The Power Keys

What follows are tables showing how Power keys can improve your effective use of ModelPro. The five Power keys are: the Command key, the Option key, the Control key, the Shift key, and the Space Bar. These keys, when combined with various tools and mouse actions, extend the functionality of ModelPro, and may greatly reduce your modeling time.

The Command (⌘) key

If held while:	Causes:
Also holding the “period” (.) key.	Aborts the following operations: Bevel, Duplication, Volume Calculation, and Find (help).
Dragging the title bar of a view window that is not active.	Will allow you to move that window without the window having to be activated (title bar highlighted).
Clicking in the “Display Column” of a folder in the Group palette.	Changes the display setting for all of the objects in that folder all at once. All internal objects get set to the same display mode.
Any of the Viewing, Manipulation, or Creation tools are active.	The cursor temporarily changes to the Selector tool, allowing you to make selections without having to go get the Selector tool in the Tool palette.
The Selector tool is active and a segment of a selected Spline mesh object is clicked on.	The continuous “rib” that the clicked-on segment belongs to will become selected.
The Hand tool is active in any of the three Orthogonal view windows.	The cursor changes to a Zoom-In magnifying glass. You can click to zoom in, or drag a “view frame” to zoom in.
The Hand tool is active in the Angled view window.	The cursor changes to a Zoom-In magnifying glass. If you drag from the center of the window towards the edge of the window, the scene will Zoom closer. If you drag from the edge of the window towards the center of the window, the scene will Zoom farther away.
The “Fit-to-Window” button is pressed in any one of the four view windows.	All four windows will automatically execute a Fit- to Window
The “Zoom-In” or “Zoom-Out” buttons are pressed in any one of the three orthogonal view windows.	All three windows automatically align themselves to each other, and they all take on the zoom scale of the window whose button is being pressed. They all zoom in or out together as long as the button is pressed.

The Option Key

If held while:	Causes:
Picking a new tool from the Tool palette. A different tool is currently selected.	The data fields and buttons in the Tool Info palette for the tool you click on get reset to their default conditions.
Picking a color from the Color palette.	The object or group that is currently selected will be assigned a random rainbow of colors.
Dragging an object or group.	A copy of the object or group will be created, and the copy will move with the mouse. The new object or group will be placed in the Group list at the current location of the Insertion Pointer.
Clicking on an object with the Selector tool.	The object will be selected as an object with its bounding box corners showing rather than as a spline with its vertices showing.
Clicking on the “Open / Close” arrow of a closed folder in the Group palette.	The folder will open with all of its internal folders closed.
Clicking in the “Display Column” of an object or folder in the Group palette.	The “D” box for that item will go gray, and that item will be represented in the view windows as a gray bounding box instead of as a wireframe form. If the item is a folder, then all the objects in that folder get displayed by their “extents.”
Using the Rotate 3D tool to rotate an object or group in the View windows.	Constrains the rotation to occur about the axis that is perpendicular to the orthogonal view window that is being worked in. This can also be thought of as “banking” the object.
Clicking on the screen with the Mirror tool.	Brings up a “Reflect” dialog box which allow you to define the mirror operation numerically.
Hand tool is in use in the orthogonal views.	Changes the cursor to a Zoom-Out magnifying glass. And sure enough, you can zoom-out with it.
Hand tool is in use in the Angled View window.	The cursor is changed from a 4-way arrow cursor to a Hand cursor. This allows you to “pan” the Angled View window.
Pressing on the Zoom-In and Zoom-Out buttons at the bottom of each of the four view windows.	Causes the window to Zoom-in and Zoom-out four times faster than normal.

The Control Key

If held while:	Causes:
The Selector tool is pressed on a visible vertex that is a sharp corner, and the mouse is dragged off that vertex.	The cursor changes to a white arrow with no tail. The vertex is converted from a sharp corner to a smooth corner and a pair of control handles are pulled out from that vertex as a result of the drag.
The Selector tool is pressed on the control handle of a visible vertex that is a smooth corner, and the mouse is used to drag that control handle.	The cursor changes to a white arrow with no tail. The vertex is converted from a smooth corner to a sharp corner and the control handles that is being dragged moves independently as a result of the drag, allowing the user to edit one side of the vertex separately from the other.
Hand tool is in use in the Angled View window.	The cursor is changed from a 4-way arrow cursor to a circular arrow rotate cursor. This allows you to “bank” the Angled View window. (That is, you can rotated the scene about an axis that is perpendicular to the view window.)
The “Fit-to-Window” button is pressed in any one of the four view windows.	All four windows will automatically execute a Fit-to-Window command.
The “Zoom-In” or “Zoom-Out” buttons are pressed in any one of the three orthogonal view windows.	All three windows automatically align themselves to each other, and they all take on the zoom scale of the window whose button is being pressed. They all zoom in or out together as long as the button is pressed.

The Shift Key

If held while:	Causes:
Using the Selector tool to click on objects or groups in either the view windows or the Group palette.	Allows multiple objects to be selected. If you shift-click on a de-selected vertex, object, or group, it becomes selected and is added to the selection group. If you shift-click on an already selected item, it becomes de-selected and is removed from the selection group.
Creating objects or modifying objects.	Various types of constraint are the result. Lines are constrained to 45 degree increments. Polygons and Primitives are constrained to having equal length sides. Rotations and sweeps are constrained to 45 degree increments. Vertices and objects are forced to move along horizontal or vertical or 45 degree lines when dragged.
Clicking on the “Open / Close” arrow of a closed folder in the Group palette.	The folder will open with all of its internal folders opened.

The Space Bar

If held while:	Causes:
Any tool cursor is resting in one of the three orthogonal view windows.	The cursor changes to the Hand tool, thereby allowing you to pan the scene inside the view window.
Any tool cursor is resting in the Angled view window.	The cursor changes to a four-way arrow cursor, thereby allowing you to rotate the scene inside the view window.
If the Space Bar is pressed and quickly released at some location in one of the three orthogonal view windows.	The Depth Origin is set at that location in the two dimensions of that view. An audible word, “Lock”, is heard. Use Snap modes to help place the Depth Origin.

The Space Bar plus the Command key

If held while:	Causes:
Any tool cursor is resting in one of the three orthogonal view windows.	The cursor changes to a Zoom-In magnifying glass. You can click to zoom in, or drag a view frame to zoom in.
Any tool cursor is active in the Angled view window.	The cursor changes to a Zoom-In magnifying glass. Drag from the center of the window towards the edge; the scene will zoom closer. Drag from the edge of the window towards the center; the scene will zoom away.

The Space Bar plus the Option key

If held while:	Causes:
Any tool cursor is resting in one of the three orthogonal view windows.	Changes the cursor to a Zoom-Out magnifying glass. And sure enough, you can zoom-out with it.
Any tool cursor is active in the Angled view window.	The cursor is changed from a 4-way arrow cursor to a Hand cursor; you may “pan” the Angled View window.

The Space Bar plus the Control key

If held while:	Causes:
Any tool cursor is active in the Angled view window.	The cursor is changed from a 4-way arrow cursor to a circular arrow rotate cursor. This allows you to “bank” the Angled View window. (That is, you can rotated the scene about an axis that is perpendicular to the view window.)

The Command key plus the Option key

If held while:	Causes:
Any tool cursor is active and the cursor is clicked on the “Display column” of a folder.	The display setting, or “D” box, for all of the objects in that folder will be turned to gray all at once. Those items will be represented in the view windows as gray bounding boxes instead of as wireframe forms. If the item is a folder, then all the objects in that folder get displayed by their “extents”.