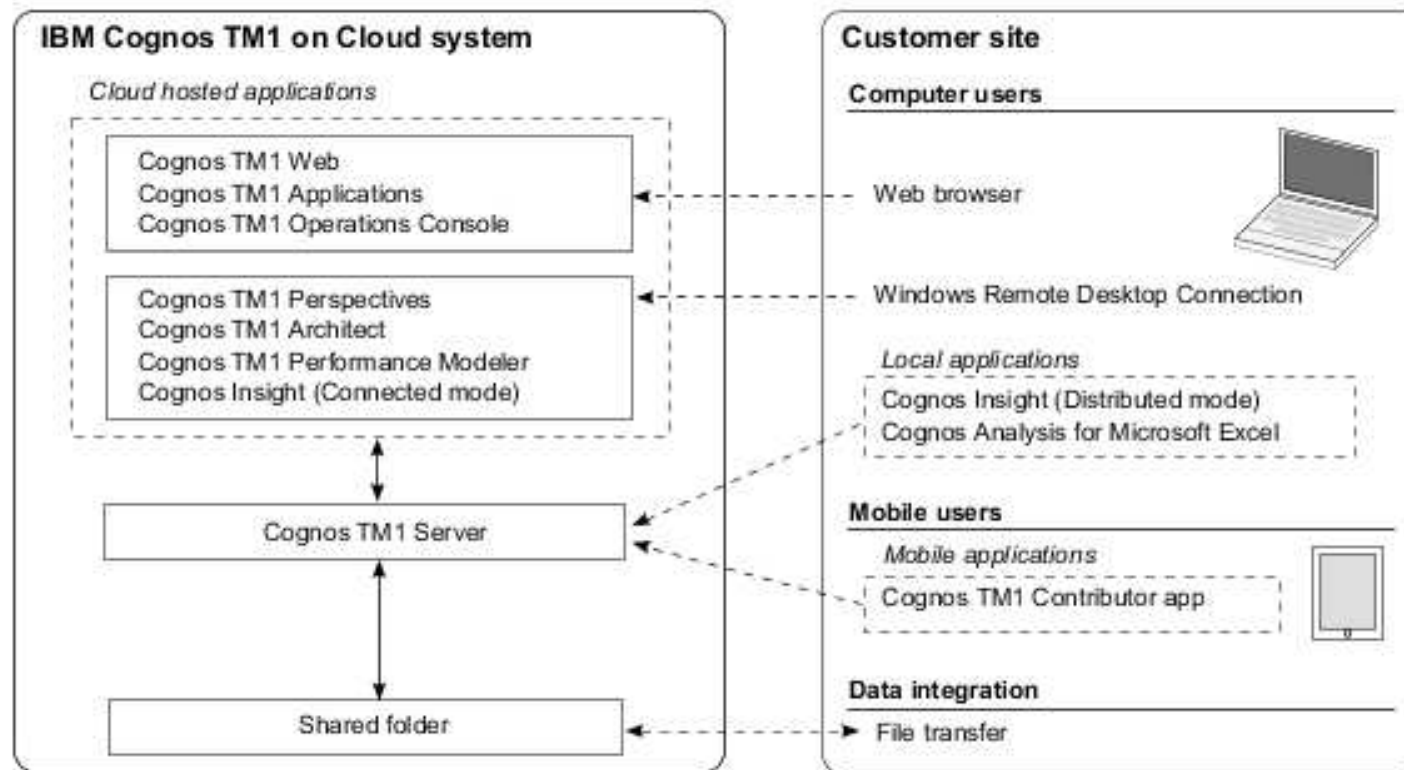
- ✓ Low cost of entry and a lower total cost of ownership compared to the on premise version of Cognos TM1 .
- ✓ Significant reduction of capital expenditures.
- ✓ Reduction in IT expense needed to deploy enterprise planning, analysis, and forecasting processes compared to any on premise solution.
- ✓ IBM to manage and execute upgrades to the newest releases.
- ✓ Availability of access to licensed user anywhere in world.
- ✓ Development environment at no additional cost that allows you to test the application, new models, calculations, and user rights before deploying to live users.





NEW – TM1 on Cloud

IBM Cognos TM1 on Cloud system overview





NEW – TM1 on Cloud

Environment – End Users

- ✓ Access is through a generated URL (*. cognostm1.ibmcloud.com)
- ✓ No identifying characteristics in the URL
- ✓ End User tools
 - Hosted
 - TM1 Web
 - TM1 Applications (web)
 - Local
 - Cognos Insight - Distributed Mode
 - Cognos Analysis for Microsoft Excel (on premise)
 - Mobile
 - TM1 Mobile Contributor
- ✓ Provisioning:
 - Cognos Insight – download from the web
 - TM1 Mobile Contributor – Apple App Store
 - Cognos Analysis for Microsoft Excel - Available for download from file share.





NEW – TM1 on Cloud

Environment – Modelers and Administrators

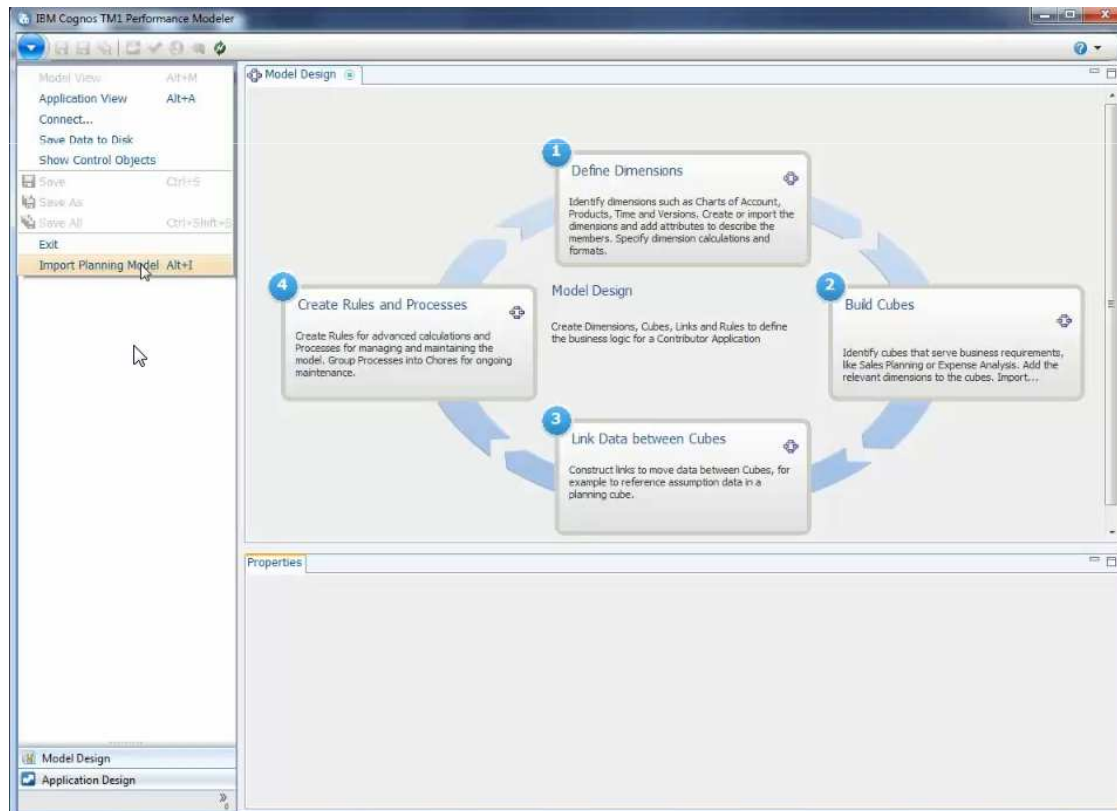
- ✓ Tools in scope
 - Performance Modeler
 - TM1 Architect
 - MS Excel 2010 32 bit together with TM1 Perspectives and Server Explorer
 - TM1 Operations Console (web/HTTP)
- ✓ Data integration:
 - via file transfer to cloud over FTPS
 - dedicated credentials
- ✓ The modeler:
 - Builds and deploys Applications
 - Responsible for securing applications and managing accounts and passwords for end users
- ✓ Network traffic details
 - via secure RDP(Remote Desktop Protocol) using dedicated credentials





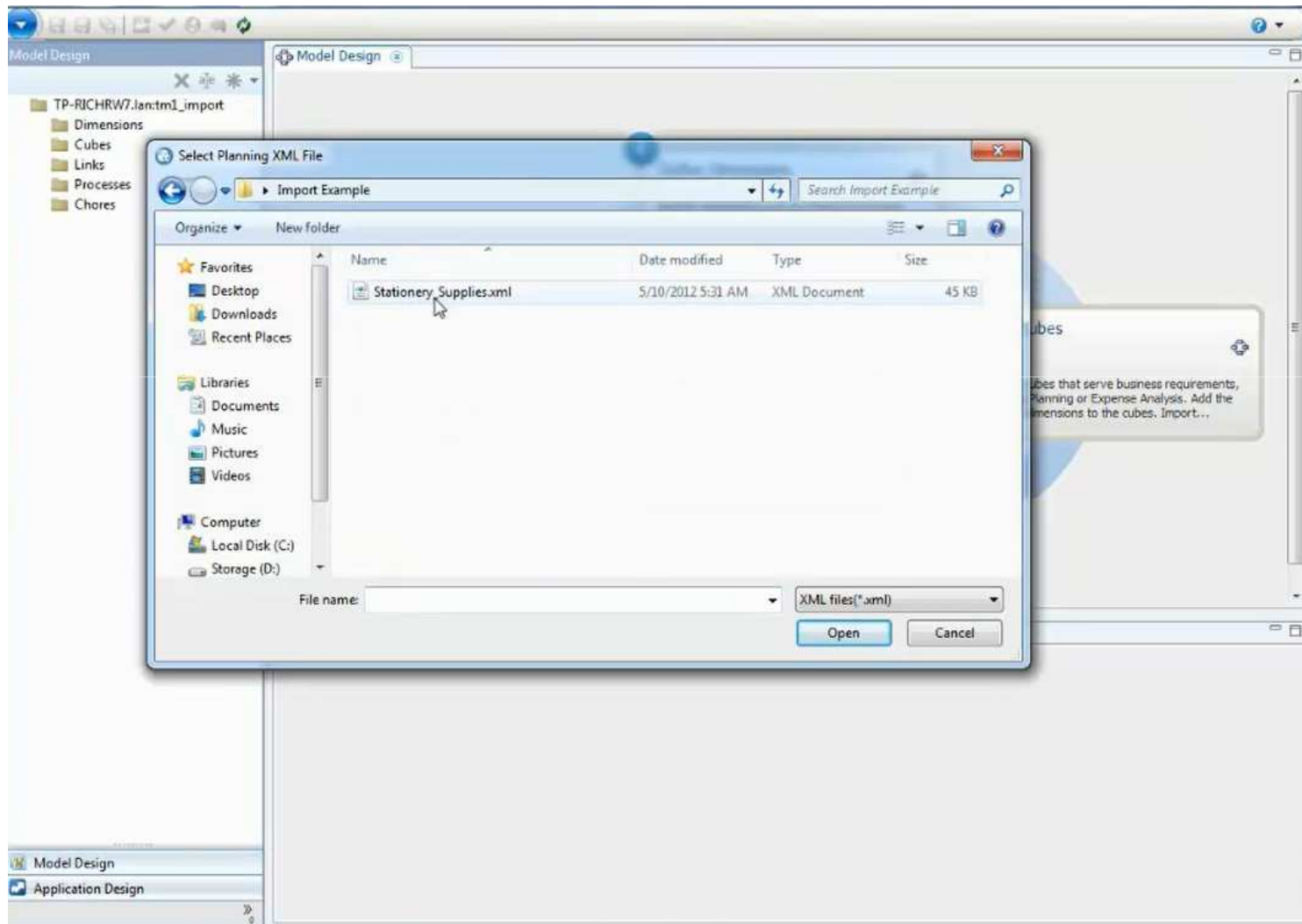
NEW – Migration of Cognos Planning Models to TM1

- ✓ Utility to migrate core Cognos Planning model logic to TM1
- ✓ Requires a Cognos Planning Contributor XML application definition
- ✓ The output of the migration utility is a Transfer Package (another new feature in TM1) that can be transferred into TM1 Performance Modeler



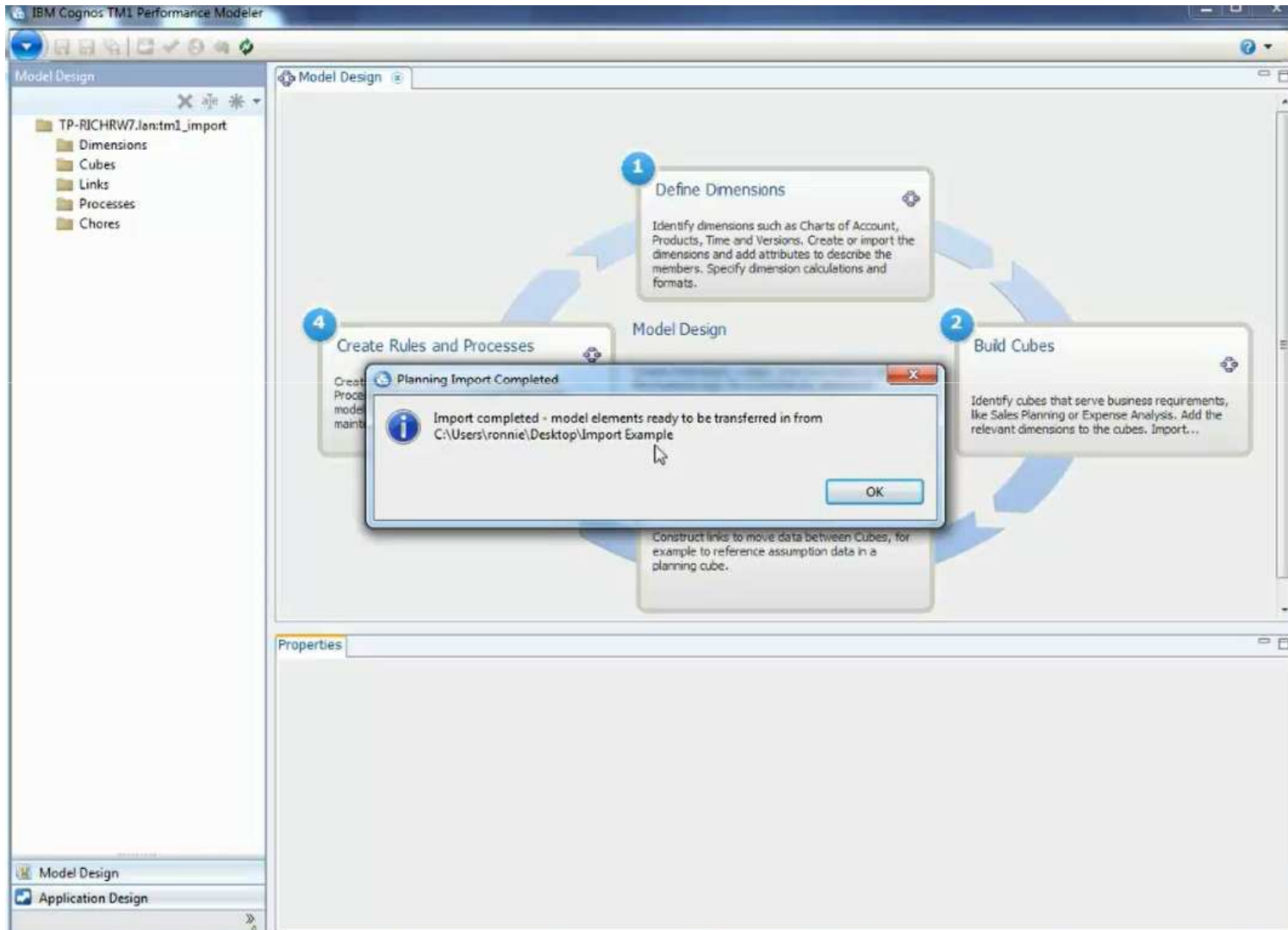


NEW – Migration of Cognos Planning Models to TM1





NEW – Migration of Cognos Planning Models to TM1





NEW – Migration of Cognos Planning Models to TM1

MigrationReport.txt - Notepad

```
File Edit Format View Help
REPORT OF PLANNING IMPORT TO TM1, SOURCE PLANNING FILE:
C:\Users\ronnie\Desktop\Import Example\stationery_supplies.xml

SUCCESSFULLY IMPORTED ITEMS:
CUBES:
    Product Assumptions
    Revenue by month
    Product Assumptions
    Revenue by month

LISTS:
    1 Product Assumptions
    1 Profit Margin
    4 Months
    1 Product Assumptions
    1 Profit Margin
    4 Months

HEIRARCHIES:
    2 Products
    2 elist
    2 Products
    2 elist

UNMAPPED ITEMS:

CONSOLIDATION LINKS:

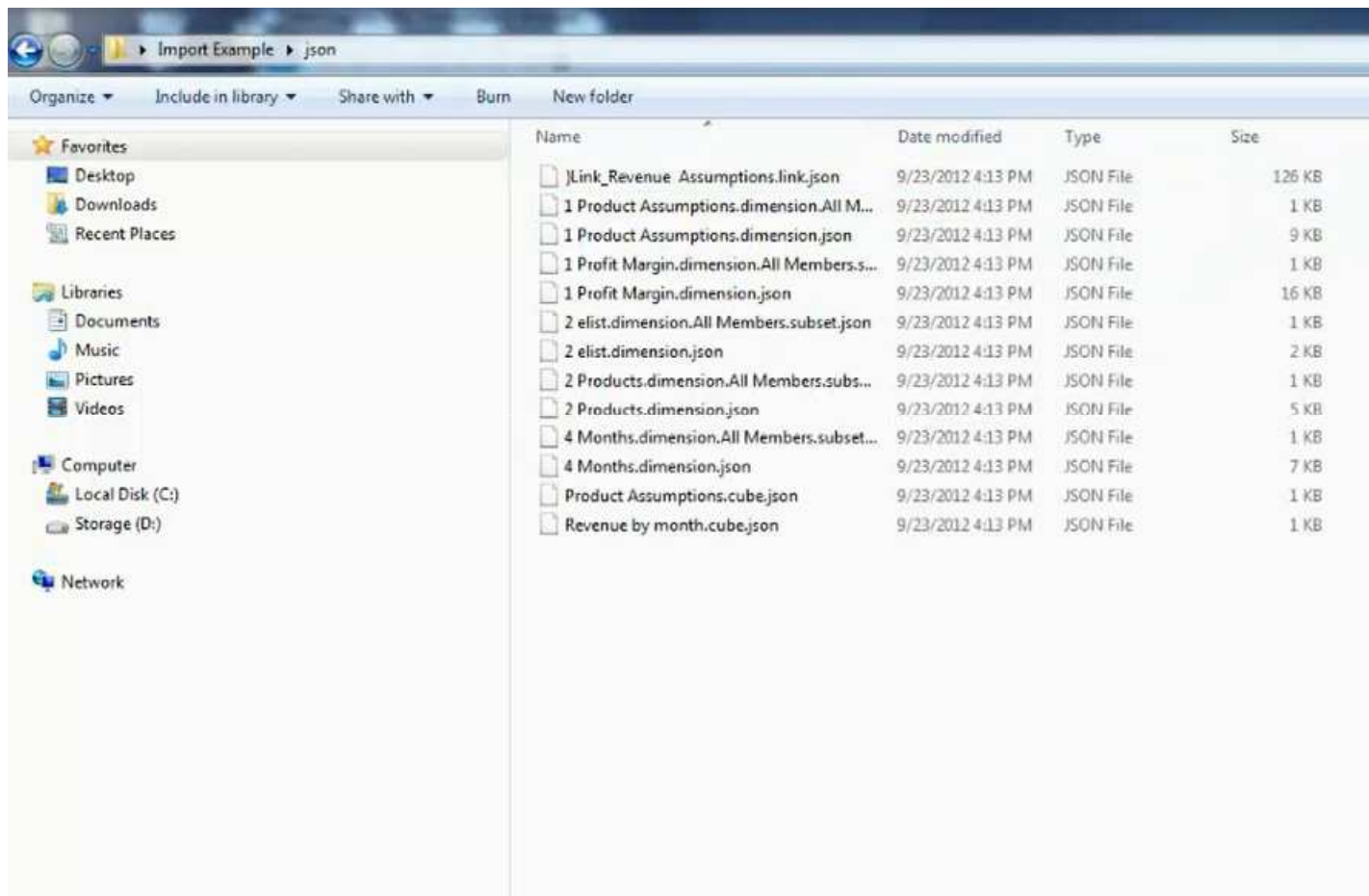
DLINKS:
    Revenue Assumptions - not yet supported
```

Date created: 9/23/2012 4:13 PM





NEW – Migration of Cognos Planning Models to TM1





NEW – Migration of Cognos Planning Models to TM1

The screenshot displays the IBM Cognos TM1 Performance Modeler interface. On the left, a tree view shows a project named 'TP-RICHRW7.lan.tml import' with sub-items: Dimes, Cubes, Links, Processes, and Chores. A context menu is open over the 'Cubes' folder, listing options: New, Configure Security, Refresh Security, Save Data to disk, Show Control Objects, Guided Import, Transfer In (highlighted), Transfer Out, and Refresh Model (F5).

The main workspace features a circular workflow diagram with three steps:

- 1 Define Dimensions**: Identify dimensions such as Charts of Account, Products, Time and Versions. Create or import the dimensions and add attributes to describe the members. Specify dimension calculations and formats.
- 2 Build Cubes**: Identify cubes that serve business requirements, like Sales Planning or Expense Analysis. Add the relevant dimensions to the cubes. Import...
- 3 Link Data between Cubes**: Construct links to move data between Cubes, for example to reference assumption data in a planning cube.

Below the diagram is a 'Properties' panel with the following table:

Property	Value
Name	tml_import
Type	TM1 Server
User	admin
Authentication	BASIC
Settings	11
	JobQueueing : false
	DataBaseDirectory : c:\users\ronnie\desktop\tmlimport
	SecurityMode : Basic
	DisableSandboxing : false
	IntegratedSecurityMode : 1
	ForceReevaluationOfFeedersForFedCellsOnDataChange : true
	ArminHnd :





NEW – Migration of Cognos Planning Models to TM1

The screenshot displays the IBM Cognos TM1 Performance Modeler interface. The main window shows a workflow diagram with four steps: 1. Define Dimensions, 2. Build Cubes, 3. Create Rules and Processes, and 4. Create Rules and Processes. A 'Select Folder' dialog box is open, showing a tree view of folders. The 'Import Example' folder is selected. The 'Folder' field in the dialog is set to 'Import Example'. The 'Properties' pane at the bottom shows various settings for the model, including 'Name', 'Type', 'User', 'Authentication', and 'Settings'.

1 Define Dimensions
Identify dimensions such as Charts of Account, Products, Time and Versions. Create or import the dimensions and add attributes to describe the members. Specify dimension calculations and formats.

2 Build Cubes
Identify cubes that serve business requirements, like Sales Planning or Expense Analysis. Add the relevant dimensions to the cubes. Import...

3 Create Rules and Processes
Create Rules for advanced calculations. Create Processes for managing and maintaining the model. Group Processes in a hierarchy for maintenance.

4 Create Rules and Processes
Create Rules for advanced calculations. Create Processes for managing and maintaining the model. Group Processes in a hierarchy for maintenance.

Select Folder
Please select a folder

- Desktop
 - Libraries
 - ronnie
 - Computer
 - Network
 - calcheavy_jennifer
 - CamRec0
 - Import Example
 - json
 - json
 - Migration Tool
 - tm1import

Folder: Import Example

Make New Folder OK Cancel

Properties

Property	Value
Name	tm1
Type	TM1
User	adm
Authentication	BAS
Settings	11
JobQueueing	false
DataBaseDirectory	c:\users\ronnie\desktop\tmlimport
SecurityMode	Basic
DisableSandboxing	false
IntegratedSecurityMode	1
ForceReevaluationOfFeedersForFedCellsOnDataChange	true
AdminHost	





NEW – Migration of Cognos Planning Models to TM1

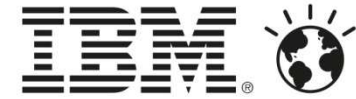
The screenshot displays the IBM Cognos TM1 Performance Modeler interface. A central dialog box titled "Objects to Transfer" is open, listing various objects for migration. The objects are organized into a tree structure under "Import Example".

- 1 Product Assumptions
 - All Members
- 1 Profit Margin
 - All Members
- 2 elist
 - All Members
- 2 Products
 - All Members
- 4 Months
 - All Members
- Product Assumptions
- Revenue Assumptions
- Revenue by month

Below the dialog box, a "Build Cubes" callout box provides instructions: "Identify cubes that serve business requirements, like Sales Planning or Expense Analysis. Add the relevant dimensions to the cubes. Import...".

At the bottom of the interface, a Properties window shows the following configuration:

- DataBaseDirectory : c:\users\ronnie\desktop\tmlimport
- SecurityMode : Basic
- DisableSandboxing : false
- IntegratedSecurityMode : 1
- ForceReevaluationOfFeedersForFedCellsOnDataChange : true
- ArminHost :



NEW – Migration of Cognos Planning Models to TM1

The screenshot displays the IBM Cognos TM1 Performance Modeler interface. The main window shows a dimension design for '1 Product Assumptions'. The left pane shows a tree view of the model structure, including folders for Dimensions, Cubes, Links, Processes, Chores, and various assumption models. The central pane shows a table with columns for Name, Pick List, C Calculation, N Calculation, Format, and Weight. The bottom pane shows the Properties window for the selected dimension.

Name	Pick List	C Calculation	N Calculation	Format	Weight
Description				Text	
Unit Price				#,##0.00;(#,##0.00)	
Unit Cost				#,##0.00;(#,##0.00)	
Discount Band 1				#,##0;(#,##0)	
Discount Band 2					
Basic Discount %				#,##0.0\%;(#,##0.0)\%	
<Enter new member>					

Property	Value
Name	1 Product Assumptions
Dimension Type	Calculation
Security Owner	
Elements	Description; Unit Price; Unit Cost; Discount Band 1; Discount Band 2 ...
Elements Count	6
Cubes using this dimension	1 Product Assumptions (Product Assumptions)
Subsets	1 1 Product Assumptions: All Members



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