Manual for the Administrator

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1 About the Document

This document runs about the work with the administrative module. The main task of the administrator is to create the set of reports and enable users to see them. Besides, the administrator can set access rights to the data in cubes and assign profiles to the users (a profile influences the report operations that are accessible to the user).

This document is written in the style of a tutorial. You will be offered to do a series of operations on the test database Adventure Works, which is installed with Microsoft Analysis Services 2005 and 2008. As a result of these operations you will create the users, reports, roles and others, thus gaining the knowledge required for administrating Business Analysis Tool.

2 Logon

On the logon form enter "root" in the field "Login", and in the field "Password" – the password which you set during installation of the application server:

😂 Log On	x
Administrative M	Iodule BIT İmpulse
Busine	ss Analysis Tool
Authentication: *	Internal 👻
Login: *	root
Password: *	*****
Save password:	
Server: *	http://yourserver 👻
Language: *	English
EN	Proxy Settings
	OK Cancel

In the field "Server" you must enter http://[your application server]. In this form you can also choose the desired language of interface. You also can save your password to avoid entering it again.

3 The Main Form

After logging on you will get on the "Settings" tab:



At the first tab you can read the information from the blog of our Company. That allows to inform the users about the new product versions.



The system information is represented in this tab. You can change your personal data on the "User Information" tab, and also you can change your password:

😂 Business Analysis Tool (A	Administrative Module) - http://127.0.0.1:8005/	- 5	∍ x
<u>Application</u> <u>M</u> odule	<u>I</u> ools <u>H</u> elp		
	General Information System Information User Information		
Settings	Login: root		
	First name: * Lena		
<u></u>	Last name: * Vayda		
Administrators	E-mail: Ivayda@bitimpulse.com		
	Phone:		
Cubes	Notes:		
2	Change Password Save Cancel Refresh		
Roles Backup			
Roles			
Report Users			
÷			
Login: root Server: http://12	27.0.0.1:8005/		

4 Creation of the References to the Cubes

First of all you need to enter the information about the cubes. Go to the "Cubes" tab:

😫 Business Analysis Tool (Administrative Module) - http://uranus:88/											
Application Module Cubes Tools Help											
Cubes 🔯 🔗 🕵 🧖	😰 🎝 🤽 🏖 🆓										
	Alias	Server	Server Version	Database	Cube	Status 👻					
Settings											
Administrators											
Cubes											
Roles Backup	4										
User Parameters											
Roles	ć										
Report Users											
Designer Profiles											
Reports	× 🔽 ([Status] <> 'Deleted')	1									
÷	< < < > > > (c	0 0 0 0 0 0	🖌 🏖 🏖 🤡								
Login: root Server: http://u	ıranus:88/										

This list contains the information about cubes. In fact they are not cubes but rather pointers to the cubes. These pointers are needed for the reports: the reports are «bound» not to the physical cubes, but to the pointers. The list is empty yet. Select menu item "Cubes / New Cube". You will get a form for entering the information about new cube:

🟮 New Cube		x
Alias: *	AW	
Server: *	uranus\sql2008	
Server version: *	2005\2008	•
	Connect	
Database: *		•
Cube: *		•
Security Model:*	Using roles	•
Status: *	Active	•
Notes:		
	Save Cancel Clear	

Enter the server name and press the "Connect" button. If the server name and the version were entered correctly, you will receive a message:



Important! Connection is established between the server, where the application server is installed (but not the computer, where the client program works) and the Analysis Services server. The Windows account, under which the application server is working, must be included in the Windows groups "Administrators" and "OLAP Administrators" on the computer with MS Analysis Services.

After this you can select the values of the fields "Database" and "Cube":

尊 Edit Cube	×
Alias:	AW
Server:	uranus\sql2008
Server version: *	· 2005\2008
	Connect
Database: *	Adventure Works DW 2008R2 Folders 🔹
Cube: *	Adventure Works
Security Model:*	Using roles 🔹
Status: *	· Active -
Notes:	
	Save Cancel Refresh

Press the button "Save". The cube will appear in the list:

🏮 Business	s Analysis Tool (Adr	ministrative Module) - http://u	ıranus:88/				- 9	5 X
<u>A</u> pplicati	on <u>M</u> odule	<u>c</u>	<u>ù</u> ubes <u>T</u> ools <u>H</u> elp						
Cubes [5	🕹 🍰 🏷 🤣						
			Alias	Server	Server Version	Database	Cube	Statu	s 🖓
	Settings		AW	uranus\sql2008	2005\2008	Adventure Works DW 2008R2 Folders	Adventure Works	Active	:
									- II.

Thus, we created the pointer to the cube. Remember, the reports in our system are «bound» not to the physical cube, but to this pointer.

5 Creation of the Reports Users

5.1 Creation of Users

Go to the "Report Users" tab, press the right mouse button and choose menu item "New Report User":



📦 New Report User		x
Login:	*	mike
Password:	*	****
Password confirmation	n:*	****
First name:	*	Michael
Last name:	*	Jordan
Designer profile:	*	Default Profile 👻
E-mail:		
Phone:		
Expiration date:		· · · · · · · · · · · · · · · · · · ·
Status:	*	Active 🔹
Level:	*	Regular user 🔹
Demo user:		
Use for security:	*	
Bind to domain user:	*	
Username:	*	
Domain:	*	
Can update own info:	*	
Access handle:		
Notes:		
		Save Cancel Clear

You will get the edit form. Enter the following data (password – mike):

Press the button «Save». The dialog box will be shown:



Press «No» (later we will explain the meaning of this choice). The new user will appear in the list:

Application Module	<u>u</u> &	lsers 🛛	<u>T</u> ools	<u>H</u> elp	1								
Administrators						Filter	: * All Users		Ţ				
		🛦		La	S Ϋ	Level	Demo user	Designer Profile	E-mail	P	 	Username	D
	>	mike	Mike	Jordan	Active	Regular user		Default Profile	lena1@bitimpulse.com				
Cubes													
Roles Backup													

Let's enter one more user (password – john):

🟮 New Report User		x
Login:	*	john
Password:	*	****
Password confirmation	n:*	****
First name:	*	John
Last name:	*	Connor
Designer profile:	*	Default Profile
E-mail:		
Phone:		
Expiration date:		
Status:	*	Active -
Level:	*	Regular user 🔹
Demo user:		
Use for security:	*	
Bind to domain user:	*	
Username:	*	
Domain:	*	
Can update own info:	*	
Access handle:		
Notes:		
		Save Cancel Clear

After you created the users let's look at the list. There are three tabs in the bottom: "Roles", "Parameters" and "Permissions":

<u>Application Mod</u>	ule	U	sers	<u>T</u> ools	<u>H</u> elp									
Users 🔯 🕼 🖗 🎝 🦓 😱														
Filter: * All Users														
			🛦		La	S Ϋ	Level	Demo user	Designer Profile	E-mail	P		 Username	D
		>	john	J	Connor	Active	Regular user		Default Profile	lena2@bitimpulse.com				
Cuber			mike	Mike	Jordan	Active	Regular user		Default Profile	lena1@bitimpulse.com		V		
Cubes														

5.2 Cube Access Rights

If the option "Use for security" for the user is turned on:

	Login 🔺	First Name	Last N	Status 💡	Level	Demo	Designer Pr	E-mail	 1	User	Domain
>	john	John	Connor	Active	Regular user		Default Profile	lena2@bitimpulse.com			
	mike	Mike	Jordan	Active	Regular user		Default Profile	lena1@bitimpulse.com	V		
									-		

then you can set the individual access rights on cubes for that user.

When the user mike opens a report in the report module, a dedicated process OlapExecutor.exe is started on the application server. This process opens a connection to the Microsoft Analysis Services. The connection string will explicitly have "roles" specified like this:

roles=[batidentifier]_user_mike

instead of [batidentifier] there will be the identifier of the application server (you set it during the installation). **Therefore, at a logical level for every BAT user there exists a dedicated role.** Such mechanism of access was implemented to be able to set individual access rights on dimensions for every BAT user.

After we created a report module user, we must give him rights on the cubes (otherwise he will not be able to open the reports which get data from these cubes). There are two ways to grant access rights on cube to the user: grant the rights to this user individually (if the option "Use for security" is turned on for this user) or grant the rights to the role the user is in. First we will consider the case of granting access rights for the cube to the individual user. It is possible to do this in two ways.

5.2.1 Way 1

For the user mike let's give unlimited rights for the cube Adventure Works. For this purpose let's use the context menu item "Set Unrestricted Permissions on Cubes":

View Re New Re Edit Rej	John Michael eport User eport User port User	Connor Jordan	Active Active	Default Profile Default Profile			▼			
View Re New Re Edit Rej	Michael eport User eport User port User	Jordan	Active	Default Profile						
View Re New Re Edit Rej	eport User eport User port User									
New Re Edit Rej	eport User port User									
Edit Re	port User									
		Edit Report User								
Delete Report User										
Set Unrestricted Permissions on Cubes										
Refresh										
Run Re	port Module Und	der This User								
Send n	otification to use	er								
	<mark>Set Unr</mark> Refresh Run Re Send n	Set Unrestricted Permis Refresh Run Report Module Uni Send notification to use	Set Unrestricted Permissions on Cubes. Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user	Set Unrestricted Permissions on Cubes Refresh Run Report Module Under This User Send notification to user

The wizard for setting of unlimited rights will be opened. On the first step it will suggest to choose the list of cubes to which unlimited rights will be given for the user mike (i.e., the role [batidentifier] _user_mike with unlimited rights will be created):

Create Permissions for Users and Roles on Cubes	x
Step 1 Select cubes	
Adventure Works (server:arp\sql2008, database:Adventure Works DW 2008,	cube:Adventure Work:
	• • •
Select All Unselect All	
Cancel < Back	Start

Press «Start». On the following step it will be suggested to choose the list of users:

Create Permissions for Users and Roles	on Cubes X
Step 2 Select users or roles	
Users Roles	
john (John Connor)	
🔽 mike (Michael Jordan)	
<u></u>	
Select All Unselect All	
	Cancel < Back Next >

We have selected menu item "Set Unrestricted Permissions on Cubes" for the user mike, therefore only this user is checked in this list. You can additionally check other users to which unlimited rights will be set on the cubes.

On the next stage the wizard will scan the selected cubes to find the roles for these users (if they already exist). If there are roles for these users, the wizard will display a warning message. In our case the role on the cube for the user mike doesn't yet exist, therefore the message will be the following:



After you press the button «Finish», the wizard will create corresponding roles on the selected cubes.

5.2.2 Way 2

There is another way of setting access rights to the cubes for the user. Select the user john in the list and go to the tab "Permissions". The following window will be opened:



The application server will try to establish connection with each active cube and to define if there is a role for the user john on this cube. There are no roles for the user john on any cube:

Roles	Parameters	Permissions			
MSAS-Ro	ole Exist	Dr	illthrough Enabled		Cube
					Adventure Works
	*				
Set Un	nrestricted Permis	asions Add	/Edit	Refresh	

To create the role with unrestricted permissions press the «Set Unrestricted Permissions» button:

Roles Parameters Permission	IS	
MSAS-Role Exist	Drillthrough Enabled	Cube
<u> </u>	8	Adventure Works
Set Unrestricted Permissions	Add / Edit Remove Refresh	

To create the role with a custom set of access rights press the «Add/Edit» button in the bottom part of the form. The dialog box will be opened:

🏮 Report User	Permissions	x
Drill Through	Write Back	
Dimension	Account	•
Hierarchy	Account Number	-
Visual Totals		
Allowed Member	S Denied Members	
Unrestricted To be able to	set access for individual members you have to uncheck the "Unrestricted" checkbox.	
	Save	

You can immediately press «Save» and the role with unrestricted permissions will be created for that user. But you can also set/deny different access rights for every attribute hierarchy of every dimension. To do that you have to select the dimension and attribute hierarchy in the fields "Dimensions" and "Hierarchy", respectively, and uncheck the "Unrestricted" check box.

For example, if you select the "Customer" dimension and the "Country" (attribute) hierarchy then you will be able to set the rights like this:

🏮 Report Use	r Permissions		x
Drill Through	Write Back		
Dimension	Customer (restricted)		•
Hierarchy	Country (restricted)		•
Visual Totals			
Allowed Membe	rs Denied Members		
Unrestricted			
 Σ All Cus Cai Fra Gei Uni V Uni 	tomers stralia nada ince many ted Kingdom ted States	Load	
		Save Cancel	

Thus, if the user john will log in to the report module and open the report, built on the Adventure Works cube, he won't see any other data except Canada and United States.

After pressing the "Save" button you will see a check box in the list for the cube Adventure Works in the column "Role Exist", meaning that a role was created on cube Adventure Works for the user john:

Roles	Parameters	Permissions			
Role Exist	t	C	rillthrough Enabled		Cube
					Adventure Works
Set Unr	restricted Permis	ssions	d / Edit Remove	Refresh	

You can press «Add / Edit» once more and change the rights set before.

5.3 Binding to Domain User

While creating a report user you could see the option "Bind to domain user":

🟮 New Report User			x
Login:	*		
Password:	*		1
Password confirmation:	*		1
First name:	*		1
Last name:	*		1
Designer profile:	*	Default Profile	
E-mail:			1
Phone:			1
Expiration date:			
Status:	*	Active	
Level:	*	Penular user	
Demo user:			-
Use for security:	*		
Bind to domain user:	*		٦
Username:	*		1
Domain:	*	L	il
Can update own info:	*		-
Access handle:			1
Notes:			
		_	
		Save Cancel Clear	
			9

This option enables you to bind the report user to the Windows-user in a domain. If you perform that binding, the user will be able to log in to the report module without entering the login and password, but using Windows-authentication:

尊 Log On	x
Report Module	BIT İmpulse
Busine	ss Analysis Tool
Authentication: *	Windows 🔹
Login: *	john
Password: *	
Save password:	
Server: *	http://yourserver/
Language: *	English
EN	Proxy Settings
	OK Cancel

6 Roles

In Business Analysis Tool you can create roles and add users to those roles. Roles in BAT give you the possibility to set the access rights for cubes for the whole group of users. The usage of rules enables you to do the following:

- Granting access rights for dimensions attributes for the group of users that are in role;
- Defining the set of visible hierarchies and measures for a group of users;
- Using the user parameters for a quick setting up the access rights on dimensions for a group of users.

6.1 Creating a BAT-role

To create and manage the roles in BAT you have to use "Roles" tab:

Application Module Roles Tools Help	
roles 😳 🚱 🚱 🚱	
Name Security Binding to AD Group Domain Auto create Access handle Notes	
Roles Backup > All Users allusers allusers	
(大)	
User Parameters	
Roles	
Report Users	
Parameters Restrictions	
Name Description Applicable	
Reports	
	-11
Save Cancel	

In the list of roles you will see the role "All Users". This is a built-in role that includes all report module users. Thus, if you change the settings for that role, the changes will affect all users. Let's create a new role in BAT. It can be done in three ways:

• Press the button on the toolbar:



• Press the button under the roles list:

Name	Security	Binding to AD	Group	Domain	Au
> All Users					
IK K K	\rightarrow \rightarrow	II 🕼 🖉 🙀	😰 🦓		
Parameters	Restrictions	3	New role		
[Den inter	NEW TOIL		

• Select the corresponding item from context menu:



Fill in the name of a new role and check the option "Use for security" (this will enable us to set the access permissions for dimension members for the users in role):

🟮 New Role	x
Name: *	Test Role
Use for security: *	
Bind to domain group: *	
Group: *	
Domain: *	
Create users automatically:*	
Access handle:	
Notes:	
	· · · · · · · · · · · · · · · · · · ·
	Save Cancel Clear

Press the «Save» button and you will see the new role in the roles list:

	Name	Security	Binding to AD	Group	Domain	Auto create	Access handle	Notes
	All Users						allusers	
>	Test Role						testrole	

Select the newly created role in the list and at the bottom of the form switch to the "Restrictions" tab:



To set the visibility restrictions on hierarchies and measures from a cube for this role, select that cube in the list and press the «Add / Edit…» button:

Cube
Adventure Works

In the appeared window in "Hierarchies" tab uncheck the "No restrictions" check box to see the list of hierarchies. In this list you can select the hierarchies, visible for this role:

Restrictions for role 'Test Role' ×
Hierarchies Measures KPI Calculations
No restrictions
Visible Hierarchies:
🕀 💓 Account
🕀 💓 Customer
⊕ [o] Date
⊕ [͡vo] Delivery Date
🕀 💓 Department
🕀 💓 Destination Currency
🕀 💓 Employee
🕀 😥 Geography
🕀 💓 Internet Sales Order Details
🕀 💓 Organization
🕀 💓 Product
🕀 💓 Promotion
🕀 💓 Reseller
🕀 😥 Reseller Sales Order Details
🕀 😥 Sales Channel
🕀 😥 Sales Reason
🕀 😥 Sales Summary Order Details
🕀 💓 Sales Territory
🕀 💓 Scenario
🕀 😥 Ship Date
Select All Unselect All
OK Cancel

First, press the «Select All» button, and then uncheck all hierarchies under the "Customer" dimension:

Restrictions for role 'Test Role'	x
Hierarchies Measures KPI Calculations	
No restrictions	
Visible Hierarchies:	
🚆 🗹 Account Type	-
🖂 😥 Customer	
Customer Geography	
👔 🗌 Customer	
City	
Commute Distance	
Country	
Education	
Gender	
Home Owner	
Marital Status	
Number of Cars Owned	
Number of Children At Home	
Occupation	
Postal Code	
State-Province	
Total Children	
III Yearly Income	
😑 🔯 Date	
Date.Calendar	-
sa L'Utata Calendar Moeire	
Select All Unselect All	
	_
OK Cancel	

Thus, you banned the users included in Test Role from seeing the whole dimension "Customer".

On "Measures", "KPI" and "Calculations" tabs you can similarly set the visible measures, KPIs and calculated measures, respectively.

Press «OK» to save your changes. Now in the list of restrictions you will see that there are restrictions set for the cube Adventure Works:

Parameters Restrictions Permissions	
Restrictions Exist	Cube
	Adventure Works
Add / Edit Remove Refresh	

On the "Permissions" tab you can set the access rules for dimensions members for the role. This is done exactly the same way as you did it for report module users, so we are not going to describe that process once again.

The "Parameters" tab is used to quickly set up the access rights on dimensions members for a big group of users. We will review this process in one of the following chapters.

6.2 Adding Users to the Role

To apply the access parameters set up for the role to a specific user you have to add the user to that role. This can be done easily. Switch to the "Report Users" tab, select the user you want, and in the bottom part of the window select the "Roles" tab:



Press the «Refresh» button to refresh the list of roles and to be able to see BAT-role you have recently created:

Role	Bound
Test Role	
resh	
	Role Test Role

To add the user john to the role Test Role, simply check the box in the "Is in role" column near this role and press «Save»:

Roles Parameters Permissions		
Is in role	Role	Bound
	Test Role	
_		
Save Cancel Refre	esh	

Now if you log in to the report module under the user john, you won't see "Customer" dimension, because no hierarchy from that dimension is included in the list of visible hierarchies for the Test Role.

6.3 Binding to Domain Group

During the process of creating a new BAT-role you have the ability to bind it to the domain group. If you perform that binding then the access parameters set up for that role will affect all users that are included in the group and use the Windows-authentication to log on into the report module.

Besides, if you bind the role to a domain group you'll get another useful option – automatically create users during login to BAT:

🟮 Edit Role	x
Name:	Country Managers
Use for security:	
Bind to domain group:	•
Group:	Group
Domain: *	Domain
Create users automatically:*	
Access handle:	countrymanagers
Notes:	
	Save Cancel Refresh

If you check that option then every user from the domain group will be able to login to report module (obviously, using Windows-authentication). If that domain user does not have the corresponding BAT-user yet, then it will be created automatically during the first login of that domain user to report module.

7 Reports Creation

7.1 Folder Creation

Go to the "Reports" tab and choose the "New Folder" item of the context (or main) menu:



You'll receive such form:

尊 New Folder		x
Parent Folder:		- X
Folder: *	Folder 1	
Status: *	Active	•
	Save Cancel	Clear

Enter «Folder 1» and press «Save». You will be offered to set users' permissions for this folder:



We will review the permissions on folders later, and now just press «No». You will see that the list of reports appeared under the tree of folders:

🟮 Business Analysis Tool ((Administrative Module) - http	o://uranus:88/				- =	×
<u>Application</u> <u>M</u> odule	<u>F</u> olders <u>R</u> eports <u>T</u> ool	s <u>H</u> elp					
Folders 🔯 🧭 🔂	🔒 🦓 🕴 Reports 🗔 🧔	2 🚱 🚱 🖟 🔊 8	à 🕹 🏘				
A 9	Folder		▲ Status				
Administrators	Folder 1		Active				_
Other							
-							
Roles Backup		I 🕵 💈 🕵 🔊	🕹 🥹				
	Report	▲ Type	Status	Owner	Notes		
	-						
Roles							
	x 🖾 (for a 1 Io - 1 ID						
	× ♥ ([Status] <> Deleted)	6 2 6 0	1 & A A i	Au			_
Report Users							-
Duringen Daufilee							
Login: root Server: http://u	uranus:88/						

7.2 Report Creation

The list of reports is empty yet. In the main menu "Reports" choose the item "New Report":

🏮 🛛 Business An	alysis Tool (<i>I</i>	Administra	ti
<u>Application</u>	<u>M</u> odule	<u>F</u> olders	
Reports 🧕		6	
0	New	Report	Ì

Enter all data as on the picture and press «Save»:

🟮 New Report	x
Name: * Report on Adventure Works	
Folder:* Folder 1	-
Cube: * Adventure Works	*
Save Cancel Clear	

The program will ask you if you want to open the report in designer:



The designer is the form where you will set the appearance of the report. Press «Yes». You will be asked to add a new page to the report. You have to select the page type and fill in the name. Select the type "Table/Chart" and press «OK»:

🟮 Report Page			x
Name: * Table 1 Page Type:	Image: series of the	France Scatter-diagram	Image: state
			OK Cancel

🙉 Report Designer - Report o	n Adventure Works (Versio	11)					n x
)					
Report <u>P</u> age <u>V</u> iew <u>D</u>	ata <u>T</u> able T <u>o</u> ois						
	🔃 💽 😓 🔛 📰	Description C	- K 🗘 🏷 🕱	100% -	t Table		
Dimensions 🛛 💆 🔛	Columns 😂]
🕀 💓 Account 🦰							
🕀 💓 Customer	Rows 🗮						
🕀 🔯 Date	Dawa / Calumna Eilter	Section					
🗄 💽 Delivery Date	Rows / Columns	Solung					
🗄 💓 Department	Context		Drop dimension, h	ierarchy or lev	vel here		
🗄 🗾 Destination Currency							
Employee							
🗄 💆 Geography							
Internet Sales Orde							
Crganzadon							
Image: Promotion	Measures						
🗄 📴 Reseller							
🗄 💓 Reseller Sales Order							
🕀 😥 Sales Channel							
🗄 💓 Sales Reason							
🖙 🚧 Salas Summary Ord 🛛 💌							
Measures 📃 🖬							
🕀 💼 KPI		Drop dimension,	Drop measure here				
🗄 🧰 Exchange Rates		here	brop measurement				
🗄 🚞 Finance							
🗄 🗖 Internet Sales							
🗄 🛄 Reseller Sales							
🗄 🛄 Sales Quota							
🗄 🛄 Sales Summary							
Sets 📃 🖬							
🕀 💼 Sets	Highlight						
			l				
	Table 1						Search 🔹
Report on Adventure Works	ersion: 1 Cube: uranus\sql20	08, Adventure Work	ks DW 2008R2 Folde	rs, Adventure	Works Rows: 0 C	olumns: 0	

The following form will open:

Your new report has one empty page "Table 1". There are editors on the left and on the top part of the page, and a pivot-table inside.

Note. All possibilities of the reports designer are described in detail in the help document for the report module. Here we will just create a report and will give access to it for the users.

On the top part of the form you can see two "shelves" called "Rows" and "Columns". On the left there is the list of dimensions, hierarchies, levels and measures.

Drag the level "Category" of the hierarchy "Product Categories" on the shelf "Rows" with the help of the mouse:



Find the dimension "Date" (scroll the list to find it), and drag the level "Calendar Year" of the hierarchy "Date.Calendar" on the columns:

Report Designer - Report on Adventure Works (Version 1)			= x
Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols			
🗄 😋 \ominus 💾 📴 📴 🚱 陀 😭 🕵 😓 💀 🎛 Description 🛛 🗷 🥸 🏖 🎕	100% 👻 📮	Table	
Dimensions 🔯 🖾 🖸 Columns 😂 - + Date/Date.Calendar - 🔞 ×			
B Customer Rows E - + Product/Product Categories - 🕵 ×			
Columns Filter Sorting			
Σ (All) Context Product/Prod + CY 2005	+ CY 2006	+ CY 2007	+ CY 2008
Calendar Year			
Calendar Sem			
Calendar Quar			
# Month			
M Date			
🕑 🏭 Date.Calendar We			
And And And And And And And And And			
Measures			
🕀 💼 KPI			
🕀 🧰 Exchange Rates			
🕀 🧰 Finance			
🕀 🧰 Internet Sales			
🕀 🧰 Reseller Sales			
🗄 🧰 Sales Quota			
🗄 🚞 Sales Summary			
Sets 📃 🛃			
Gets Highlight			
			• • •
Table 1		S	earch 👻
Report on Adventure Works Version: 1 Cube: uranus\sql2008, Adventure Works DW 2008R2 Folder	ers, Adventure W	orks Rows: 4 C	olumns: 5

Report Designer - Report on Adventure Works (Version 1)
Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols
i 😋 🖂 💾 🔢 🚱 🎨 😭 🕼 😓 💀 🔢 📰 Description 🛭 😋 🗞 🛟 📚 🚺 100% 🔹 🏥 Table 🔹 🖡
Dimensions Columns Columns C
Customer Rows Rows - + Product/Product Categories - 😡 ×
Columns Filter Sorting
Σ (All) Context Product/Prod + CY 2005 + CY 2006 + CY 2007 + CY 2008
Calendar Year
Calendar Quarter H Components ####### ####### ####################
Date
🗄 👬 Date.Calendar Weeks Measures
And And And And And And And And And
Measures
Reseller Order Count
Reseller Order Quantity
Reseller Ratio to All Products Reseller Ratio to Parent Products
I Reseller Sales Amount
Reseller Standard Product Cost
Reseller Tax Amount
Sate
B C Sets Highlight
Table 1 Search
Report on Adventure Works Version: 1 Cube: uranus\sql2008, Adventure Works DW 2008R2 Folders, Adventure Works Rows: 4 Columns: 4

Now only one thing is missing – one or more measures in the table:

If instead of numbers you see ##### in the table, it means that the numerical value does not fit in the cell. In this case it is necessary to increase the width of the table header:

Product/Product	0	Ð	C	Y	2	DC)5	F	-	C٦	r	2(00	6	(
Accessories	#	#	#	#	#	#	(#	#	#	#	#	#	#	
+ Bikes	#	#	₿	1	#	#	#	#	#	#	#	#	#	#	
+ Clothing	#	#	#	#	#	#	#	#	#	#	#	#	#	#	
Components	#	#	#	#	#	#	#	#	#	#	#	#	#	#	

Thus, the simplest report is almost ready. We will add the chart using the corresponding button on the tool bar:



Let's save this page using the toolbar icon \square or the appropriate menu item. Then close the designer by pressing a cross in the right upper corner of the window.

Thus, we created the report with one page and returned to the main form.

7.3 Access Rights to the Report on the BAT level

After closing designer the program will offer you to set access rights to the report:



Higher we talked about the rights for the users on data in cubes (correspondence between the report module users and the roles in Analysis Services). Regardless of this, you can set in the BAT who of the users what report can see. Press «Yes» and you will get this dialog:

Report Permissions		x
Roles Report Users		
Name	Permission	
All Users		
		'
	Save	Cancel

There are BAT-roles (not to mix up with roles on cubes!) on the first tab, on the second there will be the users of the report module:

Report Permissions	x
Roles Report Users	
Role: * All Users	•
Name	Permission
Michael Jordan (mike)	
John Connor (john)	
	Save

You can set access rights for every report and define what user or BAT-role can see it, and to which access is explicitly restricted. Notice that the column "Permission" can contain both a green "tick" and red "cross":

Report Permissions					
Roles Report Users					
Name	Permission				
All Users	✓				
📦 Report Permissions	x				
Roles Report Users					
Role: * All Users	•				
Name	Permission				
Michael Jordan					
John Connor	×				

If the values are set as shown on this picture, all users will have an access to the report ("tick" for All Users), while the user John Connor will have no access to it (red "cross" for this user).

After we set the rights, let's press «Save».

Use this button to open the dialog for setting access rights in case if it is necessary to set them up again:

	Report	Туре	Status	Owner	Notes				
>	Report on Adventure	Report	Active	root					
×	× ♥ ([Status] <> 'Deleted')								
<	II< I< < > > >I 😡 🕺 🎇 🞇 🎇 🖕 🖉 🦓 🏭								
	Number 🔺 Cube	S	itatus	Autorup Notes M	ail Broadcast				
>	1 androm	eda\sql2005 - AW U	nder Constructic Set perr	nissions for report users					

The same way you can set up the users' permissions on report folders. To do that you have to select the corresponding item from context menu or press the button on a toolbar:



The procedure of setting up the permissions on folder is exactly the same as the one for reports.

General rule: the user will see the report in the report module only when two conditions are true:

- 1) Either for this user or for one of his roles it is permitted to see this report or one of its parent folders (there is a green "tick").
- 2) Neither for the user personally nor for any of his roles there is an explicit restriction to see the report or one of its parent folders (there are no red "crosses").

7.4 Report Versions

For every report there exists a set of versions (the lowermost list on the picture):

🟮 Business Analysis Tool (/	Administrative	Module) -	http://ur	anus:88/								-	= x
<u>Application</u> <u>M</u> odule	<u>F</u> olders <u>I</u>	Reports 1	<u>V</u> ersions	<u>T</u> ools	<u>H</u> elp								
🕴 Reports 🔞 🧭 🎇 🎢	😪 👢 💕	🕹 🏜 🤇	🤪 🕴 Fol	ders 🔯	06	۵ 🧟) 🖗	Versi	ons 🔯	06	ſ	🔖 🛃 🤅) 👂 🕤
	Folder						Status	;					
Roles Backup		lder 1					Active						
8- 1- 3													
User Parameters													
22													
Roles													
		\rightarrow	> 🔯	10 😡	👂 者	- 🚱							
Report Users	Report		▲ Type			St	atus		Owner			Notes	
	Report on	Adventure .	Repor	t		Ac	tive		root				
Designer Profiles	× 🗹 ([Statu	s] <> 'Deleti	ed')			M. 6	s	. A					
		L Cha	211 😡	V 14				400 10		Not		Mail David	1
	Number	1 andro	meda\sol2	005 - AW	5	atus nder Cor	nstructio	n	Autorun	NOTE	2S	Mail Broadca	IST
Reports								~	_				
	× 🔽 ([Statu	s] <> 'Delet	ed')										
	<u> </u>	> >	> Q	0 6			9 💕	4					
Login: root Server: http://u	ranus:88/												

For the currently selected report "Report on Adventure Works" the list contains just one version in status "Under Construction".

Note. What is the version of the report? In BAT a report can have a few versions. Users in fact do not open a report, but one of its versions. Versions are implemented to hold all the history of modifications of the report, and to be able to go back to the previous version at any moment.
So, even if we give access for the users, they will not see this report because there are no active versions of this report. Set the version into "Active" status:

	Q	View Report Version			
Report	1	Edit Report Version		Owner	Notes
> Report on Adventure Works	6	New Report Version 🥄		root	
	P	Clone Report Version			
× 💟 ([Status] <> 'Deleted')		Clone as New Report			
< < < > > > 🔯 🔗 🎇		Edit in Designer			
Number 🛦 Cube	()	Mail Broadcast	utorun	Notes	Mail Broadcast
> 1 andromeda\sql2005 - AW	5	Delete Report Version			
	9	Refresh			
	_				
× 🗹 ([Status] <> 'Deleted')	þ				
	1	k 🗹 📎 💕 🏘			

🟮 Edit Rep	ort Version X
Report:	Report on Adventure Works
Number:	1
Status: *	Under Construction
Cube: *	Active
Autorun:	Under Construction
Notes:	
	-
	Save Cancel Refresh

There are two items in the context menu for a report version:

Q	View Report Version
6	New Report Version
()	Clone Report Version
	Clone as New Report
1	Edit Report Version
	•
2	Edit in Designer
1	Edit in Designer Mail Broadcast
2 2 2 2 2 2	Edit in Designer Mail Broadcast Delete Report Version

The action "Clone Report Version" creates an exact copy of the report version within the same report. The action "Clone as New Report" creates a new report, the first version of which will be an exact copy of that version for which you executed this action.

The same two actions can be executed with the help of the buttons on the panel under the list of versions.

7.5 Report Types

7.5.1 "File Reference" Type

"File reference" reports are the reports which hold a reference to a file. You can add a file in the following way:

🟮 Business Analysis Tool (A	Administrative Module) - http://uranus:88/				- = ×
<u>A</u> pplication <u>M</u> odule	<u>F</u> olders <u>R</u> eports	<u>V</u> ersions <u>T</u> ools	<u>H</u> elp			
🕴 Reports 🔯 🗭 🎇	😪 峰 😰 🕹 🌡	🖓 🕴 Folders 🔯	1 🚯 🕼 🍓 🔊	Versions 🔯	0 6 6 1	🛃 🛞 👂 🔹
	Folder	•	▲ Status			1
Settings	> … 🔁 Folder 1		Active			
A 9						
Administrators						
Cubes						
	$\parallel < \mid < \rightarrow$	> > 🔯 🗭 🚺	👂 🏜 🍓			
Roles Backup	Report		🛦 Type	Status	Owner	Notes
	Report on Adventu	re Works	Report	Active	root	
User Parameters						
	× 🔽 ([Status] <> 'De	eleted')	x			
29	$\ < < > \rangle$	> > 🕵 🗭 🍱	🔏 🗳 🕻 🕵 👌	🌡 🖗		
Roles	Number 🔺 Cu	ube	Status	Autorun	Notes Mail	Broadcast
	> 1 an	dromeda\sql2005 - AW	Active			
	× ▼ ([Status] <> 'De	eted')				
<u> </u>		> > 🔯 🗭 🚱	🤹 🕲 🔟 🕼	{ }		
Login: root Server: http://w	ranus:88/					

In the following window we should set up the report name, the folder where it will be located, and the file to be uploaded:

这 New File	⊟ X
Name:	* Report forms
Folder:	* Folder 1
File:	* report forms.docx ····
	Save Cancel

Later the software w	ill offer you to se	t up access rights:
----------------------	---------------------	---------------------

ion
✓

When a file reference is created, we have to change its status to "Active":

Re	port 🔺	Туре		Status	Owner	Notes
> Rep	port forms	File	ile Active		root	
Rep	port on Adventure Works	Repo	rt	Active	root	
×V	([Status] <> 'Deleted')					
<	< < > > > > > 🛛 🕵 🗭 🍇	U, 💕	- 🕹 🕹	- 🖗		
Nu	mber 🔺 File		Status		Autorun	Notes
>	1 report forms.docx		Non Activ	e		
-						

7.5.2 "URL" Report Type

"URL" reports are reports that hold a reference on any web page. On this example we show how to make a reference on our company's web site:

🏮 New URI	_	x
Name:	*	Presentation of dashboards
Folder:	*	Folder 1 -
URL:	*	www.bitimpulse.com
		Save Cancel

After "URL" creation do not forget to set up the access rights for the report and set it to the active status:

	Report		Туре	Status	Owner		Notes	
>	Presentation of da	shboards	URL	Active	root			
	Report forms			File	Active	root		
	Report on Adventu	ure Works		Report	Active	root		
×	🔽 ([Status] <> 'D	eleted')						
<	< < >	> > 🔯 🔯 🖓	Q. (s 😰 🍓	🕹 🆓			
	Number 🔺	URL	Statu	IS	Open in browser		Autorun	Notes
>	1	www.bitimpulse.com	Active	2				

7.6 Links to Reports

7.6.1 Creation of a Link to a Report

It is possible to create one report and several links to this report in different folders. That might be useful in the case if you have several departments, each department has its own folder, and the administrator does not want to create the same report multiple times in every folder:

🏮 Busines	ss Analysis Tool	(Adm	inistrat	ive Module)	- http://ur	anus:88/								- =	ı x
<u>A</u> pplicat	tion <u>M</u> odule	<u>F</u> o	Iders	<u>R</u> eports	<u>V</u> ersions	<u>T</u> ools	<u>H</u> elp								
Folders	Q 🛛 🔓 🕻) 🔏	()	Reports	Q 🗭 🏹	R 😪	Û, 🔊	<u>a</u> a	@	00) 👘 I	è 🛃	🛞 💕 (b	Ŧ
			Folder						Status						
	Settinas	>	r"	AW (2005)					Active						
			- 🔁	AW (2008)					Active						
_			🔁	AW (2012)					Active						
<u></u> ?				Forest					Active						
	Administrators		· 🔁	SalesWorks					Active						
	Cubes														
			 I 	$ \rightarrow $	> > 😡	12 😡	👂 🍰	- 🖓 -							
3	Roles Backup		Report	:		Туре		Status		Owr	ner		Notes		
		>	Z1		1	Report		Active		root					
			Z2			Report		Active		root					
	Llear Davamatara														
	User Parameters														
		1													
22		×	V (fet-	atual <> 'Del	atad')										
	Roles		([3u	atusj <> Der			PM CA	Ŵ Ø		8 A)					
						V 24		~		60 (4					_
			Numbe	r 🔺 (Cube			St	atus	Autorun	Note	s I	Mail Broadc	ast	
	Report Users	>		1 a	ndromeda\so	12005 - AV	/	Ac	tive						
-															
	Designer Profiles														
		×	🗹 ([Sta	atus] <> 'Del	eted')										
	Ĵ		 I 	$\langle \rangle \rangle$	- > 🔯	12 6	(1) 👔 🔇	ey -					
Login: root	Server: http://	uranu	e-887	_	_	_	_		_	_	_		_		

The edit form of the link looks like this:

🧐 Link to	report x
Name:	Use report name
Folder:	* AW (2005)
Report:	* Z1 ~
Status:	Use report status
Notes:	Active *
	Redefined notes
	Save Cancel

in this form we have to fill in the following fields:

- Name: set up either a new report name, or use the name of the report;
- Folder: choose the folder where the link will be located;
- Report: select the report to which the link will point;
- Status: if you select "use report status", then the status of the report will be applied. Otherwise, the link will have its own status;
- Notes: the principle is the same as for status.

The last thing to do will be setting access rights for users and administrators for this report.

If you set up access rights for administrators using the button \widehat{a} , then the access rights will be set on the report itself (but not on the link).

Let us show it on example. Let us create a link on a report for some group of top managers. First let us create a folder where the links will be:

🟮 New Folder	:	x
Parent Folder:]
Folder: *	Link for top managers	
Status: *	Active -	
	Save Cancel Clear	

💿 Business Analysis Tool (Administrativ	ve Module) ·	- http://ur	anus:88/				-		x
<u>Application M</u> odule	<u>F</u> olders	<u>R</u> eports	<u>T</u> ools <u>I</u>	<u>H</u> elp						
Folders 🔯 🧭 🕵	🔒 🦓 🗄	Reports \tag	0 🖉	, 🕂 💁 (L 🔊 8 8	- ()-				
	Folder					Status				٦
Settinas	e 🔂 🖉	AW (2005)				Active				
	- 🔂 A	AW (2008)				Active				
	🔂 A	AW (2012)				Active				
A P	E	Forest				Active				
Administrators	> - 2	ink for top ma.	anagers			Active				
		SalesWorks				Active				
Cubes		< > >	> 6	10 6	s & &					
Reference and an	Peport			Type	Status		Owner	Notes	_	٦
	Report		-	Type	510103		Owned	Notes		
User Parameters	•									
Deles	× 🔽 ([Stat	tus] <> 'Delei	ted')							
Koles	 < <	< > >		12 13 1	7 🔍 🔍 I	2 2 2 E	9			
							-			
Report Users										
Designer Profiles										
<u>.</u>										
Login: root Server: http://u	tranus:88/									

Then we will set up access rights on this folder for concrete managers or some role where the managers are included. The next step is the creation of the report link:

In the edit window let us select the folder for the link:

🟮 Link to repo	ort	x
Name:	Use report name Redefined name	
Folder: *	Link for top managers	-
Report: * Status: Notes:	Folder AW (2005)	
	x	

Then we select the report itself:

🟮 Link to rep	ort ×
Name:	Use report name Redefined name
Folder:	* Link for top managers
Report:	*
Status:	Folder AW (2005)
Notes:	— 22 → AW (2008) — 24 AW1 — 24 AW2 — 1 Презентация дешбордов — Форма отчета
ers	Ok Cancel

The rest parameters will be like that:

🟮 Link to rep	ort	x
Name:	Use report name Redefined name	
Folder:	* Link for top managers	•
Report:	* Z1	-
Status:	Vse report status	
	Active	~
Notes:	Use report notes	
	Redefined notes	
		-
	Save Cancel	

Then the software will offer you to set up access rights on reports, and after that we'll get a link in the folder:

🟮 Business Analysis Tool (.	Admin	nistrative Module) - h	ttp://uranus:88/						- = x
<u>A</u> pplication <u>M</u> odule	<u>F</u> olo	ders <u>R</u> eports <u>V</u> e	ersions <u>T</u> ools	<u>H</u> elp					
Folders 😡 🧭 🚱 💕	20	🚱 🕴 Reports 🔯	10 🔀 🎇 😒	ll 😰 💩 🌡	🖓 🗄 🔯	00	r 🖈 🇊	1 🛞 😰 🖓	•
	F	Folder		<u></u>	Status				1
Settings					Active				
					Active				
		🔂 AW (2012)			Active				
A 9					Active				
Administrators	>		agers		Active				
					Active				
Cubes		K < > >	> 0 8 6	S & A					
Roles Backup	F	Report	▲ Type		Status	0	wner	Notes	
		1	Link to report		Active	ro	ot		
raha	24	1	Link to report		Active	ro	ot		
User Parameters									
22	X	([Status] <> 'Delates	n)						
Roles				FM (A) (A) (B)		a.			
				(A) 🖓 🖓 🕷	> </td <td>1</td> <td></td> <td></td> <td></td>	1			
	1	Number 🔺 Cube	2	St	atus Ai	utorun	Notes	Mail Broadcas	t
Report Users	>	1 andr	omeda\sql2005 - AV	/ Ac	tive				
			10						
	×	[[Status] <> 'Deleted	1)	-					
Designer Profiles	\parallel	$ \langle \langle \rangle \rangle$			2 🔊 🚯				
÷	Atte stru	ention! Here you s ucture), you make	ee the version changes to the	of the Link to r version of the	eport. By e report.	editing th	ese versio	ons (includin	g their
Login: root Server: http://u	ranus	:88/							

We can see a notification below which tells us that if we have several links to one report and if we edit a report version at one location (under any of the links), we will get changes in the report itself, but not in the link.

If you delete a report or a folder with a report which has links to it, BAT will warn you that it will also delete all links which point to this report.

7.6.2 Links and Scheduler

All the schedules that are created by administrator or a user will be bound to the report itself. It means the following:

- If the administrator created a mail broadcast for the report version, and this report version is displayed in several places (because we have several links on this report), then all changes related to the mail broadcast will act as ONE setting. The user will get a report ONCE, no matter how many links on that report exist.
- If the user created a schedule for one link and then he switched on another link, he would see the same mail broadcasts on another link. This happens because mail broadcasts are bound to a report, but not to a link.

8 Review of the Passed Material

- 1. We created a link to a cube "Adventure Works" in the database with the same name.
- 2. We created two users mike and john (with the same passwords), and gave them access to the cubes.
- 3. We created a report, and allowed to see it for all users. Besides we explicitly restricted the user john to see it.

Items 1 and 2 are needed to be done only once. Moreover, there is a way of setting access rights to one or several cubes simultaneously to a plenty of users, and during this operation - to set restrictions on one or more dimensions. This functionality we shall consider later.

Let's see what happens if we log on into the report module under the user "mike". There are two ways to enter into the report module. The first way is standard: to start the report module and to enter the data into the "Log On" form:

🟮 Log On	x
Report Module	BIT İmpulse
Busine	ess Analysis Tool
Authentications *	Tatural
Authentication:	
Login: *	mike
Password: *	
Save password:	
Server: *	http://youserver/
Language: *	English
EN	Proxy Settings
	OK Cancel

But there is also another way – to select this item in the context menu for the user in the administrative module:







Note. If you do not see any report, it means that you missed to do something in the administrative module:

1) you didn't make the report version active;

2) you neither gave the rights for this report, nor for any of its parent folders to this user (or any of his roles).

We created only one report in the administrative module, therefore it is the one that is displayed in the tree (in the folder "Folder 1"). If you create more reports, all of them will be displayed in this tree.

Choose the context menu item "Generate" for this report:

	Folder/Report
	⊡ Folder 1
>	Report on Foodmart Sales (Version 1 from 11/15/2007)
	🚱 Refresh
	Generate

A new tab "Reports" will be added at the left. On this tab you will have more tabs on the top, one for each generated report:

🟮 Business Analysis Tool (Report Mod	ule) - http://uranus:88/ 💶 🗖 💈
<u>Application M</u> odule <u>R</u> eports	Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols <u>H</u> elp
	😋 🌮 😓 🛐 🔢 Description 🛛 🐮 🏷 🏷 🏷 🏷 🗎 100% 🔹 🌐 Table And Chart 🔹
Report on Adventure Works (Vers	on 1 from 1/14/2014)
Dimensions 2 12 12 12 12 12 12 12 12 12 12 12 12 1	Columns 📋 - + Date/Date.Calendar - 🕵 ×
💮 🕀 🙋 Customer	Rows 🗄 - + Product/Product Categories - 🕵 ×
🖶 🖶 🔯 Delivery Date	Rows / Columns Filter Sorting
원 🕀 💓 Department	Context Product/Prod + CY 2001 + CY 2002 + CY 2003 + C
🕀 😥 😥 Destination Currency	+ Accessories \$20,235.36 \$92,735.35 \$296,532.88 \$
Measures 🖃 💌	+ Clothing \$34,376.34 \$485,587.15 \$871,864.19
📕 🕂 🕀 🚉 KPI 📃	Measures + Components \$615,474.98 \$3,610,092.47 \$5,482,497.29 \$2
🔍 🗄 🖻 qwe	Reseller Sales Amount 👻
Amount	
Average Rate	Highlight
Average Sales Amount	Chart Properties 25,000,000.00
Average Unit Price	20,000,000.00
Discount Amount	15,000,000.00
Siscount Percentage	bottom v 10,000,000.00
End of Day Rate	Argument: 5,000,000,00
Stepense to Revenu	
Evtended Amount	
Sets 🗖 🖬	rotate by 90°
🕀 🧰 Sets	Settings
	Search 🔻
Login: mikle Server: http://uranus:88/	Rows: 4 Columns: 4

The user can generate several reports at once, and all of them will be displayed on different tabs simultaneously.

As you can see, the report module user has the same reports designer as administrator. It it so because the user "mike" belongs to the profile "Default Profile", and for this profile all functions are allowed (the user can change the structure of the page, choose a desirable level of details, and so forth).

Let's pay attention to one more feature:

٢	Business Analysis Tool (Report Module) - http://uranus:88/											
÷	<u>Application M</u> odule <u>R</u> eports Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols <u>H</u> elp											
:	🔾 🔿 💾 🔢 🔀 🚱 🚱 🔄 😥 😓 🔯 🎛 Description 🛛 😋 🖄 🕸 🗙 100% 🕞 🌐 Table And	l Chart										
	Report on Adventure Works (Version 1 from 1/14/2014)											
	View only data (Alt+Enter)			ลาไ								

🟮 Bu	isiness Analysis T	ool (Rep	ort Modul	e) - htt	p://uranu	s:88/							-	. = ×
Арр	plication <u>M</u> od	lule <u>R</u> e	eports F	Report	<u>P</u> age	<u>V</u> iew	<u>D</u> ata	<u>T</u> able	T <u>o</u> ols	<u>H</u> elp				
i G			G 🕞 (کا 😂	XK	Descripti	on C	ک 🗘	0 🖉	100%	- 🖶	Table And Cha	rt 👻 -
8	Report on Adve	nture Wor	ks (Version	1 from	1/14/2014)									×
ttin	Product/Prod	+ CY 2	001	+ CY 2	2002	+ CY	2003	+ CY	2004					
s, l	+ Accessories	\$2	0,235.36	\$	92,735.35	5 \$	296,532.0	38 \$	161,794.3	33				
	🕂 Bikes	\$7,39	5,348.63	\$19,9	56,014.67	\$25,	551,775.	07 \$13,	399,243.1	18				
List	+ Clothing	\$3	4,376.34	\$4	85,587.15	5 \$	871,864.	19 \$	386,013.1	16				
	+ Component	s \$61	5,474.98	\$3,6	10,092.47	\$5,	482,497.	29 \$2,	091,011.9	92				
orts														
g B								•••						
	27,000,000.00	-											C)	/ 2001
	24,000,000.00	-				_							C	/ 2002
	21,000,000,00	-											C) 📃 C)	/ 2003
	18,000,000,00	1											C	/ 2004
	15 000 000 00	-												
	10,000,000.00	-												
Þ	12,000,000.00	1												
	9,000,000.00	-			_									
	6,000,000.00	1												
	3,000,000.00	1												
	0.00	<u> </u>							_			-		
			ACCOL			O'He	e.		Con			Comp		
			J.	lies					3	>		Onen	5	
													·	
	🔝 Table 1												Search	-
						_								
Login:	mikle Server: h	ttp://urar	nus:88/ R	lows: 4	Columns	: 4								

If you execute this operation, the view will be as following:

That is, the user sees only the report. You can switch between the modes of viewing in the administrative module as well.

To generalize, the users can see the list of reports, choose the desirable report, generate it and receive the data from the cube in the form of the pivot-table. Besides the users can:

- 1) create their own pages;
- 2) change the report structure;
- 3) set the rules of highlight;
- 4) change formatting;
- 5) look through the details (drill through);
- 6) export data in Excel/Word/PDF;
- 7) print the report.

All these actions are described in detail in the help document for the report module.

9 Broadcasting Reports by Mail

After you create your report in BAT you will have the ability to set up the automatic broadcasting of those reports to the users' e-mails. Users will receive the reports in the special NRP format.

9.1 NRP-files

NRP is the file format, developed for compact and safe storing of reports. There is a special NRP-files viewer, which you can find at the Business Analysis Tool web portal:



After downloading and installing the viewer you will be able to view NRP-files the same way as you do it with PDF, DOC and other types of files.

9.2 Setting Up the Mail Broadcast

Switch to the "Reports" tab and select the version of the report for which you would like to set up a mail broadcast. Now press the "Mail Broadcast" button under the list of report versions:

🏮 Busines	s Analy	sis Tool (/	Administra	tive Module) - http://u	uranus:88/							□ X
<u>A</u> pplicat	ion _	<u>M</u> odule	<u>F</u> olders	<u>R</u> eports	<u>V</u> ersions	<u>T</u> ools	<u>H</u> elp						
Reports	Q 0	Z 🕅	Q. I.	ه 🚯 🎝	- 🦓 🕴 F	olders 🔯	12 🔓 📓	🕹 🚱 🗄	Versions 🧕	0 0	()	2 📎	۶.
			Folder					▲ Status					1
- Ali I	User Para	ameters	> 🔁	Folder 1				Active					
8	Rol	es											
-	Report	:Users		< > ⁻	> > (S & (U.					
			-					-					_
l 🛟 '	Designer	Profiles	Repor	t top Advoptu	ro Worko		A	Type	Status	Owner		Notes	
			> Report	t on Adventu	Sonnoe			Report	Active	root			
		4	Формы	н ация деши	ордов			File	Active	root			
	Repo	orts											
			× 🗹 ([St	atus] <> 'De	eleted')								
			< <	$ \rightarrow $	> > [6	1 🗭 🏹	- 🎢 😪 I	b 😰 🕹 🛛	8 de 🖓				
	MDX St	atistics	Numbe	er 🔺	Cube			Status	Autorun	Notes	Mail Bro	adcast	
			>	1	andromeda	sql2005 - AV	v	Active					
			× 🗹 ([St	atus] <> 'De	eleted')								
	÷		< <	< > 3	> > (06	(† 💽 👔	4 🔍 🖕	@				
Login: root	Server	r: http://u	ranus:88/	_	_	_		Mail br	oadcast		-	-	

The form that is used to manage the mail broadcasts will appear. Add a new record to the list:

۲	Mail Broadcast					- = ×
	Record	Status	Туре	Modified by	By Administrator	
×	☑ ([Status] <> 'Delete	:d')				
11-	(< > >	>1 🕲 🖉 🛃 🤇	🗛 💿 🖗			
		3				A
		N	ew report broadca	st		
						-
						Close

🟮 Mail Bro	🔋 Mail Broadcast 🗕 🗕 🗙				
General	Periods Format Users Pages Condition	Description			
Status:	V Mail Broadcast is active	Occurs every 1 weeks on at 00:00. Schedule will be used starting on 1/14/2014.			
Name:	Vise report name				
	Redefined name				
Notes:	Here can be your notes				
		Next Run			
		Never.			
		OK Cancel			

A form for mail broadcast settings will appear:

On the tab "General" you can select the status of the mail broadcast (you can change it later if necessary), assign a name to this broadcast or to use the report name instead, and to add the notes.

📚 Mail Broadcast –				
Mail Broadcast General Periods Once Daily Weekly Monthly	Format Users Pages Condition Properties Repeate every 1 ⁺ ⁺ ⁺ ⁺ ⁺ ⁺ ⁺ ⁺ ⁺ ⁺	Description Occurs every 1 weeks on Wednesday at 00:00. Schedule will be used starting on 1/14/2014. Next Run Next Run Next run will be: 1/15/2014 00:00.		
Time Run once Repeat Interval First start:	00:00 1 Hours from 23:00 till 23:00 1/14/2014 © End 1/14/2014 © End Endless			
		OK Cancel		

On the tab "Periods" use the section "Mode" to select one of the scheduling modes:

In the section "Properties" set up the date and periods. In the lower left zone there is a possibility to set up the desired time, or to set up "send every N hours". Also there is a possibility to set up the end date of the mail broadcast. In the right part of the window there is a description that tells about when the mail broadcast will be working and what is the first date and time when it will run.

On the tab "Format" you will have to select the file type that will be sent:

٩	Mail Broadcast
	General Periods Format Users Pages Condition
	Native Report Format (NRP)
	Native Report Format (NRP)
	Portable Document Format (PDF)

On the "Users" tab you have to select who of the users/roles will receive the report by mail:

🗊 Mail Broadcast				
General Periods Forma	t Users Pages Condition			
Roles Users				
Role	Is Assigned			
All Users				
Test Role				

The tab "Pages" is used to select the set of pages that will be sent to the user:

🟮 Mail Broadcast	_ ×
General Periods Format Users Pages Condition	Description
Owner type:	Occurs every 1 weeks on Tuesday at 10:00. Schedule will be used starting on 1/14/2014.
Administrator	
V Users	
Schared	
Page type:	
I Table (Chart	
Scatter-diagram	
V Dashboard	
Selected pages	
Search ×	
Administrator's Pages	
Table 1	Next Run
▼ TreeMap 1	Next run will be: 1/21/2014 10:00.
Scatter 1	
Table 2	
Dashboard 1	
🗹 Mikle Jordan	
Table 3	
Scatter 2	
▼ TreeMap 2	
V John Connor	
Table 11	
TreeMap 31	
Dashboard 2	
	OK Cancel

There exist administrator pages, user pages and shared pages. It is also possible to set up the desired type of pages and to select the specific ones:

🏮 Mail Broadcast
General Periods Format Users Pages Condition
Owner type: Administrator Users Shared
Page type: Table/Chart Treemap Scatter-diagram Dashboard
 All pages Selected pages
 Administrator's Pages KLP Table 1 Table 2

In the edit box "Search" there is a way to quickly select the pages by name:



The tab "Condition" allows to set up optional condition that will be checked to decide if to send the mail or not to send:

👶 Mail Broadcast				
General Periods Format Users Pages Condition				
Mode:				
© Unconditional				
Conditional				
What to run?				
MDX				
Create				
© Page				
Create Copy of an existing page				
What test to perform?				
O Query should return at least one cell				
O Query should not return any cells				
© Query should return at least one member on rows/columns				
© Query should not return any members on rows/columns				
Whose user context to use?				
Ourrent user				
C Administrator				

By default there are no conditions set up. It means that the mail broadcast will work always. But you can change this here:



- **Unconditiona**l: the report will be sent always;
- **Conditional**: the report will be sent only if the condition is met.

Then you have to set up the condition using one of the ways:

What to run?	Graata	
O Page	Create	
-	Create	Copy of an existing page

• MDX: you can write an arbitrary MDX by pressing the button "Create":

🏮 MDX Query	_ X
Dm. Measures Sets Func. Image: Herkel Image: N Image: N <td></td>	
	Check
	OK Cancel

• **Page:** you can create a new page or to use an existing page. If you create a new page, the window for page type selection will appear:

🟮 Report Page		x
Page Type:		
Table/Chart	Treemap	Scatter-diagram
		OK Cancel

In the case if you select an existing page, there will be another window:

Page Selector		= x
Search		×
Administrator's Pages TreeMap 1 Scatter 1 Table 1 Table 2 Mike Jordan Scatter 2 TreeMap 2 John Connor TreeMap 31		
	ОК	Cancel

In both cases a new designer form will be open.

Then you have to define how the condition is checked. There are 4 ways:

- Query should return at least one cell;
- Query should not return any cells;
- Query should return at least one member on rows/columns;
- Query should not return any members on rows/columns.

The report will be sent only in the case if the condition is met.

Administrator also has a choice to select the user context under which the test will be performed:

- Current user: the check will be made in the context of the user for whom the report is generated;
- Administrator: the check is performed in context of administrator.

Note: to make sure user gets the report by mail, their e-mail should be specified. Report module users also have a possibility to create mail broadcasts. But for the report users there are some restrictions: they can create mail broadcasts only for themselves, but not for other users. Therefore the tab "Users" is absent for them Let us set up the schedule so that all users will get a report "*Report 1*" on the first and third Monday of February every 2 hours till 6pm in NRP format, including just pages "*Table 1*" and "*Table 2*". To achieve this goal, fill in the forms as shown:

💿 Mail Broadcast					
riods Format Users Pages Condition					
Mail Broadcast is active					
Use report name					
Report 1					
Here can be your notes					

The tab "Periods":

🧿 Mail Broadcast					_ ×
General Periods	Format Users	Pages	Condition		Description
Mode	Properties				Occurs every First, Third Monday in February at 10:00 and each 2 hour(s) till 18:00. Schedule will be used
© Once	© Day of month		- All		between 12/17/2014 - 3/3/2015.
© Daily	☑ 1	V 9	17	25	
© Weekly	2	10	18	26	
Monthly	4	11	20	27	
	5	13	21	29	
	6	14	22	30	
	8	15	23	Last	
	Every				
	First		Monday		
	Third		Wednesday		
	E Fourth		Thursday		Next Run
	Last		Saturday		Next run will be: 2/2/2015 10:00.
			Sunday		
	Month			All	
	January	🔲 April	🔲 July	October	
	V February	May	August	November	
Time					
C Run once	12:17				
Repeat	2 *	Hours fro	m 10:00 ^ till	18:00	
Tatanual	- +			10100 +	
First starts		0 F 1	- in in		
Thist start.	2/1//2014 *		3/3	2015 +	
		Endless			
					OK Cancel

Select "NRP" on the tab "Format". Then on the tab "Users" select this:

🟮 Mail Broadcast	_
General Periods Format Users	Pages Condition
Roles Users	-4
Role	Is Assigned
All Users	
Test Role	

Select the necessary pages on the "Pages" tab:

💿 Mail Broadcast
General Periods Format Users Pages Condition
Owner type: Administrator Users Shared
Page type: Table/Chart Treemap Scatter-diagram Dashboard
© All pages
Selected pages
Search ×
Administrator's Pages
Table 1
Table 2



The tab "Condition" should be like this:

After pressing «OK» you will get a new record in the list of mail broadcasts:

Mail Broadcast				- = x
Record	Status	Туре	Modified by	By Administrator
Cccurs every First, Third Monday in February at 10:00 and each 2 hour(s) till 18:00. Schedule will be used between 1/30/2014 - 3/3/2014.	Active	Report (nrp)	Lena Vayda(root)	V

Let us look at another example with a condition for mail broadcast. There are two users – Mike and John, responsible for the sales of bikes, everyone is responsible for sales in its own territory. Let us assume that Mike is responsible for Canada, John is responsible for France. The access rights are set for them with restrictions, i.e. each of them gets the information ONLY about their own territory. Let us assume they need to get the report "Sales Loss" only in the case if the loss had place. We want to make so that Mike and John get this report by mail every first day of every month at 10:00am, but only in the case if the sales of bikes decreased in their region in comparison with the previous month. If the sales did not decrease, it is not necessary to send the report.

To implement this task let us fill in the tab "General":

🏮 🛛 Mail Bro	🔋 Mail Broadcast					
General	Periods Format Users Pages Condition					
Status:	Mail Broadcast is active					
Name:	Use report name					
	Falling sales					
Notes:	Here can be your notes					

On the tab "Periods" set the following parameters:

🟮 Mail Broadcast				
General Periods	Format Users	Pages	Condition	
Mode	Properties			
© Once	Day of month			
© Daily	V 1	9	17	25
© Weekly	2	10	18	26
Monthly	3	11	19	27
- Pionally	5	12	20	28
	6	14	22	30
	7	15	23	31
	8	16	24	Last
	Every		All	
	First		✓ Monday	
	Second		Tuesday	
	Third		Wednesday	
	E Fourth		Thursday	
	- Lust		Saturday	
			🔲 Sunday	
	Month			🔽 All
	V January	V April	July	October
	February	V May	August	Vovember
Time		v June	september	December
🕑 Run once	10 ;00 Ç			
© Repeat	1 🗘	Hours from	00:00 🌲 till	00:00 🗘

Select "NRP" on the tab "Format", select the appropriate users on the tab "Users":

😂 Mail Broadcast					
General Periods Format	Users Pages Cor	ondition			
Filter: * All Users		•			
User		Is Assigned			
Mike Jordan (mike)					
John Connor (john)					
Mary Poppins (mary)					

Select the necessary page on the the tab "Pages":

😂 Mail Broadcast
General Periods Format Users Pages Condition
Owner type:
Administrator
in shared
Page type:
▼ Table/Chart
Scatter-diagram
Dashboard
© All pages
Selected pages
Search
Administrator's Pages
Table 1
Table 2

Select "Conditional" on the tab "Condition":

📦 Mail Broadcast
General Periods Format Users Pages Condition
Mode:
O Conditional
What to run?
© MDX
Create
Page
Create Copy of an existing page
What test to perform?
Query should return at least one cell
© Query should not return any cells
© Query should return at least one member on rows/columns
© Query should not return any members on rows/columns
Whose user context to use?
i Current user
C Administrator

Now we have a goal – to set up the condition "*if the sales decreased in comparison with the previous month, then send the report, otherwise don't send*".

The condition will be implemented using a regular table (like in regular reports). This table will contain a filter which checks the loss of sales. If the table returns at least one row, it means that the condition is met and the report should be sent.

Let us show how this should be set up:

🟮 Report Pa	ge		x
Page Type:			
Table/	/Chart	Treemap	Scatter-diagram
			OK Cancel

Columns 🗄 - +	Geography 👻	😡 ×					
Rows 😑 - + Product/Product Categories - 🗔 ×							
Rows / Columns Filter Sorting							
Context	Produc 🕒	Canada	+ France	🕂 United King	+ United States		
< > Date/Date.Ca 🔞 ×	+ Bikes	14.86%	-52.53%	-8.08%	-47.92%		
Measures							
Reseller Sales Amount ×							

In the page designer let us select the following data:

To set up the date it is preferable to use the "floating period":

🧿 Member Sele	ctor: Date/Date.Calendar	x
Selection Filter	Options	
💿 Date Range	🔘 Tree	
© Fixed period		
Ву	days 👻	
From	begin 🔹 to now 👻	
Floating period By Last	months • 1 • months including this month	
<u>.</u>	Data will be shown from 3/1/2014 to 3/31/2014.	

The rows contain the "Bikes" category, the columns contain France and "Germany". The date is in context.

Columns 😫 🗕 +	Geography	• (× 🔊				
Rows 📒 🗕 +	Product/Pro	oduct	t Categories 👻 🗔 🗙				
Rows / Columns Filter	Sorting	1	•				
Context	Produc.	÷.	Canada 🕞 Franc	e		Top 10	1
< > Date/Date.Ca 🗔 ×	+ DIKes		Drill by	•		Тор 50	
			Drill by on New Page	•		Тор 100	
			Drill Up			Тор Х	
			Drill Down			Тор 80%	
Measures Reseller Sales Amount X			Hide Item			Тор Х%	
Reseller Soles Amount III - A			Keep Only This			Bottom X	
			Hide Siblings			Bottom 20%	
			Show All Children			Bottom X%	
			Show Level	•		Non-empty values	
	1	Q	Member Selector			Empty values or 0	
			Actions	•		= X	
	1	F 1	Sorting	•		<> X	
		7.	Filter	•		> X	
	E	3	Formatting	•	-	>= X	
					L	<x 2<="" th=""><th></th></x>	
	Quick F	Filte	r			x	
	Conditions						
	Condition.		hembers with value < x				
	Measure:	E E	Ceseller Sales Amount Gr	owtn	%		
	>	X: _	0. 📮 %				
		5	Ignore empty values				
				ОК		Cancel	

Let us set up the filter:

This filter will return a row only in the case if the sales of bikes in the last month decreased in one of the countries in comparison to the previous month. Then let us save and close the page. In the schedule settings in **"What test to do"** we have to select **"Query should return at least one cell"** (we know that the report will return data only in the case if there is a loss of sales).

🟮 🛛 Mail Bro	adcast						
General	Periods	Format	Users	Pages	Condition		
Mode:							
© Unco	onditional						
🖲 Con	ditional						
What to ru	in?						
© MDX							
	(Create					
🖲 Page	•						
		Edit			Delete	_	
What test	to perform	1?					
😑 Que	ry should re	eturn at lea	st one cell	_			
© Que	ry should n	ot return ar	ny cells	_			
© Que	ry should re	eturn at lea	st one mer	mber on row	vs/columns		
© Que	Query should not return any members on rows/columns						
Whose us	Whose user context to use?						
Curr	ent user						
C Adm	inistrator						

Select "Current user" below (to make so that the check will be performed under the current user). In this case the report will be sent only for the user which had a loss of sales in his country.

🟮 Mail Broadcast						
General Periods Format Users Pages Condition						
Mode:						
© Unconditional						
Onditional						
What to run?						
© MDX						
Create						
Page						
Edit Delete						
What test to perform?						
Query should return at least one cell						
© Query should not return any cells						
© Query should return at least one member on rows/columns						
Query should not return any members on rows/columns						
Whose user context to use?						
O Current user						
C Administrator						

After you press «OK» the list of mail broadcasts will have a new record:

🟮 Mail Broadcast				- = ×
Record	S	Туре	Modified by	By Admini
> Occurs 1 days in January, February, March, April, May, June, July, August, September, October, November, December at 0	Ac	Repor	Lena Vay	

10 Designer Profiles

Each user of the report module can perform a number of actions which are allowed for him by the administrator. Each user has a profile assigned to him (see "Designer Profile" column):

😻 Business Analysis Tool (Administrative Module) - http://127.0.0.1:8001/									- =	x	
<u>Application M</u> odule <u>U</u> sers <u>T</u>	ools <u>H</u> elp										
🕴 Users 🔯 🗭 🊱 🚱 🖓 🕞											
Filter: * All Users											
Lo A	First N La	ast Status 📍	Level	Dem	Designer	E-mail			Use	Do	
john	John Co	onnor Active	Regular		Default Profile	lena2@bitimpuls					
Cubes	Mike Joi	ordan Active	Regular		Default Profile	lena1@bitimpuls		V			

Actions on the report are permitted to this user depending on their profile. You can see the list of all profiles on the tab "Designer Profiles":



For each profile using "Access Level" field you can select the set of allowed actions in the report:

Access Level:	Structure Change	Structure Change					
	View Only			p/Down", "Hide Item",			
	Advanced Naviga	ation		etc.) and initialization			
	Structure Change	2		, etc.) and initialization			
Permissions on structure:	Creating calcul	ated measures, members, and s	ets				
	Sharing pages,	calculated measures, members	and sets				
Permissions on visibility:	Viewing shared	pages, calculated measures, me	embers and sets				
Permissions on scheduling:	Subscribing to	mail broadcasts					
	💟 Sending mail br	oadcasts to subscribed users					
Permissions on export:	Vord	V Excel					
	V PDF	Open Office Calc	Images				
Additional Permissions:	Charts	Local cubes					
	VRP	Cube Actions	Write Back				
	V Print	🔽 Drill Through 🛛 up to	1000 🗘 rows				
	Hide Designers						
Save Refresh							

After you selected the value, you can see the list of allowed actions under it:

Access Level:	Structure Change 👻							
	 Highlight, forma etc.), Member Sele Change of the p parameters, "show 	t, expanding and collapsing (+/- ector page structure (panels "Rows/Co / by", sorting and filtering	-), navigation functions ("Drill Up/Down", "Hide Item", olumns", "Dimensions/Measures", etc.) and initialization					
Permissions on structure:	Creating calcula	ited measures, members, and se	ets					
	Sharing pages,	calculated measures, members a	and sets					
Permissions on visibility:	Viewing shared pages, calculated measures, members and sets							
Permissions on scheduling:	🔽 Subscribing to n	nail broadcasts						
	V Sending mail bro	padcasts to subscribed users						
Permissions on export:	Vord	😨 Excel						
	V PDF	Open Office Calc	🔽 Images					
Additional Permissions:	🔽 Charts	V Local cubes						
	VRP	Cube Actions	Vrite Back					
	🔽 Print	🔽 Drill Through 🛛 up to	1000 🗘 rows					
	Hide Designers							
Save Refresh								

This list is a description of the value you selected in the field. A designer profile also defines the following:

- Rights to change report structure;
- Rights to create and share of calculated measures and sets;
- Rights on viewing shared pages and other elements shared by other users;
- Rights to create mail broadcasts;
- Rights on exporting data in specific formats;
- Rights on additional actions in the report (displaying charts, export in NRP format, printing reports, creation of local cubes, actions on cubes, drill through with maximum amount of rows, writeback).

After installing the system you will see 7 already created profiles in the list of designer profiles. Those profiles are created only for your convenience. You can change or delete them, and also create your own profiles.

Let's give an example. Click on the label "Click here to add a new row" and fill in the name for a new profile:

	Name	Notes
I	TEST PROFILE	
	Default Profile	
	View Only Profile	
	Limited Navigation Profile	
	Basic Navigation Profile	
	Advanced Navigation Profile	
	Structure Change Profile	
	All Functions Profile	

Next fill in the settings in the bottom of the form like it is shown in the picture and press «Save»:

•	Access Level:	Advanced Navigati	dvanced Navigation 👻							
		• Highlight, format Item", etc.), Memb	;, expanding and collapsing (+/-), er Selector	navigation functions ("Drill Up/Down", "Hide						
	Permissions on structure:	Pages	Calculated Measures	Calculated Members						
	Additional Permissions:	V Charts	C Schedules							
		Export	URL Report Actions							
		🔽 Print	Drill Through up to	1000 🖕 rows						
	Default Settings:	Show Dimension	s/Measures							
	Save									

Now let us assign this profile for the user "john" on the "Report Users" tab. Call the context menu for that user and select the "Edit Report User" item:

	Login 🛦	First Name	Last Name	Status 🖣	atus 📍 Desi		Profile	E-mail	Phone	Sec.	Bound	Username	Domain
>	john	John	Connor	Active	Def	IL D	 \/; D			1271			
	mike	Michael	Jordan	Active	Def	9	View Ke	eport User	r				
						G	New Re	port User					
						2	Edit Rep	port User.		N			
							Delete F	Report Us	er	3			
						8	Set Unr	estricted	Permissio	ns on Cu	ubes		
						@	Refresh						

In the user editing dialog change the profile to the "TEST PROFILE" and press «Save» button:

😂 Edit Report User		x
Login:	*	john
Password:	*	****
Password confirmation:	*	****
First name:	*	John
Last name:	*	Connor
Designer profile:	*	TEST PROFILE +
E-mail:		All Functions Profile
Phone:		Default Profile
Expiration date:		Limited Navigation Profile
Status:	*	
Use for security:	*	View Only Profile
Bind to domain user:	*	
Username:	*	
Domain:	*	
Can update own info:	*	
Access handle:		john
Notes:		A
		-
		Save Cancel Refresh

Let's enter the report module under the user "john", and open any report.

Attention! If you don't see any report, do not forget, that the user can have no rights. In this case enter the tab "Reports" and use the button for setting the rights, and also ensure, that there exists an active version of the report.

🏮 Bu	siness Analys	is Tool (Repor	Module) - http://uran	us:88/					x
Арр	olication <u>N</u>	<u>/l</u> odule <u>R</u> ep	rts Report <u>P</u> age	<u>V</u> iew <u>D</u> at	a <u>T</u> able T <u>o</u> o	ols <u>H</u> elp			
i G	0 🖪 [S 🖸 🕹 🕹	Description 🕻 🕻	्र 🕹 🕹 🕷	100% -	Table And Chart	- 🚯 💿		
- B	Report on A	dventure Works	(Version 1 from 12/19/20	13)					х
ettin	Chart Properties		Product/Prod 🕂 🤆	Y 2005	+ CY 2006	+ CY 2007	+ CY 2008		
Ň	L I Par		+ Accessories	20,235.36\$	92,735.35\$	296,532.88\$	161,794.33\$		
			+ Bikes 7,	395,348.63\$	19,956,014.67\$	25,551,775.07\$	13,399,243.18\$		
Lis	📊 bottom	-	+ Clothing	34,3/6.34\$	485,587.15\$	8/1,864.19\$	386,013.165		
	Argument:		Components	015,474.905	5,610,092.47\$	5,462,457.295	2,091,011.92\$		
orts	🖲 rows	© columns							
Rep	🔽 legend	labels							
	🔲 rotate b	y 90°							
Ľ	C C C	attings	25.000.000.00					CY 2005	
		cungs						CY 2006	
			20.000.000.00					CY 2007	
								CY 2008	
			15,000,000.00						
1			10,000,000.00					_	
			5,000,000.00						
			0.00					_	
				ACCO	Bite	Cloth	Con.		
				Stor.	<i>S</i>	"Ing	"DONG"		
				3			×.	x	
	Таблица 1							Search	Ţ
Login:	john Server	: http://uranus	38/ Rows: 4 Column	s: 4					

After opening the report you will see, that the user has no rights to do actions which are not allowed by the profile.

11 Setting the Rights on Dimensions to Many Users

In Microsoft Analysis Services there is a possibility to set the rights on dimension members for the roles of Analysis Services. Do not forget that each BAT user has a corresponding role [batidentifier] _user_login in the cube.

In Analysis Services 2005 and above the rights are set on the attributes of the dimension.

The paragraph **Помилка!** Джерело посилання не знайдено. ran about how to set unlimited rights to the users on a set of cubes with the help of a wizard, and also showed how the user can set the rights to a cube with the help of this dialog:


For every attribute of dimension we can select both a set of allowed and a set of denied members:

🏮 Report Use	er Permissions			x
Drill Through	Vrite Back			
Dimension	Geography (restricted)		-
Hierarchy	Country (restricted)			*
Visual Totals		_		
Allowed Membe	Denied Members			
Unrestricted				
🗆 Σ) 🗌 All Geo	ographies			
a 🗸 Au	ıstralia			
Ca	nada			
	ermany			
🥥 🗌 Un	iited Kingdom			
🥥 🗌 Un	iited States			
				Load
			Save	Cancel

As a result, John will see data only for Australia and Canda.

🧿 Business Analysis Tool (Administra	ative Module) - http://ur	anus:88/			_ = X	
Application <u>M</u> odule <u>R</u> oles	<u>T</u> ools <u>H</u> elp		🟮 Report Use	r Permissions		x
Roles Image: Color of the second secon	e Security B sers yone role role1	inding to AD	Drill Through Dimension Hierarchy Visual Totals Allowed Member Unrestricted Allowed Member Of Car Car Car Car Car Car Car Car Car Car	Write Back Geography (restricted) Country (restricted) Country (restricted) To Denied Members Tranhies stralia ada ince many ted Kingdom ted States		· · ·
Roles	C → > > > > C → C → C → C → C → C → C → C → C → C	C G S				
Set U	Inrestricted Permissions	Add / Edit			Save Can	cel

The same action can be done for a role:

All users who belong to this role will have access rights to both countries.

If there are many users and you need to quickly set rights on dimensions, you will have to use other wizards for this purpose. Let's show it on example.

Let's consider the cube "Adventure Works" in the database "Adventure Works DW". This cube uses the dimension "Geography" with an attribute "Country".

Suppose we have managers, and we want to quickly set access rights for seeing sails in different countries to them. For this purpose it is necessary to do some actions.

11.1 User Parameter

On the tab "User Parameters" you will see the empty list. Let's add the parameter "Country":



In the field SQL you should set the query which returns two fields: a key and a name. This query should return all possible parameter values. In most cases you will build a query which returns a key and a name of any level of the dimension or attribute. In our case to get the list of all countries we'll need the following query:

select distinct EnglishCountryRegionName, EnglishCountryRegionName
from AdventureWorksDW2008.dbo.DimGeography

Pay attention to the fact that if you are using "Adventure Works 2005" database instead of 2008 version, then in your query you'll have to change the database name from "AdventureWorksDW2008" to "AdventureWorksDW".

Press the "Execute" button to see the results of the query execution.

In case you'll get the message, saying that the SQL Server user, under which the application server establishes connection to the repository DB, has no access to the database from which the data is selected ("AdventureWorksDW") – give the appropriate ("data reader") access to the user on the "AdventureWorksDW" database. After that press the "Execute" button once again.

۲	Results	- x
	EnglishCountryRegionName	EnglishCountryRegionName1
>	Australia	Australia
	Canada	Canada
	France	France
	Germany	Germany
	United Kingdom	United Kingdom
	United States	United States
		Close

After executing the query successfully you will get the window with a result:

We see the list of possible values of the parameter. Press the button «Close», then «Save». The parameter appeared in the list:

🔋 Business Analysis Tool (Administrative Module) - http://uranus:88/ 🛛 🗖 🗙									
<u>Application</u> Module	<u>P</u> arameters	<u>T</u> ools	<u>H</u> elp						
Parameters 😡 🚱 🧭	😰 🍓								
Settings	Name Country	,		Notes					
Administrators									
Cubes	4								
Roles Backup									
1		> > >	1 🛛 🖓 📰 🕵 🔇	2 😰 🏘					
User Parameters	select distinct E from Adventure	nglishCountr WorksDW20	ryRegionName, EnglishCount 008.dbo.DimGeography	ryRegionName			^		
Roles							-		
	Execute								
Login: root Server: http://uranus:88/									

Attention. If the database where you run the query and the repository DB are on different servers, you should create a linked server on the SQL Server where the repository DB is and use the query like this:

select ... from [LinkedServer].AdventureWorksDW2008.dbo.DimGeography

11.2 Role

Let us create a new role on the tab "Roles" with the name "Country Managers":

💲 Business Analysis Tool (Administrative Module) - http://uranus:88/ 🛛 🗕 🗖 🗙										x
<u>A</u> pplication <u>M</u>	<u>1</u> odule	<u>R</u> oles <u>T</u> ools <u>H</u> e	⊧lp							
Roles 🗔 🧭 🕻	è 😰 🕯	🔓 🦓								
		Name	Security	Binding to AD	Group	Domain	Auto create	Access handle	Notes	
Settin	igs	All Users						allusers		
		Countery Managers	✓					testrole		
A 9										
Administr	rators									
Cube	:s 1	1								
Roles Ba	ackup									
			× > 🔞	10 6 6	6					-1
***	4	Parameters Restri	ctions Per	missions						-
User Parar	meters	Name	D	escription			Applicable			ור
		Country						V		
22								_		
Roles	S									
		Save	Cancel							
Â										
Login: root Server:	http://ur	ranus:88/								

In the lower part of the form in the field Applicable let's check the box "Applicable" and press the button "Save". We created a new role and "explained" it that the parameter "Country" is applicable to it.

Now let's go to the tab "Report Users" and make so that both users "mike" and "john" will belong to the role "Country Managers" (i.e. both are the managers for some set of countries):

🟮 Business Analysis Tool (A	susiness Analysis Tool (Administrative Module) - http://uranus:88/ 🛛 🗖 🗙													
<u>Application</u> Module	Us	ers <u>T</u> ools	Help											
🕴 Users 🔯 🧭 🚺 🤱	6	¥ 🔛												
Roles Backup					Filter: *	All Users			•					
		Lo 🛦	First N	Last	Status 9	Level	Dem	Designer	E-mail			Us	Do.]
140	>	john	John	Connor	Active	Regular		Default Profile	lena2@bitimpuls					
User Parameters		mike	Mike	Jordan	Active	Regular		Default Profile	lena 1@bitimpuls					
Roles	Roles													
Report Users														
	×	🗹 [Status] =	'Active' *											
Designer Profiles	14	 < <	> > >	6 0	G 👂 🌡	🤞 🚱 💊								
	R	oles Parar	neters Perr	missions										
1	Is	in role				Role			Bound					
Reports	L					Country								
			2		l									
MDX Statistics	MDX.Statistics Cancel Refresh													
Login: root Server: http://ura	anu	s:88/												-

Let us assign these users to the sets of countries. Select the user "john" and press the "…" button in the field "Parameter Values" in the "Parameters" tab:

			Filter: * A	Users		· · · · · · · · · · · · · · · · · · ·						
	L 🛦	First N	Last N	St [♥]	Designer P.		E	Ph	s	Во	Usern	Domain
>	john	John	Connor	Active	TEST PROFI	ILE						
	mike	Michael	Jordan	Active	Default Prof	file			V			
×	🔽 ([Statu	s] <> 'Delete	d')									
		\rightarrow	I 🕼 🚱 (2 🔊 (🌡 🖗 🖂							
	Role Pa	arameters	Permissions									
N	ame		Notes		Pa	arame	ter Value	s				
С	ountry				I							
												14
L												
	Refresh											

You will get a form where you'll be able to set the values of this parameter for the user "john":

🔋 Parameter Values 🛛 🗙 🗙										
Applicable	ID	Caption								
V	Australia	Australia								
▼	Canada	Canada								
	France	France								
	Germany	Germany								
	United Kingdom	United Kingdom								
	United States	United States								
Save	Close									

Suppose John is the manager of two countries – Australia and Canada. Press "Save" and you will see these two countries in the list of values:

Roles Parameters	Permissions	
Name	Notes	Parameter Values
Country		Australia, Canada
Refresh		

Similarly include the user "mike" in the role "Country Managers", and assign him to the countries Germany and United Kingdom:

			Filter: * Al	Users	•						
	L 🔺	First N	Last N	St 9	Designer P	E	Ph	s	Bo	Usern	Domain
	john	John	Connor	Active	TEST PROFILE			V			
>	mike	Michael	Jordan	Active	Default Profile						
'	_										
×	🔽 ([Statu	s] <> 'Deleted	ď')								
11	(< <	\rightarrow \rightarrow \rightarrow	0 6 0	2 🔊 🛛	b 🖓 🔯						
	Roles Pa	rameters	Permissions								
N	ame		Notes		Parameter Value	s					
С	ountry				Germany, United	Kingdom					
	Refresh										

All the information about the parameters and their values is stored in the repository DB.

11.3 Setting of the Access Rights on Dimension Members

Let us show how it is possible to quickly set the access rights on dimension members with the help of a special wizard and user parameters. Go to the "Cubes" tab. Select the item "Edit Permissions on Dimensions" in the context menu for the cube "Adventure Works":



The wizard will be opened. This wizard asks you to select the dimension and attribute hierarchy. Select everything as shown in the picture and move to the next step:

🧕 Edit Permission	s on Dimensions	x
Step 1 Select dimension a	ind cube(s)	
Private Dimension:		
Dimension:	Geography -	
Hierarchy:	Country	
Cubes:	[Adventure Works].[Geography]	
	<u>C</u> ancel < <u>B</u> ack	Next >

🏮 Edit Permiss	ions on Dimensions		x
Step 2 Select users			
Role:	Country Managers	•	
🔽 mike			
john			
Select All	Unselect All		
		Cancel	< <u>B</u> ack <u>N</u> ext >

On the step 2 select the "Country Managers" role from the drop-down:

In the list below you will see the users assigned to that role. The access rights will be set for every user selected in the list.

Press «Next».

📦 Edit Permissions on Dimensions 🛛 🗙 🗙
Step 3 Select parameter and level
Parameter:
Country -
Users:
mike - Germany [Germany] mike - United Kingdom [United Kingdom] john - Australia [Australia] john - Canada [Canada]
Level: Country
<u>C</u> ancel < <u>B</u> ack <u>N</u> ext >

On the step 3 select the parameter "Country" from the drop-down and from the drop-down at the bottom select the level "Country" (the level for which you are setting up the access rights).

Move on to the step 4:

Edit Permissions on Dimensions	x
Step 4 Set permissions	
User: john	
Drill Through	
Unrestricted 📃 Visual Totals 🔽	
All Geographies	
France	
Germany	
United Kingdom	
United States	
	Cancel < Back Next >

On this step you can review the rights for every user. These rights will be set on the dimension data in the cube "Adventure Works". If necessary, you can still modify them.

After pressing «Next» button you will receive the message about the successful operation execution:



You can verify that the access rights for users on dimensions are set up, using Management Studio:



If you open the report in the report module under the user "mike", create a separate page, place on the rows the level "Country" from "Geography" hierarchy, you will see the following:

🟮 Bu	isiness An	alysis Tool (Report Mod	lule) - htt	p://uranı	ıs:88/					-	= x
Ap	plication	<u>M</u> odule	<u>R</u> eports	Report	<u>P</u> age	<u>V</u> iew <u>I</u>	<u>D</u> ata <u>T</u> able	T <u>o</u> ols	<u>H</u> elp			
i G	08) G (Ci 👂	۵ 🕹	3 💥 D	escription 🛛 🖒	ک 🕄	📚 📚 🛛 100	% 🔹 🏥 🛛 Tał	ble	•
ß	AW1 (Ve	ersion 1 from	10/31/2013)									×
Settir	Dimension	ns ustomer		Columns	111	Reselle	er Sales Amount :	ĸ				
ж.	⊕ [⊙] D	ate		Rows	111	- +	Geography 👻 🕻	🗼 🗙				
	🕀 💽 D	elivery Date epartment		Rows /	Columns	Filter	Sorting					
eports	🕀 💓 D	estination Cu	rrency 🗸	Context			Geography	R	teseller Sales mount			
Ľ,	Measures	i i i i i i i i i i i i i i i i i i i	- +				+ Germany	adom	1,983,988.04\$ 4,279.008.83\$			
1		Reseller Or	der C 🔺						,,			
		Reseller Or	atio to									
		Reseller Ra	tio to	Measures	;							
		Reseller Sa Reseller Sta	andar	Reseller S	Sales Amo	unt ×	:					
ŀ		Reseller Ta	x Am				:					
		Reseller To	tal Pr									
		ales Quota ales Summary	, =									
	R 10	eseller Sales /	Amou									
	Sets											
	• • •	ets		-	Highlight							
				iä Tal	ble 1	💈 Table 2					Search	-
Login:	mikle Se	erver: http://	'uranus:88/	Rows: 2	Column	s: 1						

The user can see only two countries: Germany and United Kingdom.

11.4 Conclusions

We showed how to quickly set the access rights on cubes and dimensions for the report module users with the help of roles, parameters and their values. Take into account that:

- 1. There can be many users (not two as shown in the previous example);
- 2. All information about the parameter values is stored in the repository DB.

If there are many users and cubes, the wizards for setting rights can essentially save your time.

12 Roles Backup

You are already familiar with the ability to grant access rights on cubes for report users and BAT-roles. You also know that granting the rights is achieved by creating the roles on cubes with appropriate set of access rights. If you remove those roles from cubes then all the security settings for report users and BAT-roles will be deleted. For example, all roles can be accidentally removed if the administrator of Analysis Services database will deploy a new version of database.

To prevent such situation a special mechanism of creating roles backups and restoring the roles from these backups is developed in BAT.

12.1 Creating a Roles Backup

To backup all roles created by BAT on some cube, switch to the "Roles Backup" tab. Press the "Backup Roles" button on the toolbar:



In the appeared wizard fill in the server address and its version and press "Test Connection" button:

🏮 Roles Backu	p	x
Database Provideinfoma	Connection tion about database	
Server:	* uranus\sql2008	
Server Version:	* 2005\2008	
Database:	*	
	Cancel < Back Start	

If you fill in everything correctly, you'll get a message box:



Close this message box by pressing «OK». Select the database from the list and press «Start»:

🟮 Roles Backu	p	x
Database Provideinfoma	Connection tion about database	
Server:	<pre>* uranus\sql2008</pre>	
Server version.	Test Connection	
Database:	* Adventure Works DW 2008R2 Folders	
	Cancel < Back Start	

The wizard will display the list of all roles, created using BAT, on this database:

🏮 Roles Backup	x
Roles	
Select roles you want to backup	
✓ bat88_user_user	
V bat88_user_user1	
✓ bat88_user_user2	
Cancel < Back Next >	

Select all roles you wish to backup from the list and press «Next». You will receive the message, saying that all roles were successfully backed up:

Roles Backup	x
Finish View backup log	
Getting role 'bat88_user_user1' on cube 'Adventure Works' : Success Getting role 'bat88_user_user' on cube 'Adventure Works' : Success Getting role 'bat88_user_user2' on cube 'Adventure Works' : Success	*
	Ŧ
Cancel < Back Finish	

Press «Finish» and you will see a new roles backup in the backups list:



At the bottom you can see the list of all roles saved in that backup. Besides, you can view the description of access rights for every role in the "Description" column:

Role	Description
bat88_user_user1	Role Name : bat88_user_user1
bat88_user_user	Role Name : bat88_user_user1
bat88_user_user2	Cube : Adventure Works DrillThrough : False WriteBack : False Visual Totals : Allowed Sets : [Account].[Account Number] : L

12.2 Restoring Roles from a Backup

To restore the roles from a backup to the database you need to go through next steps. Select the appropriate roles backup and press the "Restore Roles" button on the toolbar (you can do it also using the corresponding item of main or context menu):

🟮 Business Analysis Tool (Ad	iministrative Module)	- http://uranus:88/			_ = ×
<u>Application</u> Module F	Roles Backup <u>T</u> ools	<u>H</u> elp			
🕴 Roles Backup 😯 🙀 🕵	@				
		Server Version	Database		Date Created
Settings	arende sql2008	2005\2008	Adventure Works DW 2008	R2 Folders	1/15/2014 1:52:00 PM
Administrators					
Cubes					
Roles Backup	K K < > >	। >।। 🗘 🕻 🞼	<i>8</i>		
	Role			Description]
	bat88_user_user1			Role Name : bat88_u	ser_user1 🔻 🔻
User Parameters	pat88_user_user			Role Name : bat88_u: Role Name : bat88_u:	ser_user ser_user2
Roles					
Login: root Server: http://ura	nus:88/				

In the appeared wizard you should input the address of the server, its version and database. These fields will be filled in by default with the values that were used when creating this backup:

🏮 Roles Resto	e	x
Database Provideinfoma	Connection on about database	
Server:	* uranus\sql2008	
Server Version:	* 2005\2008	
	Test Connection	
Database:	* Adventure Works DW 2008R2 Folders -	
	Cancel < Back	Start

After verifying/changing the connection settings press «Start». At the next step select the roles, which you would like to restore from the backup, and press «Next»:



On the next step you will be offered to choose the way of restoring the roles from three options:

- Remove all existing roles from the database and create selected;
- Leave all existing roles and create non existing;

• Overwrite selected roles even if they already appear in the database. Select the third option and press «Next»:

📦 Roles Restore	x
Options	
Select role restore options	
Delete all existing and create selected	
© Leave existing and create non existing	
Overwrite selected roles	
	<u>C</u> ancel < <u>B</u> ack <u>N</u> ext >

After completion of the restore operation you will receive the report listing the executed actions:

Roles Restore	x
Finish View backup log	
Deleting role 'bat88_user_user1' on cube 'Adventure Works' : Success Deleting role 'bat88_user_user1' from database : Success Deleting role 'bat88_user_user' on cube 'Adventure Works' : Success Deleting role 'bat88_user_user2' on cube 'Adventure Works' : Success Deleting role 'bat88_user_user2' from database : Success Creating role 'bat88_user_user1' in database : Success Creating role 'bat88_user_user1' in database : Success Creating role 'bat88_user_user1' in database : Success Creating role 'bat88_user_user1' in database : Success Creating role 'bat88_user_user1' in database : Success Creating role 'bat88_user_user1' on cube 'Adventure Works' : Success Creating role 'bat88_user_user1' on cube 'Adventure Works' : Success Creating role 'bat88_user_user1' on cube 'Adventure Works' : Success Creating role 'bat88_user_user1' on cube 'Adventure Works' : Success Creating role 'bat88_user_user2' on cube 'Adventure Works' : Success Creating role 'bat88_user_user2' on cube 'Adventure Works' : Success	+
Cancel < Back Finish	

Since the roles for users already appeared in the database, these roles were removed and the roles from the backup were created instead.

As you can see, the process of restoring the roles from a backup is very straightforward. If you would have more than two users (say, several dozen), then the process of setting up the rights for every user would require much more time than restoring the roles from a backup.

13 Other Useful Details Necessary to Be Known

13.1 Statistics Review

On the "MDX Statistics" tab you can view the MDX queries run by the users and the amount of time they were executed:

😂 Business Analysis Tool (Administrative Module) - http://uranus:88/													-	•	x		
:	Application Module Tools Help																
	3	User Parameters		F	rom 1	/15/2014	• T	0 1/15/2014	- User log	gin:	mikle	2				-	×
					ID	Start time	٣	End time	Duration,	Serv	er	Database	Cube	L	Is erro	or	
				>	70592	7/13/2009 1	l:47:3	7/13/2009 1:47:3	() arp\s	ql2	Adventure Works DW	Adventure W	mike	False		
					70591	7/13/2009 1	1:45:1	7/13/2009 1:45:1	() arp\s	ql2	Adventure Works DW	Adventure W	mike	False		
		Ro	les		70590	7/13/2009 1	1:44:5	7/13/2009 1:44:5	() arp\s	ql2	Adventure Works DW	Adventure W	mike	False		
					70589	7/13/2009 1	1:44:3	7/13/2009 1:44:3	() arp\s	ql2	Adventure Works DW	Adventure W	mike	False		
					70588	7/13/2009 1	1:44:1	7/13/2009 1:44:1	() arp\s	ql2	Adventure Works DW	Adventure W	mike	False		
L	P	Report	t Users	¥													
		Designer	r Profiles		I< I< < > >I >II A MDX Page config											_	
Reports Reports Reports																	
{[Measures].[Reseller Sales Amount]} DIMENSION PROPERTIES PARENT_UNIQUE_NAM {[Geography].[Geography].[Country].AllMembers} DIMENSION PROPERTIES PARENT_ FROM [Adventure Works]											UE_NAME, CHI ARENT_UNIQUE	LDREN NAME	_CARDI , CHII	INA DR —			
// Kind: mdxParent																	
				// End: 7/13/2009 1:47:31 PM													
	// Duration, sec.: 0																
WITH													.				
				1												F.	
	_	Ψ												_	_	_	_
Lo	gin: root	Serve	r: http://	uran	us:88/												

This functionality is useful when it is necessary to find out who of the users is too demanding to the server and tries, for example, to execute a query with a crossjoin of 5 dimensions of 10000 elements on the rows. Such users can be determined by MDX-statistics and it becomes possible to explain them during conversation that it is undesirable to do like that.

13.2 Administrators

Besides the "root" the other administrators can exist. On the "Administrators" tab you can see the list of administrators. The bottom grid allows you to set permission for currently selected administrator. For each tab in the administrative module it is possible to set permission: "allow" – complete access, "read only" – only reading, "forbid" – access is forbidden (a tab will not be shown for that administrator).

