Slide Show 13:
User Interface Design
Overview

Designing IGSS diagrams

• Toolbars available

• The Color Palette

• Drawing objects – Windows controls – Graphics – Animations – ActiveX controls (called Standard Descriptors in IGSS)

• Connecting IGSS objects to standard descriptors

• The Grid control

IGSS Dashboard (new in IGSS V8)
To connect a standard descriptor directly to an IGSS object, choose "Objects" > "Standard Descriptors" > (Descriptor Type)
Library toolbar

Your favourite graphics objects (bmp, wmf, emf, gif, etc.)

Your favourite IGSS objects (symbols only)

Drag and drop onto process diagram!

Name of thumbnail

Add new object

Change thumbnail dimensions
**TIP:**
Instead of integrating texts in a diagram background picture, insert and format the texts directly in Definition. This gives you complete control of type face and size.
The Color palette

Change color for lines, texts, etc.
Choose drawing object(s) or object symbol(s) on the diagram and choose the relevant color.

Background color for diagram
In the ”Format” menu, click ”Set Background Color” to apply a new color to the diagram.
Standard descriptors (1)

Drawing objects

Line

Polygon

Windows controls

Command button

Combo box

Progress bar

Check boxes

Radio buttons
Standard descriptors (2)

Graphics files

Bitmaps as object symbols (command buttons)

Diagram reference (thumbnails)

Multimedia files

Bind *.avi or animated *.gif file to object value/state (analog, digital or counter)
ActiveX controls

Bind to object value

Change alarm limit or setpoint

Multiple displays in one ActiveX control

Examples:
- GMS Angular Gauge:  
- Symbol Factory:  
  [http://www.softwaretoolbox.com](http://www.softwaretoolbox.com)
Connect IGSS objects to standard descriptors

STEP 1:
Position and resize the descriptor

STEP 2:
Right-click the descriptor and choose "Connect"

STEP 3:
Choose the object. For some descriptors only certain object types are available.
STEP 4: Define the button face name.

STEP 5: The final button which jumps to a diagram.
Reconnect / Disconnect

**Reconnect**
When you choose "Reconnect", another object of the same type can be chosen.

**Disconnect**
When you choose "Disconnect", the standard descriptor is disconnected from the IGSS object.
Online Demo

- Drawing toolbar
- Library toolbar
- Standard descriptors (Windows controls and multimedia files)
- Connect/Reconnect (command button)
Grid control - editing

Floating property sheet
(direct editing of cells)
IGSS Dashboard
Here's a dashboard!

- Application button (Doughnut)
- Ribbon (context sensitive)
- Widgets
The goal of the Dashboard

• Quick overview of process status
• Quick overview of key values in the process
• Provide analysis tools for the user to determine corrective action
• Provide dashboards for non-IGSS users
  (The dashboard client only needs an ODBC connection to the server – not charged as an operator station)
How the Dashboard works...

Configuration’s report folder

<table>
<thead>
<tr>
<th>Dashboard</th>
<th>Date/Time</th>
<th>File Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard 1</td>
<td>15-04-2009 10:58</td>
<td>DASH File</td>
</tr>
<tr>
<td>Dashboard 2</td>
<td>15-04-2009 11:08</td>
<td>DASH File</td>
</tr>
<tr>
<td>Dashboard 3</td>
<td>15-04-2009 10:58</td>
<td>DASH File</td>
</tr>
</tbody>
</table>

Views available in the Dashboard – called Widgets

- LOG data
- Reduced data (BCL)
- Graph data
- Online data
- Audit Trail
- Memo sticker
- Web pages

Memo text is saved in text files
Each memo is saved in a separate .txt file in the configuration’s report folder.

Setup and Startup
- Dashboard can be started automatically. This Is set up in System Configuration.

IGSS ODBC Server
The server must be running. Delivers data to the Dashboard.

Images of Dashboards 1, 2, and 3 showing various widgets and data visualizations.
Dashboards and memos are files

DASH and TXT files are saved in the report folder

• A dashboard is saved as a .dash file
• A .dash file can be used as a dashboard template
• DASH files can be backed up (System Configuration)

• Memo text is saved in .txt files
• TXT files can be reused in multiple dashboards
## Comparison: Diagram vs Dashboard

<table>
<thead>
<tr>
<th>Dashboard</th>
<th>Diagram in Supervise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focuses on key process values</td>
<td>Focuses on physical process setup</td>
</tr>
<tr>
<td>Shaped by users’ experience</td>
<td>Shaped by the physical world</td>
</tr>
<tr>
<td>Quick overviews</td>
<td>Detailed process diagrams</td>
</tr>
<tr>
<td>Combines LOG and BCL values with online values and graphs in one view</td>
<td>Combines online values and graphs (LOG and BCL accessible through Object Historian)</td>
</tr>
<tr>
<td>Automatic update of all data types</td>
<td>Automatic update of online values and graphs</td>
</tr>
<tr>
<td>Special features in maximized widgets</td>
<td>Same features in normal and maximized view</td>
</tr>
</tbody>
</table>
Exercise:
Create a pump station dashboard

The final dashboard
View mode

• The Dashboard starts in View mode
• The only tab available is View

The user selects a data period. A time offset can be defined for the individual widget.
Configuration mode

- Press CTRL + D to enter configuration mode
- The Configuration tab allows you to add widgets to the dashboard
- When a widget is selected, the Widget and [Type-specific] tabs appear.

TIP: Hold down SHIFT when you add a widget. The focus will remain in the Configuration tab.

The default dashboard will be loaded on startup.