

# Macros



# What is the Macro function?

- The macro panel allows the user to record and playback a sequence of commands in PRIMER similar to using visual basic macros in Excel etc.
- Macros are deliberately made to be human readable to that a macro can be edited by hand.
- The easiest way to see the format of a macro file is to record one and see what commands PRIMER uses.



# Recording Macros

- To record a macro it must be given a file name.
- Once a filename has been specified the “Start recording” button will be available to the user to start recording their macro.
- Once the macro recording has started the button will turn red and will read “Stop recording”.
- The commands will be stored in the file in the location specified by the user.
- The “Echo to dialogue box” option will write the commands to the dialogue box in the bottom left of the PRIMER window, while the “Echo to terminal” option will write the commands to the terminal window.

The screenshot shows a 'Macros' dialog box with the following elements:

- Record** and **Play** buttons at the top.
- A **File:** text input field with a folder icon to its right, highlighted by a red box. A red arrow points from the first bullet point to this field.
- A **Start recording** button, highlighted by a red box. A red arrow points from the second bullet point to this button.
- Name:** and **Description:** text input fields.
- Echo to dialogue box:** ☒ and **to terminal:** ☐. This section is highlighted by a red box. A red arrow points from the fifth bullet point to the 'Echo to dialogue box' checkbox.
- Max initial window size:** **Width:**  and **Height:** .
- A section titled **Assign Macros to shortcut key** containing a grid of buttons.

# Recording Macros

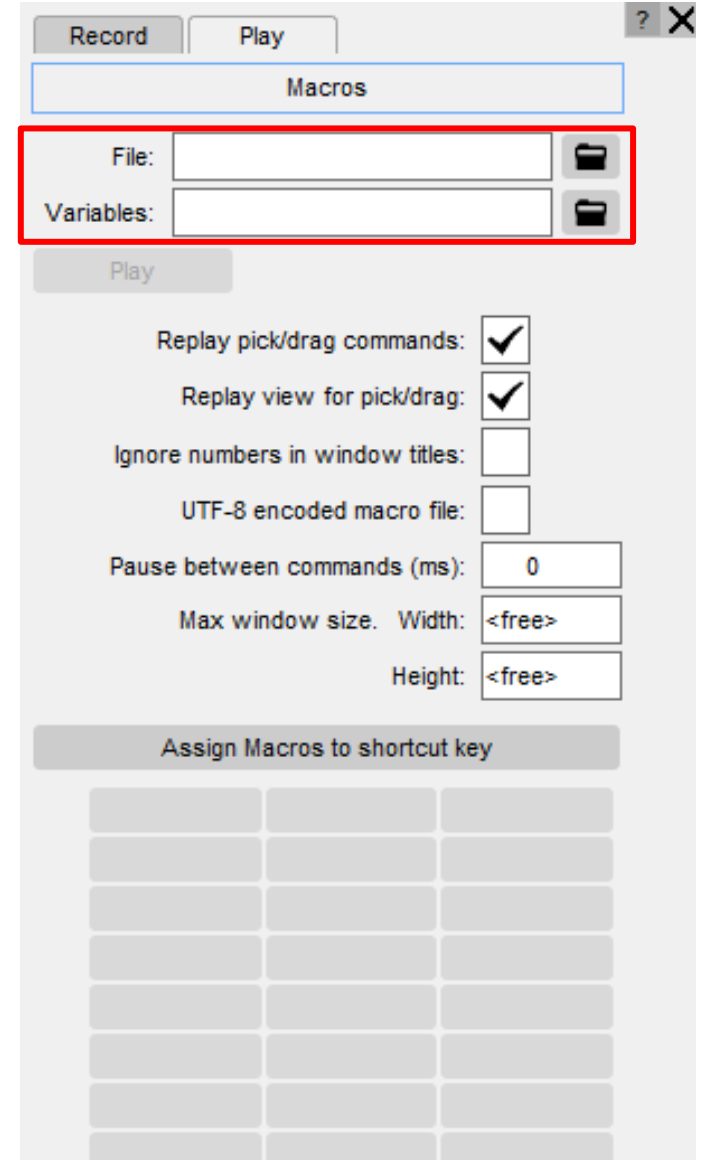
- There is an option to give the macro a name and description, these will be used for a name and hover text for buttons at the bottom of the panel (see below).
- Users are also able to set the maximum initial window size of a macro.
- Any macro stored in **\$(OA\_ADMIN/OA\_INSTALL/OA\_HOME)/primer\_library/macros** will have a button assigned at the bottom of the macro panel. This makes it easier to find and run common macros.

The screenshot shows a 'Macros' dialog box with the following elements:

- Record** and **Play** buttons at the top.
- A **File:** text box with a folder icon.
- A **Start recording** button.
- A red box highlights the **Name:** and **Description:** text input fields.
- Below these, there are checkboxes for **Echo to dialogue box:** (checked) and **to terminal:** (unchecked).
- Another red box highlights the **Max initial window size** section, which includes **Width:** and **Height:** dropdown menus, both currently set to **<free>**.
- A **Assign Macros to shortcut key** button.
- A large red box highlights a grid of 10 empty buttons at the bottom, intended for assigning macros to specific keyboard shortcuts.

# Replaying Macros

- In order to play a macro, the user will need to specify the macro file.
- There is also the option to use a variables file for the replaying of the macro, this allows the macro to be edited so that instead of using fixed values, it can use variables for certain key values and/or numbers.
- The user will be able to modify these variables as required either interactively when the macro runs, or by using a macro the “.csv” file if specified in the “Variables” text box.

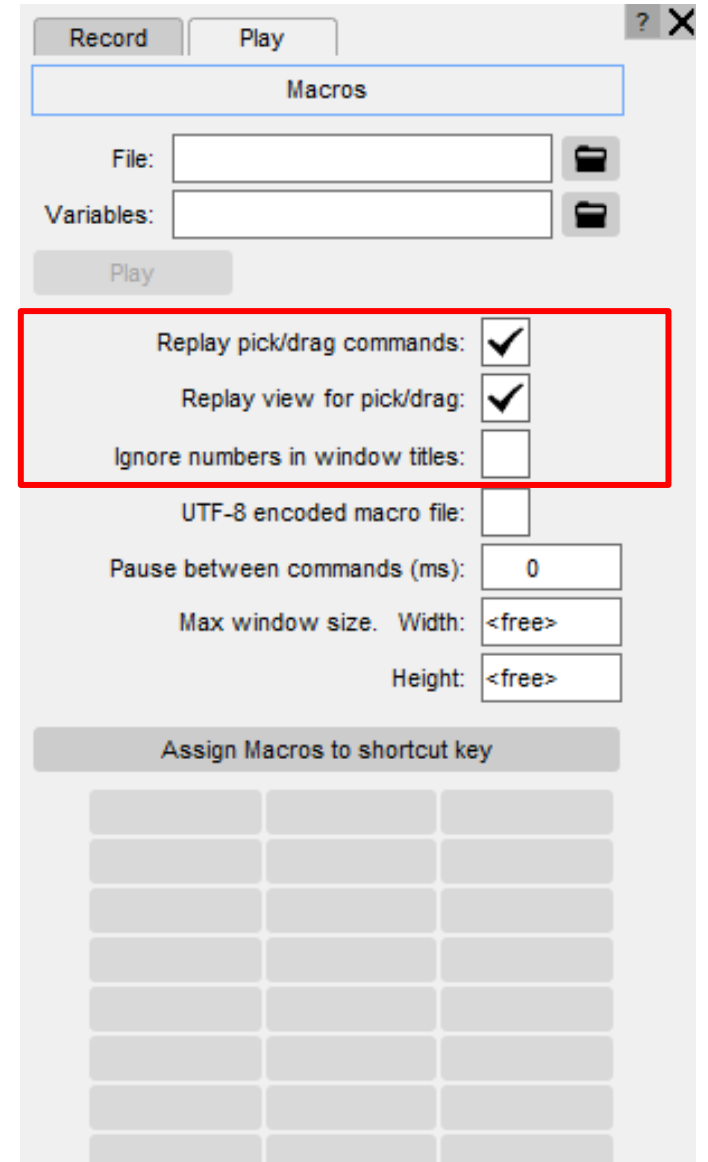


The screenshot shows a dialog box titled "Macros" with a "Record" button and a "Play" button. Below the buttons is a section labeled "Macros" containing two text boxes: "File:" and "Variables:". Both text boxes have a file selection icon to their right. This section is highlighted with a red rectangle. Below this section is a "Play" button. Underneath the "Play" button are several checkboxes and input fields: "Replay pick/drag commands:" (checked), "Replay view for pick/drag:" (checked), "Ignore numbers in window titles:" (unchecked), "UTF-8 encoded macro file:" (unchecked), "Pause between commands (ms):" (0), "Max window size. Width:" (<free>), and "Height:" (<free>). At the bottom of the dialog is a section titled "Assign Macros to shortcut key" which contains a grid of 12 empty buttons arranged in 4 rows and 3 columns.

# Replaying Macros

There are a number of macro playback options:

- **Replay pick/drag commands** – If a macro file contains any pick or drag commands then by default when the macro is played the saved pick and drag commands will be replayed. If the option is unselected, then the pick/drag commands will be skipped, and the macro playback will pause to allow you to replace the pick with whatever the user would want.
- **Replay view for pick/drag** – Whenever a pick or drag command is recorded PRIMER saves the current view in the graphics window to the macro. If this option is selected then on playback the view will be restored before picking. If it is not selected the command will be skipped and the view will not be updated.
- **Ignore numbers in window titles** – Ignores any numbers in window titles when replaying macros.



The screenshot shows the 'Macros' dialog box with the following options:

- Record** / **Play** tabs
- File:** [text box] [icon]
- Variables:** [text box] [icon]
- Play** button
- Replay pick/drag commands:** ☒ (highlighted in red)
- Replay view for pick/drag:** ☒ (highlighted in red)
- Ignore numbers in window titles:** ☐
- UTF-8 encoded macro file:** ☐
- Pause between commands (ms):** [0]
- Max window size. Width:** [<free>]
- Height:** [<free>]
- Assign Macros to shortcut key** [grid of buttons]

# Replaying Macros

More macro playback options:

- **UTF-8 encoded macro file** – Indicates that this macro contains Unicode text for Pause or MacroVariable commands and is UTF-8 encoded.
- **Pause between commands (ms)** – Sometimes it is useful to have a pause between commands when playing the macro, this textbox allows the user to give a pause (in milliseconds) between commands on playback.
- **Max window size** – Allows the user to be able to set the maximum initial size of the graphics window when recording a macro.

The screenshot shows a dialog box titled "Macros" with "Record" and "Play" tabs. The "Play" tab is active. It contains the following options:

- File: [text box] [icon]
- Variables: [text box] [icon]
- Play [button]
- Replay pick/drag commands: ☒
- Replay view for pick/drag: ☒
- Ignore numbers in window titles: ☐
- UTF-8 encoded macro file: ☐ (highlighted in red)
- Pause between commands (ms): [0] (highlighted in red)
- Max window size. Width: [<free>] (highlighted in red)
- Height: [<free>] (highlighted in red)
- Assign Macros to shortcut key [button]
- [Grid of buttons for assigning macros to shortcut keys]

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