



Differences Between Versions 4.x and 7.x



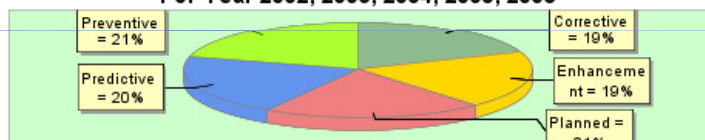
Performance Management Dashboard

Select Year To View

2002 2003 2004 2005 2006

Maintenance Type - Click to Drill Down

For Year 2002, 2003, 2004, 2005, 2006

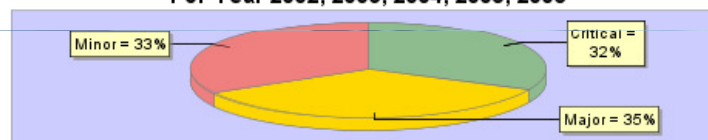


Maintenance Job Types

Corrective Enhancement Planned Predictive Preventive

Severity Level - Click to Drill Down

For Year 2002, 2003, 2004, 2005, 2006

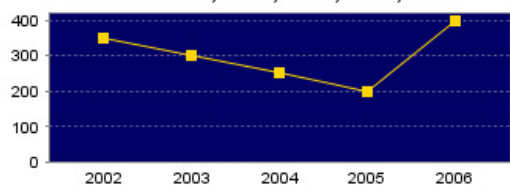


Maintenance Job Status

Critical Major Minor

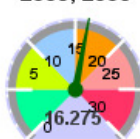
Maintenance Trend - Click to Drill Down

For Year 2002, 2003, 2004, 2005, 2006



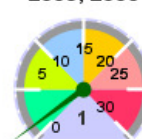
KPI 1: Average Turnaround

For Year 2002, 2003, 2004, 2005, 2006



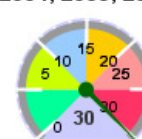
KPI 2: Minimum Turnaround

For Year 2002, 2003, 2004, 2005, 2006



KPI 3: Maximum Turnaround

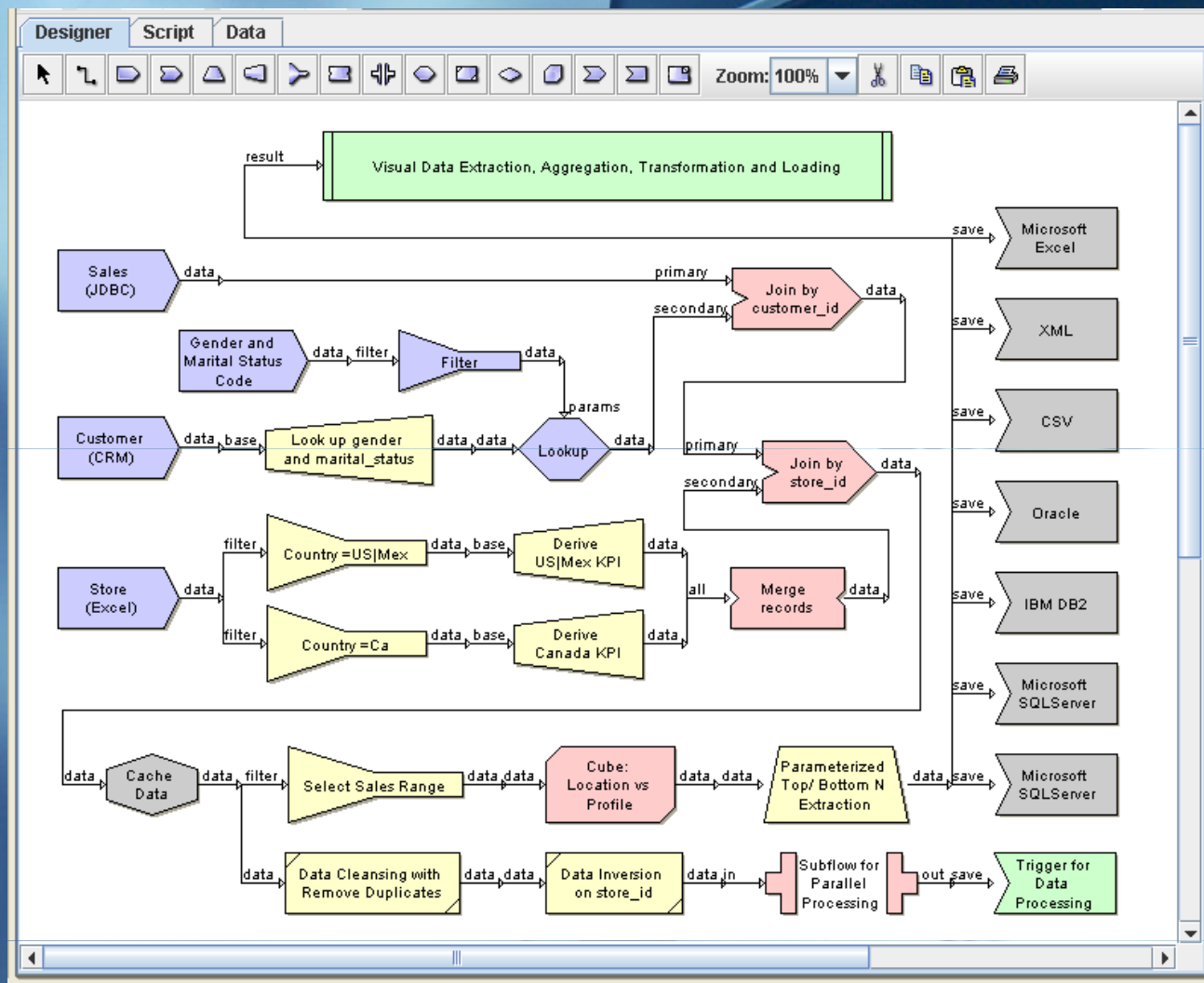
For Year 2002, 2003, 2004, 2005, 2006



Dashboard Designer

Dashboard Designer

- Tool for navigating and visualizing enterprise data
- Provides a comprehensive view of available information
- Features:
 - Seamless navigation between data, cube, and reports with user-customizable views
 - Graphical visualization of data and OLAP cube
 - Dynamic report generation from view selections



Data Designer

Data Designer

- Tool used for creation and manipulation of data.
- Provides direct interaction with the data flow through a diagrammatic interface
- Wide array of data processors to:
 - Extract
 - Transform
 - Load
- Data cube to generate data based on multi-level dimensions and predefined functions, e.g. sum, average, count, max, min, etc.
- Output can be generated to supported file formats or written to relational database



Data Cube and Subreport

Data Cube and Subreport

- Report designer in version 7.x includes elements not found in version 4.x
 - Data Cube: Presentation of multi-dimensional data using predefined functions in a report
 - Subreport: Presentation of data based on different relationships in a report

Data Cube

Sort by Quarter

		Quarters				
		Q1	Q2	Q3	Q4	
		Total	Total	Total	Total	Total
Countries	USA	3	6	4	1	14
	Mexico	4	2	3	0	9
	Canada	2	0	0	0	2
		9	8	7	1	25

Sort by Month (Number) where Months is zero based

		Months										
		1	2	3	4	5	6	7	8	9	11	
		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Countries	USA	2	1	0	2	3	1	2	1	1	1	14
	Mexico	1	1	2	1	0	1	0	0	3	0	9
	Canada	0	1	1	0	0	0	0	0	0	0	2
		3	3	3	3	3	2	2	1	4	1	25

Sort by Month (String)

		Months										
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	
		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Countries	USA	2	1	0	2	3	1	2	1	1	1	14
	Mexico	1	1	2	1	0	1	0	0	3	0	9
	Canada	0	1	1	0	0	0	0	0	0	0	2
		3	3	3	3	3	2	2	1	4	1	25

Subreport

Customer Orders						
ID	CUSTOMERID	COMPANY		DATE		
1001	101	Fairway Fruit Mart		January 1, 2005		
ORDER ID	ID	PRODUCT ID	PRODUCT NAME	COST PER KG	WEIGHT IN KG	AMOUNT
1001	1	19	Apple	2.5	20.0	\$50.00
1001	2	20	Apricot	5.0	11.0	\$55.00
1001	3	22	Blackberries	3.0	1000.0	\$3,000.00
1001	4	24	Carambola	2.5	200.0	\$500.00
1001	5	25	Grape	2.0	123.0	\$246.00
1001	6	26	Guava	3.4	800.0	\$2,720.00
1001	7	37	Strawberry	4.2	200.0	\$840.00
1001	8	28	Longgan	1.0	100.0	\$100.00
TOTAL ORDER AMOUNT:						\$7,511.00
1002	102	F&F Fresh Mart		March 1, 2005		
ORDER ID	ID	PRODUCT ID	PRODUCT NAME	COST PER KG	WEIGHT IN KG	AMOUNT
1002	9	30	Mango	4.5	100.0	\$450.00
1002	10	19	Apple	2.5	510.0	\$1,275.00
1002	11	20	Apricot	5.0	11.0	\$55.00
1002	12	22	Blackberries	3.0	1000.0	\$3,000.00
1002	13	24	Carambola	2.5	200.0	\$500.00
1002	14	25	Grape	2.0	123.0	\$246.00
1002	15	26	Guava	3.4	800.0	\$2,720.00
1002	16	37	Strawberry	4.2	200.0	\$840.00
1002	17	28	Longgan	1.0	100.0	\$100.00
1002	18	30	Mango	4.5	100.0	\$450.00
TOTAL ORDER AMOUNT:						\$9,636.00

Main Report

SubReport



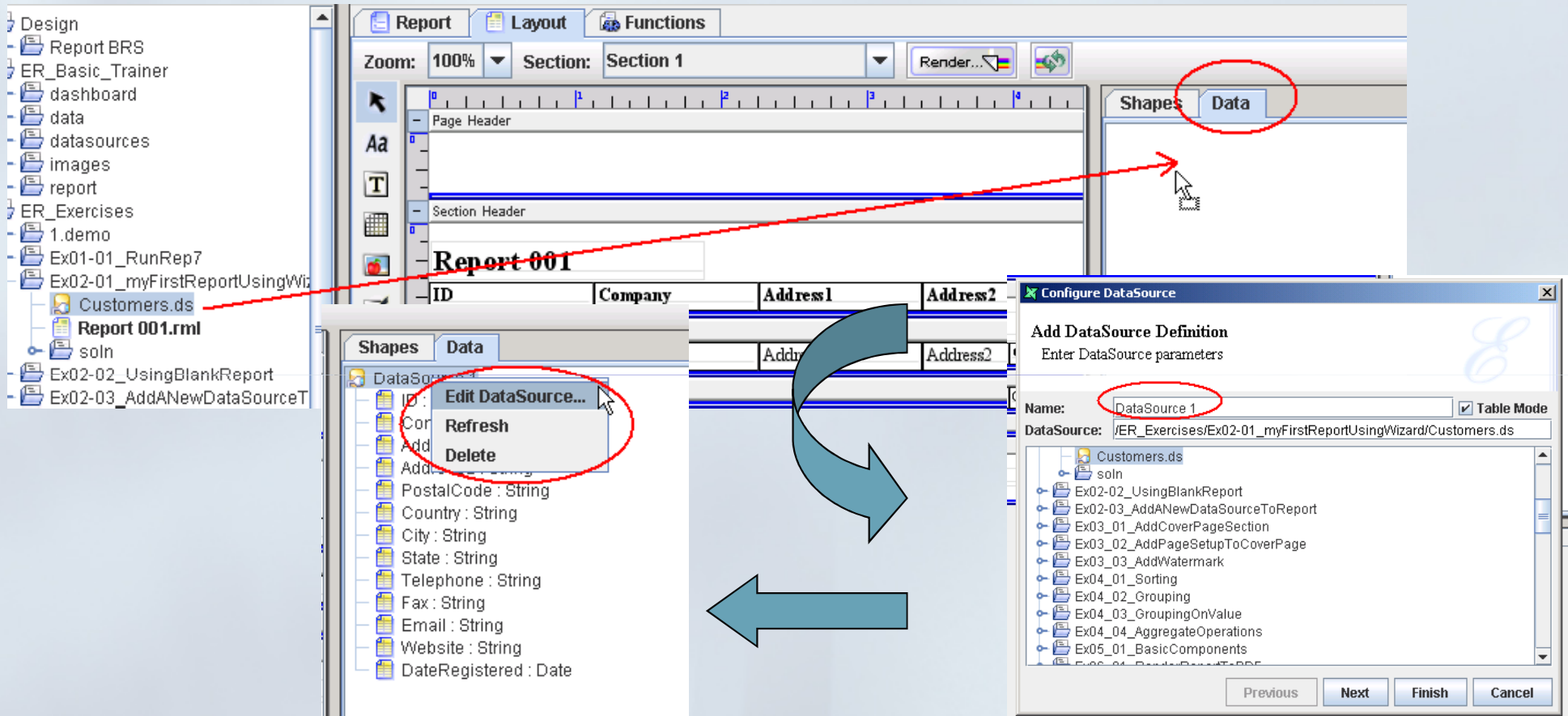
Data Source Support

Data Source Support

Data Source Type	Version 4.x	Version 7.x
ARFF	x	✓
Composite	x	✓
Excel	x	✓
Filesystem	x	✓
JDBC	✓	✓
LDAP	✓	✓
Object	✓	✓
Properties	x	✓
Random	x	✓
Reference	x	✓
Tabular	x	✓
Text	✓	✓
XML	✓	✓
DBF	x	✓
Cache	x	✓

Drag and Drop Datasource

- Datasource can now be drag from the repository to template's Data Panel





Output Formats

Report Output Formats

Report Output Format	Version 4.x	Version 7.x
CSV	✓	✓
Glint	✓	✓
IML	x	✓
Image (JPG, PNG)	(Java Graphics Format)	✓
PDF	✓	✓
Post Script	✓	✓
Print	x	✓
Rich Text Format	✓	✓
Excel	x	✓
HTML	✓	✓
SVG	x	✓
XML	✓	✓
Line Print Text	✓	✓
Powerpoint	x	✓



Repertoire Server – Functionalities Comparison

Version Updates (Functionalities Comparison)

	Version 4	Version 7.1.1
Application Level	ERSCClient	REST API
Report Templates	<ul style="list-style-type: none">- Single-section- Scheme syntax	<ul style="list-style-type: none">- Multi-section- Javascript- Subreport- Parameters
Java Version (JDK)	1.4	Ver 5 and above
Operating System	Windows/Unix	
Hardware	32-bit	32/64-bit

32 vs. 64 bit JVM

- Why 64 bit JVM ?
 - 32-bit JVM can only allocate maximum 1.5G RAM
 - 64-bit JVM can allocate more than 2G RAM

```
bash-3.00# pwd
/usr/share/java6/jdk1.6.0_03/bin/sparcv9
bash-3.00# ./java -version
java version "1.6.0_03"
Java(TM) SE Runtime Environment (build 1.6.0_03-b05)
Java HotSpot(TM) 64-Bit Server VM (build 1.6.0_03-b05, mixed mode)
bash-3.00#
```



Repertoire Server - Client Updates

Client Updates (Functionalities Comparison)

Functions	Version 4	Version 7.x
Query for deployed items	- List workspaces - List reports	- List FileSystems - List reports
Renders Report	Supported	Supported
Renders Data Source	NA	Supported
Trigger Job on Server	NA	Supported
Dynamic UI query	NA	Supported
Viewer	JGF	Glint
Non Java Programming language	NA	.Net

Client Updates (API Comparison)

Functions	Version 4	Version 6.x	Version 7.x
Java Interfaces/ Classes	- ICommand - ReportRequest	ERSClient	REST API
List	- getWorkspaces() - getTemplates(...)	- getFileSystems() - getReports (...)	-GET -POST -PUT
Renders Report	generateReport (<i>ReportRequest</i> <i>request</i>)	renderReport (...)	-GET -POST -PUT
Renders Data Source	NA	generateData (...)	GET Command
Trigger Job on Server	NA	triggerJob (...)	GET Command
Dynamic UI query	NA	getParameters (...)	
Viewer class	JGFViewCompon ent	GlintCanvas	



REST API

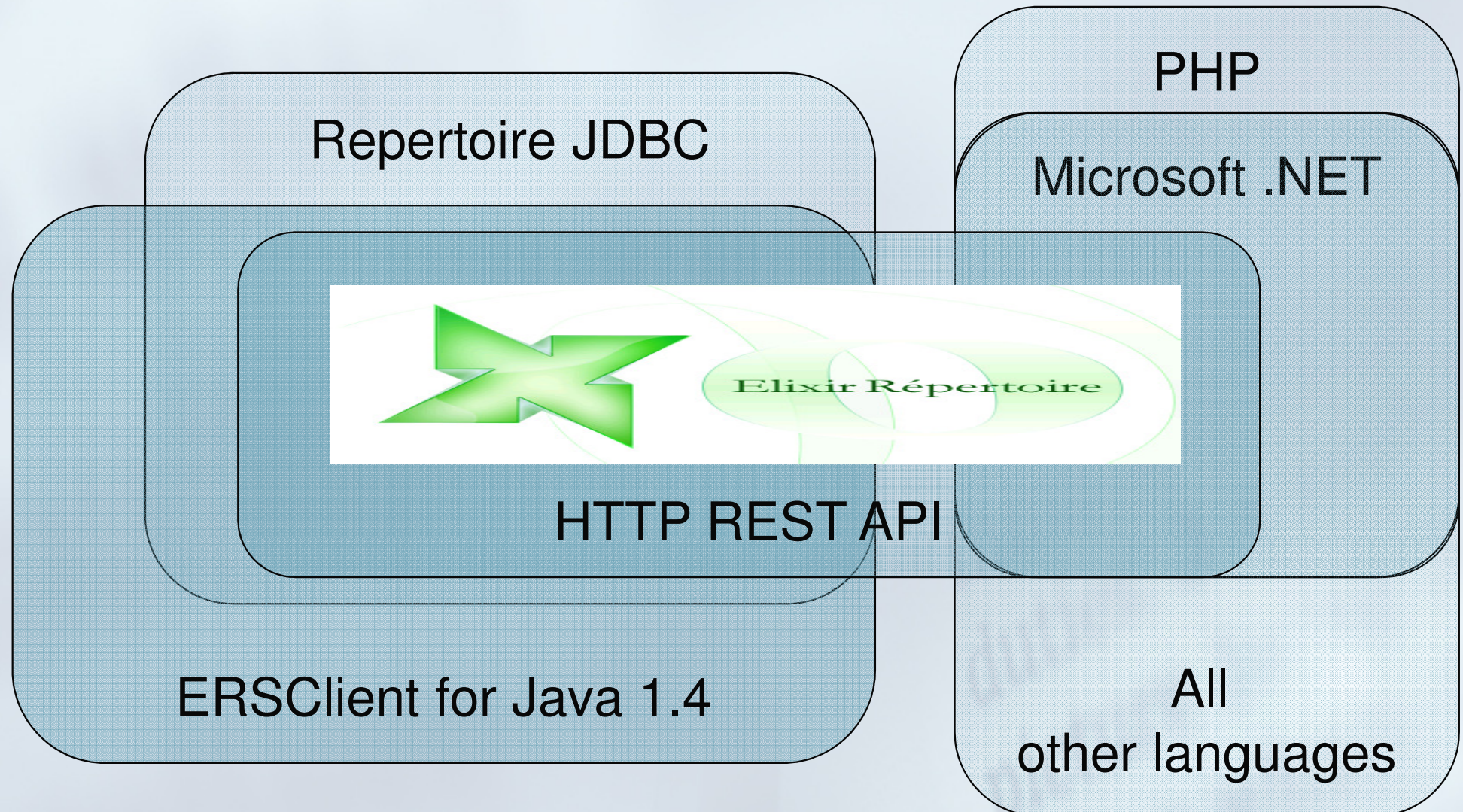
REST API

- Elixir Repertoire Client API uses a REST-based interface
- Ability to create reports and dashboards as web services
- Data retrieval for BI resources made accessible via method calls over the internet through:
 - GET
 - POST
 - PUT
 - DELETE

via HTTP or HTTPS to retrieve data

- Facilitate single sign on (SSO) when Repertoire Server is integrated with portal or application system

Repertoire Server API Suite





Migration Effort – Templates & Data Sources

Converting Existing Templates

- Change in file formats:

Files in Elixir Report 4.x	Files in Elixir Repertoire 7.x
Report templates have *.template extension	Report templates have *.rml extension
Data sources are saved in a single *.sav file	Data sources are saved as individual *.ds files

Converting Existing Templates (Batch)

```
Administrator: C:\Windows\system32\cmd.exe
D:\Elixir_Workshop\Repertoire 7.1.1\bin>migrate d:\templates
D:\Elixir_Workshop\Repertoire 7.1.1\bin>java -classpath "..\lib\log4j.jar;..\lib\jdom.jar;..\lib\aspectjrt.jar;..\lib\Repertoire.jar" com.elixirtech.report2.migration.ModelMigrator d:\templates
D:\Elixir_Workshop\Repertoire 7.
```

1. Copy templates to a directory. At the command prompt, execute "migrate.bat" and point to the directory containing the folders

```
Administrator: C:\Windows\system32\cmd.exe
Directory of D:\templates
[.]
[..]
OverdueAgeingAnalysisByClientByDocDate.rml
OverdueAgeingAnalysisByClientByDocDate.template
OverdueAgeingAnalysisByClientByDocDate_Empty.rml
OverdueAgeingAnalysisByClientByDocDate_Empty.template
OverdueAgeingAnalysisByClientByDueDate_Empty.rml
OverdueAgeingAnalysisByClientByDueDate_Empty.template
        6 File(s)          1,116,575 bytes
        2 Dir(s)         5,891,866,624 bytes free

D:\templates>
```

2. RML files will be created in the template directory

Converting Existing Data Sources

1. From the repository, right click on the data source folder and select "Import". From the wizard, locate the data source file to be imported.

Import Wizard

Migrate From An Older File Format
Select a file to import into the Repository

Filename: ...

File Type: Elixir Report 4 SAV File
Importer: Elixir Report 4 SAV Importer

Previous Next **Finish** Cancel

2. Select "Finish" when done. Data sources will be extracted from the *.sav file and imported as *.ds files

Converting Existing Data Sources

3. Select the "Report" tab, right click on the data source icon.

4. Select the appropriate data source from the list.

The screenshot displays the Repertoire Designer 7.3.0 interface. On the left, the 'Elixir Repository' tree shows a folder 'ds-converted' containing 'oasis_datasource' and a list of data source files. The main window is in the 'Report' tab, showing a 'Render Sequence' table with columns for Report, Section, DataSource, and Enabled. A 'Configure DataSource' dialog box is open, titled 'Edit DataSource Definition', with 'Name: DataSource 1' and 'DataSource: mples/ds-converted/oasis_datasource/CPDS001 Object Data Source.ds'. A list of data sources is shown in the dialog, with 'CPDS001 Object Data Source.ds' selected. The 'Recent Files' list at the bottom left includes CPDS001.rml, SR001_6mth.rml, SR001_3mth.rml, SR001_12mth.rml, and SR007.rml.

Report	Section	DataSource	Enabled
	Section 1		<input checked="" type="checkbox"/>

Edit DataSource Definition
Enter DataSource parameters

Name: DataSource 1
DataSource: mples/ds-converted/oasis_datasource/CPDS001 Object Data Source.ds

- CPDS001 Object Data Source.ds
- CPDS002a Object Data Source.ds
- CPDS002b Object Data Source.ds
- CPDS002c Object Data Source.ds
- CPDS003 Object Data Source.ds
- CPDS004a Object Data Source.ds
- CPDS004b Object Data Source.ds
- CPDS004c Object Data Source.ds
- SR001 Header Object Data Source.ds
- SR001 Object Data Source.ds
- SR002 Header Object Data Source.ds
- SR002 Object Data Source.ds

Previous Next Finish Cancel

Recent Files

- CPDS001.rml
- SR001_6mth.rml
- SR001_3mth.rml
- SR001_12mth.rml
- SR007.rml



Migration Effort – Object Data Sources

Migrating Object Data Source

■ DataProvider Classes

- AbstractDataProvider interface removed, not needed as Javascript capable of generating script
- PropertyManager class no longer supported due to thread safety concerns
- Replaced with dynamic parameters passed in as method parameters

Migrating Object Data Source

■ Before migration:

```
public abstract class FisDataProvider extends AbstractDataProvider
{
    protected Collection reportData;
    private Vector m_List = new Vector();

    public FisDataProvider() {
        try {
            String reportDataFile = PropertyManager.current().getPropertyValue("REPORT DATA FILE");
            String reportDataURL = PropertyManager.current().getPropertyValue("REPORT DATA URL");

            if (isReportDataLocal(reportDataURL)) {
                reportData = ReportUtil.deserializeReportData(reportDataFile);
            } else {
                reportData = ReportUtil.HTTPGetReportData(reportDataURL);
            }
        } catch(SystemException e){
            ReportLogger.log(this, e);
        } catch(ReportServiceException e){
            ReportLogger.log(this, e);
        }
    }
    ...
}
```

Migrating Object Data Source

- **After migration:**

```
public abstract class FisDataProvider
{
    protected Collection reportData;
    private Vector m_List = new Vector();

    public FisDataProvider(String reportDataURL, String reportDataFile) {

        try {

            if (isReportDataLocal(reportDataURL)) {
                reportData = ReportUtil.deserializeReportData(reportDataFile);
            } else {
                reportData = ReportUtil.HTTPGetReportData(reportDataURL);
            }
        } catch (SystemException e){
            ReportLogger.log(this, e);
        } catch (ReportServiceException e){
            ReportLogger.log(this, e);
        }
    }
}
...
```


Migrating Object Data Source

■ ***Extended Data Provider Classes***

- For each class that extends the FisDataProvider, a super constructor needs to be implemented to receive both Data File and Data File URL parameters to read the binary file.

Migrating Object Data Source

- **Before migration:**

```
public class SalesLedgerControlReconciliationDataProvider_dup extends FisDataProvider
{
    public SalesLedgerControlReconciliationDataProvider_dup()
    {
        try {
            ...
        }
    }
}
```

- **After migration:**

```
public class SalesLedgerControlReconciliationDataProvider_dup extends FisDataProvider
{
    public SalesLedgerControlReconciliationDataProvider_dup(String reportDataURL, String reportDataFile)
    {
        super(reportDataURL,reportDataFile);
        try {
            ...
        }
    }
}
```



Migration Effort – Code Changes

Migrating Code

- Changes to existing code
 - a) Deprecated: "isNull" function, replaced with "elxfn.isNull"
 - b) Finding the length of a string changed from "string.length()" to "string.length"
 - c) With the introduction of section header groupings, various `getSum()` methods need to be changed from *getSum().getValueOverAll()* to *getSum().getValueOverGroup()* as using *getSum().getValueOverAll()* returns the sum of all the values in the data source column

Migrating Code

- Changes to existing code

- d) Mathematical functions involving the `getSum()` function requires the values to be parsed as floats e.g.
`parseFloat(Data.getSum("AgeDueAmt1").getValueOverGroup())+parseFloat(Data.getSum("AgeDueAmt2").getValueOverGroup())`

or as integers e.g.

`parseInt(Data.getSum("AgeDueAmt1").getValueOverGroup())+parseInt(Data.getSum("AgeDueAmt2").getValueOverGroup())`

- e) Checking null for date values changed from *`if (isNull(valueDate))`* to *`if (null == valueDate)`*

Migrating Code

- Changes to existing code

- f) Deprecated: code constructed in Scheme no longer supported by ver 7.x. Existing Scheme code converted to Javascript equivalent. E.g.

```
(if(and (not(string=? [MarketType] "D")) (not(string=? [CurrCode] [HomeCurrencyCode]))) (string-append (resource-text-locale "RB" "AmtInLocalC" (parameter-lookup "LANG_CODE"))" :"))
```

Changed to:

```
if ((!MarketType.equals("D")) && (!CurrCode.equals(HomeCurrencyCode)))  
    res.getString("AmtInLocalC")+ " :";  
else  
    "";
```



Migration Effort - Repeating Headers

Repeating Headers

FM420-1
XYZ Private Ltd
SALES LEDGER CONTROL RECONCILIATION REPORT(ALL ACCOUNTS)
AS AT 30/11/2004

OPERATOR ID : group1id1
PRINTED ON : 25/01/2008
TIME : 10:52:41
PAGE : 3

BRANCH CODE : 201 Shenzhen Le Hu

CLIENT CODE : 00 00 00 00 00 00 02 E 20 SALES LEDGER BALANCE : 0.00 HKD
NAME : 华强医药

CUSTO MER CODE	CURRENCY CODE	INVOICES	PUS INVOICES	CREDIT NOTES	RECEIPTS	TOTAL O/S BAL	BALANCE FROM RESPECTIVE ACCOUNTS IF DIFFERENT
00 00 00 00 00 00 02 01 华强医药 Customer	(HKD)	0.00	0.00	0.00	0.00	0.00	0.00
FACTOR/CURR TOTALS :	AMOUNT IN LOCAL :	0.00	0.00	0.00	0.00	0.00	0.00
CLIENT TOTALS :	AMOUNT IN LOCAL :	0.00	0.00	0.00	0.00	0.00	0.00

By default, group headers in version 7.x do not repeatedly appear on subsequent pages of the same grouping.