GEOG 490/590
GIS Programming
Config.esriaddinx configuration file

	Button	Tool	Combo Box	Menu	Multi-Item	Tool palette
Toolbar	X	X	X	X		X
Menu	X			X	X	
Tool palette		X				

Toolbars, menus, and tool palettes are containers for AddIn commands. (Context menus follow the same rules as menus). The table above shows which commands are valid for each type of container. For example, a tool palette can only contain a tool.

Commands are placed into a container by adding them to the collection of Items associated with that container in the Config.esriaddinx file. Each item has a "refId" element linking it to a command. This can be

1. A custom command that you create: See lines 40 and 44 in the example file below. Note that this ComboBox and Menu are configured elsewhere in the file: ComboBox (lines 16-22), Menu (lines 50-57)
2. ESRI commands and menus: See lines 41 – 43 in the example file below

The wizard can write this file for you but the commands have to exist before it can add them the container so you may have to add new commands to existing containers by adding items to the container's collection in the Config.esriaddinx file.

The slides from the Jan 11 lecture have images of the containers and commands so you can see what they look like. Below is an excerpt from a Config.esriaddinx file. Carriage returns and spaces have been added for readability. Following the example file are details on the contents of each section.

```xml
<AddIn language="CLR" library="CustomUIElements.dll" namespace="CustomUIElements">
    <ArcMap>
      <Commands>
        <Button id="Dharma_Inst_CustomUIElements_ZoomToLayerButton" class="ZoomToLayerButton"
            message="Zoom to selected layer" caption="ZoomToLayer" tip="Zoom to selected layer"
            category="Add-In Controls" image="Images\ZoomToLayerButton.png">
            <Help heading="ZoomToSelectedLayer">Sets the extent of selected layer</Help>
        </Button>

        <Tool id="Dharma_Inst_CustomUIElements_AddGraphicsTool" class="AddGraphicsTool"
            message="Digitze a geometry" caption="Add Graphics Tool" tip="Digitze a geometry"
            category="Add-In Controls" image="Images\AddGraphicsTool.png">
            <Help heading="Add graphics tool">Digitize a line on map</Help>
        </Tool>

        <ComboBox id="Dharma_Inst_CustomUIElements_ArcGISOnlineComboBox" class="ArcGISOnlineComboBox"
            message="Adds ArcGIS Online Layer to the map" caption="ArcGIS Online Combo Box" tip="Adds
            ArcGIS Online Layer" category="Add-In Controls" image="Images\ArcGISOnlineComboBox.png"
            editable="false" hintText="Adds ArcGIS Online Layer" sizeString="WWWWWWWWWWWW"
            itemSizeString="WWWWWWWWWWWW">
            <Help heading="ArcGIS Online Layer Combo Box">Select a layer and add to map</Help>
        </ComboBox>

        <Button id="Dharma_Inst_CustomUIElements_PopDockableWindowButton" class="PopDockableWindowButton"
            message="Toggle hello world dockable window" caption="Toggle dockable window" tip="Toggle
            dockable window" category="Add-In Controls" image="Images\PopDockableWindow.png" />
      </Commands>


      <DockableWindows>
        <DockableWindow id="Dharma_Inst_CustomUIElements_DockableWindow1"
            class="DockableWindow1+AddinImpl" caption="My Dockable Window"
            image="Images\DockableWindow1.png">
            <InitialPlacement height="300" width="300" state="hidden" position="float" />
        </DockableWindow>
      </DockableWindows>
```

```xml
37
38        <Toolbars>
39          <Toolbar id="Dharma_Inst_CustomUIElements_DharmaToolbar" caption="DharmaToolbar"
40              showInitially="false">
41                  <Items>
42                          <ComboBox refID="Dharma_Inst_CustomUIElements_ArcGISOnlineComboBox" />
43                          <Tool refID="esriArcMapUI.ZoomInFixedCommand" />
44                          <Tool refID="esriArcMapUI.ClearSelectionCommand" />
45                          <Menu refID="{E370A1CD-4CD6-11D2-AAA8-000000000000}" />
46                          <Menu refID="Dharma_Inst_CustomUIElements_Zoom_commands"/>
47                  </Items>
48          </Toolbar>
49        </Toolbars>
50
51        <Menus>
52          <Menu id="Dharma_Inst_CustomUIElements_Zoom_commands" caption="Zoom commands"
53              isRootMenu="true">
54                  <Items>
55                          <Menu refID="esriArcMapUI.MxZoomLayoutMenu" />
56                          <Button refID="Dharma_Inst_CustomUIElements_ZoomToLayerButton" />
57                          <Button refID="Dharma_Inst_CustomUIElements_PopDockableWindowButton" />
58                  </Items>
59          </Menu>
60        </Menus>
61      </ArcMap>
62    </AddIn>
```

Commands

- The Commands section is defined in lines 3 – 27
- This section contains definitions for buttons, tools, and comboBoxes
- There is an entry in this section for each button, tool or comboBox in your project
- Each button, tool, or comboBox has a corresponding *.vb file in your Solution Explorer

Button

- A button is defined in lines 4 – 8
- The wizard creates a class in the Solution Explorer window for each button that is added
- The name of this class must match the "class" element in the xml. In this example, there is a class called "ZoomToLayerButton.vb" in the Solution Explorer

Tool

- A tool is defined in lines 10 – 14
- The wizard creates a class in the Solution Explorer window for each tool that is added
- The name of this class must match the "class" element in the xml. In this example, there is a class called "AddGraphicsTool.vb" in the Solution Explorer

ComboBox

- A comboBox is defined in lines 16 – 22
- The wizard creates a class in the Solution Explorer window for each comboBox that is added
- The name of this class must match the "class" element in the xml. In this example, there is a class called "ArcGISOnlineComboBox.vb" in the Solution Explorer

DockableWindows

- The DockableWindows section is defined in lines 30 -36
- This section contains definitions for dockable windows; There is an entry in this section for each dockableWindow in your project
- Each dockableWindow has a corresponding *.vb file in your Solution Explorer

DockableWindow

- A DockableWindow is defined in lines 31 – 35
- The wizard creates a class in the Solution Explorer window for each dockableWindow that is added
- The name of this class must match the "class" element in the xml, excluding the +AddinImpl suffix. In this example, there is a class called "DockableWindow1.vb" in the Solution Explorer
- On its' own, the dockableWindow cannot be controlled by ArcMap. Code must be added to a button or comboBox to control the display of the window. In this example, the PopDockableWindowButton defined in lines 31-35 controls the DockableWindow1

Toolbars

- The Toolbars section is defined in lines 38 – 49
- This section contains definitions of toolbars
- There is an entry in this section for each toolbar in your project

Toolbar

- A toolbar is defined in lines 39 – 48
- No class is added to the Solution Explorer; a toolbar is only defined in the Config.esriaddinx configuration file
- The valid command types (button, tool, etc.) for a toolbar are listed the a table at the top of this document
- You can add your own command (line 42) to a toolbar. This command must be defined in the commands section
- You can add ESRI commands to a toolbar. You can use either the CLSID (line 45) or the ProgID (lines 43 and 44). These command types must be valid for toolbars
- Menus are typically accessed from toolbars. Line 46 shows how to add a custom menu to a toolbar. The menu is defined by a Menu entry in the Menus section.

Menus

- The Menus section is defined in lines 51 – 60
- This section contains definitions of menus
- There is an entry in this section for each menu in your project

Menu

- A menu is defined in lines 52 – 59
- No class is added to the Solution Explorer; a menu is only defined in the Config.esriaddinx configuration file
- The valid command types (button, menu, etc.) for a menu are listed the a table at the top of this document
- You can add your own command (lines 56-57) to a menu. This command must be defined in the commands section
- You can add ESRI commands to a menu. You can use either the CLSID or the ProgID (line 55). These command types must be valid for menus

The sample Config.esriaddinx configuration file creates this toolbar: