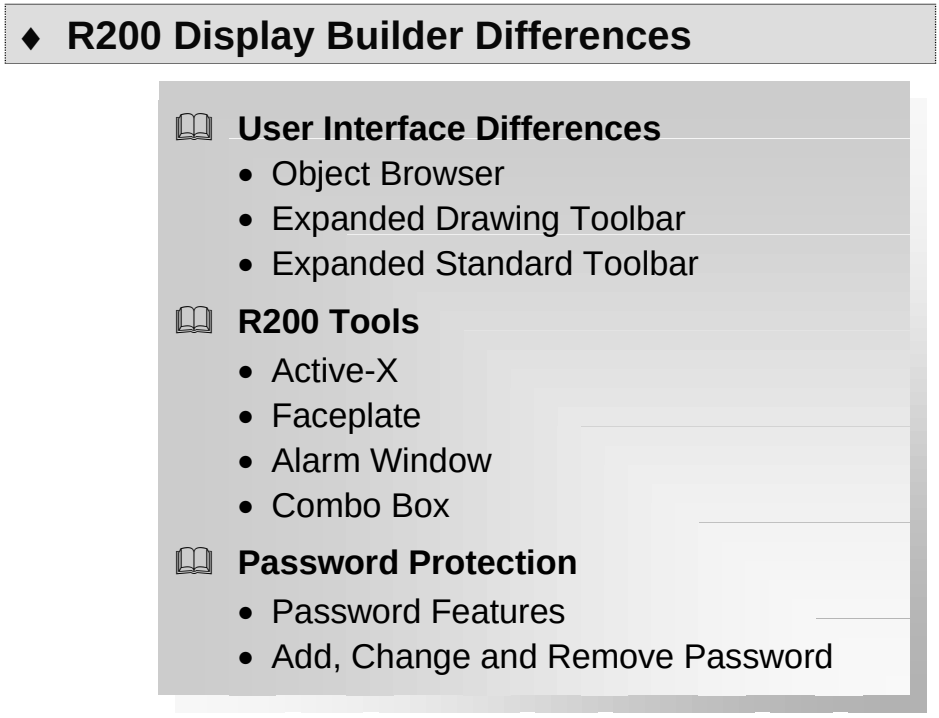
R200 Display Builder Differences



Objectives

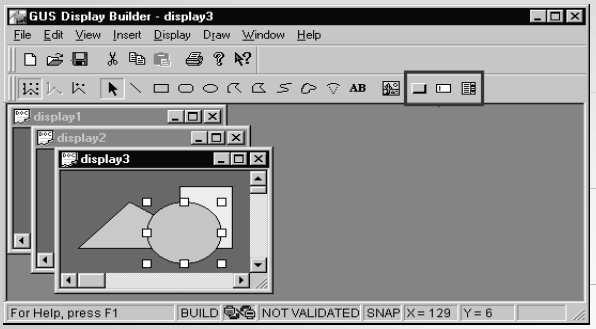
In this module, you will review the differences between the R120 Display Builder application and the R200 Display Builder application. At the end of this module you will be able to:

- Understand the additions to the User Interface, including:
  - The Object Browser,
  - Additions to the Drawing Toolbar, and
  - Additions to the Standard Toolbar.
- Understand the operation of the new Controls, including:
  - How to insert Active-X controls,
  - The Faceplate object, and
  - The Alarm Window.
- Understand the operation of the new Combo Box primitive object.
- Understand the operation of the new Password protection feature.

User Interface Differences

To See the Differences…

Let's Start with the R120 User Interface.
Its **Toolbar** added three primitive objects
• **Button**, **Data Entry**, and **Listbox**.



To better see the differences, let's start with the R120 User Interface

Its Drawing toolbar had three pre-built primitive objects added to it:

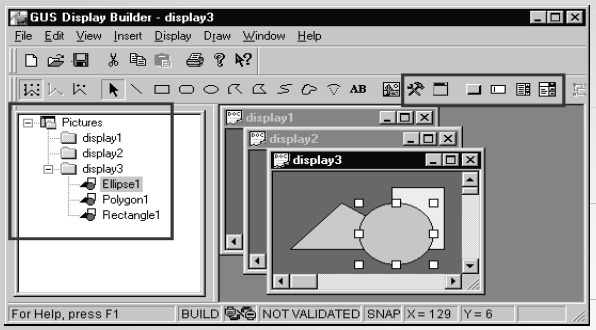
- Button object
- Data Entry object, and
- Listbox object.

Otherwise, the Display Builder user interface has stayed nearly the same since the Display Builder was first announced.

User Interface Differences

R200 Added More Features...

- The Object Browser and
- an expanded Drawing Toolbar



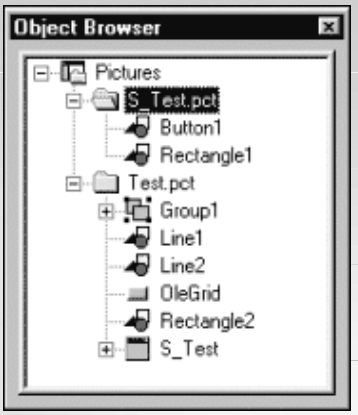
New Features were added to simplify access to many of the commands.

- Object Browser
- Added Drawing Tools

User Interface Differences

The Object Browser gives you a way...

- To view all the objects in your display
- To quickly open Properties and Scripts
- To identify the various types of objects



This view is called a **Hierarchical View**.

Object Browser

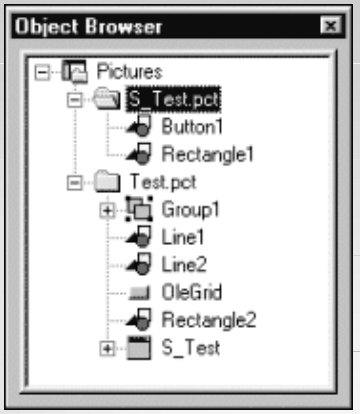
- Provides an "Explorer type" Hierarchical View of all the objects in your displays.
- Quickly opens Property dialog boxes and Script windows.
- Provides different icons to help identify the object's function.

User Interface Differences (Browser 1)

To View all the Objects in your Display...

Each "Folder" is a Display window.

- The two active displays shown here are: **S_Test.pct** and **Test.pct**
- The items in one of these folders are all the objects in that display.



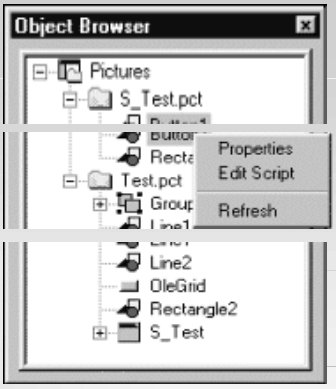
Use this illustration as an example

- Each "folder" represents a ".PCT" display file that has been opened in Display Builder.
- There are two displays in this example, **S_Test.pct** and **Test.pct**
- For example, the display named **Test.pct** contains six objects.

User Interface Differences (Browser 2)

To quickly open Properties and Scripts...

- **Double-click** an object to **Select** and view **Properties**
- **Right-click** an object to open the **Properties**, **Edit Script** and **Refresh** menu commands.



- The new **Refresh** command rebuilds the hierarchical tree structure and puts object names in alphabetical order.

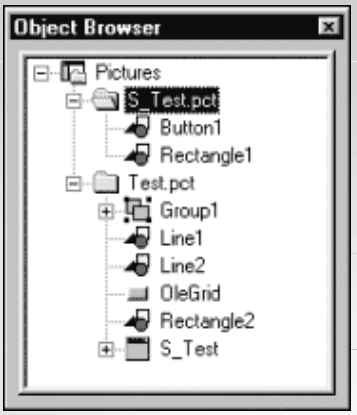
Continue with the example (Browser 2)

- Double-click an **object** to select it and view that object's **Properties** dialog box.
- You can double-click on a **folder** to view the **Display Object Properties**.
- Right-click on an object to open a contextual menu where you can choose the **Properties** dialog box, open the **Edit Script** window, or select the **Refresh** command.
- **Refresh** is a new command that rebuilds the hierarchical tree structure and puts object names in alphabetical order.

User Interface Differences (Browser 3)

To Identify various Types of Objects...

- **Button1** is a **Primitive** object
- **Group1** is a **Grouped** object
- **OleGrid** is an **ActiveX** control
- **S_Test** (under Test.pct) is an **Embedded** display



Continue with the example (Browser 3)

- **Button1** is a **Primitive** object.
- **Group1** is a **Grouped** object.
- **OleGrid** is an **Active-X** control.
- **S_Test** (at the bottom under the Test.pct display) is an **Embedded display**. Remember, if you use these tools to open and make changes to an embedded display, you have changed its version number and it becomes a new, embedded display.

User Interface Differences (Drawing Tools)

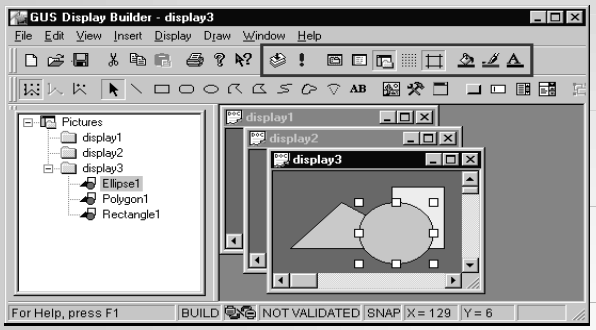
The Expanded Drawing Tools

- Insert Button, Insert Data Entry, and Insert Listbox were also in R120.
- When inserting a **Button, Data Entry, Listbox** or **Combo Box**, *use these tool buttons*.
- **TIP:** Don't use those found under the Active-X control menu. The Active-X versions of these objects are being replaced in favor of these new objects that consume fewer system resources.

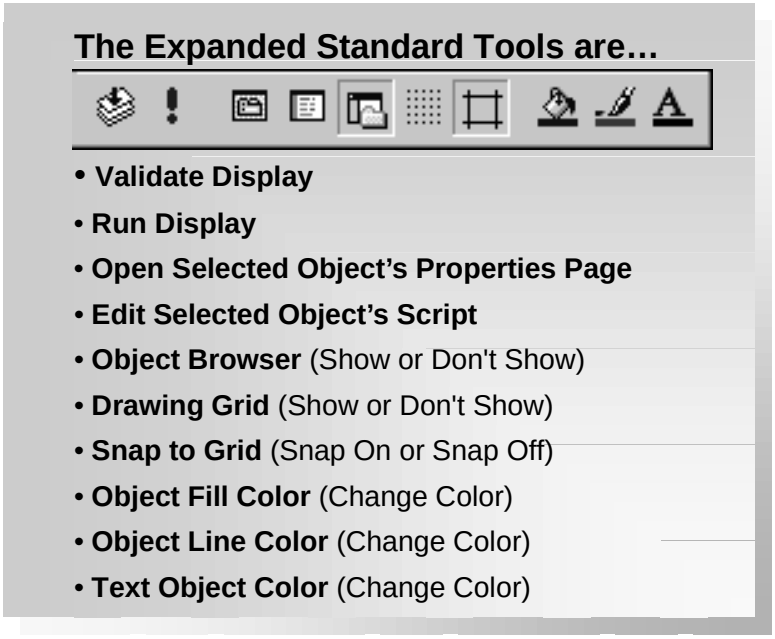
User Interface Differences (Standard Tools)

The Standard Toolbar has More Tools...

Use these tools to quickly select common commands used in Display Builder.



User Interface Differences (Standard Tools)



The Expanded Standard Tools

Using these buttons will speed-up the use of the most common Display Builder design tools.

A Tip to help speed up design tasks

When you use this **Run Display** button, you *don't have to close* any open edit script windows. You'll find this is much faster than selecting Run from the **Display Menu**, where you're *required* to close the script windows.

A Tip to help "nudge" objects into place

Use the arrow keys on your numeric keypad to "nudge" an object into the desired position.

- With Snap-to-Grid on, you nudge the object to the *NEXT GRID* position.
- With Snap-to-Grid off, you nudge the object *ONE PIXEL* with each keystroke.

R200 Tools (ActiveX)

The ActiveX Control

• An ActiveX control is a software program you can import into your display and use as if it were running in Display Builder. In reality, it is running its own application from outside Display Builder.

• An example is a monthly calendar that appears to run in your display.

ActiveX Control

An ActiveX Control is a software program you can import into your display and use as if it were running in Display Builder.

In reality, it is running under its own application from outside Display Builder.

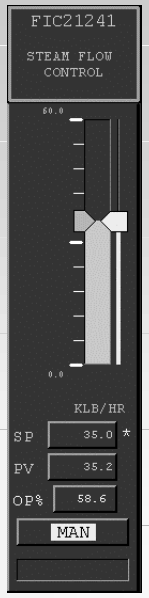
Example

This calendar uses the computer's date function to keep updated.

R200 Tools (Faceplate)

The Faceplate Object

- R200 supports a Honeywell Faceplate object that can be inserted into your display.
- Use the Insert Active-X tool on the Drawing Toolbar to insert it.
- Once in place, you set up its script to monitor a process control point.
- Several Faceplates can be used on a single display.



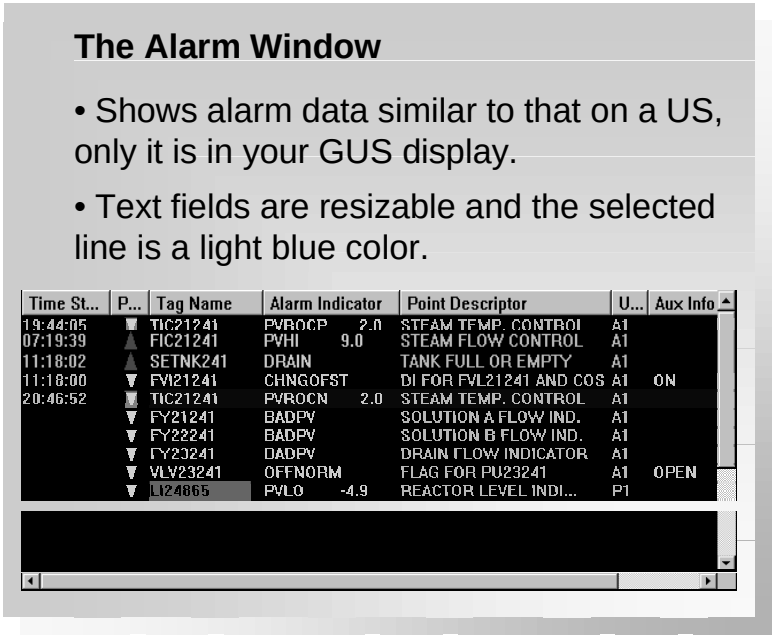
Features of the Honeywell Faceplate Object

The Faceplate OCX provides operators with a way to view and operate UCN or Data Hiway Data Points from the TPS Network.

Its functions are comparable to that of the US's slot shown in the Group Display. The Faceplate OCX displays several parameters of each data point (for example, for Regulatory Control Data Point type, SP, PV, OP, Mode and so forth). Operators can change a parameter's value.

The Faceplate OCX is mainly used in GUS displays. In addition to the GUS displays, you can use the Faceplate OCX in any OCX container applications.

R200 Tools (Alarm Window)



Features of the Honeywell Alarm Window Object

The Alarm Window shows similar alarm data as a classic US or Native Window, only it is shown in your GUS display.

When one of the alarms on the Alarm Window is selected, the background color of the selected line turns blue.

After selection of an Alarm, you can invoke related displays by pressing keys on the Integrated Keyboard such as Detail Display/Group Display/ASSOC DISP.

Script Additional Operations

For other Alarm operations such as acknowledging an alarm, you need to provide the Alarm Window with scripting to provide the necessary alarm responses.

Refer to the AlarmSummary.pct display in the Honeywell RAC folder and examine its scripted objects.

R200 Tools (Combo Box)

The Combo Box

A Combo Box is similar to a Listbox, but it occupies less space in your display.

When clicked at run time, a drop-down menu opens from which an item is chosen.

This example shows the same Combo Box both closed and opened.

Features of the Combo Box

- Takes up very little display space.
- When used, the list of menu items is limited only by the vertical space on the display.

Password Protection

Display Builder Protection Features

- Password-based approach
- Can’t use build mode or capture scripts
- Can't use Alt-L command to view listings
- Can’t read files with a binary file dumper

Password Protection NOT Intended to

- Be an impenetrable defense
- Protect against a determined hacker
- Be a replacement for NT security

Additional Protection offered by NT

- Prevents unauthorized running of displays
- Prevents copying or deleting files

Password Protection Features

You can’t open a password protected display, therefore, you can’t
- Enter **Build** mode,
- **View or Copy** scripts, or
- Use the **Alt-L** command to produce a display listing.

You can’t use Display Builder’s **Object Browser** to view the contents of a password protected display when it is an embedded display.

You can’t use a **binary file dump** function to attempt to read the script in a protected display.

Characteristics of Password Protection

A determined hacker may be able to violate Display Builder’s password security.

Don’t consider password protection to be a substitute for NT security.

Using Password Protection

Setting Up Password Protection

A display doesn't have a password and isn't protected until someone adds one.

During the process of adding a password, Display Builder always asks for the NEW password TWICE. This helps insure that a typo wasn't entered by accident.

Your file is not password protected until you **Save** the file.

It's too easy to forget a password, so you should remember
- To be sure you, your superior, and perhaps a trusted co-worker know the password.
- You can't recover a forgotten password.
- Password protection can't be removed from a file without knowing the password.
- REMEMBER, NOT EVEN HONEYWELL CAN UN-PROTECT A PROTECTED DISPLAY!

Using Password Protection

Tips on Using a Password

• A password should be a “word” that can’t be associated with you; don’t use things like your address, spouse’s or pet’s name, etc. Change it at least every three months.

• A password can be a mixture of letters, numbers, and non-alpha characters. You can also use non-printing characters.

• A password should be at least eight characters. Up to 255 are allowed. Case is recognized and must be entered exactly.

Tips on Using Password Protection

• Don't use a password that can be easily tied to your business or personal identification.
• Don't use common items like your address, spouse's or pet's name, and change it on regular intervals.

• A password can be a mixture of alphanumeric, non-alphanumeric and non-printing characters, although non-printing characters may be dangerous.

• For the greatest security, use eight or more characters in your password.
• Display Builder will accept up to 255 characters.
• A password is case-sensitive, that is, upper and lower case letters are considered as separate entries.

Using Password Protection

How to Change Password on Display

•Click **Change** in Display Object Properties dialog

• Enter your current password, then enter the new password

• Enter new password a second time to confirm it

• Be sure to **Save** the display and don't forget your **NEW** password!

Changing Password Protection

You must enter your old password before you can change your password.

During the process of changing a password, Display Builder always asks for the NEW password TWICE. This helps insure that a typo wasn't entered by accident.

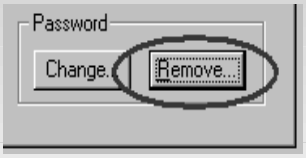
It's very easy to forget a password that has been changed in haste! Be sure you, your superior, and perhaps a trusted co-worker know the NEW password.

Using Password Protection

How to Remove Password Protection

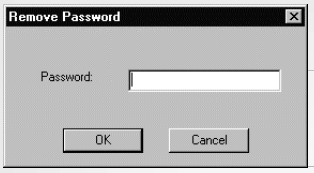
• You may want to remove a file's password when transferring the file to another worker or when protection is not needed.

• Click **Remove** on Display Object Properties dialog



• Enter password

• Be sure to **Save** the display



Removing Password Protection

You must enter your old password before you can remove your password.

You must **Save** your display after you have removed a password or it will remain in effect.