openbiz-cubi
Rapid PHP Application Development Platform

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CubiReportApplication
Cubi Report Application - Introduction
Featured

Updated Mar 17, 2014 by rockys...@gmail.com

Cubi Report

Cubi Reportis an open source Report, Business Intelligent (BI) application released under GPL V3 license.

Installation

Download the source from SVN. https://openbiz-cubi.googlecode.com/svn/trunk/apps/report

As Report is a Cubi application, you can copy the report folder into cubi/modules/. The load Report into Cubi platform with command

```
# cd cubi/bin/tool/
# php load_module.php report
```

Launch Cubi in your browser, you should see a new tab called "Report" in the application tab area. Click "Report" tab to start exploring Report application.

Cubi Report Features

With Cubi Report, you can

- Generate reports on live databases
- Manipulate data by applying custom query, sort and group by
- Present data in data grid and charts
- Apply filters on report data
- Summarize data on pivot table page
- Organize reports in folders
- Manage user access to reports

Report Page

Report Page Layout A typical report page includes

- left navigation tree
- report filter form for applying search criteria
- data grid(s)
- data chart(s)

Report Folders

Navigation Tree

Sample Sale Filter

Filter Form

Year [   ]

[Apply Filters] [Reset Filters] [Set Pivot]

Sample Sales West Table

Data Grid

The table lists sale revenue of west region

[Export] [Print]

Name	Division	Product	Year	Revenue	Cost	cost X
2000 West HDTV Sales	West	HDTV	2000	568900	210290	210290
2001 West HDTV Sales	West	HDTV	2001	668900	310290	310290
2002 West HDTV Sales	West	HDTV	2002	768900	410290	410290

Show Rows 5 ▽ |◁ ◁ 1 of 1 ▷ ▷|

Sample Sale West Chart

Data Chart

[Print]

FusionCharts v3.2 Evaluation

640000	568900	668900	768900
480000			
320000	210290	310290	410290
160000			
0			
	0	1	2

Report Page - Apply Filters

Sample Sale Filter

Year	>2000

[Apply Filters] [Reset Filters] [Set Pivot]
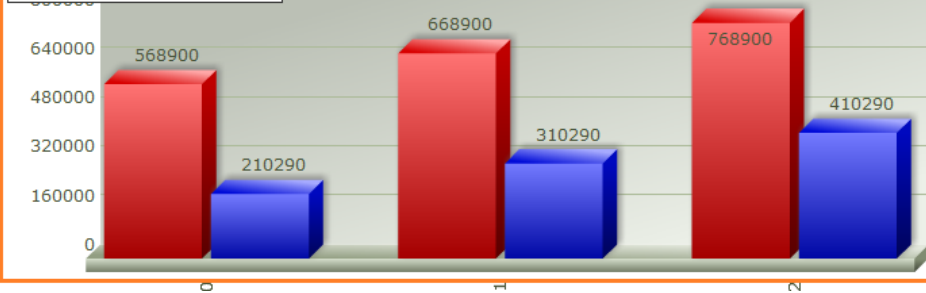
Sample Sales West Table

The table lists sale revenue of west region

[Export] [Print]

Name	Division	Product	Year	Revenue	Cost	cost X
2001 West HDTV Sales	West	HDTV	2001	668900	310290	310290
2002 West HDTV Sales	West	HDTV	2002	768900	410290	410290

Show Rows 5 ▽ |◀ ◀ 1 of 1 ▶ ▶|

Sample Sale West Chart

[Print]

FusionCharts v3.2 Evaluation
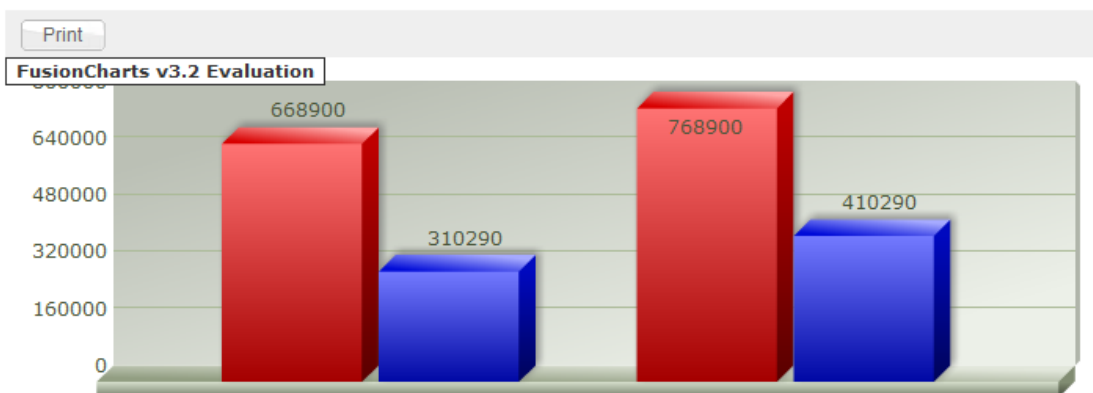
Report Page - Pivot Table

User can click "Set Pivot" button to configure pivot table

Configure Pivot Table

Column Fields	-- Select -- ▼	-- Select -- ▼	
Row Fields	-- Select -- ▼	-- Select -- ▼	-- Select -- ▼
Data Field	-- Select -- ▼		

[Go Pivot] [Cancel]

Click "Go Pivot" to enter interactive pivot page. User can drag the pivot column or row title to rotate pivot on the fly.

SUM(Revenue)		Division	East	West	TOTAL
Product	Year				
HDTV	2000		450390.00	568900.00	1019290.00
	2001		550390.00	668900.00	1219290.00
	2002		650390.00	768900.00	1419290.00
Total for HDTV			1651170.00	2006700.00	3657870.00
SDTV	2000		721100.00	869100.00	1590200.00
	2001		621100.00	769100.00	1390200.00
	2002		512200.00	669100.00	1181300.00
Total for SDTV			1854400.00	2307300.00	4161700.00
TOTAL			3505570.00	4314000.00	7819570.00

FusionCharts v3.2 Evaluation

Pivot Table Chart
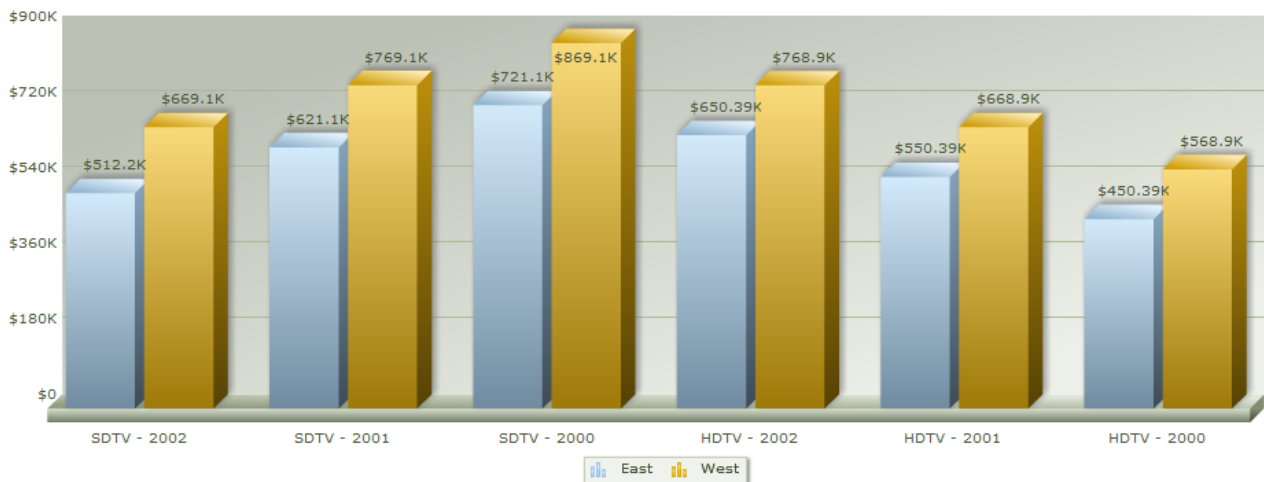
Rotate pivot by drag-n-drop column field to row

Product	Division	Year	SUM(Revenue)
HDTV	East	2000	450390.00
		2001	550390.00
		2002	650390.00
	Total for East		1651170.00
	West	2000	568900.00
		2001	668900.00
		2002	768900.00
	Total for West		2006700.00
Total for HDTV			3657870.00
SDTV	East	2000	721100.00
		2001	621100.00
		2002	512200.00
	Total for East		1854400.00
	West	2000	869100.00
		2001	769100.00
		2002	669100.00
	Total for West		2307300.00
Total for SDTV			4161700.00
TOTAL			7819570.00

FusionCharts v3.2 Evaluation

Pivot Table Chart
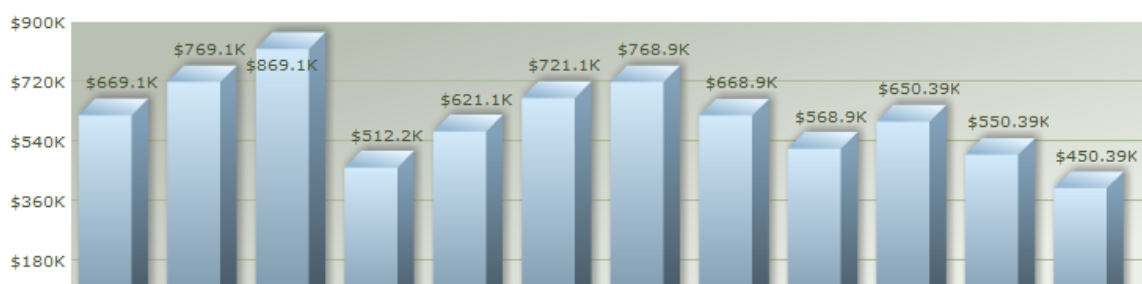
Managing Reports

Creating Reports

Steps to create a custom report

- Create Data Source
    - Create database connection
    - Map table to data table
    - Map table columns to fields

- Create Report
    - Create report page
    - Create report forms (data, chart or filter forms)
    - Create form elements (columns, chart series or inputs)

Managing Reports - Databases

Report database list

Edit report database

Managing Reports - Data Tables and Fields

Report table list

Report table detail. If user clicks on "Populate Fields" button, all table columns will loaded as report table fields

Data Table #1

Below list is the data tables inside of selected data source.
In the reporting system each Data Object is based on a data table.

Name   Sales table

| General | Miscellaneous |

Table	report_sample_sales
Database	cubi_cn_dev
Search Rule	
Sort Rule	
Group By	

| Edit | Delete | Populate Fields | Back |

Data Table Field

Below list is all data fields inside selected data object.

User can add join from another table to the main table and add column from join table

Add join table

Data Table Field

Below list is all data fields inside selected data object.
A data field of object is default mapping to a table column or specified SQL expresion.

		Id	Name	Table	Join	Column	Type	Format
	☐	1	Id	report_sample_sales		id	Number	
	☐	2	Name	report_sample_sales		name	Text	
	☐	3	Division	report_sample_sales		division	Text	
	☐	4	Product	report_sample_sales		product	Text	
	☐	5	Year	report_sample_sales		year	Text	
	☐	6	Revenue	report_sample_sales		revenue	Number	
	☐	7	Cost	report_sample_sales		cost	Number	

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New Table Join

Name	New Table Join Name
Table to join	Select a table to join ▾
Join Column	[▾] ✳ Foreign key column in join table
Join Type	Inner Join ▾
Reference Column	id (int) ▾ ✳ Key column in base table
Reference Join	Select a reference join ▾ ✳ Used in cascade join

Save   Cancel

Add join field from join table

New Data Field

Below list is all data fields inside selected data object.
A data field of object is default mapping to a table column or specified SQL expresion.

Name	product_sku
DO id	1
Join	join_production ▾
Join Column	sku (varchar) ▾
Type	Text ▾
Format	
SQL Expression	
Value	

Save   Cancel

Managing Reports - Report Pages

After configure report database and tables, Report page can be setup on top of the data layer

Report page list

Report page edit. Group is used for access control

A report page may contain multiple report forms. Each form is a UI block to present data. There are 3 form types:

- Filter form for user to enter query
- Data grid form
- Data chart form

Managing Reports - Report Forms

Report page forms

User can edit report form with four tabs

Edit Report Form #2

Report Form could be chart form or data tables for contains report data.
Each form has to be mounted onto report pages.

Title   Sample Sale West Chart

General	Data Source	Form Type	Chart Parameters

Description

Report Page   Sample Sales West ▾

Sort Order   15 ▾

Edit Report Form #2

Report Form could be chart form or data tables for contains report data.
Each form has to be mounted onto report pages.

Title   Sample Sale West Chart

General	Data Source	Form Type	Chart Parameters

Database   1

Data Table   Sales table ▾

Save   Cancel

Edit Report Form #2

Report Form could be chart form or data tables for contains report data.
Each form has to be mounted onto report pages.

Title   Sample Sale West Chart

| General | Data Source | **Form Type** | Chart Parameters |

Form Type   Chart Form ▼

Fix Search Rule   [Division]='west' and [Product

Default Search

Rule
Enable Pivot Table   ☐

Pivot Records   1000

Limit
Show Label   ☑ Config the data names will be displayed

Show Value   ☑ Config the data value will be displayed

Hover Caption   ☑ Show/hide hover caption box

Chart Width   700

Chart Height   300

Edit Report Form #2

Report Form could be chart form or data tables for contains report data.
Each form has to be mounted onto report pages.

Title   Sample Sale West Chart

| General | Data Source | Form Type | **Chart Parameters** |

SubType   Multi Series Column 3D ▼

Animation   ☑ Set whether the animation is to be played

Show Limit   ☑ Show/hide the chart limit textboxes

Rotate Names   ☑ Category name text boxes would be rotated or not

Y Min Value

Managing Reports - Elements

In the report form detail page, user can click "Load Forms" to create data grid form with elements populated from table fields automatically

Report Form #1

Report Form could be chart form or data tables for contains report data.
Each form has to be mounted onto report pages.

Title	Sample Sales West Table

General | Form Type | Chart Parameters | Miscellaneous

Description	The table lists sale revenue of west region
Report Page	Sample Sales West
Sort Order	10
Data Table	Sales table

[⊕ Add] [Edit] [Delete] [Load Elems] [Back]

Report Form Elements

Report Element defines data mapping from data source to report forms.
Each element could be a dataset for chart axes or data tables.

[⊕ Add] [Edit] [Delete]   [🔍   ] [Go]

☐	ID	Label	Field Name	Class	Ordering
☐	1	Name	Name	ColumnText	⊙ 10 ⊙
☐	2	Division	Division	ColumnText	⊙ 20 ⊙
☐	3	Product	Product	ColumnText	⊙ 30 ⊙
☐	4	Year	Year	ColumnText	⊙ 40 ⊙

Manage Report Tree

Report Map provides tree structure to organize report pages.

Report Menu

Report Admin ▼
   Manage Reports
   Manage Databases
   Manage Tables
   Manage Color
   Manage Map ▶
📋 My Report
📋 Sample Report

Help   Help Center ▭

Manage Menu by List

Report Map Management by list view,
The sitemap stucture in this view is similar to tranditional FTP way to manage a directory tree.

📁 Root ▶ Sample Reports

[⊕ Add] [Edit] [Copy] [Delete]   [🔍   ] [Go]

Ex	Name	Title	Group	Published	Ordering
⊕	Custom report	Custom report	Development	✔	⊙ 10 ⊙
⊕	Pre-built report	Pre-built report	Development	✔	⊙ 10 ⊙
⊕	Pivot table	Pivot table	Development	✔	⊙ 10 ⊙

Go to Page [1 ▼] Show Rows [10 ▼] [◀◀] [◀] 1 of 1 [▶] [▶▶]

User can edit a node in the tree and set group for access control

Edit Menu Item

Report Map module manages the website menu system.

Parent Id	+Sample Reports ▾
Name	Custom report
Title	Custom report
Group	Development ▾ *The report menu item is visible to user in the same group*
Link	/report/report/1
Status	○ Full Control ○ Editable ⦿ Visible ○ Private
Ordering	10 ▾

[Save] [Cancel]

My Report

Once report pages are created and mapped properly in report tree, user can see his/her reports that are visible to the user on My report page.

Report Menu

- **Report Admin**
- **My Report** ▾
  - My Reports
  - My Reports Map ▸
- Sample Report

Help   Help Center ⊟

[🔍 _____] [Go]

Report Map

List all my reports in tree

[Report list]

ID	Name	Title	Link	Group
1	Sample Reports	+ Sample Reports		Development
2	Custom report	+ - - - - Custom report	/report/report/1	Development
3	Pre-built report	+ - - - - Pre-built report	/report/sample_sales_report	Development
4	Pivot table	+ - - - - Pivot table	/report/sample_pivot_table	Development

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Normal View for report

The above section introduce you how to create report with Report Admin. User does not need to write code to generate reports. On the other hand, developers can write normal Cubi views with report layout and pivot layout. These views have their own xml metadata files and own urls.

Sample report view can be found at report/view/SampleSalesReportView.xml

```
<?xml version="1.0" standalone="no"?>
<EasyView Name="SampleSalesReportView" Description="Sample sales report" Class="EasyView" Tab="" TemplateEngine="Smarty" T
    <FormReferences>
        <Reference Name="report.sample.form.SalesListGrid"/>
        <Reference Name="report.sample.form.SalesColumnChart"/>
        <Reference Name="report.sample.form.SalesColumnChart2"/>
    </FormReferences>
</EasyView>
```

Sales of TVs - west division

Name	Division	Product	Year	Revenue	Cost
2000 West HDTV Sales	West	HDTV	2000	568900	210290
2000 West SDTV Sales	West	SDTV	2000	869100	530400
2001 West HDTV Sales	West	HDTV	2001	668900	310290
2001 West SDTV Sales	West	SDTV	2001	769100	430400
2002 West HDTV Sales	West	HDTV	2002	768900	410290
2002 West SDTV Sales	West	SDTV	2002	669100	330400

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Also pivot table is a special form with example at report/view/SamplePivotTableView.xml

```xml
<?xml version="1.0" standalone="no"?>
<EasyView Name="SamplePivotTableView" Description="report.sample" Class="EasyView" Tab="" TemplateEngine="Smarty" Template
    <FormReferences>
        <Reference Name="report.sample.form.SamplePivotTableForm"/>
    </FormReferences>
</EasyView>
```

The form xml is at /report/sample/form/SamplePivotTableForm.xml. Please notice a new attribute "PivotType" is added in Form Element definition.

```xml
<EasyForm Name="SamplePivotTableForm" Class="common.form.PivotTableForm" FormType="" jsClass="Openbiz.TableForm" Title="Sa
    <DataPanel>
        <Element Name="fld_division" Class="common.element.PivotColumnText" FieldName="division" Label="Division" PivotTyp
        <Element Name="fld_product" Class="common.element.PivotColumnText" FieldName="product" Label="Product" PivotType="
        <Element Name="fld_year" Class="common.element.PivotColumnText" FieldName="year" Label="Year" PivotType="Row"/>
        <Element Name="fld_revenue" Class="common.element.PivotColumnText" FieldName="revenue" Label="Revenue" PivotType="
        <Element Name="fld_cost" Class="common.element.PivotColumnText" FieldName="cost" Label="Cost" PivotType="Data" />
    </DataPanel>
...
```


Sales of TVs

Print Export

		West				East			
		HDTV		SDTV		HDTV		SDTV	
id	Year	revenue	cost	revenue	cost	revenue	cost	revenue	cost
1	2000	568900	210290	869100	530400	450390	190380	721100	411040
2	2001	668900	310290	769100	430400	550390	290380	621100	311040
3	2002	768900	410290			650390	390380		
4	TOT	2006700	930870	1638200	960800	1651170	871140	1342200	722080

Comment by project member rockys...@gmail.com, Feb 5, 2012

Cubi report source can be found at https://openbiz-cubi.googlecode.com/svn/trunk/apps/report

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Comment by jiashun....@gmail.com, Jul 3, 2012

The Cubi platform 3.0 does not include the Cubi Report Package yet. How can i get it?

Comment by ranj...@smartcommercesolutions.in, Jul 8, 2013

where can i find the cubi report package for cubi 3.0.9

Comment by project member ro...@openbiz.me, Oct 15, 2013

Report is in the source code http://code.google.com/p/openbiz-cubi/source/browse/#svn%2Ftrunk%2Fapps%2Freport

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