

IDL Workbench Quick Reference

The IDL Workbench is IDL's graphical user interface and integrated development environment. The IDL Workbench is based on the Eclipse framework; if you are already familiar with Eclipse, the appearance and behavior of the IDL Workbench will feel familiar. This quick reference card will help you get started using the workbench; for more detailed information on any of the topics covered here, see the IDL help system.

Starting the IDL Workbench



From the **Start** menu, select **IDL 7.1** →  **IDL**



Click the  **IDLWorkbench** icon



At the shell prompt, enter **idlde**

The IDL Workspace

A *workspace* is a directory that contains one or more IDL *projects*; projects in turn contain IDL `.pro` files and other project resources. When you first run IDL, it creates a new workspace directory automatically. By default, it will be named “IDLWorkspace” and be located in your “home” directory (usually in the “Documents and Settings” directory on Windows machines, and in the directory referred to by the `$HOME` environment variable on Macintosh, Solaris, and Linux machines).

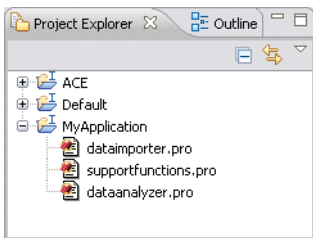
You can define multiple workspace directories, but only one can be active during a given IDL Workbench session. By default, IDL prompts you to select a workspace each time the IDL Workbench starts. To avoid the prompting, check “Use this as the default” on the **Workspace Launcher** dialog.

To change workspace directories once the IDL Workbench is running, select **File** → **Switch Workspace**. IDL will exit and restart in order to load the new workspace directory.




IDL Projects

The IDL Workbench uses *projects* to organize and manage your IDL source code files. Each project is a directory that is either a sub-directory of the current workspace directory or that is *linked* to the workspace. While storing your source code files in a project is not required, files that are located in project directories can take advantage of workbench features such as multi-file search, task markers and bookmarks, and the Outline and Problems views.



Creating a New Project

To create a new project in your current workspace, select


File → **New IDL Project** or click the  icon. Note that when you first run IDL, a project named “Default” is created automatically. You can rename this project by selecting it in the Project Explorer view and selecting **File** → **Rename**.

Creating a Linked Project

In a linked project, project metadata resides in the workspace, but the actual directory containing the project files is located elsewhere on your file system. To create a linked project, select “Create the new project from an existing directory” in the New IDL Project dialog and select the existing directory where your source code files are located.

Adding Files to a Project

You can add files to a project directory in several ways:

- Select **File** → **New** → **IDL Source File** or click the  toolbar icon.
- Select **File** → **Import...** to launch the Import wizard. Select **File System** from the **General** folder and choose the files to import.
- To create a linked file or folder, right-click on the project in the Project Explorer, select **New** → **File**, or **New** → **Folder**, and click **Advanced**. Select **Link to file/folder in the file system** and select a file or folder. Metadata about the selected file or folder will be added to the project, but the file or folder will not be copied into the project directory.

IDL Editor Features

The IDL Workbench editor incorporates numerous features that make it easy to write IDL code. The following are some of the highlights.

Content Assist

IDL can help you complete routine names. Begin typing the name of a routine or class, then press Ctrl-space to display a list of matching items. Select the item you want and press Return.

```
XMANAGER,
```

```
obj = OBJ_NEW('idlite
```

- IDLitCommand
- IDLitCommandBuffer
- IDLitCommandSet
- IDLitComponent

Syntax:

```
XMANAGER. Name, ID, CATCH = null, CLEANUP = null, EVENT_HANDLER = null  
GROUP LEADER = null, JUST REG = null, NO BLOCK = null
```

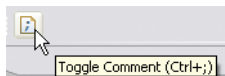
Press 'F2' for focus

Hover Help

IDL can remind you of the syntax of commands. Simply hover the mouse cursor over a routine name.

Commenting Code

You can comment and uncomment blocks of code in a single operation. Simply select the lines to be commented (or uncommented) and press Ctrl-; or click the Toggle Comment button on the toolbar.



Open Declaration

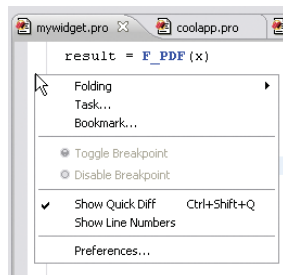
```
result = F_PDF(x)
```



You can open the *declaration* (the file in which the routine is defined) for a routine written in IDL by pressing the Control key and clicking on the routine name when the name is underlined. The .pro file that defines the routine is opened in a new editor window. (Routines that are internal to IDL or which are defined in a .sav file are not opened.) You can also press Ctrl-F3 to open the declaration for the selected routine.

Task Markers and Bookmarks

You can annotate your .pro files with task markers and bookmarks. Task markers allow you to leave yourself reminders about tasks to be completed later. Bookmarks provide an easy way to navigate to specific locations in a file. To create either, position the mouse pointer in the gutter at the left edge of the editor window and right-click to display the context menu, then select **Task...** or **Bookmark...** to create the mark. You can also create a task by beginning a line in the editor with the characters ;TODO. To view tasks or bookmarks, display the Tasks view or the Bookmarks view. The context menu also allows you to work with breakpoints and folding regions, and to display line numbers and annotations about lines that have changed.



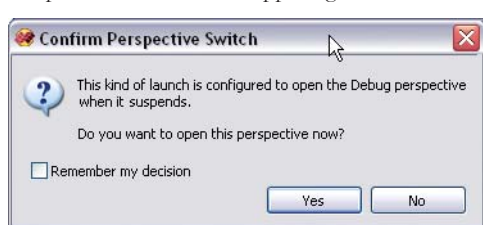
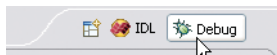
IDL Debugging Features

The IDL Workbench provides several ways to inspect your code as it runs.

The Debug Perspective

Although you can use the workbench debugging features

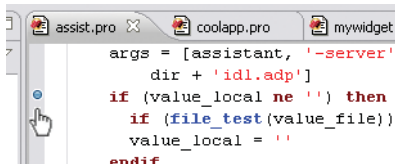
in any perspective, the most common debugging tools and views are collected in the Debug perspective. To switch to the Debug perspective, click the Debug icon on the Perspective toolbar in the upper right corner of the workbench.



If IDL halts execution of your code due to a problem or a breakpoint, the workbench asks if you want to switch to the Debug perspective. Whether you choose to switch or not, select **Remember my decision** on the **Confirm Perspective Switch** dialog to avoid being prompted each time.

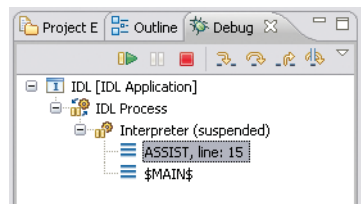
Using Breakpoints

A breakpoint is a marker in your code that tells IDL to suspend execution when it reaches the marked line. To set or remove a breakpoint, double-click in the grey gutter at the left edge of the editor window. (You can also select **Run → Toggle Breakpoint**, press Ctrl-Shift-B, or use the context menu to set and remove breakpoints.)



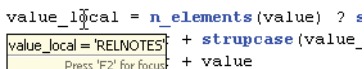
The Debug View

When IDL encounters a problem or breakpoint that causes it to halt execution of your code, the Debug view is displayed (whether or not you switch to the Debug perspective). Buttons on the Debug view toolbar allow you to step through your code in various ways or resume execution. The step commands are also available on the **Run** menu, and keyboard shortcuts are visible there as well.



Inspecting Variable Values

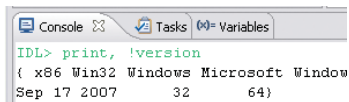
The Variables view shows you the current values of variables in the scope of the routine selected in the Debug view (usually the routine in which IDL has halted execution). You can also inspect variables' values by hovering the mouse pointer over the variable name.



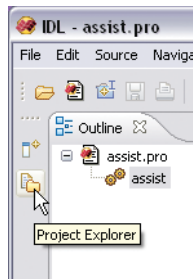
Working with Views

The IDL Workbench consists of several *views*, each of which contains a different type of information. The Project Explorer, the Variables view, and the Console view are all examples of views. You can rearrange views within a perspective; the workbench will remember your most recent layout choices. You can also:

- Maximize a view by double-clicking on its tab. Double-click again to restore the view.
- Drag a view entirely out of the workbench application window.
- Create a *Fast View* by right-clicking on the view's tab and selecting Fast View. A Fast View is normally minimized and appears as an icon on one edge of the workbench window; clicking on the Fast View icon temporarily displays the view.
- Return all the views to their default positions and sizes by selecting **Window** → **Reset Perspective**.



```
IDL> print, !version
( x86 Win32 Windows Microsoft Window
Sep 17 2007          32          64)
```



Perspectives

The IDL Workbench groups views into *perspectives* for different purposes. By default, the IDL Workbench has an *IDL* perspective and a *Debug* perspective. You can create your own perspective by adding and removing views, arranging the views as you prefer, and selecting **Window** → **Save Perspective As...**

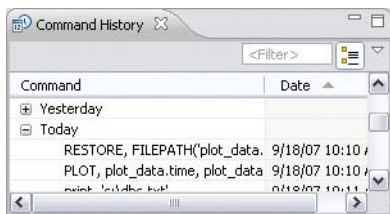
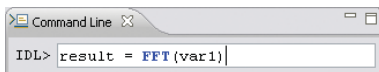
Getting Help

In addition to the Content Assist and Hover Help features, the IDL Workbench provides several ways to get assistance.

- Selecting **Help** → **Help Contents** launches the IDL help viewer, which allows you to browse the entire IDL documentation set in hyperlinked electronic format.
- Highlighting a term in the command line or IDL editor and pressing F1 (Windows), Shift-F1 (Linux & Solaris), or Help (Macintosh) displays the reference topic for the selected term, if one exists. Typing “?” followed by a search term at the IDL command line does the same thing. Help content will appear in the Help view (within the Workbench interface) by default; you can specify that it should appear in the help browser instead by opening the Help preference page and specifying that window context help should open **in an infopop**.
- Pressing F1/Shift-F1/Help displays help for the currently-selected IDL Workbench interface element.
- Selecting **Help** → **Cheat Sheets** allows you to choose a short, interactive tutorial.
- Selecting **Help** → **Welcome** displays the Welcome screen, which provides links to online resources and longer tutorials.
- Selecting **Help** → **Key Assist** or pressing Ctrl-Shift-L displays a list of key bindings for many of the most common IDL Workbench actions.

Command Line View

The IDL Command Line view allows you to perform ad hoc analyses, compile and launch applications, and create \$MMAIN\$ (main-level) programs interactively.



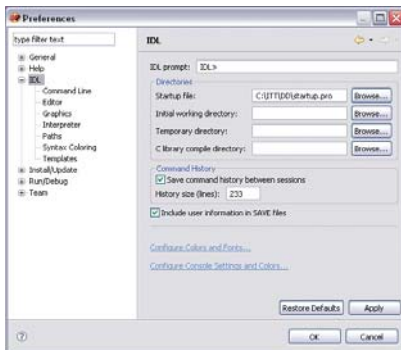
Command History View

The Command History view records each command you enter at the IDL command line. Double-click on a single command to re-execute it, or select multiple commands and drag them to the Command Line view to re-execute the selected commands. You can also drag commands to an editor window.

Preferences

Select **Window** → **Preferences** to display the IDL Workbench preference dialog. IDL and the IDL Workbench have numerous preferences, many of which are inherited from the underlying Eclipse workbench. To locate a preference, begin typing text in the filter text box at the top left of the dialog; preference pages containing items that match the text you enter are displayed. Click the **?** icon at the lower left corner to display help on the preferences on a given preference page.

Note that IDL system preferences and other preferences that are unique to IDL are grouped under the IDL heading.



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