DSix User Interface

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Description

This section presents the DSix Graphical User Interface (GUI) and covers all of the primary interface elements that make up the GUI. You will be introduced to the main application window and to the menus and toolbars used to interact with DSix and access its functionality.

What you will learn

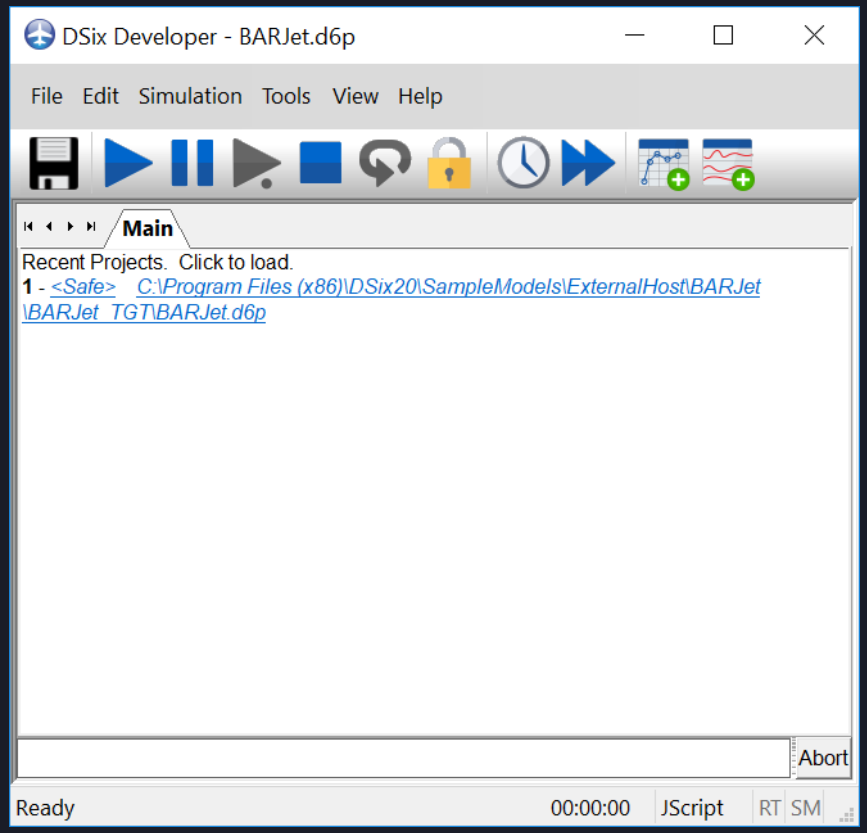
Upon completion of this section, you will be able to:

- Identify the functions available through the DSix drop-down menus
- Identify the functions available through the DSix toolbar elements
- Understand the primary elements that make up the DSix application window
- Have a general understanding of how to access the core functions of DSix

Main Application Window

Full access to:

- DSix menus
- Simulation controls
- Module interfaces
- Currently loaded script objects
- Command Line Interface
- Recent projects
- Simulation status



Main Application Window

Title bar

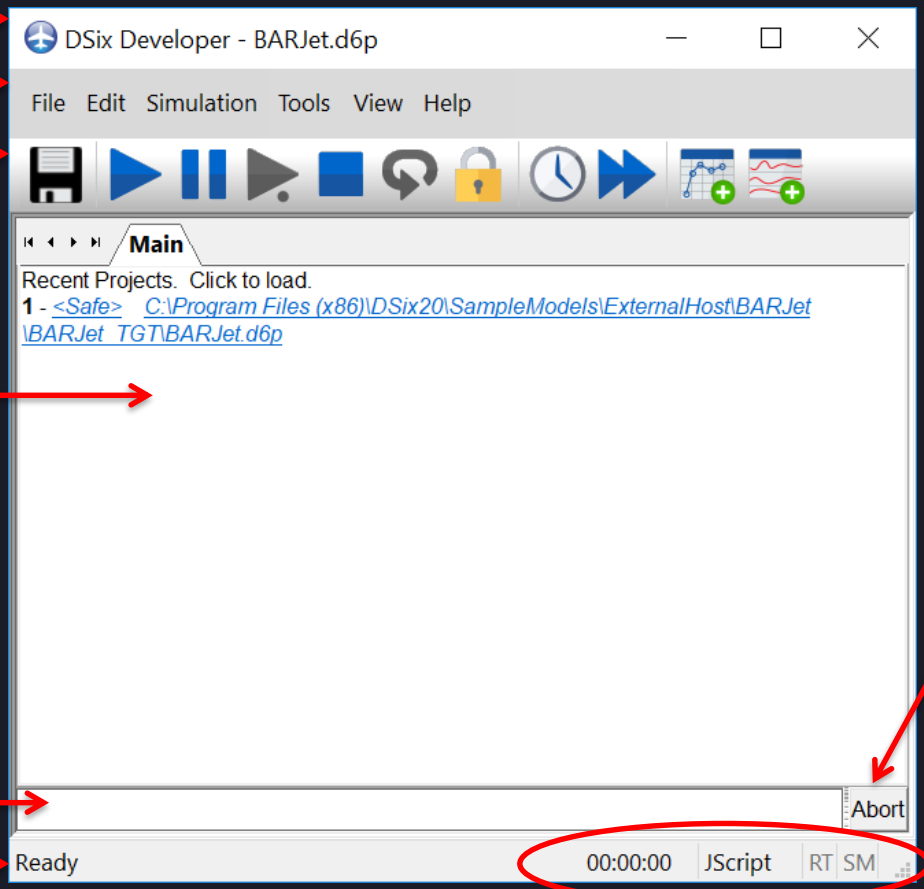
DSix menus

DSix toolbar

Output window

Command line

Tooltips

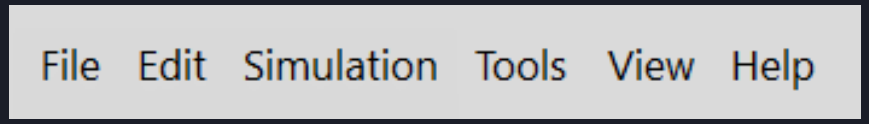


Abort script button

Status information:

- Elapsed time
- Script engine
- Real-time alert
- Safe Mode alert

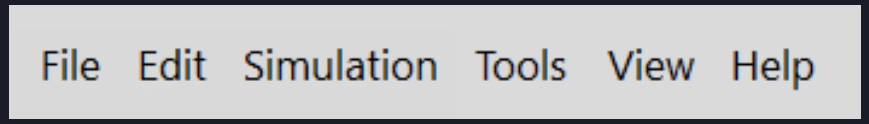
DSix Menus



Provides access to:

- File-related activities (open, load, save, exit)
- Editing functions (initial conditions, vars, etc.)
- Simulation parameters and controls
- DSix Tools
- Visualization features (strip charts, plots, IG, etc.)
- Help

DSix Menus



NOTE:

- Not all menu items will appear, or be active for a particular DSix session.

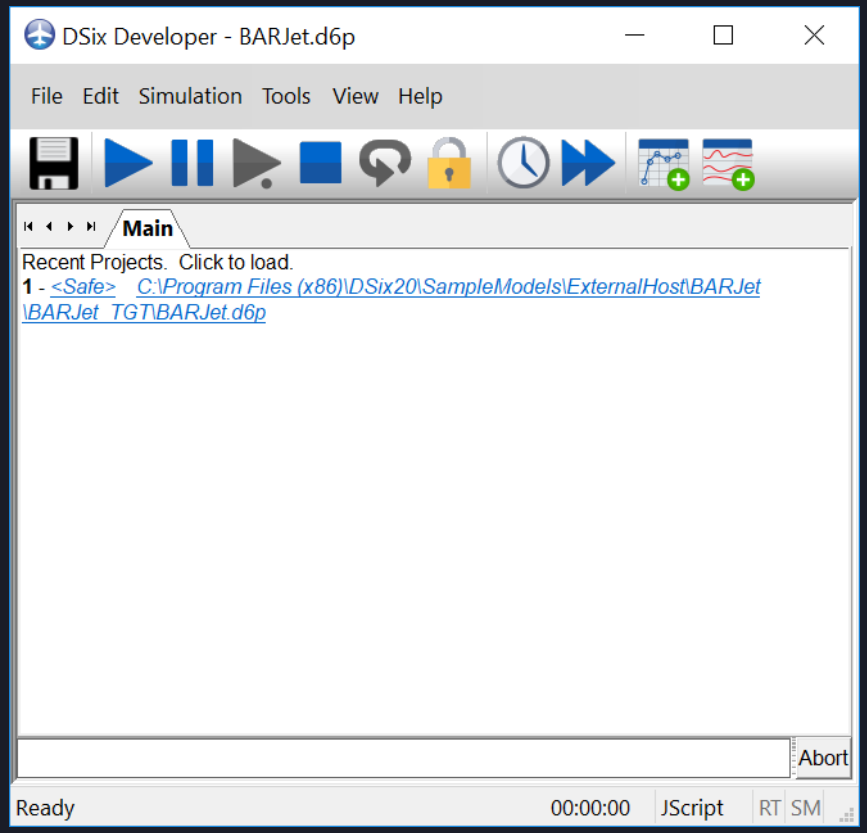
- Factors that may determine a given menu item's availability include:
  - modules currently loaded
  - license permissions
  - current simulation state.

DSix Toolbar

Save		Save Current Project
Run		Begin a run, or continue a paused run
Pause		Pause a run, or set simulation to begin in a paused state
Step		Perform a single time step on a paused run
Stop		Stop a run
Replay		Replay a run
Safe Mode		Toggle Safe Mode on/off
Real Time		Commands real time execution
Increase Speed		Increases simulation speed
Plots		Open a DSix Plots window
Strip Chart		Open a DSix StripChart

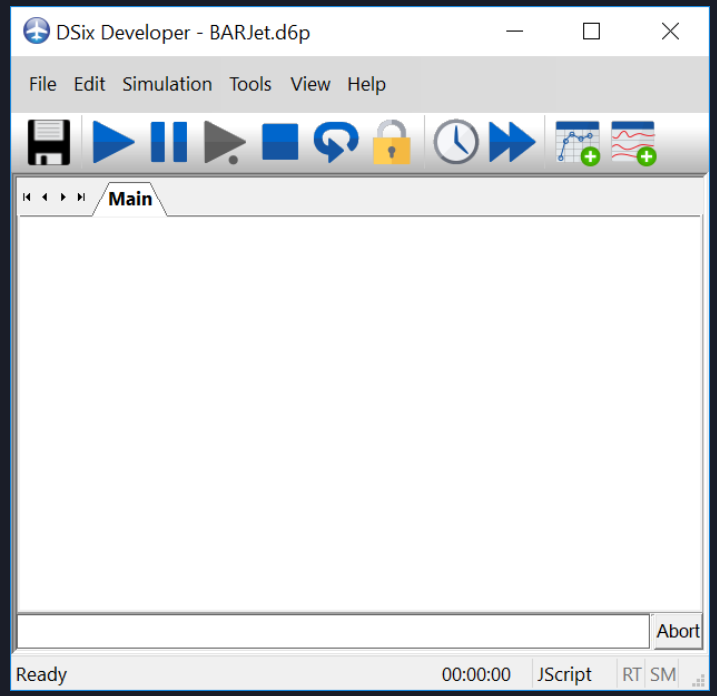
Most Recent Project Links

- Provides one-touch loading of projects that have been recently loaded into the workspace.
- Populated at DSix program startup, and is not refreshed during a DSix session.
- Listed in order, beginning with the most recently loaded project.
- A link that begins with '<Safe>' indicates that the project was last loaded in Safe Mode.
- The display of these links is optional, and may be set via DSix Preferences.

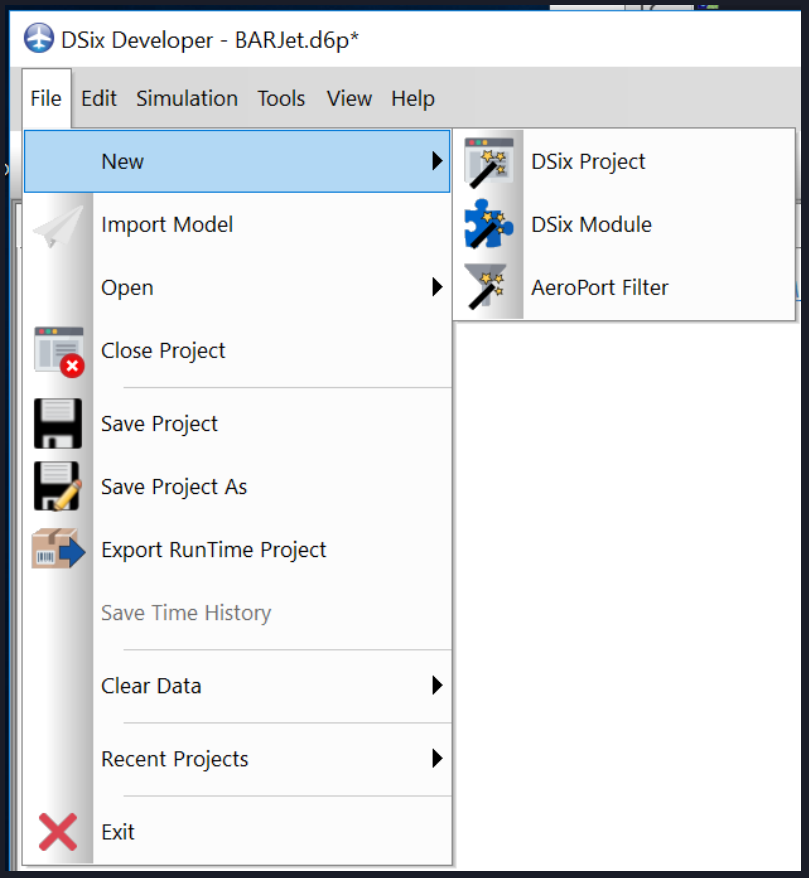


Output Window

- Warning, error, and simulation state messages are posted to this window by plug-in modules, the script engine, and the DSix application.
- Output window control, creation of additional windows, and custom messaging is available to DSix users through the “Print…” properties and methods of DSix scripting
- Further control is available to DSix Developers via the DSix API.



The FILE menu



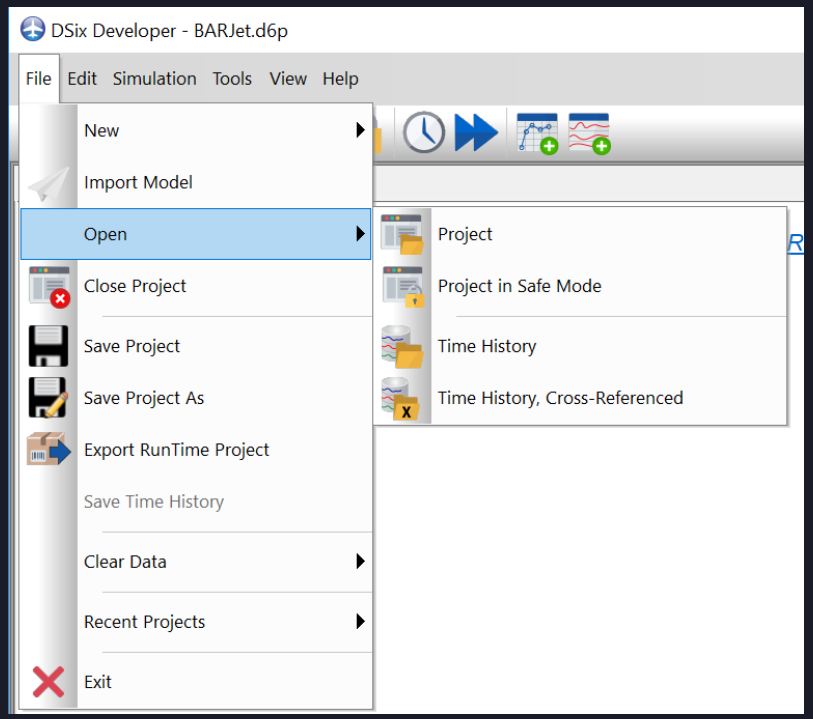
DSix Project: Launches a wizard that creates an empty DSix project.

DSix Module: Launches a wizard that creates an empty DSix module.

AeroPort Filter: Launches a wizard that creates an empty AeroPort filter.

NOTE: Wizards only available in DSix Developer Edition

The FILE menu



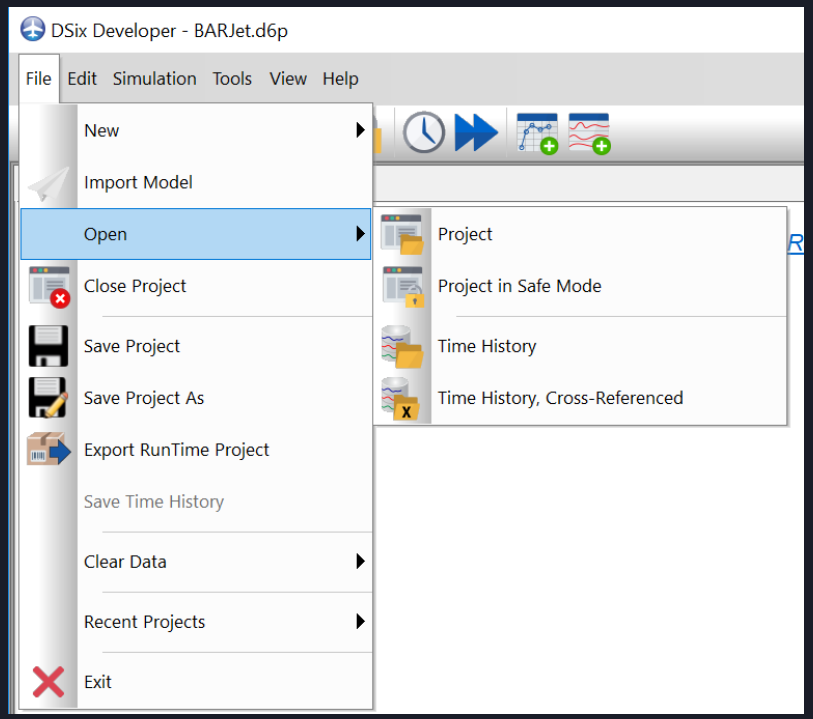
Open -> Project: Allows the use to navigate to a DSix project and open it.

Open -> Project in Safe Mode: Allows the use to navigate to a DSix project and open it in Safe Mode.

Open -> Time History: Load a Time-History file into the DSix database.

Open -> Time History, Cross-Referenced: Load a Time-History file into DSix, and open the Cross-Reference Tool, allowing renaming of channels.

The FILE menu



Close Project: This will unload the project dll, clear the variables, and dispatch a "Project Close" message to all DSix modules. After selecting this item, DSix will be in the same state as when the application is first launched.

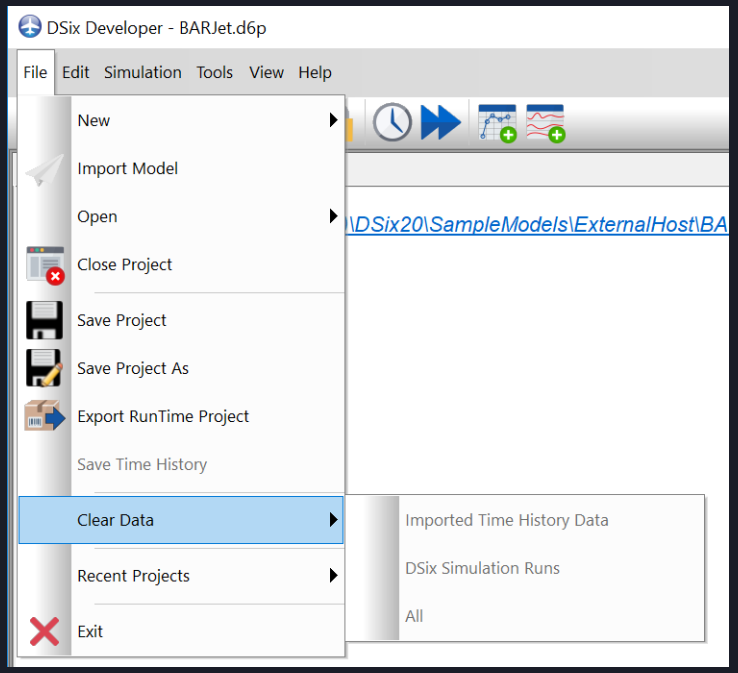
Save Project: Saves the current DSix Project.

Save Project As: Saves a copy of the current DSix Project.

Export RunTime Project: Saves a copy of the current DSix Project in a special RunTime format that can be opened by a DSix RunTime license.

Save Time History: Save a DSix Time-History database to a file. DSix Time-Histories may be saved to WPText (*.txt) or Matlab Script (*.m) files only. This option will be disabled when there are no Time-Histories in current program memory.

The FILE menu

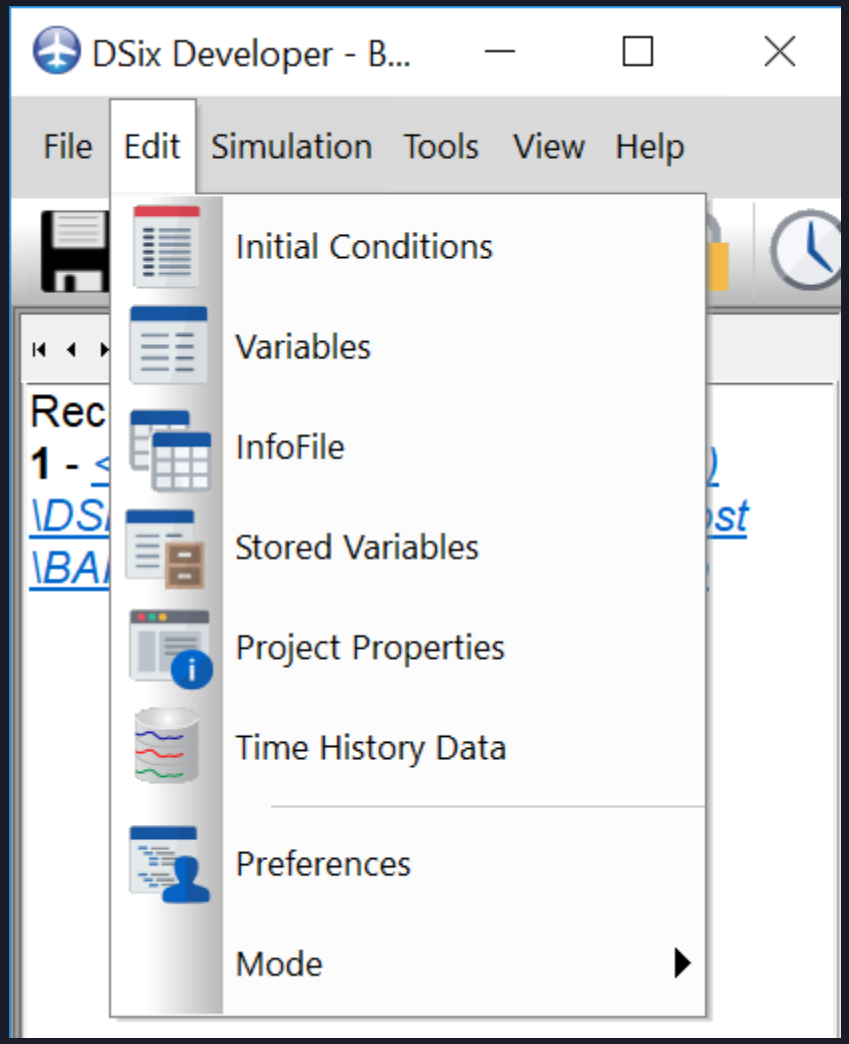


Clear Imported Time History Data: Clear Time-History databases that have been loaded via ..Open..Data File or ..Open.. Data File, Cross-Referenced.

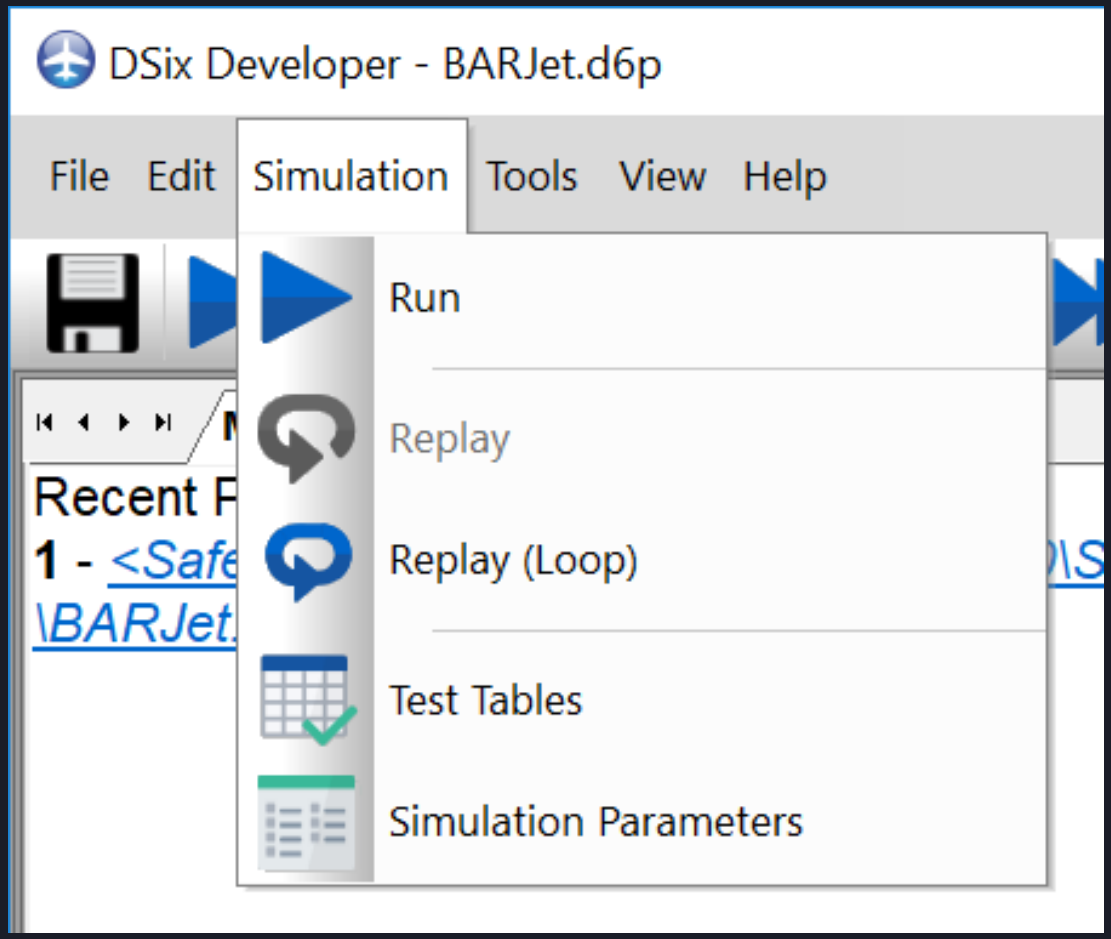
Clear Sim Runs: Clear Time-History databases that have been generated from simulation runs.

Clear All: Clear all Time-History databases currently in memory

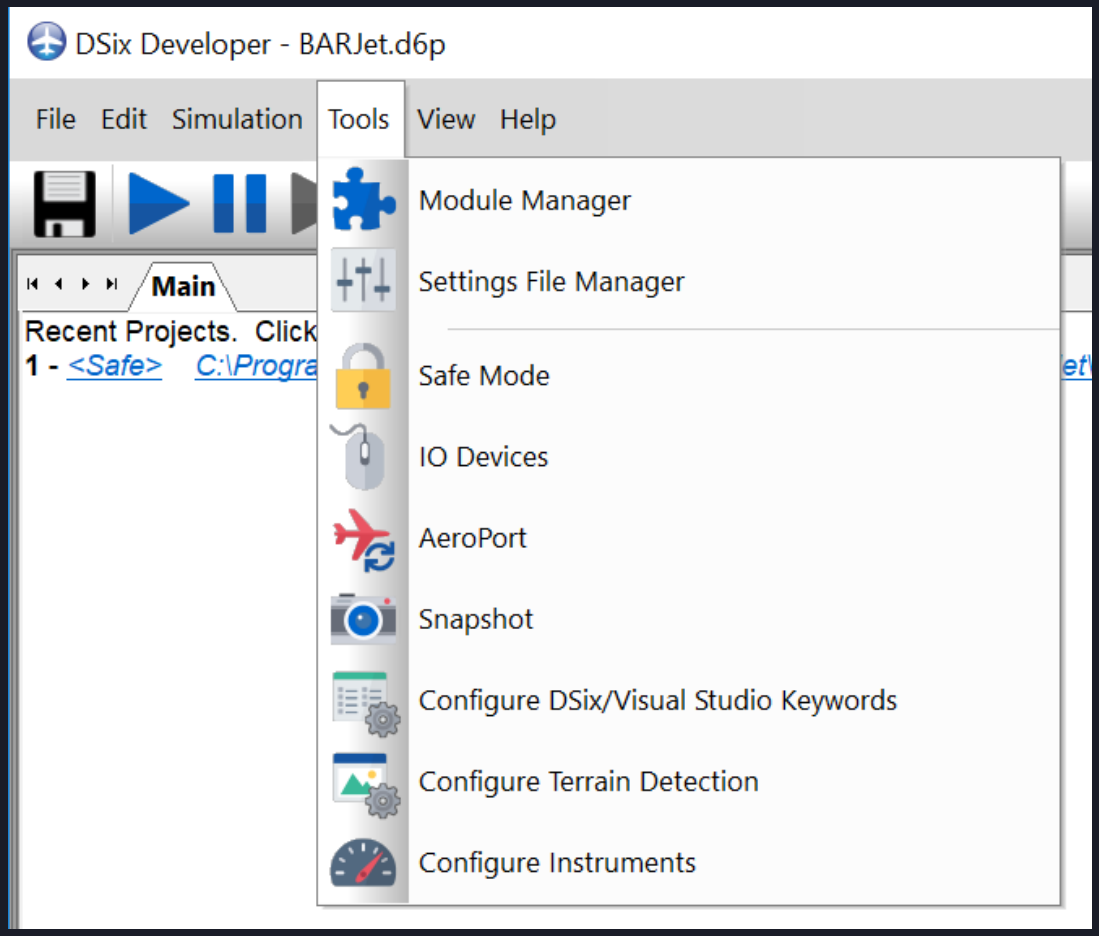
The EDIT menu



The SIMULATION menu

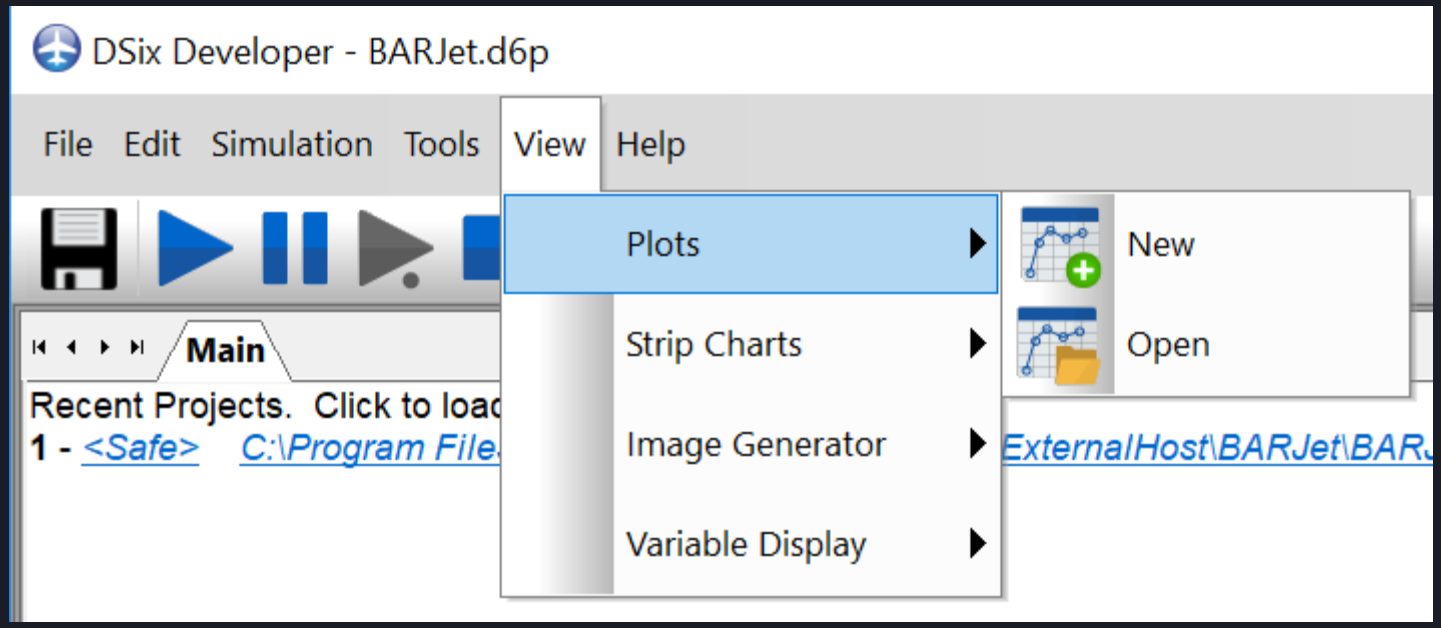


The TOOLS menu



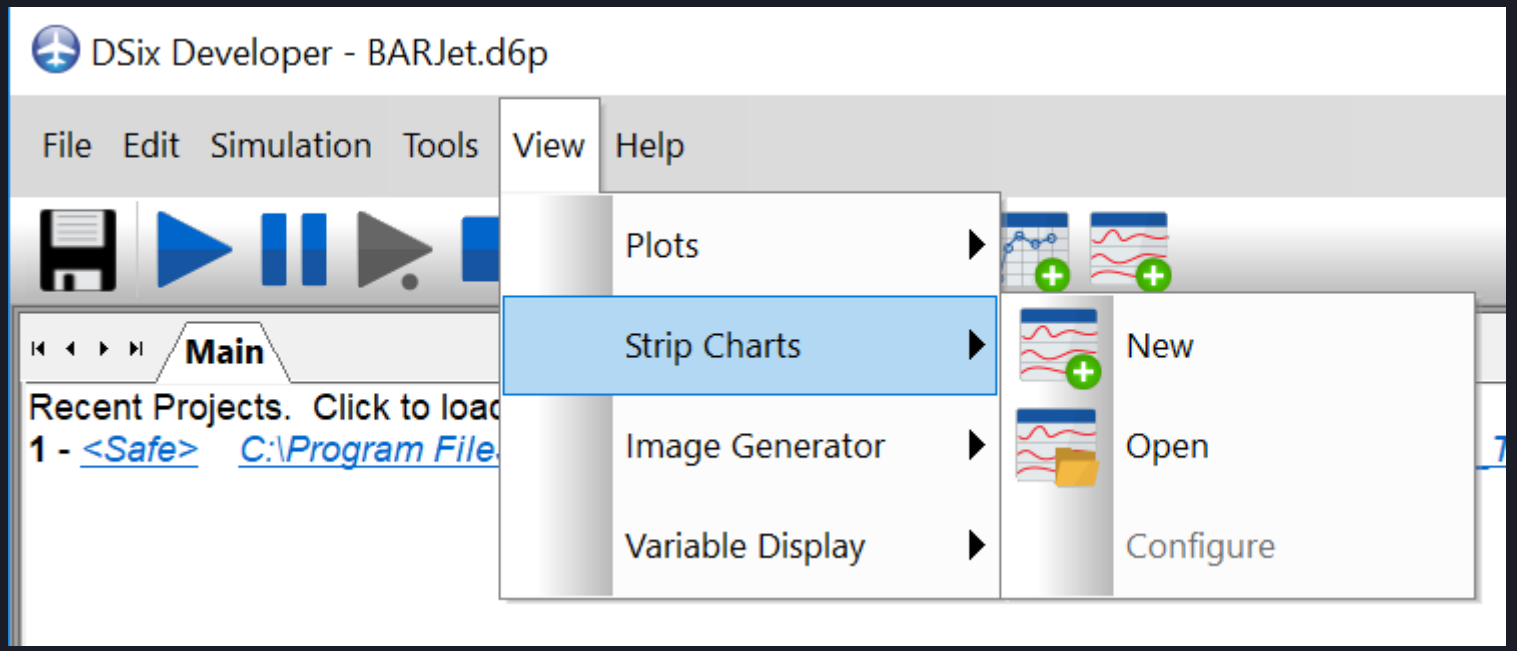
The VIEW menu

Plots Sub-Menu



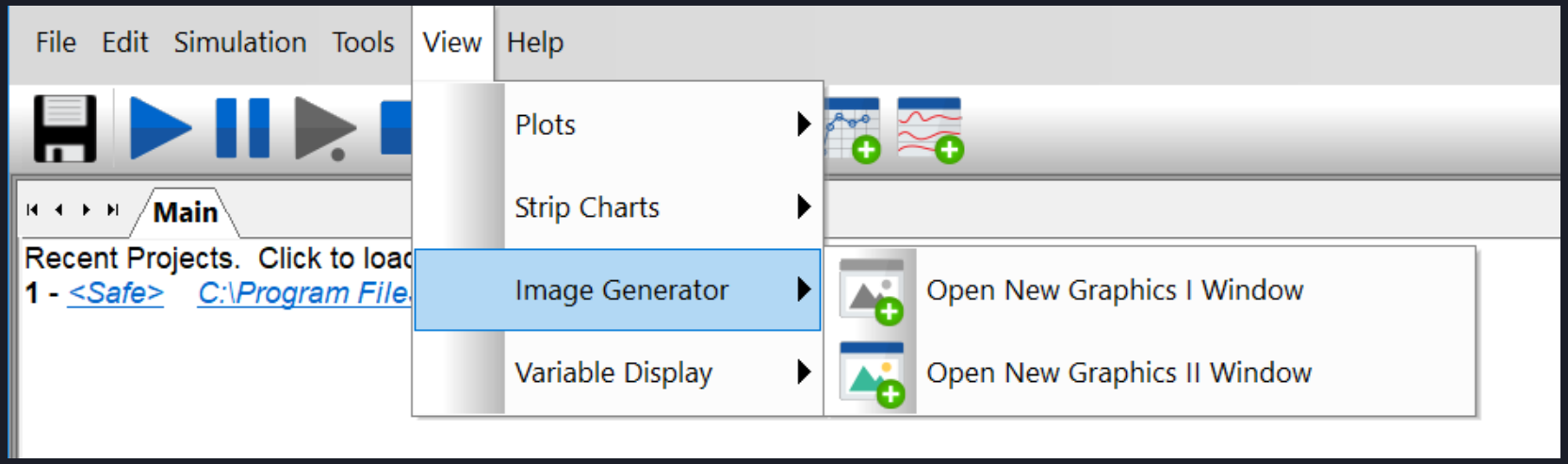
The VIEW menu

Strip Charts Sub-Menu



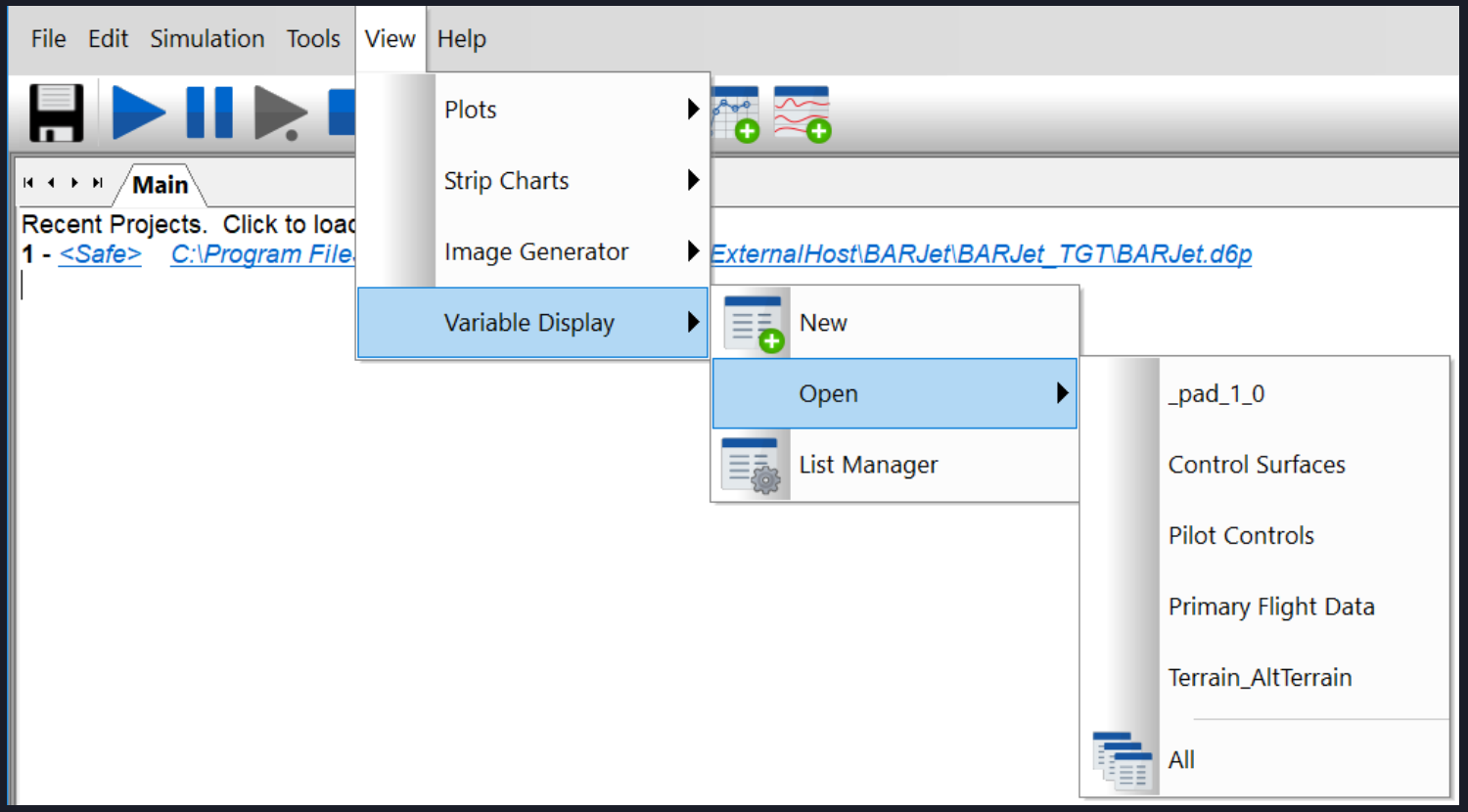
The VIEW menu

Image Generator Sub-Menu

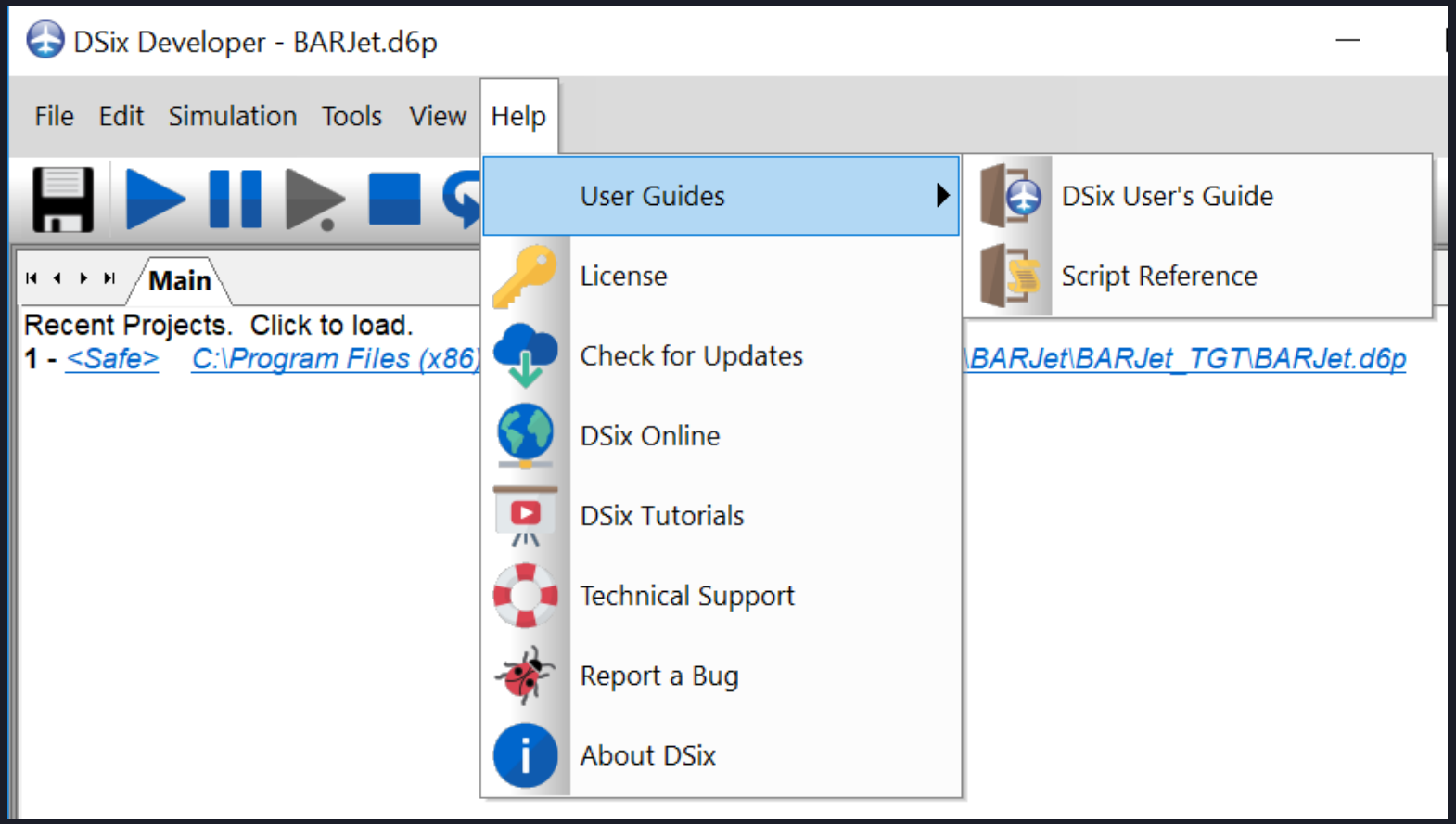


The VIEW menu

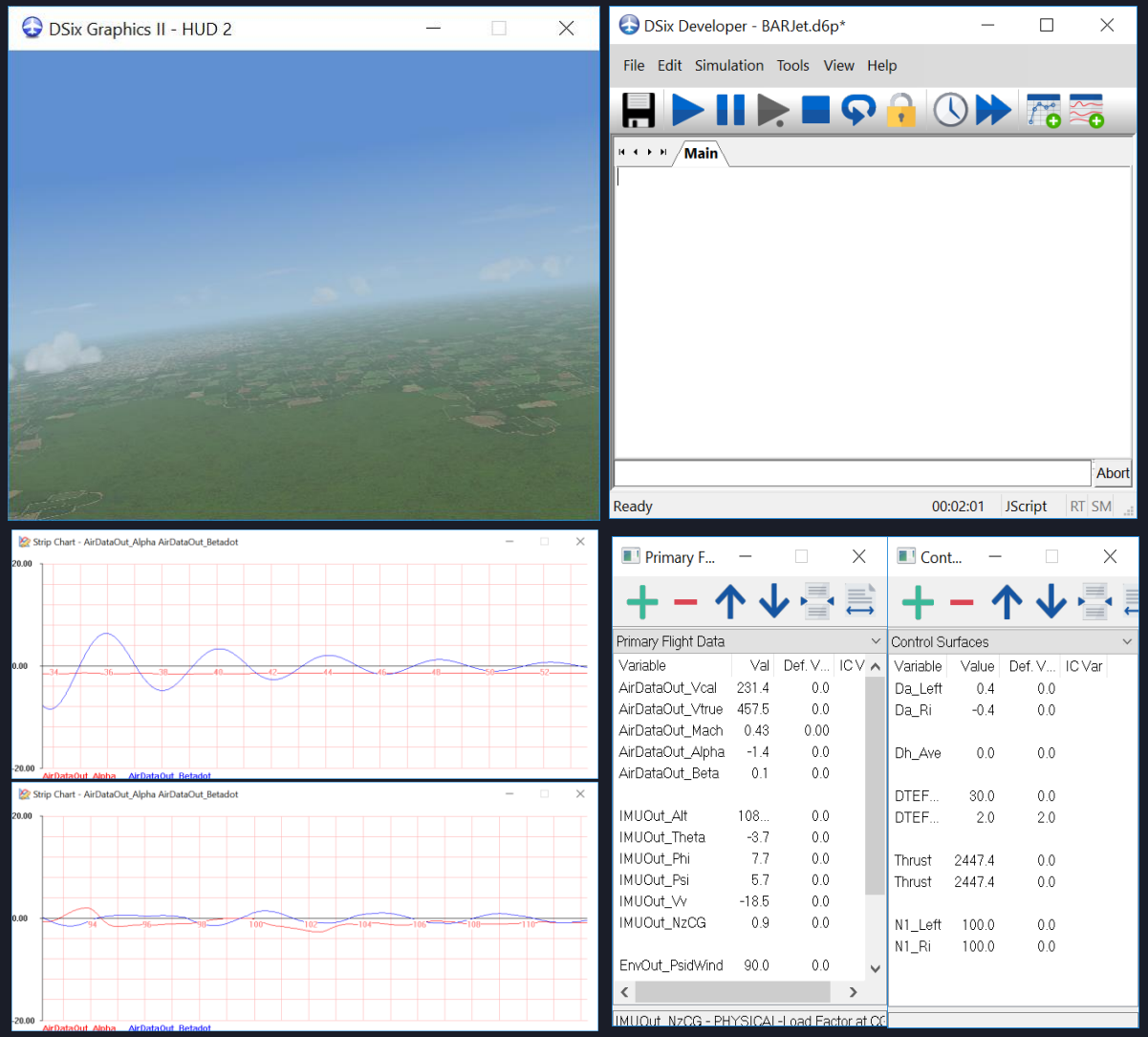
Variable Display Sub-Menu



The HELP menu



A Populated DSix Workspace




DSIX
Flight Simulation Environment