

Component Explorer Training

Component Explorer_Training.zip



Component Explorer - Overview

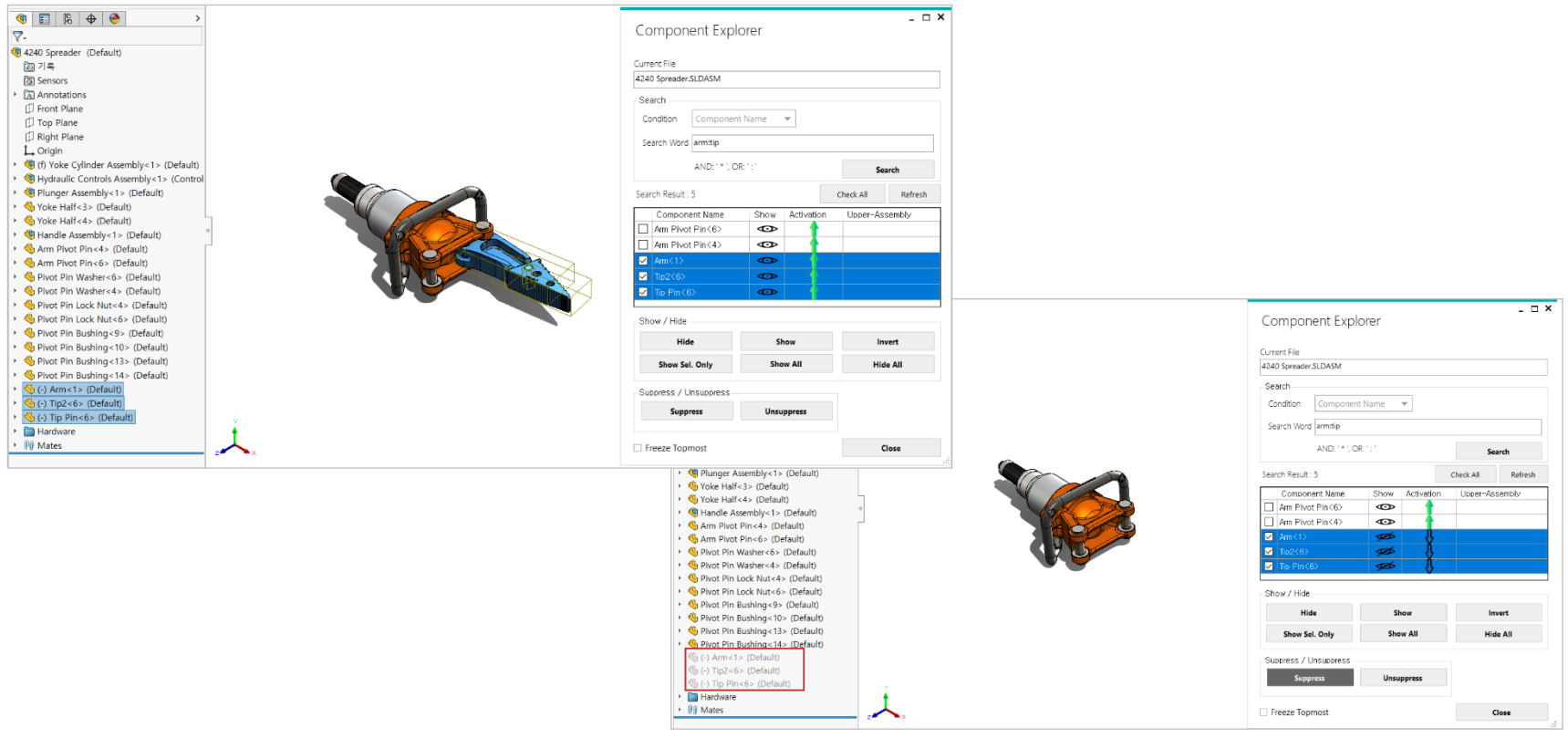
Main Functions

- Provide multi-word search
- Provide a variety of search conditions
- Modify the visibility and the suppress state of the component

Benefits

- Shorten the time for searching components
- Select a specific component in a complex geometry easily
- Show the components satisfying specific conditions of search

Course Objective: Follow instruction through the course and learn how to use Component Explorer.



The screenshot displays the SolidWorks Component Explorer interface. On the left, a tree view shows the assembly structure, including components like '4240 Spreader', 'Yoke Cylinder Assembly', 'Hydraulic Controls Assembly', 'Plunger Assembly', 'Yoke Half', 'Handle Assembly', 'Arm Pivot Pin', 'Pivot Pin Washer', 'Pivot Pin Lock Nut', 'Pivot Pin Bushing', 'Arm', 'Tip2', and 'Tip Pin'. The 'Tip Pin' component is highlighted in blue.

The main window shows the 'Component Explorer' dialog box. The 'Current File' is '4240 Spreader.SLDASM'. The 'Search' section has 'Condition' set to 'Component Name' and 'Search Word' set to 'armtip'. The 'Search Result: 5' is displayed. The search results table is as follows:

| Component Name | Show | Activation | Upper-Assembly |
|------------------|-------------------------------------|------------|----------------|
| Arm Pivot Pin<6> | <input type="checkbox"/> | | |
| Arm Pivot Pin<4> | <input type="checkbox"/> | | |
| Arm<1> | <input checked="" type="checkbox"/> | | |
| Tip2<6> | <input checked="" type="checkbox"/> | | |
| Tip Pin<6> | <input checked="" type="checkbox"/> | | |

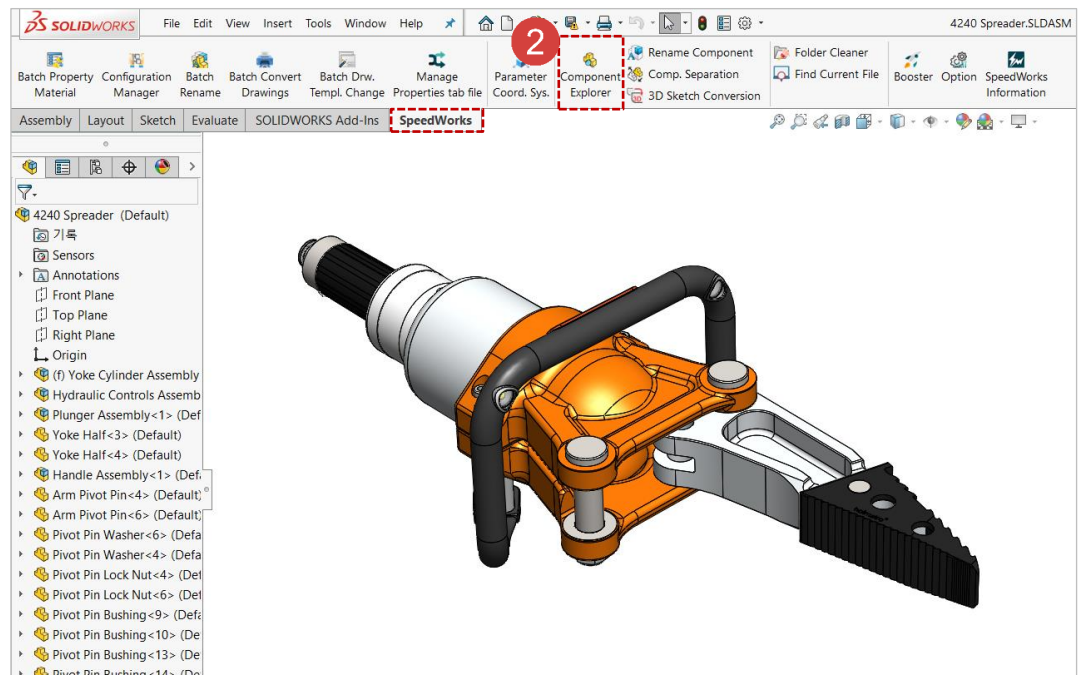
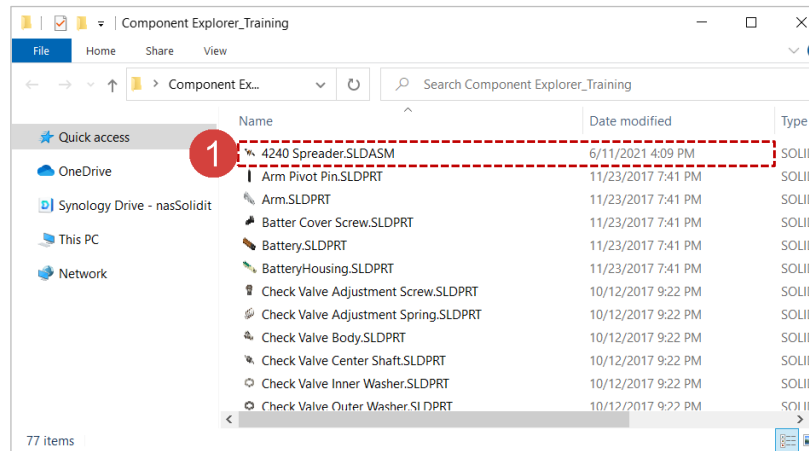
Below the table, there are buttons for 'Show / Hide' (Hide, Show, Invert, Show Sel. Only, Show All, Hide All) and 'Suppress / Unsuppress' (Suppress, Unsuppress). A 'Close' button is at the bottom right.

On the right, a smaller version of the Component Explorer dialog box is shown, displaying the same search results and controls.

Component Explorer - Execute

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

- 1 Execute 4240 Spreader.SLDASM file among example files.
- 2 Click [SpeedWorks]tab - [Component Explorer] to run the tool.



※ You can download example files at Support page in SpeedWorks Homepage(<http://speedworks.info>).

Component Explorer - Load Component Data

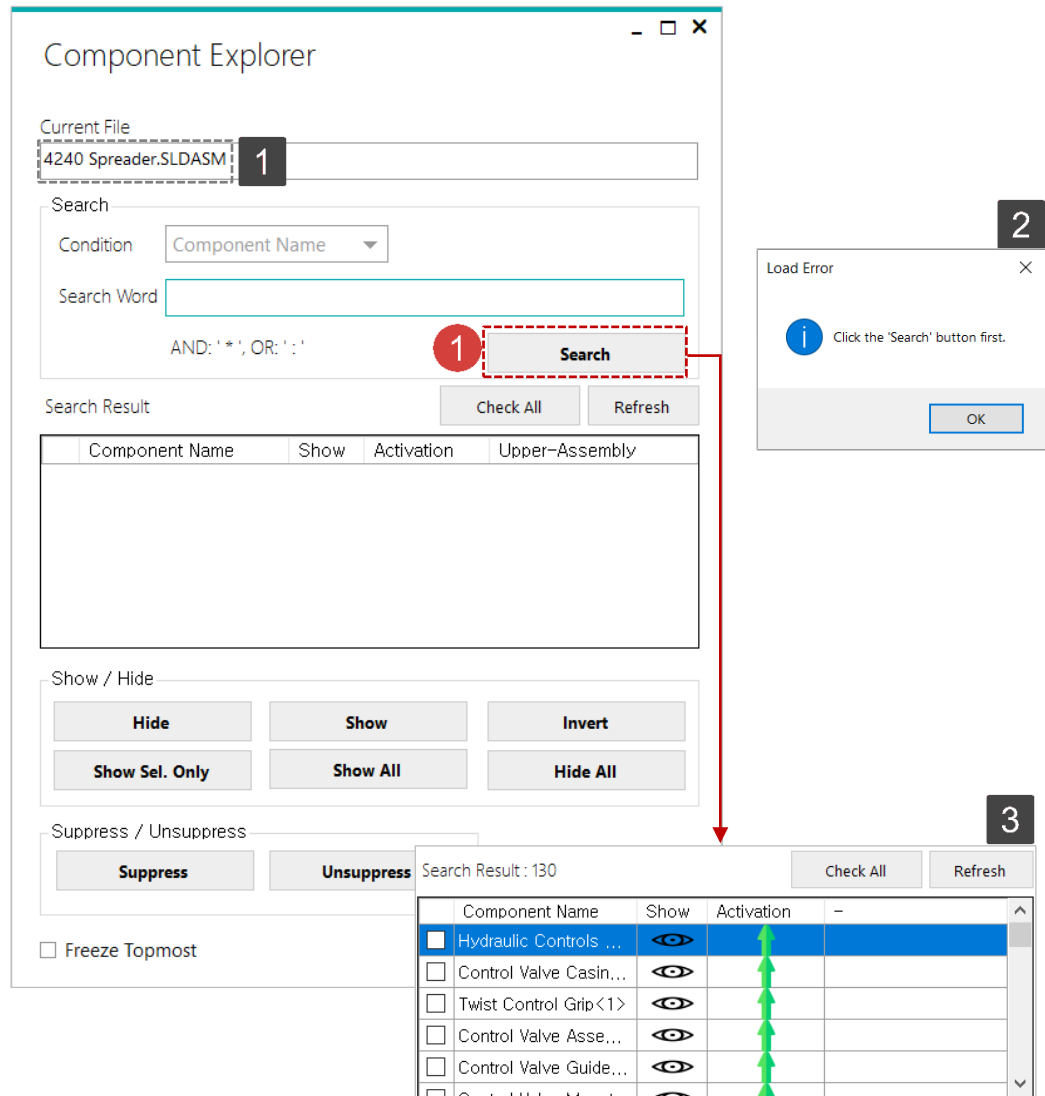
- 1 Click **[Search]** button to load initial component data.

(All components will be listed, even though the search word box is empty)

1 Users can check what they selected.

2 An error is occurred when users try changing configurations without loading component data. So please keep in mind to click **[Search]** button and load component data first.

3 The number of components and the whole component list will be displayed after the component data are loaded.

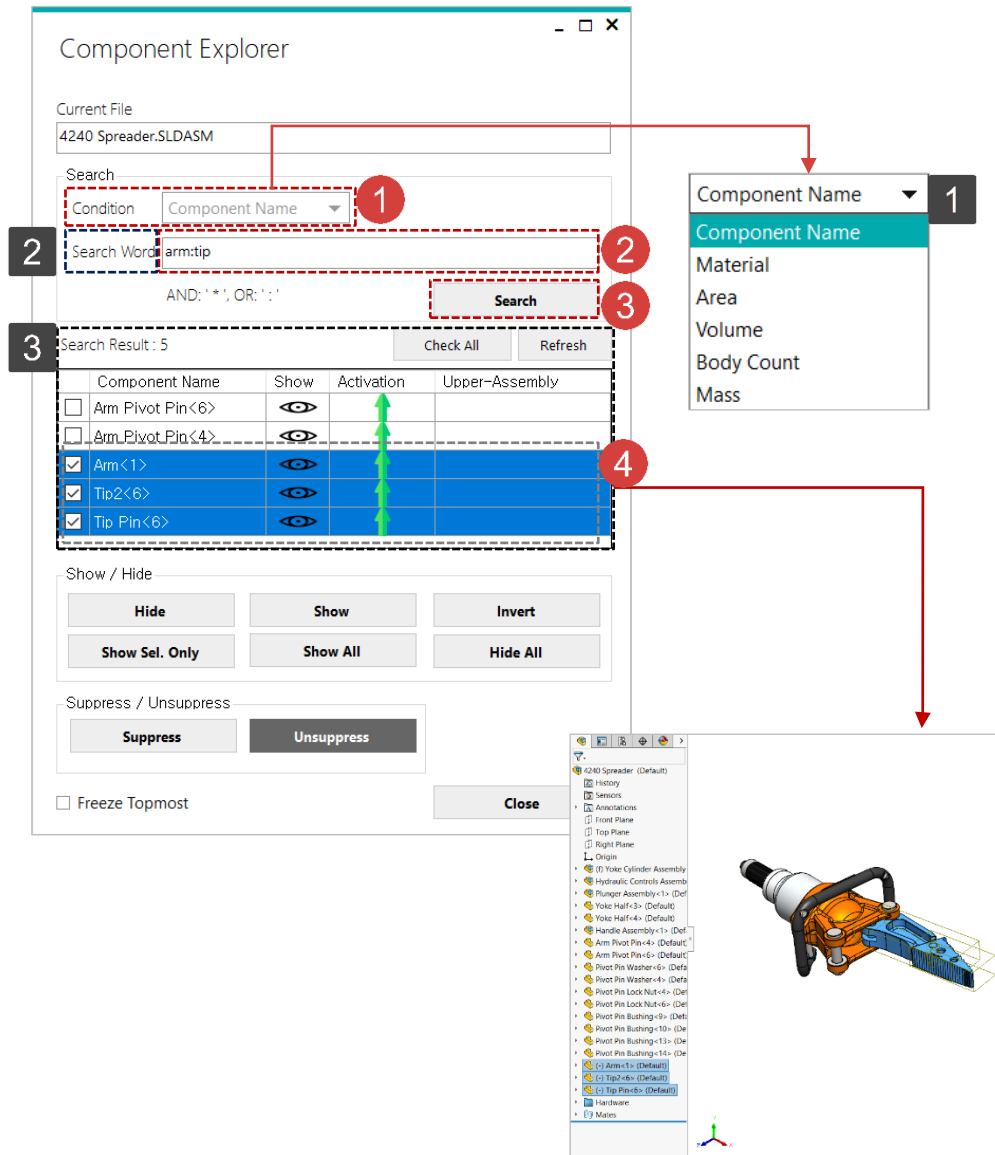


Component Explorer - Search Component 1

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

- 1 **[Condition]:** Select **[Component Name]** as a search condition.
- 2 **[Search Word]:** Type 'arm:tip' for search word.
(Colon ':' is used to divide multiple words)
- 3 Click **[Search]** button.
- 4 When you select a component from the search result, the component will be selected and highlighted on SOLIDWORKS.

- 1 **Condition Option Box:** The following conditions are available - Component Name, Material, Area, Volume, Body Count, Mass, etc.
- 2 The label in dashed-blue box will be changed depends on the condition you have selected on 1.
- 3 The name, visibility, and suppression of the component will be displayed.

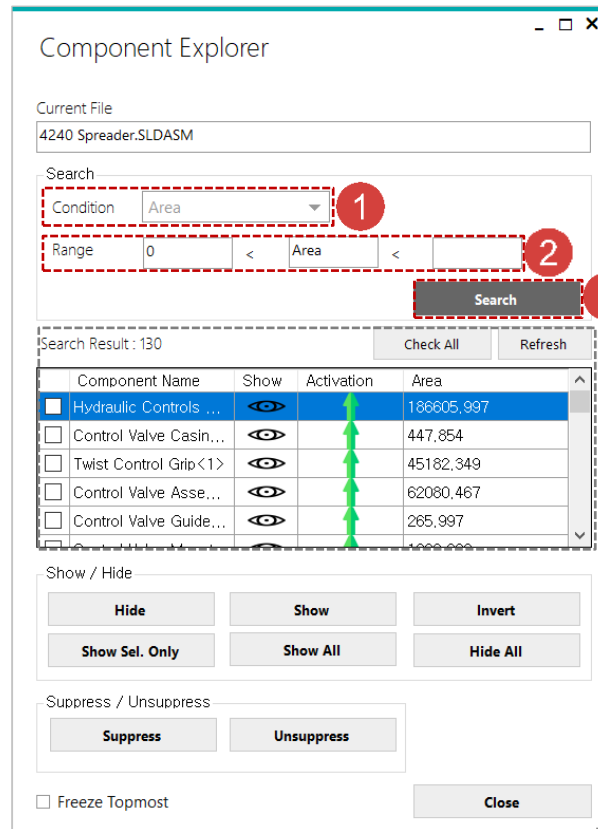


Component Explorer - Search Component 2

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

- 1 **[Condition]:** Select **[Surface]** as a search condition.
- 2 **[Range]:** Type '0' on the left box of **[Area]** to search components which areas are bigger than 0.
- 3 Click **[Search]** button.

1 Search Result – the name, visibility, suppression and condition values of components will be displayed.



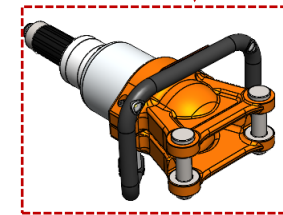
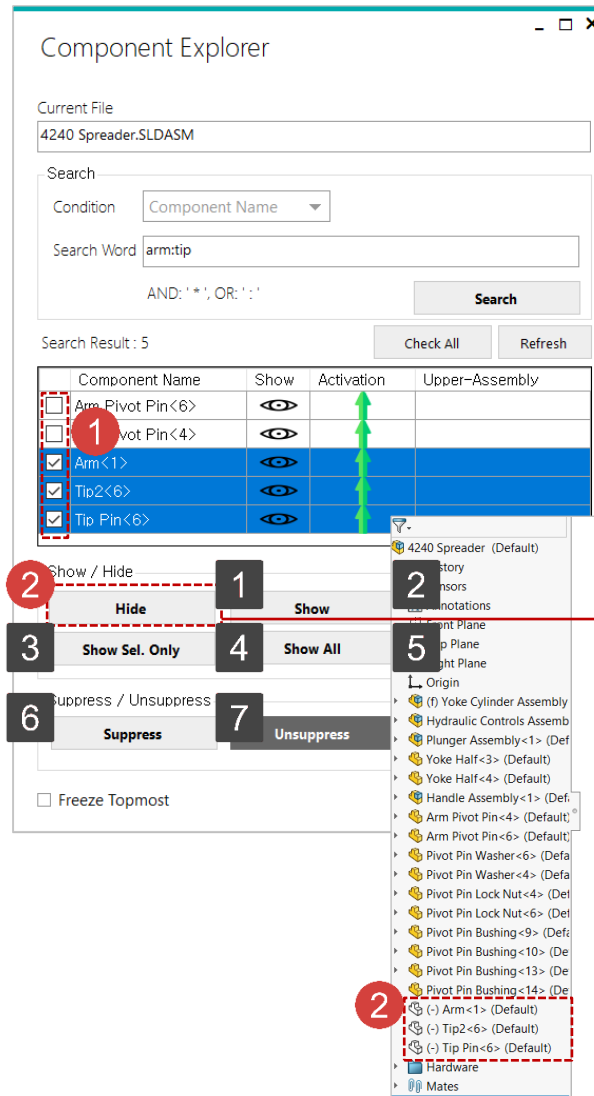
Component Explorer - Modify Show/Suppress Configurations

Work on the part with the red circle (1) following instructions by yourself.
The part with the black square (1) is an additional explanation or a reference.

- 1 Select components to modify configurations.
- 2 Click **[Hide]** button to hide the selected components.

- 1 Click **[Show]** button to show hidden components.
- 2 Click **[Invert]** button to show hidden components and hide visible components.
- 3 Click **[Show Sel. Only]** button to show selected components only and hide the rest of components
- 4 Click **[Show All]** button to show all components.
(Except suppressed components)
- 5 Click **[Hide All]** button to hide all components.
(Except suppressed components)
- 6 Click **[Suppress]** button to suppress selected components.
- 7 Click **[Unsuppress]** button to unsuppress selected components.

⚙️ We recommend you to click every button to see how the result changes.



| Component Name | Show | Activation |
|--|------|------------|
| <input type="checkbox"/> Arm Pivot Pin<6> | | |
| <input type="checkbox"/> Arm Pivot Pin<4> | | |
| <input checked="" type="checkbox"/> Arm<1> | | |
| <input checked="" type="checkbox"/> Tip Pin<6> | | |
| <input checked="" type="checkbox"/> Tip2<6> | | |