

Manage Display Libraries Using Component Explorer



Objectives

-  **Interpret Component Explorer in terms of**
 - Purpose
 - Overview
 - Configuration
 - Tools
-  **Interpret the 4 Basic Functions of CE**
-  **Operate the Component Tools of CE**
 - Component Explorer
 - Component Explorer Manager
 - Component Library Editor

Introduction

This module introduces you to the Component Explorer and the Component Explorer Manager, both part of the GUS Display Builder.

You will also be introduced to the optional Component Library Editor that can be used in conjunction with the other Component Explorer tools.

Objectives

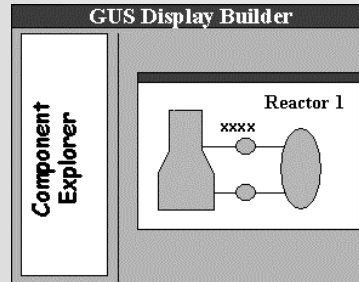
At the end of this module you will be able to manage your embedded display libraries using Component Explorer. The enabling objectives supporting that performance goal are the following:

- Interpret Component Explorer in terms of its
 - Overall Purpose
 - Overview
 - Configuration
 - Accessory Tools
- Interpret the four Functions of Component Explorer
 - Basic Component Explorer
 - Component Explorer Manager
 - Component Library and Display
 - Registered Libraries Editing and Display
- Operate the Component Explorer in terms of
 - Component Explorer
 - Component Explorer Manager
 - Component Library Editor.

Component Explorer Purpose

What is Component Explorer?

- A Set of Display Builder Tools that are used to:
 - Store, Control, and Access Embedded Displays
 - Get an Overview of all Embedded Displays that can be accessed from your GUS
- Component Explorer helps you build displays
 - Quickly and
 - Accurately

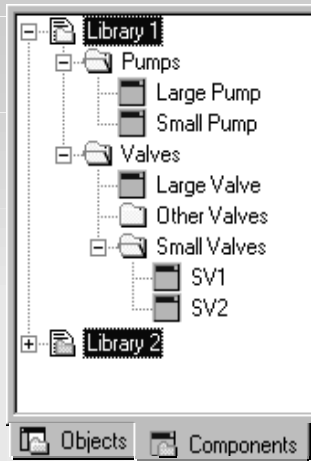


What is Component Explorer?

- The Component Explorer consists of a set of Display Builder tools that you can use to store, control, and access Embedded Displays easily. Component Explorer also offers an overview of all the Embedded Displays that can be accessed from your GUS.
- The functionality provided by Component Explorer, and its associated tools, helps you to build displays quickly and accurately.
- All the functions of the Component Explorer tools can be accessed either through the Component Explorer window or from pop-up menus accessed from individual components.

Component Explorer Overview

- The Component Explorer Stores Embedded Displays in a Component Library.
- The View of the Library is structured Hierarchically, similar to the way Microsoft Windows Folders and Sub-Folders are structured.
- Here is an example of how a typical Component Library is structured. Notice it is accessed through the "Components" Tab.









Component Explorer Overview

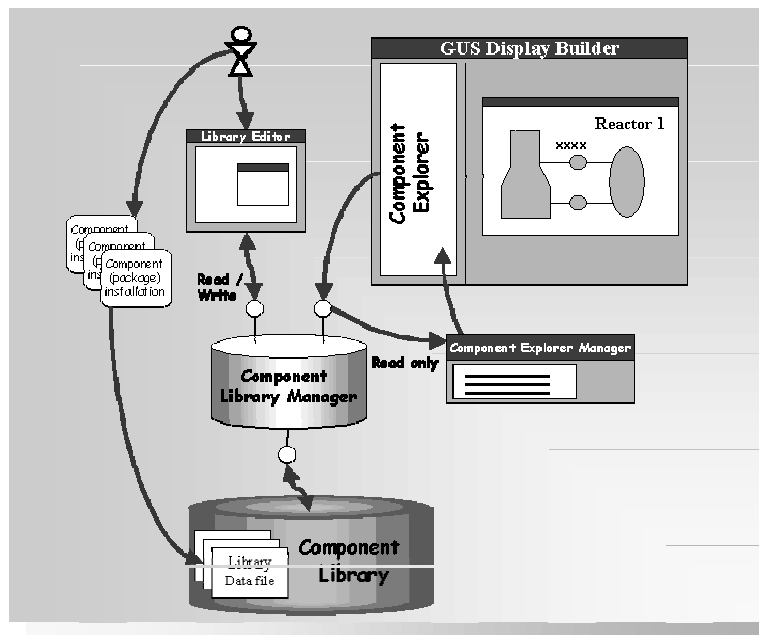
The Component Explorer stores Embedded Displays as "components" in a Component Library. As shown here, libraries and components are structured hierarchically, similar to the way Microsoft Windows files, folders and sub-folders are structured.

The Hierarchical Structure

- In this display, notice that SV1 and SV2 represent two different Embedded Displays in the **Library1\Valves\Small Valves** folder structure.
- Also notice that multiple libraries (such as **Library1** and **Library2**) are supported.
- The icons shown in the following table are used in the Component Explorer hierarchical structure.

Icon	Representation	Example Name in Graphic
	Library	"Library1"
	Selected Folder	"Pumps"
	Unselected Folder	"Other Valves"
	Embedded Display	"Large Pump"
	Non-Existent Embedded Display	(Not Shown)
	Component Explorer Page	(Not Shown)

Component Explorer Block Diagram



Explanation

- This is a functional block diagram showing the various Component Explorer tools and their interfaces. The main interface is through:

- The Component Explorer
- The Component Explorer Manager, and
- The optional Component Library Editor.

We will discuss these tools in the slides to follow.

- A Component Library contains a database of Embedded Display components.
- The Component Library Manager controls the database.
- The libraries are initially loaded by the Component Installation package, which is part of GUS Display Builder software.

Component Explorer Tools

The Three Component Explorer Tools are:

- **Basic Component Explorer**
 - Part of Display Builder (a window)
- **Component Explorer Manager**
 - Also part of Display Builder
 - Configures User's View of Component Explorer
- **Library Editor**
 - Optional - not part of Display Builder
 - Runs as a separate Executable
 - Creates New Libraries
 - Modifies Existing Libraries



Basic Component Explorer

The Basic Component Explorer tool is a part of the Object Browser in Display Builder. It is opened by the Component tab on the browser.

Component Explorer provides a view to the Embedded Displays in the Component Library. It also provides access to a broad range of component, folder, library, and general application functions.

Component Explorer Manager

The Component Explorer Manager tool is also part of the Display Builder, accessed by a pop-up window in Component Explorer. It is used to configure the view that the Component Explorer presents to the user.

Library Editor

The Library Editor is an optional tool. It is not part of the Display Builder. It runs as a separate executable that can be installed in a GUS along with the Display Builder.

It is used to create new libraries and modify existing libraries. The Library Editor is especially useful during the installation of new software.

Component Explorer Functions

The Four Component Explorer Functions are:

- **Basic Component Explorer Functions**
 - Initiated through the Component Explorer Tab
- **Component Explorer Management Functions**
 - Executed by and through the Component Explorer Manager (CEM)
- **Component Library and Display Functions**
 - Executed by and through the Library Editor
- **Registered Libraries Editing and Display Functions**
 - A Component Library must be Registered before it can be used by the Component Explorer
 - Registered Libraries are listed in the Registered Libraries window.

Component Explorer Functions

The functions provided by Component Explorer can be divided into four groups.

- **Basic Component Explorer Functions**

All basic Component Explorer functions are initiated through the Component Explorer tab.

- **Component Explorer Management Functions**

Component Explorer Management functions are executed by the Component Explorer Manager (CEM).

- **Component Library Editing and Display Functions**

Component Library editing and display functions are executed by the Library Editor.

- **Registered Libraries Editing and Display Functions**

A Component Explorer library consists of two main parts, a registry segment and a file segment. A Component Explorer library must be registered before it can be used by the Component Explorer.

Component Explorer - Initiate Functions

Basic Component Explorer Functions

- **Access the Basic Component Explorer**
 - Open the Object Browser in Display Builder
 - Click the "Component" tab
 - Components are displayed in a Hierarchical Tree
- **Component Functions**
 - Initiated by double-clicking a component icon or by right-clicking a component to see the pop-up menu
- **Folder Functions**
 - Executed by right-clicking a folder icon
- **Library Functions**
 - Executed by right-clicking a library icon
- **General Functions**
 - Executed by right-clicking a blank area of the browser

Basic Component Explorer Functions

A hierarchical tree contains the icons you use to access these functions.

•Function Table

This table lists commands available on the pop-up menus for the four component functions. Notice the similarity with standard Windows file commands, but these commands refer to *Embedded Display components*, not files.

Description	Component	Folder	Library	General
Open a Component	X			
Insert a Component into an Existing Display	X			
Replace a Component	X	X		
View a Component's Properties	X			
Refresh a Component	X	X	X	
Refresh All Components in the Component Library				X
Turn on the Component Explorer Manager	X	X	X	X

Component Explorer - Function Operation

Command to Open Component

- Standard Open Command - A new Display Builder window containing the Embedded Display component is opened for editing.

Command to Insert Component

- Inserts a component into an existing display. Follows the normal procedure for inserting Embedded Displays.

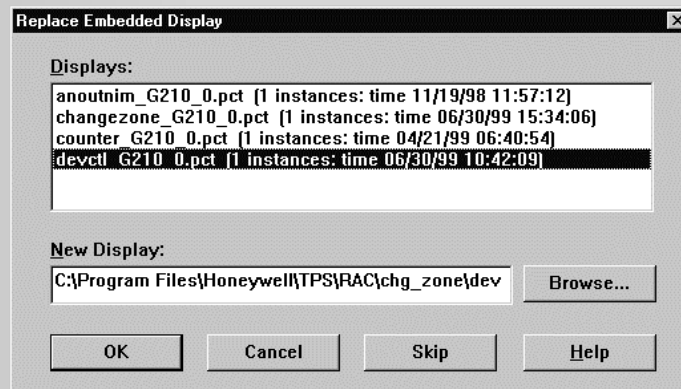
Reminder

These commands refer to *Embedded Display components*, not files.

Component Explorer - Function Operation

Command to Replace Component

- The standard Display Builder Replace Embedded Display dialog box is displayed.



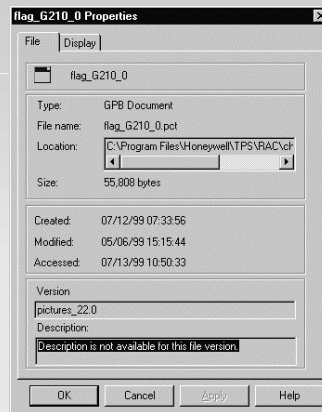
Reminder

These commands refer to *Embedded Display components*, not files.

Component Explorer - Function Operation

Command to View Component Properties

- Opens the component's Property window with 2 tabs.
 - File Tab: If file reference is validated, the size and dates are also displayed. If file reference is not correct, the component icon is replaced with a non-existent icon.



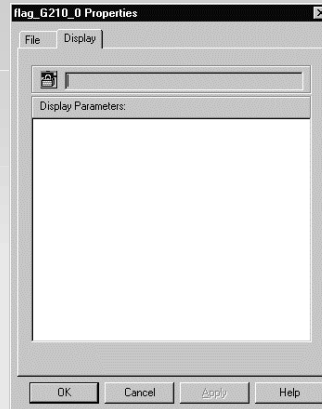
Reminder

These commands refer to *Embedded Display components*, not files.

Component Explorer - Function Operation

Command to View Component Properties (cont'd)

- Display Tab: If the component is a display, the parameters and password protection indicators are displayed.



Reminder

These commands refer to *Embedded Display components*, not files.

Component Explorer - Function Operation

Command to Refresh a Component

- If no problems were detected, the description and version number of the component are refreshed.
If the file reference was incorrect, the component is changed into a non-existent component.

Command to Refresh All Components in the Component Library

- If no problems were detected, the description and version number of all the components in all the folders in all the Component Explorer libraries are refreshed.
If the file reference for a component is incorrect, the component is changed into a non-existent component.

Reminder

These commands refer to *Embedded Display components*, not files.

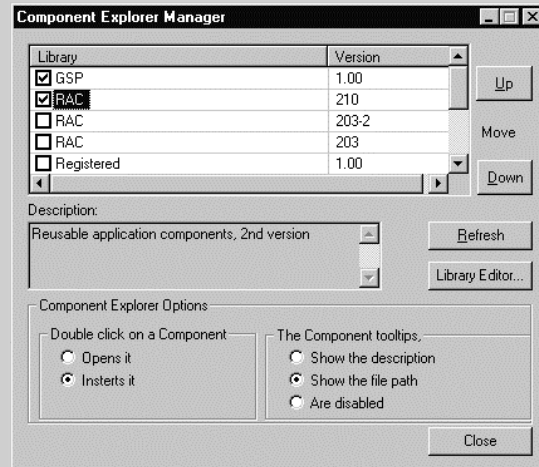
Refresh

The refresh command causes Component Explorer to check to see if the .pct file specified for the component, as listed in the Component Library, still exists.

Component Explorer - Function Operation

Command to Open the Component Explorer Manager

- Opens Component Explorer Manager (CEM) window.



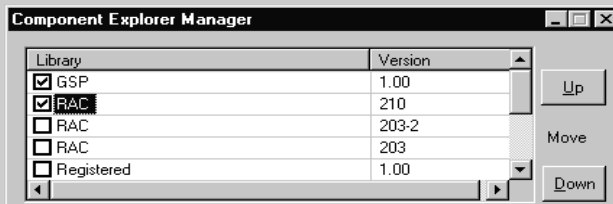
Component Explorer Manager

Component Explorer Management functions are executed by the Component Explorer Manager (CEM) window.

Manages Libraries in Your Component Explorer Library

The Component Explorer Manager (CEM) lets you manage component libraries that are available to your GUS. You may use some of these libraries in your displays if you "register" them before you use them. The lab section of this module details the registration process.

Component Explorer Manager - Operation



CEM Window Operation

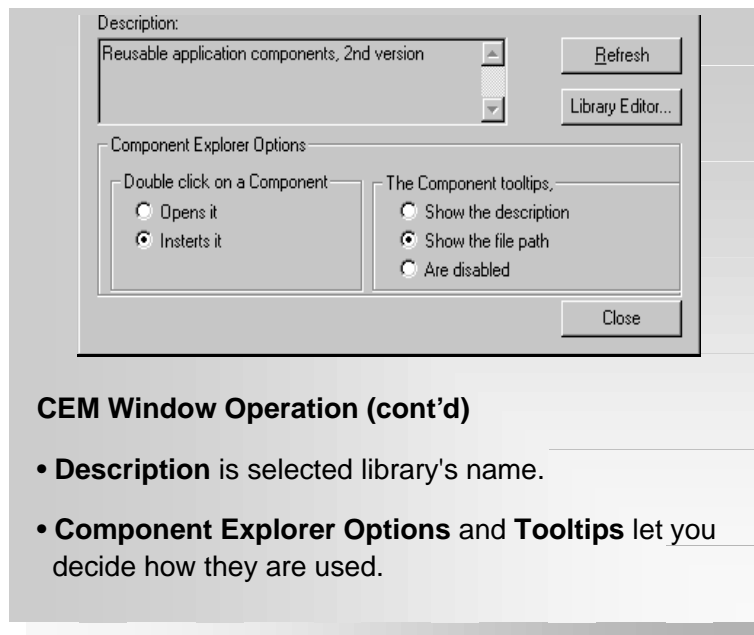
- The Listbox at the top is a list of all Libraries in the database. Only registered libraries (with checkmarks) can be used by your Component Explorer.
- Up/Down buttons used to group libraries as you wish.
- Libraries with same names (like "RAC" for Reusable Application Components) must have different versions.

Component Explorer Manager Window (slide #1)

The top of the window contains a listbox that contains *all the Component Libraries* available to your GUS.

- If there is a checkmark before a library name, that library has been registered for you to use in the displays you are building.
- The Up and Down buttons allow you to select a library and move it anywhere in the list. For instance, you might want to group all the libraries you have registered at the top of the listbox.
- Notice two or more libraries having the same name can be listed together, but they must each have a Version number different from the others.

Component Explorer Manager - Operation



CEM Window Operation (cont'd)

- **Description** is selected library's name.
- **Component Explorer Options** and **Tooltips** let you decide how they are used.

Component Explorer Manager Window (slide #2)

The middle of the window contains a description area and two buttons.

- The "Description" helps to better define a given library. For instance, it is clear that "RAC" means "Reusable Application Components" when you glance at the library description.
- Clicking the Refresh button causes all components in each folder in each library in the entire Component Explorer library to be refreshed. When a component is refreshed, the Component Explorer Manager checks to see if the .pct file specified for the component still exists.
- Clicking the Library Editor button causes the optional Library Editor to be opened if it exists.

The bottom of the window gives you several options when using the Component Explorer:

- You can cause a double-click on all component's icons to either Open the component or Insert it into a display.
- You can cause the Component Tooltips to either show the description, show the file path, or be disabled and do nothing.
TIP: If you are not sure which selection to enable, select "Show the file path." By displaying the file path, you can quickly recover from display references that might have changed if a component is "missing."

Library Editor - Functions

Prerequisites

- The Library Editor (an optional package) must be installed and executed with the "register" option before you can open the Library Editor.
- You must have normal Windows NT permission to access the Library Editor.

Opening the Library Editor

- Click the **Library Editor** button on the CEM, or
- From the **Start** button, select:
Programs>Honeywell TPS>Component Library Editor

Prerequisites

- The optional Library Editor must be installed and executed with the "register" option before you can open the Library Editor. To register the Library Editor, run the LibEdit.exe executable with the "Register" option.
- You must have normal Windows NT permission to access the Library Editor.

Failure to satisfy these prerequisites will result in this message.

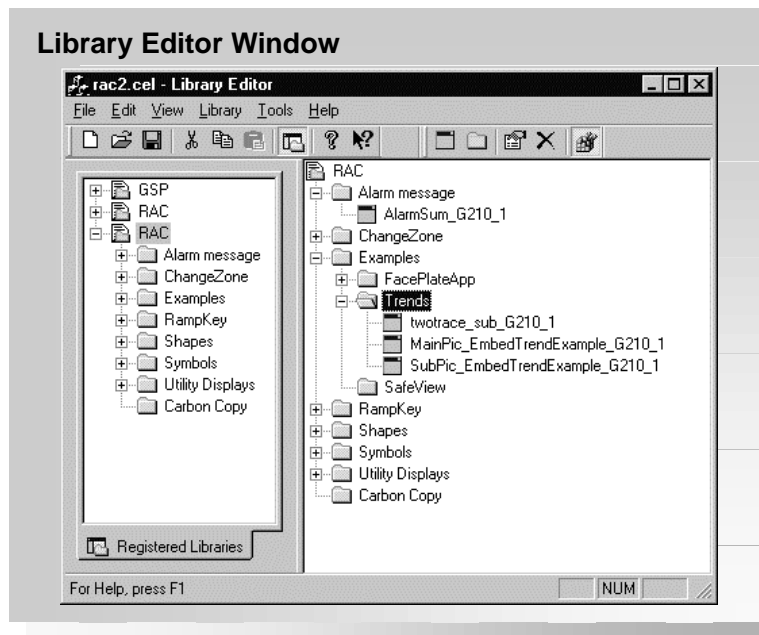


Opening the Library Editor

You can open the Library Editor in two different ways:

- Click the **Library Editor** button on the Component Editor Manager
- From the **Start** button, select
Programs>Honeywell TPS>Component Library Editor






Library Editor - Functions



Library Editor Window Functions

The Library Editor window looks very much like the standard Windows Explorer window.

- The "browser" window's tab is labeled **Registered Libraries** and contains *only the libraries* that have been registered.
- The "main window" displays a hierarchical tree of icons representing a library, folders, sub-folders, and Embedded Displays.
- The icons shown in the following table are used in the Library Editor hierarchical structure.

Icon	Representation
	Library Data File (a main library)
	Selected Folder
	Unselected Folder
	Embedded Display
	Non-Existent Embedded Display

Library Editor Main Menu

The Library Editor main menu operates like a standard Windows main menu but, instead of operating on Files and Folders, it operates on *Libraries (containing Embedded Displays)*, and folders. For example, **File>New** means **Create a New Library**.

Menu items unique to the Library Editor will be explained in a later slide.

Library Editor - Functions

Toolbars - The Library Editor has two toolbars.

- The Standard Toolbar familiar to all Windows users.



- The Library Editor Toolbar, unique to this Application.

Its five functions are:

- New Component, used to create a component.
- New Folder, used to create a new folder.
- Properties, used to view a component's properties.
- Delete, used to delete a folder or component.
- Register/Unregister used in component registration.



Library Editor Toolbars

STANDARD TOOLBAR--The icons on the Standard Toolbar represent:

- New
- Open
- Save
- Cut
- Copy
- Paste
- Browser
- Help Topics
- "What's This?" Help

LIBRARY EDITOR TOOLBAR--The icons on the Library Toolbar represent:

- Create New Component
- Create New Folder
- Properties of a component
- Delete component or folder
- Register/Unregister components

Library Editor - Component Registration

Libraries of Components must be Registered before they can be used on your GUS

- When you want to use a Library of components, those items must be registered before they can be seen or used by your Component Explorer.
- To Register a Library select its icon in the right window:
 - Select Register from the Library Menu or
 - Right-click the icon and use the Pop-Up menu or
 - Toggle the Register Icon on the Editor's Toolbar.
- To Unregister a Library select its icon in the left window:
 - Select Unregister from the Library Menu or
 - Right-click the icon and use the Pop-Up menu or
 - Toggle the Register Icon on the Editor's Toolbar.

Library Editor Component Registration

REGISTERING A LIBRARY--Before you register a library, the icon representing it must be in the right-hand window of the Library Editor (it is not registered). Select the icon, then:

- Select "Register" from the Library menu, or
- Right-click the icon to open a pop-up menu and select "Register" from the menu, or
- Toggle the Register icon on the Library Editor toolbar.

UNREGISTERING A LIBRARY--It is obvious the library must first be in the "Registered Libraries" (left-hand) window before you can unregister it. Select the icon, then:

- Select "Unregister" from the Library menu, or
- Right-click the icon to open a pop-up menu and select "Unregister" from the menu, or
- Toggle the Register icon on the Library Editor toolbar.

WARNING--When a library is unregistered, it is *removed from view* in the Library Editor. However, the library still exists. To re-register it, use **Open** from the **File** menu to find and open it in the Library Editor where it is placed in the right-hand window.

Additional Reference

Refer to the *Display Builder User's Guide* in the section named *Using the Object Browser* for additional information.

Details in the guide are about:

- Component Explorer Introduction
- Basic Component Explorer Functions
- Component Functions
- Component Explorer Management Functions
- Registered Libraries Editing & Display Functions



Information			
Rev	Rev Date	Developer	
<u>No.</u>	<u>(Today's date)</u>	<u>(Your initials)</u>	<u>Comments</u>
01	10/99	JS	Formerly 5720_CPX; Updated to R210; edit changes
