

Aperi GUI Directions

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Current (Legacy) GUI

- Based on Java Swing using its own “console framework”
- Closely coupled to current Data Server implementation
- Much of current GUI consists of (hand-coded) panels for generating various reports
- Not extensible
 - Plan A: retrofit extensibility into existing (legacy) GUI
 - Plan B: start over

Eclipse UI Technology

- Eclipse projects must extend the Eclipse platform
 - Therefore we need to construct a GUI that uses the Eclipse Platform (“Plan B”)
- For the GUI that specifically means the Eclipse Rich Client Platform (RCP)
- RCP provides plug-in model, extension points, and concepts like “perspectives” and “views”
- Eclipse also provides a widget library called SWT, which is not Swing
 - But it’s OK to use Swing in RCP applications

What We're Doing

- Have begun construction of Eclipse RCP GUI for Aperi
- Initial target has two main components:
 - A port of the topology viewer from the current GUI framework to Eclipse RCP
 - Integration of BIRT report design tool
- Target: 4Q06
- Remaining features would be added later

BIRT

- An interactive report design tool (for user-designed reports)
- Plus a report viewer
 - For reports that are designed by the user
 - Or provided by the system
 - Reports can be generated in the Java GUI, as HTML, or PDF
 - Charting is included
 - Initial contribution of Aperi GUI uses chart engine from BIRT
- Much more productive than hand-coding reports!
- <http://www.eclipse.org/birt>

BIRT Screenshot

The screenshot displays the Eclipse BIRT Report Designer interface. The main workspace shows a report design for "MultiChip TECHNOLOGY". The report includes a header section with the company logo and name, followed by a table with columns for State, City, Name, and Phone. The table is structured with a Group Header Row, a Detail Row, and two Group Footer Rows. The design is currently in the "Layout" view.

The interface includes a Palette on the left with various report items like Label, Text, Dynamic Text, Data, Image, Grid, List, Table, and Chart. The Navigator on the bottom left shows the project structure, including a folder named "foo" and a file named "customers.rptdesign". The Property Editor on the bottom right shows the "General" properties for the report, including fields for Author, Created by, Path, Title, and Units.

State	City	Name	Phone
[STATE]			
Group Header Row	[CITY]		
Detail Row		[CUSTOMERNAME]	[PHONE]
Group Footer Row			
Group Footer Row			
Footer Row			

Properties: General

Author:

Created by: Eclipse BIRT Designer Version 1.0.0 Build <20050405-1230>

Path: C:\Documents and Settings\Administrator\workspace2\foo\customers.rptdesign

Title:

Units: in

New GUI Design

- It's a big effort
- We are starting small, concentrating on two “solid” areas: topology and reporting
- Our initial thinking is to have several perspectives available (in the complete GUI):
 - Topology
 - Reporting
 - Data Collection
 - Server Administration
 - Alerting
 - And then structure our existing functions within those perspectives
 - New plug-ins could, of course, either add functions to existing perspectives and views, or add new perspectives and views of their own (or both)

Timeline

- “New GUI” will not be feature complete in 4Q06
 - Primarily missing product configuration and data collection items
- “Old GUI” will be maintained so that it continues to function as underlying server code changes
 - Will be retired when “New GUI” is complete
- Extenders would need to make a choice about which GUI to extend
 - Ideally use new GUI, which has extensibility APIs and a longer lifespan

Other GUIs

- Constructing other GUIs is certainly possible
- IBM Research has prototyped a Web UI for the TPC product
- Constructing other GUIs is not something the IBM team intends to do, but it could be done by other committers on the project

CLI

- TPC 3.1 includes two CLIs
 - tpctool – documented for customers; limited function
 - srmcp – undocumented, developer-only tool, which provides access to device server functions
- IBM initial contribution does not have a CLI (except for srmcp)
- Aperi should have a (user-visible) CLI
- IBM team has no immediate plans to provide one – opportunity for community involvement?