



# Enterprise Architect

User Guide Series

# User Interaction & Experience

What Wireframe Modeling tool to use? Sparx Systems Enterprise Architect provides patterns and icons to help create Wireframe models of application and website interfaces at points in execution on devices such as Android Phones, Apple Tablets and PCs.

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ARCHITECT

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
# User Interaction & Experience

## Visualize User Interfaces for Smart Phones, Tablets and Notebooks Using Wireframes

The Wireframe Toolbox pages provide a wide range of icons that you can use in wireframe modeling to represent the appearance of a device at a particular point in the execution of an application. Devices you can model include:

- Android Phones and Tablets
- Apple iPhones and Tablets
- Windows Phones
- Screen dialogs
- Web pages - to model how the web pages work

## Access

On the Diagram Toolbox, click on  to display the 'Find Toolbox Item' dialog and specify 'Wireframing', 'Android', 'Apple', 'Dialog', 'Windows Phone' or 'Webpage'.

Ribbon	Design > Diagram > Toolbox
Keyboard Shortcuts	Ctrl+Shift+3

## Notes

- Each of the Wireframing Diagram Toolboxes provides one or more Patterns that you can drag onto a diagram as an illustration of what you might achieve, or to act as the basis of the model you are developing
- The 'Properties' dialog for Wireframe elements automatically opens to either a top-level 'Wireframe' tab on which you can edit the element rendering directly, or a second-level 'Wireframing' Tagged Values tab if you define the element rendering by editing the XML for the properties of that element type
- Some of the elements you create from the 'Wireframe' Toolbox pages are properly rendered after you edit the Tagged Values that define their characteristics
- As you develop your Interface diagrams you can establish the positions and layout of the elements freehand by dragging and 'nudging' the elements, or impose some regularity using the 'Snap To Grid' diagram options

# Getting Started

To start with User Interaction and Expertise in Enterprise Architect, first select the Wireframe perspective

## Selecting the Perspective

Enterprise Architect partitions the tool's extensive features into Perspectives, which ensures that you can focus on a specific task and work with the tools you need without the distraction of other features. To work with the User Experience Modeling features you first need to select this Perspective:

 <perspective name> > UX Design> Wireframes

Setting the Perspective ensures that the Wireframe diagrams, their tool boxes and other features of the Perspective will be available by default.

## Example Diagram

An example diagram provides a visual introduction to the topic and allows you to see some of the important elements and connectors that are created in specifying or describing the way a wireframe, dialog or web page is defined including: Android, Apple and Windows Phones and Tablets, Dialogs and Web Pages with Buttons, Combo Boxes and Radio Buttons.

# Interaction Flow Models IFML

The Interaction Flow Modeling Language (IFML) provides system architects, software engineers, and software developers with tools that support the platform independent description of graphical user interfaces for applications accessed or deployed on such systems as desktop computers, laptop computers, PDAs, mobile phones, and tablets. The language was developed by the Object Management Group; the IFML specification (version 1.0. February 2015) is available from the OMG website.

You can access the OMG's UML Profile for IFML within Enterprise Architect.

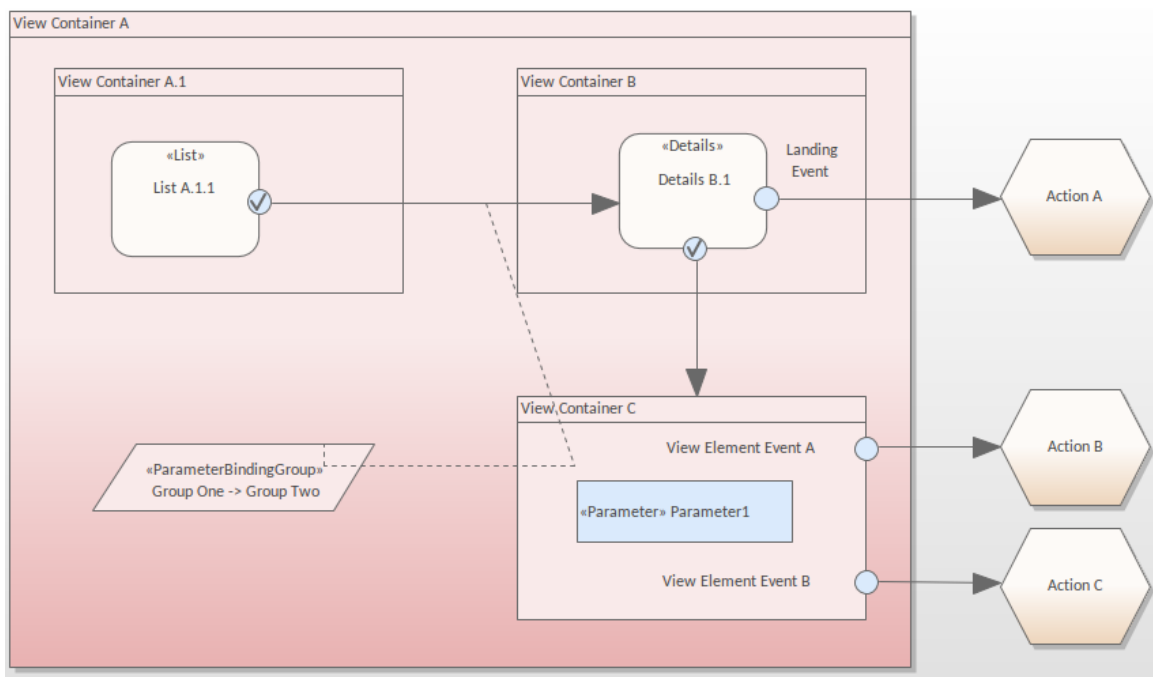
## IFML in Enterprise Architect

In Enterprise Architect you can model application interaction flows quickly and simply through use of the MDG Technology integrated with the Enterprise Architect installer. The IFML facilities are provided in the form of:

- Eleven IFML model patterns for Information Entry, Interaction and Wireframe, Searches and Desktop Applications, available through the 'Interaction Flow IFML' page of the Model Builder.
- Two IFML diagram types - IFML diagram and IFML Domain Model diagram - accessed through the 'Diagram Builder' tab page of the Model Builder dialog
- IFML 'Essential Concepts', 'Core' and 'Extensions' pages in the Diagram Toolbox

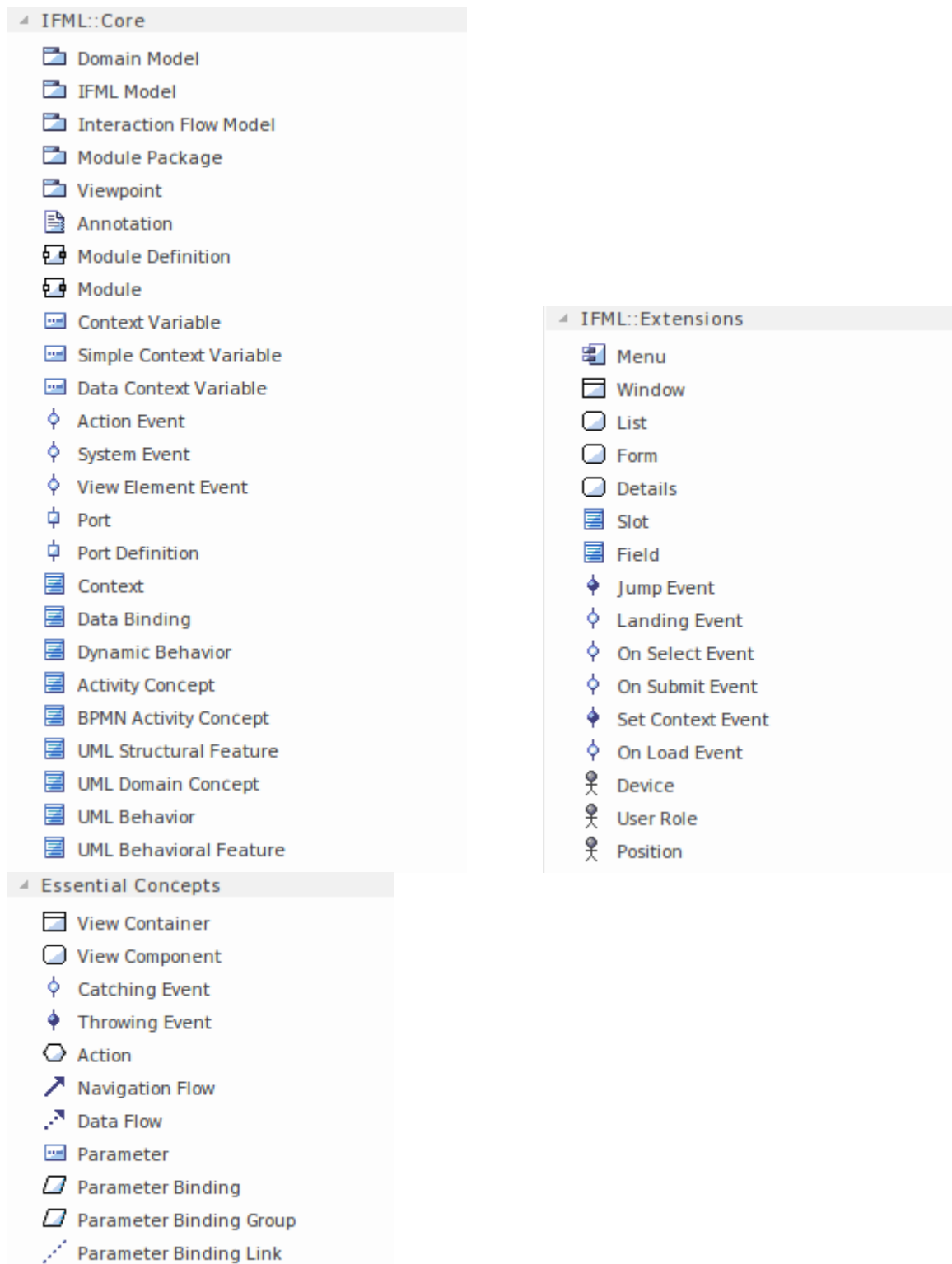
You can, if you wish, make the IFML Technology your default by selecting it in the MDG Technologies window and clicking on the Set Active button.

## Example Diagram



## IFML Toolbox Pages

The objects defined by the IFML Specification can be created in your model using the icons from these pages of the Diagram Toolbox:



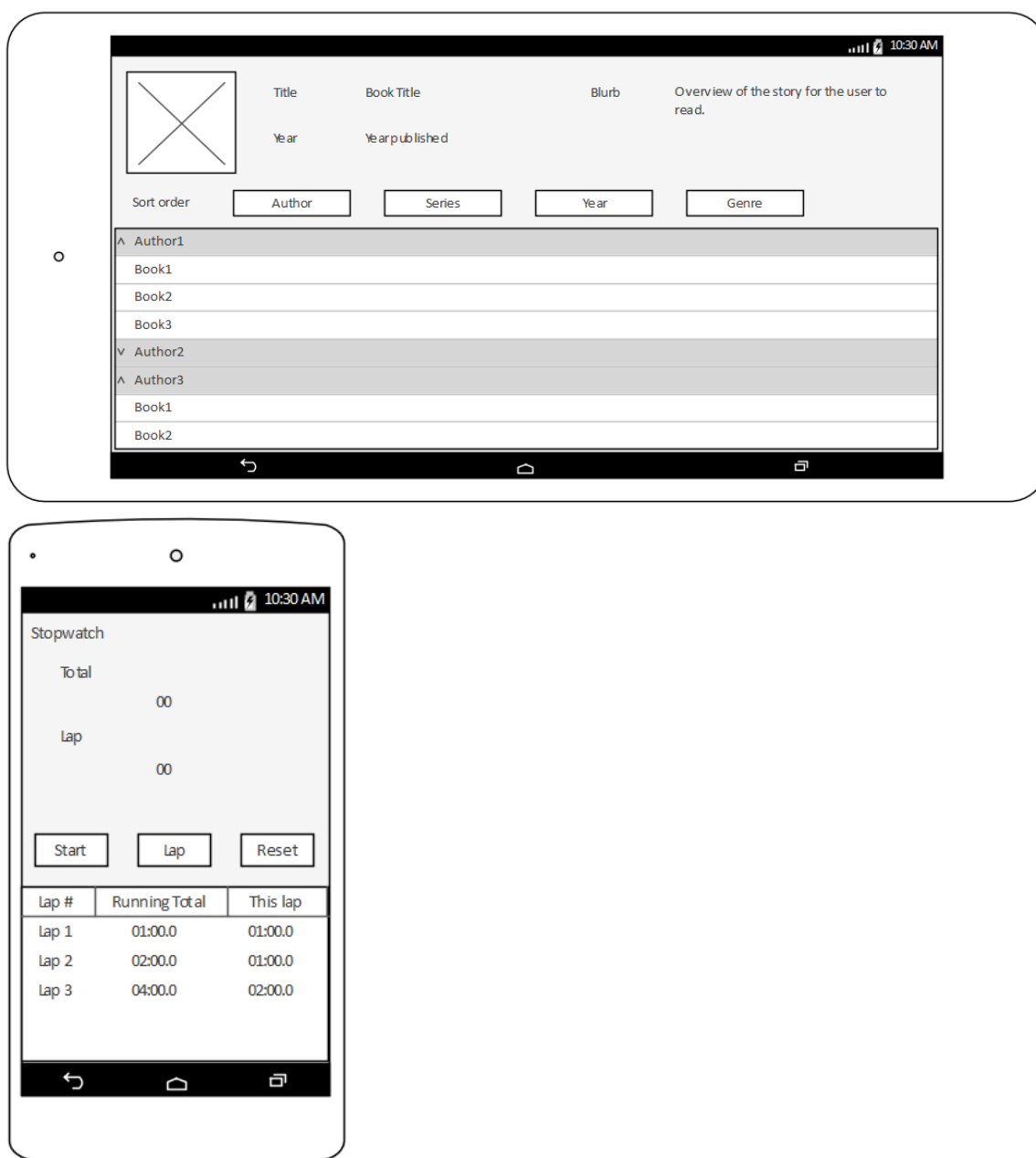
Some objects from the IFML Specification are configured by Tagged Values on the main element type. For example, the View Container element can be set as a Default, Landmark or XOR View Container by setting the



appropriate Tagged Value on the element to 'True'.

# Android Wireframe Toolbox

The 'Android Wireframing' pages of the Diagram Toolbox provide the templates for modeling the physical appearance of an Android tablet or phone at a given state of execution of an application. They also provide Patterns for generating a standard model structure for each Android appliance.



## Access

On the Diagram Toolbox, click on  to display the 'Find Toolbox Item' dialog and specify 'Wireframing' or 'Android'.

Ribbon	Design > Diagram > Toolbox
Keyboard Shortcuts	Ctrl+Shift+3

## Android Screen Types

Item	Description
Android Phone	<p>Generates a frame for the face of the Android Phone you are modeling. A prompt displays for you to specify portrait or landscape orientation.</p> <p>Child controls will be contained within the area of the screen.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• MenuButtons - click on the drop-down button and select to 'Show' or 'Hide' the menu button bar at the bottom of the screen</li><li>• NotificationBar - click on the</li></ul>



	<p>drop-down button and select to 'Show' or 'Hide' the Notification bar at the top of the screen</p>
Android Tablet	<p>Generates a frame for the Android Tablet you are modeling. A prompt displays for you to specify portrait or landscape orientation.</p> <p>Child controls will be contained within the area of the screen.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• MenuButtons - click on the drop-down button and select to 'Show' or 'Hide' the menu button bar at the bottom of the screen</li><li>• NotificationBar - click on the drop-down button and select to 'Show' or 'Hide' the Notification bar at the top of the screen</li></ul>
Client Area	<p>Generates a frame element that represents the client area of the device.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Border Style - click on the drop-down arrow and select to render the border as a solid line or a dashed line, or to have no border at all (None)</li><li>• ScrollbarH - click on the drop-down</li></ul>

	<p>arrow and select to place a horizontal scrollbar at the top or bottom of the client area, or to have no horizontal scrollbar (&lt;none&gt;)</p> <ul style="list-style-type: none"><li>• ScrollbarV - click on the drop-down arrow and select to place a vertical scrollbar on the left or right of the client area, or to have no vertical scrollbar (&lt;none&gt;)</li></ul>
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## Composite

Item	Description
Expandable List View	<p>Generates an element that represents a two-level grouped list that can be expanded to show one or both levels of item.</p> <p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page, which shows the root node (the Expandable List element name), the group heading items (directly under the element name) and the group items (under the group headings).</p> <ul style="list-style-type: none"><li>• To add a new item click on the level above (the element name or the group</li></ul>

heading names) and on the Add button, and in response to the prompt type in the name of the item, which adds the name to the bottom of the section of the list you have created it in

To position the item on the list, click on it in the list and click on the   buttons

- To remove an item from the list, click on it and click on the Remove button; the item is immediately removed from the list


Click on the Item Name (the first-level list item directly underneath the element name).

- Name - type in the name for this item group
- Expanded - click on the drop-down arrow and select True to show the sub-items for this item, or False to hide the sub-items



Click on a sub-item name (the second-level list item) directly under an Item name. Sub-item nodes do not have any child nodes.

- Name - type the name of the sub-item
- Selected - click on the drop-down arrow and select True to highlight the item as selected, or False to omit the

	highlight
Table	<p>Generates a Table element with labeled columns, rows and cells.</p> <p>Double-click on the table to bring up the element 'Properties' dialog at the 'Wireframe' page, which provides the facilities for editing the table (adding, renaming and deleting columns and rows, changing the column width and editing the cell text) through context menu options and buttons. Note that the editor does not provide a true image of the table's appearance on the screen.</p> <ul style="list-style-type: none"><li>• Draw Lines - click on the drop-down arrow and select True to display horizontal and vertical lines between the table cells, or False to hide the lines</li><li>• Highlight Headers - click on the drop-down arrow and select True to highlight the header of each column, or False to leave the table columns a uniform color</li></ul>
Tab Host	<p>Generates a tab control element on the diagram. You can name the tabs and mark them as selected; however, child elements will not 'switch' when changing tabs (that is, setting a different tab as</p>

	<p>selected will still display the same child items in the tab space).</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Tabs - click on the drop-down arrow and click on the tab that is to be highlighted as selected</li></ul> <p>You can name the tabs, and add more to the list, by editing the 'Values:' list in the Tagged Value notes</p> <p>If you reduce the size of the element so that all tabs cannot be shown, a scroll icon () automatically displays in the top right corner of the element.</p>
Simple List	<p>Generates a list box containing a list of items with no sub-items.</p> <p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page. To:</p> <ul style="list-style-type: none"><li>• Change an item to different text, overwrite the 'Item&lt;n&gt;' text in the 'Name' field</li><li>• Highlight the item as selected, in the 'Selected' field click on the drop-down arrow and select True</li><li>• Add another item, click on the element name and on the Add button, and type in the item name</li></ul>



	<ul style="list-style-type: none"><li>• Remove an item from the list, click on it and click on the Remove button</li><li>• Move an item to a different position in the list, click on it and click on one of the   buttons as appropriate</li></ul>
2 Lane List	<p>Generates a list box as for a Simple List, but each item name is in bold and can have a description underneath the item name.</p> <p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page.</p> <ul style="list-style-type: none"><li>• To add the description, click on the item name and, in the 'Text' field, type the description text</li></ul> <p>Other options are the same as for the Simple List.</p>
Checklist	<p>Generates a list box as for a Simple List, but each item name has a tick outline to the right of it. For selected items, the outline is filled.</p> <p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page.</p> <ul style="list-style-type: none"><li>• To set a tick to selected (filled) click on the 'Checked' drop-down arrow and click on True; to change the tick to</li></ul>

	<p>unselected (outline), set the field to False</p> <p>Other options are the same as for the Simple List.</p>
Single Choice List	<p>Generates a list box as for a Simple List, but each item name has a radio button outline to the right of it. For a selected item, the outline is filled.</p> <p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page.</p> <ul style="list-style-type: none"><li>• To set a radio button to selected (filled) click on the 'Selected' field drop-down arrow and click on True; to change the radio button to unselected (outline), set the field to False</li></ul> <p>All items can be set to False (unselected), but if more than one item is set to True (selected) only the item lowest on the list displays as selected</p> <p>Other options are the same as for the Simple List.</p>

## Form Widgets

Item	Description
Switch	<p>Generates an element representing a simple Android switch. The switch can have two states (such as On and Off) and a label taken from the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• States - click on the drop-down arrow and select the switch position depicted by the element</li></ul> <p>You can edit the 'Values:' field in the Tagged Value Notes to change the text of the state values</p> <p>You can add more than two values, but you can only toggle the 'States' field between the first two values in the list; the other values are ignored if selected</p>
Rating Control	<p>Generates an element depicting a star-rating band. The element always shows five stars, and the number of filled stars indicates the rating.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Rating - click on the drop-down arrow and select the number of stars to show filled (the rating)</li></ul> <p>You can only re-size the element horizontally; the vertical dimension</p>


	adjusts automatically to always depict five uniformly-shaped stars.
Toggle Button	<p>Generates an element depicting a single-celled switch with no label (the element name is not shown).</p> <p>You can edit the depicted state in the same way as for the 'Switch' element.</p>
Progress Bar (Large)	Generates an element representing the circular Android progress icon.
Progress Bar (Horizontal)	<p>Generates an element representing the progress of a process, defaulted to 30% complete.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Progress - type the percentage completion of the progress to depict on the element</li></ul>
Button	Generates a simple labeled Button element, the label text being the name of the element.
Radio Button	<p>Generates a labeled radio button element, the label text being the name of the element.</p> <p>Tagged Values:</p>

	<ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Selected' (filled) or 'Unselected' (outline)</li></ul>
Checkbox	<p>Generates a labeled checkbox element, the label text being the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Checked' (tick icon) or 'Unchecked' (box outline)</li></ul>
Seek Bar	<p>Generates an element representing the progress in playing through an audio or video file.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Progress - type the percentage progress to depict on the element</li></ul>
Keyboard	<p>Generates an element that depicts a keyboard for Android applications.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Type - switches the image between a text (QWERTY) keyboard and a numeric keyboard</li></ul>
Spinner	<p>Generates an element representing the Android version of a drop-down combo</p>

	<p>box.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Expanded - click on the drop-down arrow and select True to depict the combo box in use, displaying all values, or False to depict the combo box with a single selected value</li><li>• Values - click on the drop-down arrow and select the value to depict as currently selected in the combo box</li></ul> <p>You can change the text of the values, and add more to the list, by editing the 'Values:' list in the Tagged Value notes</p>
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## Text Fields

Item	Description
Plain Text	<p>Generates a text element with no border, the text being the element name.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Align Text - click on the drop-down arrow and select to align the text to the left, center or right of the element frame</li><li>• Multiline - click on the drop-down</li></ul>

	arrow and select True to allow the text to wrap around onto more than one line (automatically increasing the element depth), or False to only show the text that fits on one line within the current element width
Multiline Text	<p>Generates a text element with no border, but that can contain multi-line text with basic HTML formatting.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Align Text - click on the drop-down arrow and select to align the text to the left, center or right of the element frame</li><li>• Text - click on the  button to edit the Tagged Value Note screen, on which you can create the text to depict on the diagram; this can use HTML formatting tags such as &lt;b&gt; &lt;/b&gt; for bold or &lt;u&gt; &lt;/u&gt; for underlined - not all HTML formatting is supported</li></ul>

## Image\_Media

Item	Description

Image	<p>Generates a place holder to indicate where an image will be placed on the phone or tablet.</p> <p>You can display an actual image by assigning an alternative image to the element.</p>
Video Player	<p>Generates an element that represents a video player control on the phone or tablet.</p>
Audio Player	<p>Generates an element that represents an audio player control on the phone or tablet.</p>

## Time\_date

Item	Description
Calendar	<p>Generates an element depicting a calendar (the default image), showing the current month, day and year based on the system date.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>DateFormat - click on the drop-down arrow and select the date format to display if spinners are shown:</li></ul>



	<ul style="list-style-type: none"><li>- d/m/y</li><li>- m/d/y</li><li>- y/m/d (not possible if the calendar is also displayed)</li></ul> <ul style="list-style-type: none"><li>• ShowCalendar - defaults to True to display the calendar; if spinners are also displayed, the calendar will force the spinner display to show the year at the right-hand end, and will replace the year spinner If set to False, the day, month and year spinners display regardless of the 'ShowSpinners' value</li><li>• ShowSpinners<ul style="list-style-type: none"><li>- If set to True AND 'ShowCalendar' is True, displays spinner controls for the day and month (the calendar acts as a year marker)</li><li>- If set to False AND 'ShowCalendar' is True, no spinners are shown with the calendar</li><li>- If 'ShowCalendar' is set to False, the day, month and year spinners are automatically displayed in the format defined in 'DateFormat', showing the system date</li></ul></li></ul>
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	You cannot resize this element.
Date Picker	<p>Generates an element that depicts a set of spinners showing today's date, derived from the system date.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Date - click on the drop-down arrow and select a different date from the calendar; if the current date is not today, you can reset it to today's date by clicking on the Today button, or by simply clearing the 'Date' value field</li><li>• DateFormat - as for the Calendar element</li><li>• ShowCalendar - defaults to False to hide the calendar; otherwise, as for the Calendar element</li><li>• ShowSpinners - as for the Calendar element</li></ul> <p>You cannot resize this element.</p>
Time Picker	<p>Generates an element that depicts a pair of spinners showing the current time, in hours and minutes, derived from the system clock.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• 24 Hour View - click on the drop-down arrow and set to True to show the time</li></ul>

	<p>in 24-hour format, or False to display the time in 12-hour format with AM or PM to the right of the time</p> <ul style="list-style-type: none"><li>• Time - overtype the hours, minutes and AM/PM setting to display a time other than the system time (you can only set the time in 12-hour format); to revert to the system time, overtype the field with '12:00 AM'</li></ul> <p>You cannot resize this element.</p>
Clock	<p>Generates an element that represents an analog clock face with hour and minute hands and no numerals, displaying the system time. You can change the rendition to a digital display.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• 24 Hour View - if you set the 'Type' to 'Digital', click on the drop-down arrow and select True to display the time in 24-hour format, or False to display the time in 12-hour format with AM or PM to the right, as appropriate</li><li>• Time - overtype the hours, minutes and AM/PM setting to display a time other than the system time (you can only set the time in 12-hour format); to revert to the system time, overtype the field with 12:00 AM</li></ul>

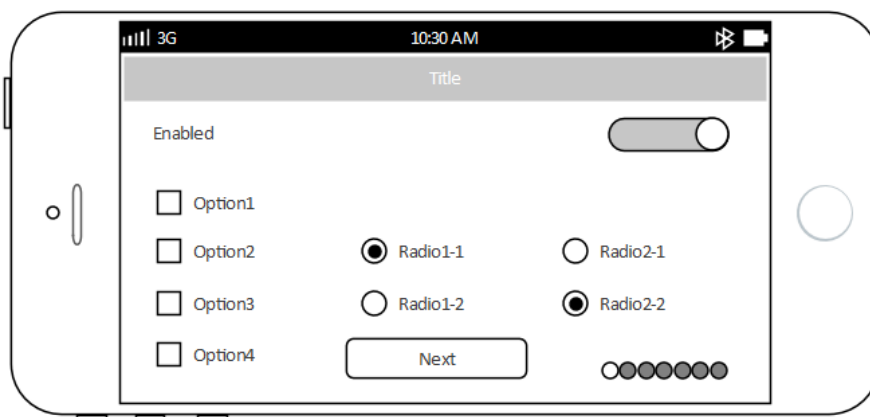
	<ul style="list-style-type: none"><li>• Type - click on the drop-down arrow and select 'Digital' to display the time as a digital display, or 'Analog' to display the time as the clock face</li></ul> <p>You can resize the element in 'Analog' format, but not in 'Digital' format.</p>
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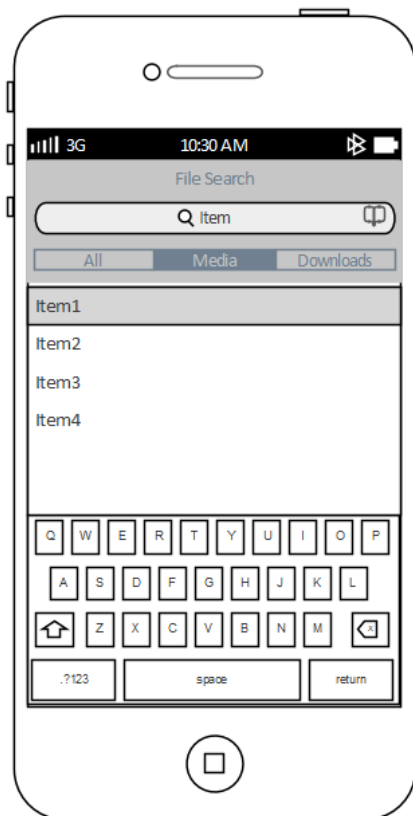
## Android Patterns

Item	Description
Android Phone / Android Tablet	These Patterns create example models of the two Android product configurations. You can use them as your examples of how the elements are designed, as basic components of a larger model, or as the starting point to develop a more detailed model of one or more of the products.

# Apple iPhone/Tablet Wireframe Toolbox

The 'Apple Wireframing' Diagram Toolbox pages provide the templates for modeling the physical appearance of an Apple iPhone or tablet at a given state of execution of an application. They also provide a number of Patterns for generating model structures for different versions of the iPhone or iPad.





## Access

On the Diagram Toolbox, click on  to display the 'Find Toolbox Item' dialog and specify 'Wireframing' or 'Apple'.

Ribbon	Design > Diagram > Toolbox
Keyboard Shortcuts	Ctrl+Shift+3

## Apple Screen Types

Item	Description
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iPad Air, iPad Mini, iPhone 4s, iPhone 5c, iPhone 5s, iPhone 6, iPhone 6 Plus	<p>These icons each generate a frame for the device type you have selected. A prompt displays for you to specify portrait or landscape orientation. (The main illustration shows a landscape iPhone 5s frame and a portrait iPhone 4s frame.)</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• ShowStatusBar - click on the drop-down button and select to 'Show' or 'Hide' the status bar image on the element</li></ul>
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## Controls

Item	Description
Check Box	<p>Generates a labeled checkbox element, the label text being the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Checked' (tick icon) or 'Unchecked' (box outline)</li></ul>
Radio Button	<p>Generates a labeled radio button element, the label text being the name of the</p>

	<p>element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Selected' (filled) or 'Unselected' (outline)</li></ul>
Combo Box	<p>Generates an element representing a drop-down combo box.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• DropDownState - click on the drop-down arrow and select 'Open' to depict the combo box in use, displaying all values, or 'Closed' to depict the combo box with a single selected value</li><li>• Items - click on the drop-down arrow and select the item to depict as currently selected in the combo box and, if the list of items is expanded, highlighted in the list</li></ul> <p>You can change the text of the items, and add or remove items in the list, by editing the 'Values:' list in the Tagged Value notes</p>
Label	<p>Generates a Label text element. The name of the element is the text of the label.</p> <p>Tagged Values:</p>



	<ul style="list-style-type: none"><li>• Align Text - sets the alignment of the text to either left, centered or right</li><li>• Multiline - sets the label to display text over multiple lines</li></ul>
List	<p>Generates a List box element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Items - click on the drop-down arrow and select the item to show highlighted in the list You can add, remove and rename items by editing the 'Values:' list in the Tagged Values Notes</li><li>• ListType - click on the drop-down arrow and select to display the list as 'Simple', 'Numbered' or 'Bulleted'</li></ul>
Table	<p>Generates a Table element with labeled columns, rows and cells.</p> <p>Double-click on the table to bring up the element 'Properties' dialog at the 'Wireframe' page, which provides the facilities for editing the table (adding, renaming and deleting columns and rows, changing the column width and editing the cell text) You can either edit the text by clicking on it, or by right-clicking and selecting an option. Note that the editor does not provide a true image of the</p>

	<p>table's appearance on the screen.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Draw Lines - hides (or shows) the lines on all cells under the column headings so the table resembles a List element instead</li><li>• Highlight Headers - highlights the header of each column so that it is easily distinguishable</li><li>• Properties - displays the HTML of the table</li></ul>
Image	<p>Generates a place holder to indicate where an image will be placed on the dialog.</p> <p>You can display an actual image by assigning an alternative image to the element.</p>

## Apple Controls

Item	Description
Address Bar	<p>Generates a URL Address Bar element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Address - defines the text displayed in</li></ul>

	the address bar
App Icon	<p>Generates an App Icon element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Image - specifies the name of an image held in the Image Manager, which is displayed as the appearance of the App icon (simply type in the name of the image as listed in the 'Name' column of the Image Manager)</li><li>• Notification count - indicates the number of notifications this app has waiting; the number is displayed in the circle in the top right corner of the element</li></ul>
Button	<p>Generates a labeled Button element. The label text is the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Button Style - sets the element shape:<ul style="list-style-type: none"><li>- 'Normal' draws a rectangle with rounded edges</li><li>- 'Previous' draws a pennant shape pointing to the left</li><li>- 'Next' draws a pennant shape pointing to the right</li></ul></li><li>• Text Alignment - defines the alignment of the button text within the element;</li></ul>

	left aligned, centered or right aligned
Date/Time Picker	<p>Generates a Date and Time display element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Date - sets the date that the element displays; if no date is specified this will be the current system date</li><li>• Expanded - if True, draws the element as a section of calendar with the current date and/or time selected (as defined by the 'Type' Tagged Value); if False, draws the element as a simple text string showing the date and/or time</li><li>• Time - sets the time displayed on the element; overtype the hour, minute and AM/PM segments as necessary If no time is specified it will display the current system time (non-specified time is displayed as 12:00 AM)</li><li>• Type - draws the element showing the Date, the Time or both Date &amp; Time</li></ul>
Group List	<p>Generates a grouped list element with two levels of entry.</p> <p>Double-click on the element to open the 'Properties' dialog at the 'Wireframe' page. Use this page to compose the list</p>

entries.

Click on the root node (the element name).

- Show Groups - click on the drop-down arrow and select True to show the first-level list items, or False to hide them; the second-level list items display in either case but must belong to a group item whether it is shown or not

Click on the Group node (the first-level list item) directly underneath the root node.

- Name - type in the text for the first-level list item (the item group name)

Click on an item node (the second-level list item) directly under a Group node. Item nodes do not have any child nodes.

- Name - type the name of the list item
- Text - type any additional text to be displayed (by default) under the item name
- Text near link - click on the drop-down arrow and select True to display the additional text opposite the item name, where you can also add a link, or False to keep the text underneath the item

	<p>name</p> <ul style="list-style-type: none"><li>• Image - select an image name from the drop-down list or simply type in the name as listed in the 'Name' column of the Image Manager, to display the image to the left of the item name</li><li>• Is Link - click on the drop-down arrow and select True to indicate that the item links to another page or additional information by displaying a '&gt;' character to the right of the item name; select False to hide the link character</li><li>• Link Image - select an image name from the drop-down list or simply type in the name as listed in the 'Name' column of the Image Manager, to display the image (if 'Is Link' is True) as the link icon instead of the &gt; character</li><li>• Selected - click on the drop-down arrow and select True to highlight the item name as selected, or False to not highlight the item</li></ul>
Keyboard	<p>Generates an element that depicts a keyboard.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Type - switches the image between a text (QWERTY) keyboard and a</li></ul>

	numeric keyboard
Loading Icon	Generates an element that depicts the Apple loading icon.
Page Control	<p>Generates an element rendered as a row of gray circles, indicating the number of pages available and which of those represents the currently-displayed page.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Current page - draws a white circle in the sequence of gray circles to indicate which represents the current page displayed</li><li>• Pages - the number of circles to draw, indicating the number of pages this control moves through (resize the element manually to display all the specified number of circles)</li></ul>
Search Bar	<p>Generates an element representing a search field.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• DrawStyle - toggles the element's appearance between the default app search with a query spyglass, and a web search on an Apple device</li><li>• Placeholder - type in the text that will</li></ul>

	<p>be displayed in the control, to prompt the user to enter the search term</p> <ul style="list-style-type: none"><li>• Prompt - type the prompt text to display above the query field, such as a reminder of what to search for; for example, if the search is to look up movies/recorded videos on the device, you might type 'Search for Videos' ('DrawStyle' must be set to default)</li><li>• Scope - click on the drop-down arrow and select which search location is highlighted in the Scope Bar ('DrawStyle' must be set to default and 'Show Scope Bar' must be set to True)</li><li>• Show Bookmarks - when set to True will draw a small book symbol on the right side of the query field, to indicate that this search control will store previous searches and can use them again ('DrawStyle' must be set to default)</li><li>• Show Cancel Button - displays a Cancel button to the right of the query field ('DrawStyle' must be set to default)</li><li>• Show Scope Bar - displays a row of scope options for this search control, underneath the query field ('DrawStyle' must be set to default)</li></ul>
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	<ul style="list-style-type: none"><li>• Show search results - displays a drop down arrow on the right side of the search area, to indicate that the query will display the search results (overrides the Bookmark icon if both are set to display) ('DrawStyle' must be set to default)</li><li>• Text alignment - aligns the Placeholder text to the Left, Right or Center of the query field</li></ul>
Segment Control	<p>Generates an element depicting a set of tabs (defaulted to three tabs).</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Tabs - click on the drop-down arrow and select the number of the tab to highlight to indicate the current tab; open and edit the Tagged Value Notes to add, remove or rename tabs</li></ul>
Spinner Control	<p>Generates an element representing a spinner control with a list of items that can be selected from.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Check Selected Item - when set to True will draw a tick on the left hand side of the item defined as selected</li><li>• Items - click on the drop-down arrow and select the item to indicate as</li></ul>

selected; you can open and edit the Tagged Value Notes to add, rename or remove items from the list

- Rounded Edges - click on the drop-down arrow and select the side(s) that show rounded corners; you can use this property to dock multiple spinner controls next to each other to create more complex spinner control selections, such as a page displaying a selection for Country, State, City and Suburb - set:
  - Both to set rounded corners on both sides, if the spinner control is on its own
  - Left to set rounded corners on the left edge and sharp corners on the right edge, if this spinner is the first in a row of docked spinner controls
  - Right to set rounded corners on the right edge and sharp corners on the left edge, if this spinner is the last in a row of docked spinner controls, or
  - None to set sharp corners on both sides, if this spinner is docked between two others
- Text alignment - click on the

	drop-down arrow and select where to align the item text - to the left, right or center of the control
Stepper	Generates an element depicting a decrement/increment (minus/plus) control.
Switch	<p>Generates an element representing a sliding on/off switch.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• DisplayText - toggles between displaying and hiding the two state text values</li><li>• State - toggles between the 'on' state (gray background with white circle on the right and - if DisplayText is True - the 'on' text) and the 'off' state (white background with white circle on the left and - if DisplayText is True - the 'off' text)</li></ul> <p>The state text values default to On and Off; you can edit the Tagged Value Notes to change these to any other pair of values (you can add more values but only the first two are applied)</p>
Text Field	Generates a text field in which the end user can type free text, such as the name

	<p>for a login page. The field contains the text 'TextField' and a crossed circle.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Border Style - click on the drop-down arrow and select the border style for the element:<ul style="list-style-type: none"><li>- Rounded Rect - a rectangle with rounded corners</li><li>- Bezel - a rectangle with bevelled top and left edges</li><li>- Line - a rectangle with sharp corners and single-line edges</li><li>- None - a rectangle with no borders</li></ul></li><li>• Text alignment - click on the drop-down arrow and set the text to align to the left, right or center of the control</li></ul>
Title	Generates an element that represents the title for a page, the element name being the title text (such as 'Settings'). The element is a rectangle with gray background and white text.
Toolbar	Generates an image that represents a Toolbar with default icons, which you can add to or replace with images from the Image Manager.

	<p>Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page, which lists the icons displayed in the frame of the Toolbar element.</p> <ul style="list-style-type: none"><li>• To add a new icon click on 'Toolbar' and on the Add button, and in response to the prompt type in the name of the icon, which adds the name to the bottom of the list; click on the name and in the 'Image' Property field type the name of the icon file, as displayed in the 'Loaded Image' panel of the Image Manager</li></ul> <p>You can add a 'Separator' (displayed as  ) to the list, to separate different groups of icons on the toolbar; simply type the name 'Separator' in the name prompt</p> <p>To position the icon on the toolbar, click on it in the list and click on the   buttons</p> <ul style="list-style-type: none"><li>• To remove an icon from the list, click on it and click on the Remove button; the icon is immediately removed from the list and, when you close the dialog, from the Toolbar</li></ul>
Tab Bar	Generates an element that depicts a row of tabs represented by images.

Double-click on the element to display the 'Properties' dialog at the 'Wireframe' page, which shows the root node (the TabBar element itself) and the items contained in the TabBar (as images).

- To add a new icon click on 'TabBar' and on the Add button, and in response to the prompt type in the name of the item, which adds the name to the bottom of the list

To position the item on the TabBar, click on it in the list and click on the

  buttons

- To remove an item from the list, click on it and click on the Remove button; the item is immediately removed from the list and, when you close the dialog, from the TabBar

Root node Properties:

- Show Text - displays (True) or hides (False) the item names as text underneath the tab images
- Background Color - click on the drop-down arrow and select the background color of the TabBar
- Selected Font Color - click on the drop-down arrow and select the font color of the text if the item is selected
- Non Selected Font Color - click on the

	<p>drop-down arrow and select the font color of the text if the item is not selected</p> <p>Item node Properties:</p> <ul style="list-style-type: none"><li>• Name - the name of the item, which can be displayed underneath the image in the TabBar (see <i>Show Text</i>)</li><li>• Image - the name of the image file to show if the item is not selected; the file name is as listed in the Image Manager</li><li>• Selected Image - the name of the image file to show if the item is selected; the file name is as listed in the Image Manager</li></ul> <p>Select the 'General' page of this Tab Bar element's 'Properties' dialog, and click on the 'Tags' tab.</p> <p>Element Tagged Value:</p> <ul style="list-style-type: none"><li>• SelectedTab - Click on the drop-down arrow and select the name of the item to represent as selected</li></ul>
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## Apple Patterns

You can use any of these Patterns as examples of how the elements are used, as basic components of a larger model, or as the starting point to develop a more detailed model of one

or more of the products.

Item	Description
Apple iPad Air	Creates an example model for the Apple iPad Air.
Apple iPad Mini	Creates an example model for the Apple iPad Mini.
Apple iPhone 4s	Creates an example model for the Apple iPhone 4s.
Apple iPhone 5c	Creates an example model for the Apple iPhone 5c.
Apple iPhone 5s	Creates an example model for the Apple iPhone 5s.
Apple iPhone 6	Creates an example model for the Apple iPhone 6.
Apple iPhone 6 Plus	Creates an example model for the Apple iPhone 6 Plus.




# Windows Phone Wireframe Toolbox

The 'Windows Phone' Diagram Toolbox pages provide the templates for modeling the physical appearance of a Windows 8.1 Phone at a given state of execution of an application.



## Access


On the Diagram Toolbox, click on  to display the 'Find Toolbox Item' dialog and specify 'Wireframing' or 'Windows Phone'.

Ribbon	Design > Diagram > Toolbox
Keyboard Shortcuts	Ctrl+Shift+3

## Windows Screen Types

Item	Description
Windows Phone	<p>Generates a frame with a screen area for the Windows 8 Phone device. A prompt displays in which you specify portrait or landscape orientation.</p> <p>Elements created within the screen area cannot be resized or moved to sit outside the borders of the screen. Elements created outside the frame can be dragged onto and off the frame, and can be as large as the view or element properties permit.</p>

## Text


Item	Description
Text Block	<p>Generates an element that represents dominant text such as headings and labels. The element name is the displayed text.</p> <p>Double-click on the element to open the 'Properties' dialog at the 'Wireframe' page. This displays a default set of six levels of heading styles. Click on a style name to populate the 'Properties' panel on the right of the dialog, and click on the down-arrow for each property and select the appropriate settings for the style. If you prefer, you can also change the name of the style in the 'Name' property.</p> <p>If necessary, you can add further styles to the list. Click on the style <b>group</b> name and on the Add button. In the 'Enter name for item' prompt, type a name for the style and click on the OK button. The new style is added to the end of the list; if you want to move it further up the list, click on it and on the  icon. Again, you define the style using the 'Properties' panel.</p>

	<p>If you want to remove styles from the list, click on the style name and on the Remove button.</p> <p>When you have set the styles that can be used for this text, click on the 'General' page of the 'Properties' dialog and, in the 'Header Type' Tagged Value, click on the drop-down arrow and select the style to apply to the text of this specific Text Box.</p>
Text Box	<p>Generates a simple text field with a border, into which you can type any text you require. The element name is the displayed text, and does not wrap.</p>

## Controls

Item	Description
Button	<p>Generates a rectangular icon representing a screen button, with the element name as the button text.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State: click on the drop-down arrow and select the button state to represent:<ul style="list-style-type: none"><li>- Normal - the unselected button</li></ul></li></ul>

	<ul style="list-style-type: none"><li>- Focused - the button when the cursor is passed over it</li><li>- Selected - the button when it is clicked on</li><li>- Disabled - the button grayed out, when it is not available</li></ul>
Checkbox	<p>Generates an element representing a labeled checkbox, the element name being the label.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Enabled: click on the drop-down arrow and select True to show the checkbox enabled for selection, or False to show the checkbox disabled and unavailable</li><li>• State: click on the drop-down arrow and select 'Unchecked' to show the checkbox empty and unselected, or 'Checked' to show the checkbox selected with a tick inside it</li></ul>
Hyperlink Button	<p>Generates a text element with the element name as the underlined text displayed, representing a hyperlink on the screen.</p> <p>Double-click on the element to open the 'Properties' dialog at the 'Wireframe' page, which lists the three hyperlink states of normal 'Link', 'Visited' and 'Hover'. Click on a state name to populate</p>

	<p>the 'Properties' panel on the right of the dialog, and click on the down-arrow for each property and select the appropriate settings for the style to apply to that state. If you prefer, you can also change the name of the state in the 'Name' property. If necessary, you can add further states to the list. Click on the state <b>group</b> name and on the Add button. In the 'Enter name for item' prompt, type a name for the state and click on the OK button. The new state is added to the end of the list; if you want to move it further up the list, click on it and on the  icon. Again, you define the style using the 'Properties' panel.</p> <p>If you want to remove states from the list, click on the state name and on the Remove button.</p> <p>When you have set the states that the hyperlink can have, click on the 'General' page of the 'Properties' dialog and, in the 'State' Tagged Value, click on the drop-down arrow and select the state in which this hyperlink is to be depicted.</p>
Image	Generates a rectangular object containing an 'X', to indicate the location of an image on the screen. There are no

	properties to set.
Radio Button	<p>Generates an element representing a labeled radio button, the element name being the label.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Enabled: click on the drop-down arrow and select True to show the radio button enabled for selection, or False to show the radio button disabled and unavailable</li><li>• State: click on the drop-down arrow and select 'Unselected' to show the radio button empty, or 'Selected' to show the radio button with a filled circle inside it</li></ul>



## Tiles

Tile elements add to the phone screen a panel that, depending on type, shows an image and/or some text. The panel cannot be resized, and if it displays text the text occupies the top half of the element only. The amount of text displayed is influenced by the tile type, so you will need to experiment with the required type to see how much meaningful text you can display.

Item	Description
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Collection Tile	<p>Adds a tile with a random pattern, to represent a Windows Collection Tile.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Header: type a suitable text string as the tile heading; the text is displayed when 'Show Back' is set to True and if the 'Tile Type' supports it</li><li>• Show Back: click on the drop-down arrow and select True to display the back of the tile instead of the front; for some tile types the back does not display regardless of this setting</li><li>• Text: a &lt;memo&gt; Tagged Value in which you type the text to display on the back of the tile; the format and font of the displayed text depends on the 'Tile Type'</li><li>• Tile Type: click on the drop-down arrow and select the type of the collection tile; this will only affect the display of the back of the tile, the front will always remain the same (see the <i>Windows Tile Template Type Descriptions</i> web page for more information on tile types)</li></ul>
Image Tile	<p>Adds a tile that initially displays as a box with an 'X' in the center, but is intended</p>



	<p>to show an image that you select.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Image: click on the  icon and select the image to display for this tile, from the 'Image Manager' dialog</li><li>• Text: type in the text that will be displayed in white at the bottom of the image, dependent on the 'Tile Type'</li><li>• Tile Type: click on the drop-down arrow and select the type of Image tile to display; this will either be an image only, or an image with text (see the <i>Windows Tile Template Type Descriptions</i> web page for more information on tile types)</li></ul>
Peek Tile	<p>Adds a tile similar to an Image Tile, except that it can display the back of the tile to show more information.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Header: type a suitable text string as the tile heading; the text is displayed when 'Show Back' is set to True and if the 'Tile Type' supports it</li><li>• Image: click on the  icon and select the image to display on the front of this tile, from the Image Manager window</li><li>• Show Back: click on the drop-down</li></ul>

	<p>arrow and select True to display the back of the tile instead of the front</p> <ul style="list-style-type: none"><li>• Text: a &lt;memo&gt; Tagged Value in which you type the text to display on the back of the tile; the format and font of the displayed text depends on the 'Tile Type'</li><li>• Tile Type: click on the drop-down arrow and select the type of Peek tile to display (see the <i>Windows Tile Template Type Descriptions</i> web page for more information on tile types)</li></ul>
Text Tile	<p>Adds a tile that displays text only. Depending on tile type, you can show a text string in the top half of the panel and two text items in the bottom right corner of the panel.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Block Text: type in a two-part text string to display at the bottom right of the tile, comprising a longer string that will be displayed in a small font, followed by a shorter string that will be displayed in a large font, the two strings separated by a semicolon; the short string will only display two characters in a square tile, or up to 5 characters in a wide tile, whilst the</li></ul>


	<p>longer string can contain many more characters, for example: Messages;16</p> <ul style="list-style-type: none"><li>• Text: type in some additional text to display at the top of the tile (dependent on tile type) such as a description or definition of the object identified in the lower text</li><li>• Tile Type: click on the drop-down arrow and select the type of Text tile to display (see the <i>Windows Tile Template Type Descriptions</i> web page for more information on tile types)</li></ul>
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## Windows Phone Controls

Item	Description
App Bar	<p>Generates an element that represents the 'Windows App Bar', which is displayed at the bottom of the phone screen to supply additional commands. This can include up to a maximum of five icons and six strings. When you drag the icon onto the diagram, you are prompted to select the orientation of 'Portrait' or 'Landscape' to match the screen orientation.</p> <p>Double-click on the element to display</p>

the 'Properties' dialog at the 'Wireframe' page, displaying the element name at the top as the root node.

Click on the element name and, in the right-hand 'Properties' panel, click on the drop-down arrow in the value field for the 'Mode' property and select:

- 'Mini' - to represent the App Bar as a thin bar with just the expand menu icon () in the top right, with no other icons or text
- 'Default' - to represent the App Bar as a thin bar unless it contains items, in which case it will display just the icon in a circle, with no text or icon names
- 'Expanded' - to show the App Bar containing each icon in a circle, the name of the item under the circle and up to six text strings representing additional menu options

You might prefer to set the App Bar properties after you have added some icons to it as child nodes. To add a child node, click on the root node and on the Add button and type in the name of the icon or object. In the right-hand panel, set the properties of the child node:

- 'Name': displays the name of the item, which you can edit if necessary; if the

	<p>App Bar is rendered in 'Expanded' mode, the name of a symbol or font item will be displayed below the icon, whilst for a text item it will be displayed below and to the left of the icons in a vertical list</p> <ul style="list-style-type: none"><li>• 'Type': click on the drop-down arrow and select from the list of item types; the type you select will determine what other property prompts are displayed:<ul style="list-style-type: none"><li>- 'SymbolIcon': displays the item as a symbol icon</li><li>- 'FontIcon': displays the item as a glyph, using a font</li><li>- 'BitmapIcon': draws a selected image as the icon</li><li>- 'Text': (applies only in 'Expanded' mode) displays the item name as a member of a vertical list below and to the left of the icons; a maximum of six items can be listed at once</li><li>- 'Separator': draws a vertical line between icons, which counts as one of the five available spots for icons on the App Bar; Separator items do not display names</li></ul></li><li>• 'Symbol': (displays if the 'Type' is set to</li></ul>
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	<p>'SymbolIcon') click on the drop down arrow and select the symbol from the list</p> <ul style="list-style-type: none"><li>• 'FontFamily': (displays if the 'Type' is set to 'FontIcon') type in the name of the font to draw with, such as 'Segoe UI Symbol'</li><li>• 'Glyph': (displays if the 'Type' is set to 'FontIcon') type in the Hex value of the glyph to draw - for example, for the © symbol you can set 'FontFamily' to 'Arial' and type the Hex code '00A9'; font codes in Windows can be found via 'Control Panel   Fonts   Find a Character'</li><li>• 'Bitmap': (displays if the 'Type' is set to 'BitmapIcon') click on the drop-down arrow and select a bitmap (as listed in the Image Manager)</li></ul>
Date Picker	<p>Generates an element that depicts three blocks showing today's day and date, month and year, derived from the system date.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Date - if necessary, click on the drop-down arrow and select a different date from the calendar; if the displayed date is not today, you can reset it to</li></ul>

	<p>today's date by clicking on the Today button</p> <ul style="list-style-type: none"><li>• DateFormat - click on the drop-down arrow and select the date format to display:<ul style="list-style-type: none"><li>- d/m/y</li><li>- m/d/y</li><li>- y/m/d</li></ul></li></ul>
Password Box	<p>Generates an element that represents a password field on the screen.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Password: a text string that represents a password</li><li>• Password Character: a character that replaces each character of the 'Password' string when the password is hidden (when either 'Reveal Button' or 'Show Text' are set to False)</li><li>• Reveal Button: if set to True (the default) draws a button that displays the 'Password' text string; if set to False the button is not displayed and the password string is represented by a string consisting of the 'Password Character'</li><li>• Show Text: when 'Reveal Button' is set to True, setting 'Show Text' to True will display the 'Password' text string;</li></ul>

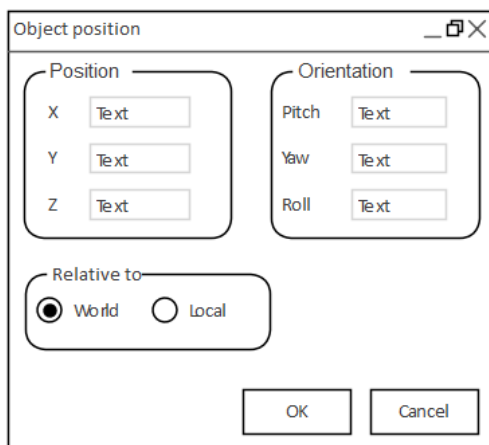
	otherwise a string displays composed of just the 'Password Character'
Progress Bar	Generates an element representing a 'process in progress' status bar, showing a number of 'dot' stages.
Progress Ring	Generates an element depicting the Windows 'processing in progress' circle of dots.
Search Bar	<p>Generates an element representing a Windows search field, with the start search 'magnifying glass' icon at the end of it.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>Placeholder Text - defaults to the word 'Search'; if necessary, overtype this with an alternative text string</li></ul>
Slider	<p>Generates an element representing a slide control switch, with the slider 50% of the way across.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>Fill amount - overtype the field with a value between 1 and 100, to set the percentage of the icon shown dark behind the slider</li></ul>







Time Picker	<p>Generates an element that depicts two blocks showing the time in hours and minutes, in either 12-hour or 24-hour clock format.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• 24 Hour Display - click on the drop-down arrow and select True to display the time in 24-hour format, or False (the default) to display the time in 12-hour format</li><li>• Time - displays the time in three sections - hours, minutes and AM/PM; click on and overtype each section with the required value for the time</li></ul>
Toggle Switch	<p>Generates an element depicting a slide-over toggle switch with the switch on the left, representing the 'off' state.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select 'On' to represent the On state with the switch on the right of the icon, or 'Off' to move the switch back to the left of the icon to represent the Off state</li></ul>

# Dialog Wireframe Toolbox

The 'Dialog Wireframing' Diagram Toolbox pages provide the templates for modeling the physical design, appearance and operation of a screen dialog. You can see and build on an example of how to model the dialog interface by dragging the 'Dialog Pattern' icon onto a diagram.



## Access

Ribbon	Design > Diagram > Toolbox :  > Specify 'Wireframing - Dialog' in the 'Find Toolbox Item' dialog
Keyboard Shortcuts	Ctrl+Shift+3 :  > Specify 'Wireframing - Dialog' in the 'Find Toolbox Item' dialog
Other	You can display or hide the Diagram Toolbox by clicking on the  or  icons

	at the left-hand end of the Caption Bar at the top of the Diagram View.
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## Screen Types

Item	Description
Dialog	<p>Generates an element that represents a dialog outline, with a title (the element name). This has several components that you can expose and define in the element 'Properties' dialog, some using the Tagged Values on the 'Wireframing' tab of the 'General' page, and some using the 'Wireframe' page of the dialog.</p> <p><b>Tagged Values:</b></p> <ul style="list-style-type: none"><li>• Close Button - defaults to True to show a 'close dialog' icon in the top right corner of the dialog; click on the drop-down arrow and select False to omit the icon</li><li>• Maximize Button - defaults to False to omit a 'maximize dialog' icon from the top right corner of the dialog; click on the drop-down arrow and select True to show the icon</li><li>• Minimize Button - defaults to False to</li></ul>

omit a 'minimize dialog' icon from the top right corner of the dialog; click on the drop-down arrow and select True to show the icon

- ScrollbarH - defaults to '<none>' to omit a horizontal scrollbar on the dialog; click on the drop-down arrow and select 'Bottom' or 'Top' to show a scrollbar in the corresponding position
- ScrollbarV - defaults to '<none>' to omit a vertical scrollbar on the dialog; click on the drop-down arrow and select 'Left' or 'Right' to show a scrollbar in the corresponding position
- StatusBar - define the display of the Status Bar using the 'Wireframe' page
- User Icon - type in the name of an icon exactly as listed in the Image Manager, to display that icon in the top left corner of the dialog before the dialog (element) name



### **Wireframe Page:**

Displayed by default when you double-click on the element. Use the options to modify the Status Bar at the bottom of the dialog.

Click on the element name.

- Zoombar - defaults to True to depict a

	<p>zoom bar at the right hand end of the Status Bar; click on the drop-down arrow and select False to omit the zoom bar</p> <ul style="list-style-type: none"><li>• Resize Handle - defaults to True to depict a resize icon (triangle of dots) in the bottom right corner of the Status Bar; click on the drop-down arrow and select False to omit the icon</li></ul> <p>Click on 'Label' - this defines the first segment of the progress bar at the left hand end of the Status Bar.</p> <ul style="list-style-type: none"><li>• Name - if necessary, overwrite the text with another name for the progress bar; this text is not displayed but the field cannot be blank</li><li>• Text - if necessary, overwrite the default text with different text to display next to the progress bar</li><li>• Type - defaults to 'Text' to display the string contained in the 'Text' field; if necessary, click on the drop-down arrow and select:<ul style="list-style-type: none"><li>- Filled Progress Bar - to replace the text with a part-filled rectangle (to depict a section of Progress Bar with a portion of processing complete), or</li><li>- Block Progress Bar - to replace</li></ul></li></ul>
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	<p>the text with rectangle containing blocks (to depict a section of Progress Bar with processing in action)</p> <p>Click on 'Progressbar' - this defines a second segment of the progress bar. The properties are the same as for the first segment except that there is no default 'Text' and the 'Type' defaults to 'Filled'.</p> <p>If you want to add another segment to the progress bar, click on the element name, click on the Add button and provide a name for this segment. Provide values for the 'Text' and 'Type' properties as before.</p> <p>If you want to remove segments from the progress bar, click on the segment name and click on the Remove button. If you remove all segments and the 'Zoom Bar' and 'Resize Handle', the status bar itself is removed.</p> <p>You can change the sequence of segments by clicking on a segment name and on the   buttons.</p>
Client Area	<p>Generates a frame element that represents the client area of the device.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"> <li>• BorderStyle - click on the drop-down arrow and select to render the border as</li> </ul>

	<p>a 'Solid' line or a 'Dashed' line, or to have no border at all ('None')</p> <ul style="list-style-type: none"><li>• ScrollbarH - click on the drop-down arrow and select to place a horizontal scrollbar at the 'Top' or 'Bottom' of the client area, or to have no horizontal scrollbar ('&lt;none&gt;')</li><li>• ScrollbarV - click on the drop-down arrow and select to place a vertical scrollbar on the 'Left' or 'Right' of the client area, or to have no vertical scrollbar ('&lt;none&gt;')</li></ul>
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## Controls

Item	Description
Button	<p>Generates an element that represents a simple button with the element name as the button text.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select a status for the button:<ul style="list-style-type: none"><li>- Normal - simple rectangle, for normal display where the button is just available</li><li>- Focused - a highlighted inner</li></ul></li></ul>

	<p>border, indicating, for example, that the button is the default selection</p> <ul style="list-style-type: none"><li>- Selected - filled rectangle, indicating that the button is selected</li><li>- Disabled - pale text and border, indicating that the button is not available</li></ul>
Check Box	<p>Generates a labeled checkbox element, the label text being the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Checked' (tick icon) or 'Unchecked' (box outline)</li></ul>
Radio Button	<p>Generates a labeled radio button element, the label text being the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to depict - 'Selected' (filled) or 'Unselected' (outline)</li></ul>
Combo Box	<p>Generates an element representing a drop-down combo box.</p>





	<p>Tagged Values:</p> <ul style="list-style-type: none"><li>• DropDownState - click on the drop-down arrow and select 'Open' to depict the combo box in use, displaying all values, or 'Closed' to depict the combo box with a single selected value</li><li>• Items - click on the drop-down arrow and select the item to depict as currently selected in the combo box and, if the list of items is expanded, highlighted in the list</li></ul> <p>You can change the text of the items, and add or remove items in the list, by editing the 'Values:' list in the Tagged Value notes</p>
Label	<p>Generates a Label text element, on which the label text is the name of the element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Align Text - click on the drop-down arrow and select to align the text to the left, center or right of the element frame</li><li>• Multiline - click on the drop-down arrow and select True to allow the text to wrap around onto more than one line (automatically increasing the element depth), or False to only show the text that fits on one line within the current</li></ul>

	element width
List	<p>Generates a List box element.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Items - click on the drop-down arrow and select the item to show highlighted in the list You can add, remove and rename items by editing the 'Values:' list in the Tagged Values Notes</li><li>• ListType - click on the drop-down arrow and select to display the list as 'Simple', 'Numbered' or 'Bulleted'</li></ul>
Table	<p>Generates a Table element with labeled columns, rows and cells.</p> <p>Double-click on the table to display the element 'Properties' dialog at the 'Wireframe' page, which provides the facilities for editing the table (adding, renaming and deleting columns and rows, changing the column width and editing the cell text) through context menu options and buttons. Note that the editor does not provide a true image of the table's appearance on the screen.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Draw Lines - click on the drop-down arrow and select True to display</li></ul>

	<p>horizontal and vertical lines between the table cells, or False to hide the lines</p> <ul style="list-style-type: none"><li>• Highlight Headers - click on the drop-down arrow and select True to highlight the header of each column, or False to leave the table columns a uniform color</li></ul>
Image	<p>Generates a place holder to indicate where an image will be placed on the phone or tablet.</p> <p>You can display an actual image by assigning an alternative image to the element.</p>

## Dialog Controls

Item	Description
Checkbox List	<p>Generates an element depicting a checklist where each item has a checkbox on the left hand side.</p> <p>Double-click on the table to display the element 'Properties' dialog at the 'Wireframe' page, which you use to maintain this element.</p>



	<p>For each 'Checkbox' item, complete these fields:</p> <ul style="list-style-type: none"><li>• Name - type the name or text of the item</li><li>• Checked - click on the drop-down arrow and select True to show a ticked checkbox against the item, or False to show a cleared checkbox</li></ul> <p>To add another item to the list, click on the element name and on the Add button, then provide a name for the item.</p> <p>To remove an item from the list, click on the item and on the Remove button.</p> <p>You can change the sequence of items by clicking on an item name and on the   buttons.</p>
Format Bar	<p>Generates a simple element representing a text formatting bar.</p> <p>If you want to represent a toolbar containing icons you have defined, use the 'Toolbar' icon.</p>
List View	<p>Generates an element representing a horizontal, rectangular or vertical list of text items (depending on the size of the element) with or without associated images.</p>

Double-click on the table to display the element 'Properties' dialog at the 'Wireframe' page, which you can use to add, remove or change the items and their icons. For each item, complete these fields:


- Name - type the name or text of the item; this field cannot be left blank
- Image - type the name of the image, or click on the drop-down arrow and select the name, as listed in the Image Manager
- Selected - click on the drop-down arrow and select True to highlight the name of the item, or False to omit any highlight; more than one item can be highlighted at once



To add another item to the list, click on the element name and on the Add button, then provide a name for the item.

To remove an item from the list, click on the item and on the Remove button.

You can change the sequence of items by clicking on an item name and on the   buttons.



If you reduce the size of the element so that not all items can be shown, a scroll bar automatically displays on the right

	<p>edge of the element:</p> 
Status Bar	<p>Generates a status bar element identical to the automatically-generated status bar on the 'Dialog' element, except that you can position this element independently of the dialog, as required.</p>
Toolbar	<p>Generates an element to represent a toolbar of icons, already set up with some standard toolbar icons.</p> <p>Double-click on the element to display the 'Wireframe' page of the 'Properties' dialog, which you can use to add, remove or change the items and their icons. For each item, complete these fields:</p> <ul style="list-style-type: none"><li>• Name - type the name or text of the item; this field cannot be left blank</li><li>• Image - type the name of the icon image, or click on the drop-down arrow and select the name, as listed in the Image Manager</li></ul> <p>To add another item to the list, click on the element name and on the Add button, then provide a name for the item. You can add one or more items called 'Separator' to the list, which display as a  ,</p>

	<p>to partition groups of related icons in the toolbar. If you add an image to this item, the image is overridden by the  .</p> <p>To remove an item from the list, click on the item and on the Remove button.</p> <p>You can change the sequence of items by clicking on an item name and on the   buttons.</p>
Audio Player	Generates a simple element to indicate an audio player control.
Calendar	<p>Generates an element representing a basic calendar, showing today's date derived from the system date.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Date - either:<ul style="list-style-type: none"><li>- Overtyping the date displayed in this field or</li><li>- Click on the drop-down arrow to display an active calendar page and select the date on that; click on the Today button to reset the date to the system date</li></ul></li><li>• Highlight Date - click on the drop-down arrow and select True to highlight the set date on the calendar icon, or False to omit the highlight</li></ul>

Header	<p>Generates an element representing a title or header text on a dialog. The text itself is the element name.</p> <p>The element can reflect one of a range of header levels, each with a different font style. You specify which level of header to display using the 'HeaderType' Tagged Value within the element.</p> <p>Double-click on the element to display the 'Wireframe' page of the 'Properties' dialog, which you can use to add, remove or change the header levels and styles. For each item, complete these fields:</p> <ul style="list-style-type: none"><li>• Name - type the name of the header level; this field cannot be left blank</li><li>• Color - click on the drop-down arrow and select the appropriate color from the palette</li><li>• Font Size - type in the font size, or click on the drop-down arrow and select the type size from the list</li><li>• Font Family - click on the drop-down arrow and select the font type from the list</li><li>• Font Style - click on the drop-down arrow and select the style from the list; select blank for no applied style</li><li>• Text Align - click on the drop-down</li></ul>
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	<p>arrow and select to align the text left, right or centered</p> <ul style="list-style-type: none"><li>• Text Decoration - click on the drop-down arrow and select whether to show an underline or a line-through, or neither (blank)</li></ul> <p>To add another heading level to the list, click on the element name and on the Add button, then provide a name for the level.</p> <p>To remove a level from the list, click on the item and on the Remove button.</p> <p>You can change the sequence of heading levels by clicking on a level name and on the   buttons.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• HeaderType - click on the drop-down arrow and select the heading level to display</li></ul>
Hyperlink	<p>Generates an element representing a hyperlink in one of three states: 'Link', 'Visited' and 'Hover' (mouse-over). The Hyperlink text is the element name.</p> <p>Double-click on the element to display the 'Wireframe' page of the 'Properties' dialog, which you can use to add, remove or change the hyperlink states. For each</p>





state, complete these fields:


- Name - type the name of the state; this field cannot be left blank
- Color - click on the drop-down arrow and select the appropriate color from the palette
- Font Size - type in the font size, or click on the drop-down arrow and select the type size from the list
- Font Family - click on the drop-down arrow and select the font type from the list
- Font Style - click on the drop-down arrow and select the style from the list; select blank for no applied style
- Text Align - click on the drop-down arrow and select to align the text left, right or centered
- Text Decoration - click on the drop-down arrow and select whether to show an underline or a line-through, or neither (blank)

To add another hyperlink state to the list, click on the element name and on the Add button, then provide a name for the state.


To remove a state from the list, click on the item and on the Remove button.

	<p>You can change the sequence of states by clicking on a state name and on the   buttons.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• State - click on the drop-down arrow and select the state to represent on the diagram</li></ul>
Menu Bar	<p>Generates an element representing a standard menu bar at the top of the screen, initially with three options ('File', 'Edit' and 'View') with the 'File' option expanded into a sub-menu.</p> <p>Double-click on the element to display the 'Wireframe' page of the 'Properties' dialog, which you can use to add, remove or change the menu options in the top level, sub-menu and - if you prefer - further sub levels.</p> <p>For each menu option - at any level - complete these fields:</p> <ul style="list-style-type: none"><li>• 'Name' - type in the name for this menu item</li><li>• 'Expanded' - click on the drop-down arrow and select True to show the sub-menu for this option (if it has one), or False to hide the sub-menu</li><li>• 'Highlighted' - click on the drop-down</li></ul>

	<p>arrow and select True to highlight this option in the menu, or False to leave it un-highlighted; if 'Expanded' is set to True, the option is automatically highlighted</p> <p>To add a menu sub-option at any level, click on the parent option name and on the Add button, then provide a name for the sub-option. You can add one or more items called 'Separator' to the list, which displays as a horizontal line across the list, to partition groups of related options in the menu.</p> <p>To remove an option from the list, click on the item and on the Remove button.</p> <p>You can change the sequence of options by clicking on an option name and on the   buttons.</p> <p>To move an option between two levels of menu, click on the option name and on the   buttons.</p>
Paragraph	<p>Generates a text element with no border, but that can contain multi-line text with basic HTML formatting.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Align Text - click on the drop-down arrow and select to align the text to the left, center or right of the element</li></ul>

	<p>frame</p> <ul style="list-style-type: none"><li>Text - click on the  button to edit the 'Tagged Value Note' screen, on which you can create the text to depict on the diagram; this can use HTML formatting tags such as <code>&lt;b&gt;</code> <code>&lt;/b&gt;</code> for bold or <code>&lt;u&gt;</code> <code>&lt;/u&gt;</code> for underlined - not all HTML formatting is supported</li></ul>
Progress Bar	<p>Generates a status bar element representing the progress of a process.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>Fill Percentage - defaults to 30% complete; type the percentage completion to depict (the amount the Progress Bar is filled)</li><li>Fill Style - click on the drop-down arrow and select:<ul style="list-style-type: none"><li>'Filled' to represent the percentage completion as a solid bar, or</li><li>'Block' to represent the percentage completion as a series of blocks or vertical bars</li></ul></li></ul>
Rating Control	<p>Generates an element depicting a star-rating band. The element always shows five stars, and the number of filled stars indicates the rating.</p>

	<p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Rating - click on the drop-down arrow and select the number of stars to show filled (the rating)</li></ul> <p>You can only re-size the element horizontally; the vertical dimension adjusts automatically to always depict five uniformly-shaped stars.</p>
Scrollbar - Horizontal	Generates an element representing a horizontal scrollbar.
Scrollbar - Vertical	Generates an element representing a horizontal scrollbar.
Tab Control	<p>Generates an element representing a series of tabs or pages. You can name the tabs and mark them as selected; however, child elements will not 'switch' when changing tabs (that is, setting a different tab as selected will still display the same child items in the tab space).</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• Tabs - click on the drop-down arrow and click on the tab that is to be highlighted as selected</li></ul> <p>You can name the tabs, and add more to the list, by editing the 'Values:' list in the Tagged Value notes</p>

	If you reduce the size of the element so that all tabs cannot be shown, a scroll icon (  ) automatically displays in the top right corner of the element.
Text Field	Generates a text element with a pale border, the text being the element name, representing a simple data entry field.
Video Player	Generates an element that represents a video player control.
Date/Time Picker	<p>Generates an element that represents the Microsoft Date/Time Picker.</p> <p>Tagged Values:</p> <ul style="list-style-type: none"><li>• CustomFormat - type in a custom format for any or all of the day, date, month, year, hour, minute and second components, using these case-sensitive codes (listed in alphabetical order):<ul style="list-style-type: none"><li>- d - display the day of the month using either one or two digits</li><li>- dd - display the day of the month using two digits, digits 1 to 9 preceded by a 0</li><li>- ddd - display the day of the week as a three-character abbreviation</li><li>- dddd - display the name of the day</li></ul></li></ul>





in full

- h - display the hour using either one or two digits, in 12 hour clock format
- hh - display the hour using two digits, digits 1 to 9 preceded by a 0, in 12 hour clock format
- H - display the hour using either one or two digits, in 24 hour clock format
- HH - display the hour using two digits, digits 1 to 9 preceded by a 0, in 24 hour clock format
- m - display the minutes using either one or two digits
- mm - display the minutes using two digits, digits 1 to 9 preceded by a 0
- M - display the number of the month using either one or two digits
- MM - display the number of the month using two digits, digits 1 to 9 preceded by a 0
- MMM - display the name of the month as a three-character abbreviation
- MMMM -display the name of the month in full
- s - display the seconds using



	<p>either one or two digits</p> <ul style="list-style-type: none"><li>- ss - display the seconds using two digits, digits 1 to 9 preceded by a 0</li><li>- t - identify morning or afternoon with a single character (A for AM, P for PM)</li><li>- tt - identify morning or afternoon with the two-character abbreviation AM or PM</li><li>- y - display the year using a single digit (2022 is displayed as 2)</li><li>- yy - display the year using two digits (2022 is displayed as 22)</li><li>- yyyy - display the year in full (for example, 2022)</li></ul> <ul style="list-style-type: none"><li>• Date - overwrite the date, or click on the drop-down arrow to display a calendar from which you can select the date to display; defaults to today's date - if you change this to a fixed date and want to return to the current (system) date, click on the Today button</li><li>• Format - click on the drop-down arrow and select the code for the format to use to display the date and time:<ul style="list-style-type: none"><li>- Long - the full day name, the day date, the full month name, the full year (for example:</li></ul></li></ul>
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	<p>Wednesday, 17 February 2022)</p> <ul style="list-style-type: none"><li>- Short - the day of the month in single/double digits, the month as a two-digit number, the year in full (for example: 17/02/2022)</li><li>- Time - the hour, minutes and seconds in 12-hour format (for example 12:59:34 PM)</li><li>- Custom - applies the custom format you defined in the 'CustomFormat' Tagged Value</li></ul>
Tree Control	<p>Generates an element representing a hierarchy or tree of nodes, with broken lines connecting sibling nodes and an expansion box (+ or -) next to nodes that have subnodes.</p> <p>Double-click on the element to display the element 'Properties' dialog at the 'Wireframe' page, which you can use to add, remove or change the tree nodes in the top level, sub-level and - if you prefer - further sub levels.</p> <p>For each node - at any level - complete these fields:</p> <ul style="list-style-type: none"><li>• Name - type in the name for this node</li><li>• Expanded - click on the drop-down arrow and select True to show the</li></ul>

	<p>subordinate nodes for this node (if it has any), or False to hide the subordinate nodes</p> <ul style="list-style-type: none"><li>• Selected - click on the drop-down arrow and select True to highlight this node, or False to leave it un-highlighted</li></ul> <p>To add a sub-node at any level, click on the parent node name and on the Add button, then provide a name for the sub-node.</p> <p>To remove a node from the hierarchy, click on the node name and on the Remove button.</p> <p>You can change the sequence of nodes by clicking on a node name and on the   buttons.</p> <p>To move a node between two levels of the hierarchy, click on the node name and on the   buttons.</p> <p>You can also directly edit the XML of the element on the 'Wireframe' tab of the Properties window.</p>
Groupbox	<p>Generates an element representing a Groupbox, with the name of the element in the top left corner. You can use this element to enclose and group other</p>

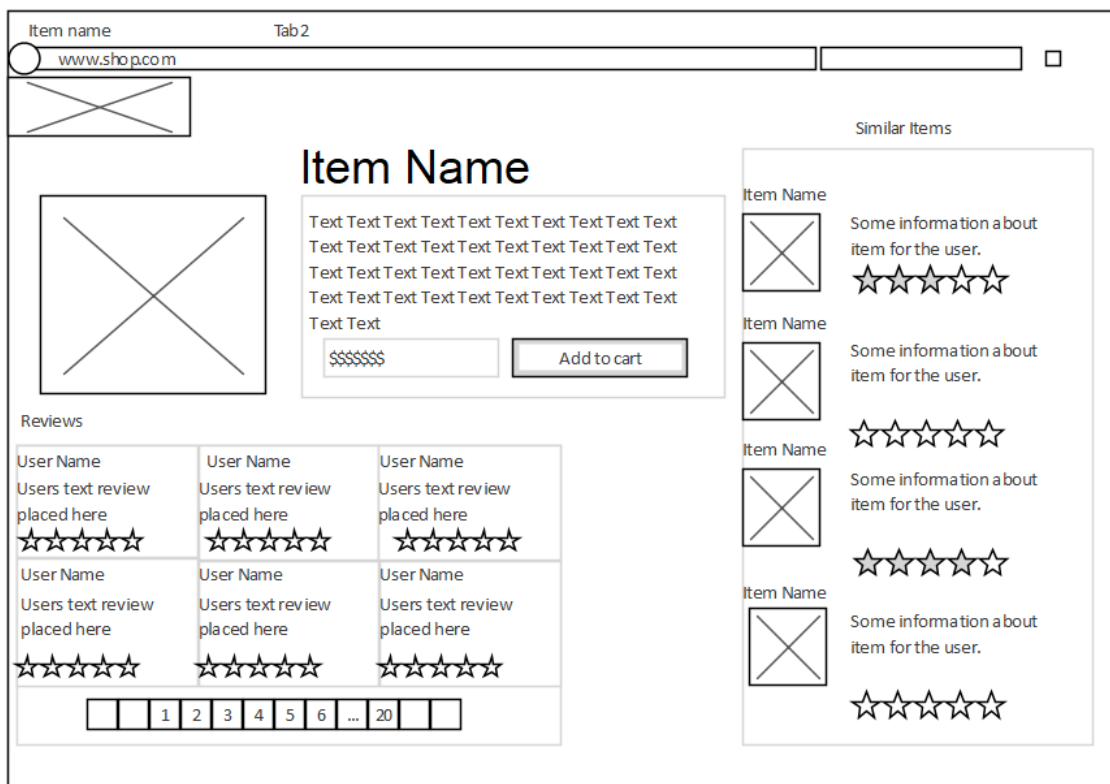
	elements of the dialog.
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## Patterns


Item	Description
Dialog	This Pattern generates a small dialog containing three panels with data entry fields and radio buttons, and two buttons, as depicted at the start of this topic. You can use this as an example, or as the basis for a similar dialog design.

# Webpage Wireframe Toolbox

The 'Webpage Wireframe' Diagram Toolbox pages provide the templates for modeling the schematics, blueprints or framework of a website, defining how the web pages work. You can see and build on an example of how to model the webpage interface by dragging the 'Webpage Pattern' icon onto a diagram. Then, using the Toolbox, you can drag Element-types on to your diagram to add any key user-interface features.

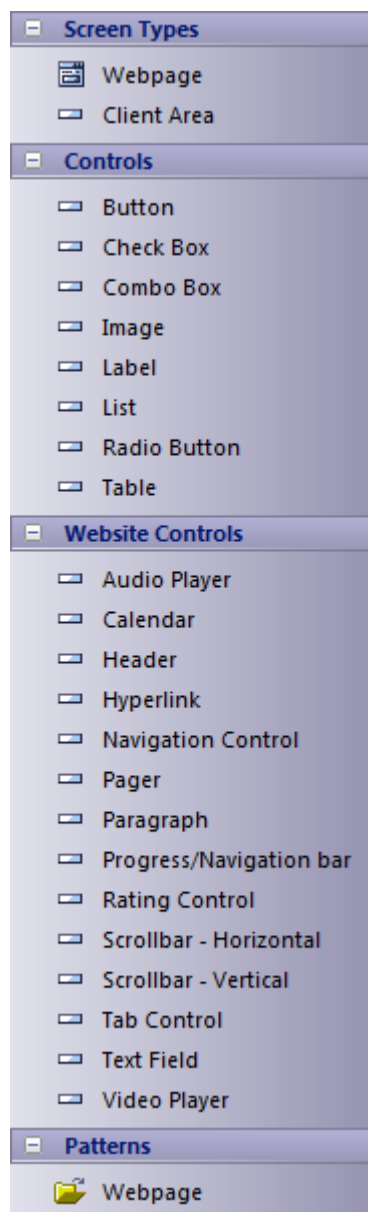


## Access


On the Diagram Toolbox, click on  to display the 'Find Toolbox Item' dialog and specify 'Wireframing' or 'Webpage'.


Ribbon	Design > Diagram > Toolbox
Keyboard Shortcuts	Ctrl+Shift+3

## Toolbox



## Element Features

Image	Detail
ComboBox	<p>Combobox, List, Progress/Navigation bar and Tab Control all provide lists of values.</p> <p>To extend a list:</p> <ul style="list-style-type: none"><li>• Open the Properties Dialog (Double-click or Shift+Enter)</li><li>• Select the Wireframing tab</li><li>• Select the Tagged Value</li><li>• Click on the  icon</li><li>• and then add, edit or remove items from the 'Values' list.</li></ul>
Calendar Element	<p>The Calendar element, when created, defaults to the current day and continues to update each day unless you set a value in the element's Date Tagged Value. If set, the date remains static until it is reset to 'Today' in the Tagged Value.</p>
Paragraph	<p>In the Paragraph element you can:</p> <ul style="list-style-type: none"><li>• Set text alignment in the 'Align Text' Property</li><li>• Edit the text in using the [...] option in</li></ul>

	<p>the 'Text' Property (which is of type &lt;memo&gt;). The text can be use basic HTML text formatting, as for other formatted notes in elements.</p>
Navigation Control	<p>Navigation Control defines a menu with, if required, multiple levels of sub-menu options. You can add and remove options at any level using the 'Wireframe' tab of the 'Properties' dialog. Each option, at any level, has these properties:</p> <ul style="list-style-type: none"><li>• 'Name': Set the text of the menu option</li><li>• 'Expanded': Indicate if the option will display its sub options (if any); expanded items are always highlighted, regardless of the setting of 'Highlighted'</li><li>• 'Highlighted': Draw the item with a different colored background</li></ul>
Progress/Navigation Control	<p>Progress Navigation Control provides a visual progression through pages.</p> <p>To extend a list:</p> <ul style="list-style-type: none"><li>• Open the Properties Dialog (double-click or shift+enter)</li><li>• Select the Wireframing tab</li><li>• Select the <i>Steps</i> Tagged Value</li><li>• Click on the  icon</li></ul>



	<ul style="list-style-type: none"><li>• and then add, edit or remove items from the 'Steps' list.</li></ul>
Hyperlink	<p>Hyperlink and Header elements are both also defined on the 'Wireframe' tab, and have a number of style properties that you set using simple drop-down lists:</p> <ul style="list-style-type: none"><li>• Color</li><li>• Font Size</li><li>• Font Family</li><li>• Font Style</li><li>• Text Align</li><li>• Text Decoration</li></ul>

