



# Type Hierarchy (PDT)

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## TOC

1.	Introduction .....	2
1.1	Requirement Rationale .....	2
2.	Detailed Description .....	2
2.1	Open Type in Hierarchy (Ctrl+Shift+H) .....	2
2.2	Open Type Hierarchy (F4) .....	4
2.3	The Type Hierarchy View.....	5
2.4	Quick Type Hierarchy (Ctrl+T) .....	7

## 1. Introduction

### 1.1 Requirement Rationale

The *Type Hierarchy* shows the hierarchy for a given type. The hierarchy can be displayed for the supertypes and the subtypes of a selected PHP element.

A Type Hierarchy for an element is accessible in 4 different ways that will be explained in this document:

- Through the 'Navigate' menu, as 'Open Type in Hierarchy...'
- In the 'PHP Explorer' and the PHP editor: By selecting an Interface, a Class, or class members (methods / fields) and pressing F4 (or using the context menu).
- In the PHP editor: By clicking the F4 key while selecting a PHP Interface, a Class or class members (or using the context menu).
- In the PHP Editor: Displaying a 'Quick Type Hierarchy' by selecting a PHP element and clicking Ctrl+T.

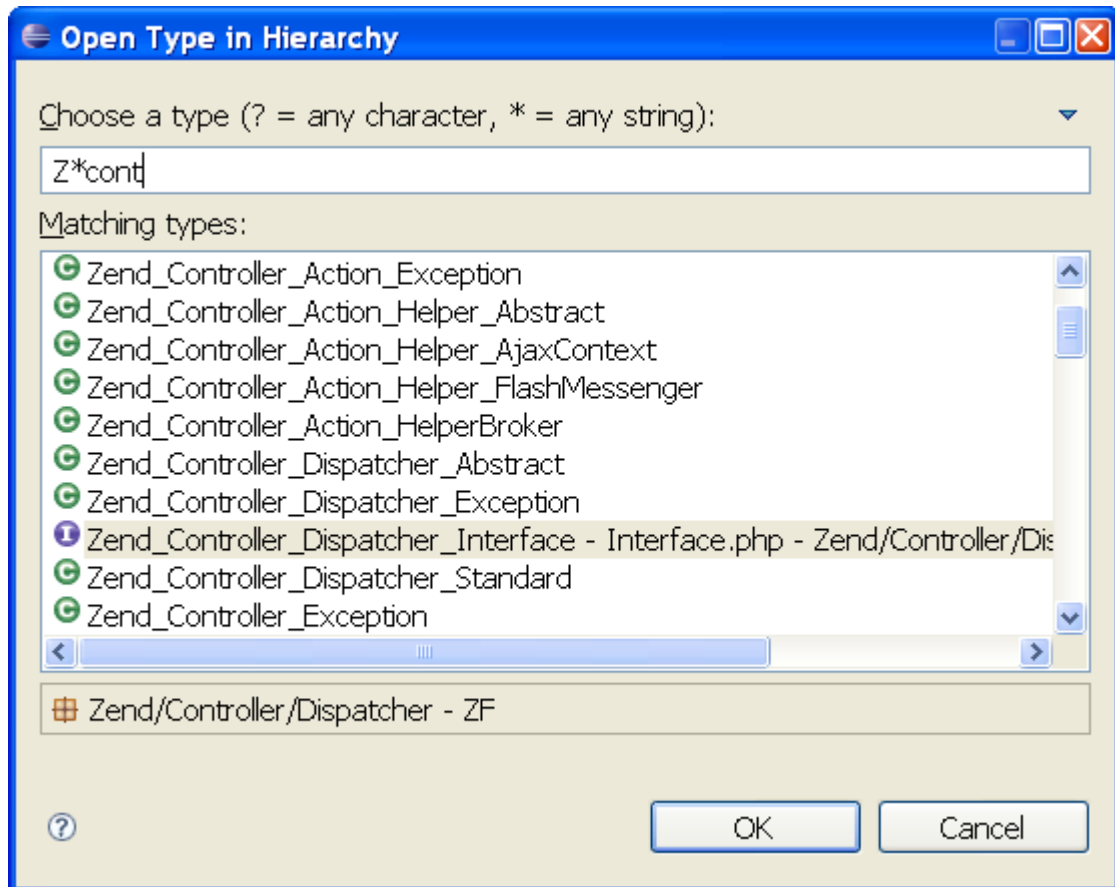
## 2. Detailed Description

### 2.1 Open Type in Hierarchy (Ctrl+Shift+H)

This action is accessible through the 'Navigate' menu item or by clicking the Ctrl+Shift+H sequence.

The action tries to resolve the element referenced at the current code selection and opens the element in the *Type Hierarchy* view (described in the next sections).

In case there is no selection, the dialog is displayed without the 'type string' pre-entered and allows the user to enter the requested Class or Interface name. While typing, the dialog displays a filtered group of elements according to the typed characters. The dialog will show all types that exist in the workspace.



*Open Type in Hierarchy dialog*

Other dialog features:

- When selecting an element from the list, the dialog displays the full path of the element next to its label and in the dialog's status line (bottom).
- Recently opened types show up in a history section at the top of the list. Items from the history can be removed by right-clicking the item and select 'Remove from History'.

- The behavior of the Open Type dialog can be further customized using the dialog menu:

Show Status Line	When selected, the Open Type dialog shows an additional bar at the bottom of the dialog which displays the package and containing JRE of the selected type
Show Container for Duplicates	When selected, all duplicate matches are displayed using fully qualified names and container information

## 2.2 Open Type Hierarchy (F4)

This action tries to resolve the element referenced at the current code selection and opens the element in the Type Hierarchy view.

A resolvable element is a class name, interface name or class methods, constants and fields.

The action is enabled in:

1. The editor's context menu, or by clicking the F4 key.
2. The PHP Explorer view context menu, or by clicking the F4 key when a tree element is selected.

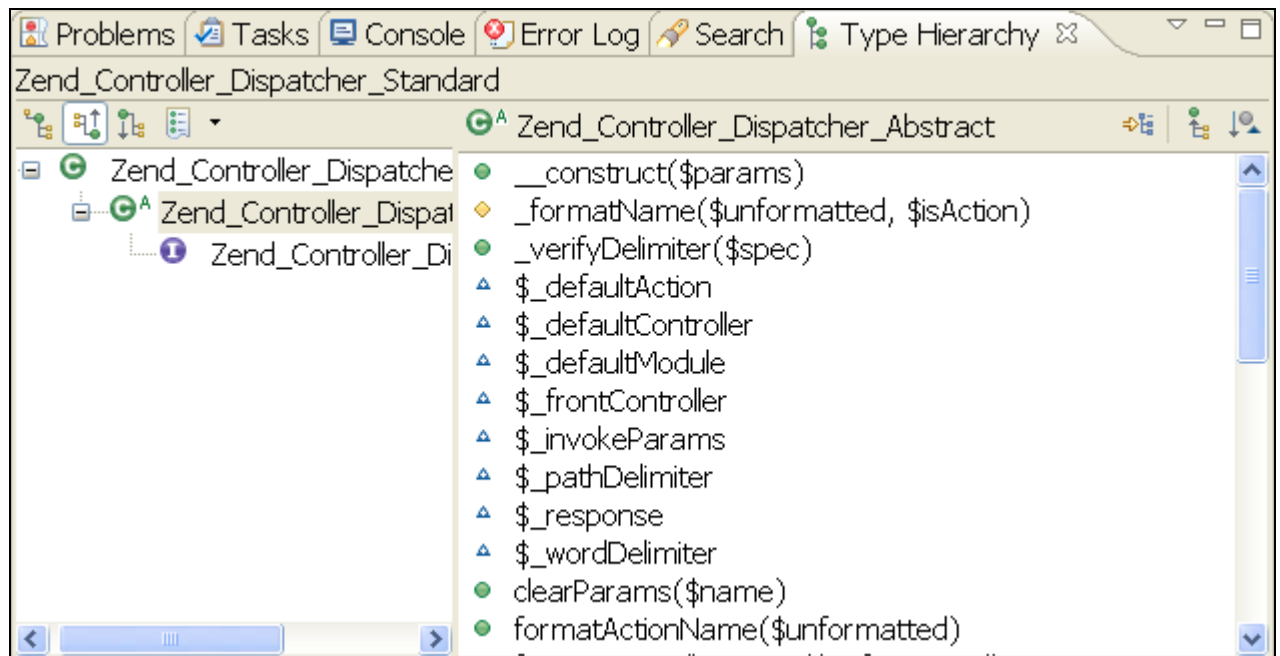
The action will not be enabled if the selection is not a resolvable element.

When the action is invoked, the Type Hierarchy view is displayed for the selected element.

## 2.3 The Type Hierarchy View




This view shows the hierarchy of a type. The Type Hierarchy view consists of two panes:






- Type Hierarchy tree pane
- Member list pane (optional)



Type Hierarchy view




### Type Hierarchy tree pane toolbar buttons

	Command	Description
	Previous Hierarchy Inputs	This menu displays a history of previously displayed type hierarchies.
	Show the Type Hierarchy	This command displays the type in its full context (i.e., superclasses and subclasses) in the Hierarchy view. To see for which type the hierarchy is shown, hover over the view title (e.g., "Types").
	Show the Supertype Hierarchy	This command displays the supertypes and the hierarchy of all implemented interfaces of the type in the Hierarchy view. The tree starts at the selected type and displays the result of traversing up the hierarchy. <i>Note:</i> The selected type is always at the top level, in the upper-left corner.

	Command	Description
	Show the Subtype Hierarchy	This command displays the subtypes of the selected class and/or all implementors of the interface in the Hierarchy view. The tree starts at the selected type and displays the result of traversing down the hierarchy <i>Note:</i> The selected type is always at the top level, in the upper-left corner.
<b>'Layout' sub-menu</b>		
	Vertical View Orientation	Arranges the two panes vertically.
	Horizontal View Orientation	Arranges the two panes horizontally.
	Automatic View Orientation	Arrange the two panes automatically.
	Hierarchy View Only	Hides the member list pane.

### Member list pane toolbar buttons

The member list pane displays the members of the currently selected type in the type hierarchy tree pane.

	Command	Description
	Lock View and Show Members in Hierarchy	Shows the members implementing the selected method Only types implementing the method are shown. When the view is locked, the member list pane no longer tracks the selection in the hierarchy pane above.
	Show All Inherited Members	Shows or hides all methods and fields inherited by base classes. When this option is set, the name of the type that defines the method is appended to the method name.
	Sort Members by the Defining Type	Sorts the members according to the type in which they are defined.

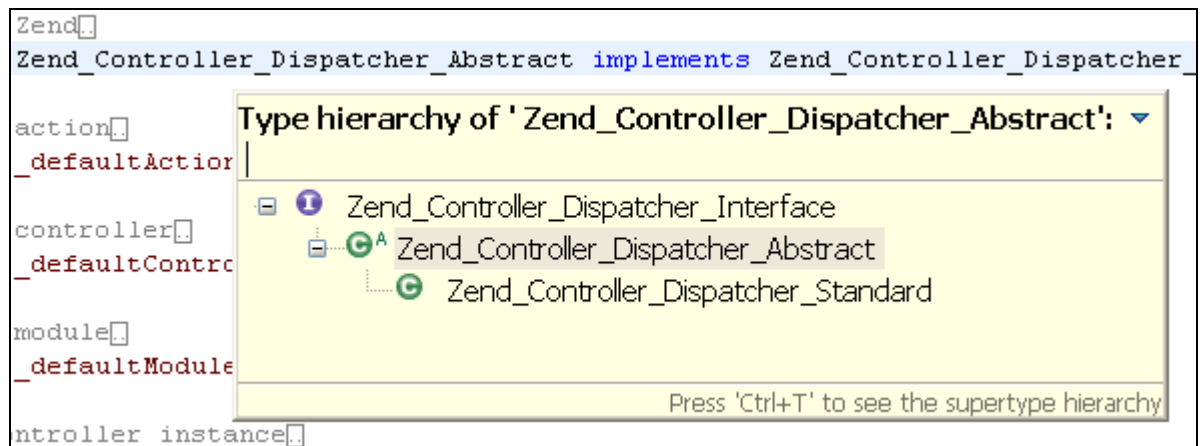
Other view features:

- Double clicking an element in the view will open it in the PHP editor.
- A 'Link with Editor' can be activated through the view's menu.

## 2.4 Quick Type Hierarchy (Ctrl+T)

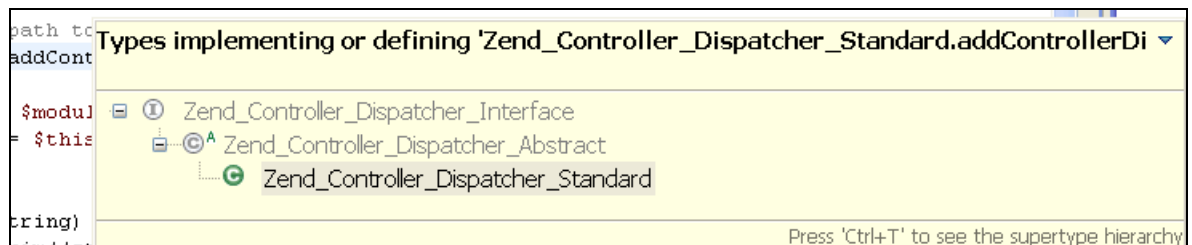
If you are working in the editor and only want to do a quick lookup for a hierarchy you can use the *Quick Type Hierarchy*:

1. Select the type name in the PHP editor
2. Press Ctrl+T or invoke Navigate -> Quick Type Hierarchy and the in-place type hierarchy view is shown.
3. Pressing Ctrl+T while the type hierarchy view is shown will toggle between supertype hierarchy and subtype hierarchy.



*Quick Type Hierarchy*

In case that the selection is for a class/interface method, a quick type hierarchy will be opened for that method:



**Shalom Gibly**