



## Ribbon customization with a C# add-in

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Technology

C# Add-In

Product areas

All

Architecture

For detailed information about the schema of the XML data used to define your Ribbon Tab, please see the 3rdPartyRibbonTabXmlSchema document.

### Overview

This sample NET-Hook Add-In project demonstrates using the InsertThirdPartyRibbonTabs functionality in Mastercam 2024.

### Building the project

1. You will need Visual Studio to build Mastercam.
2. Confirm that the reference to the NET-Hook 3.0 library (NETHook3\_0.dll) is valid. This project may work with earlier versions of Mastercam, but provided version is the focus of this example.
3. If necessary, retarget the Mastercam version by removing the existing NET-Hook 3.0 assembly reference and add a new assembly reference to the application version.

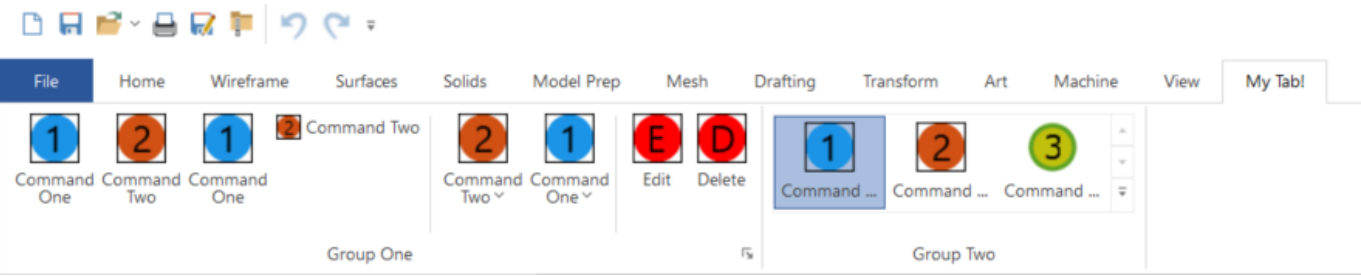
### Installation

After building the project, copy the RibbonCustomization.dll and RibbonCustomization.ft and RibbonCustomization.xml files to one of Mastercam "Add-Ins" folders. The sample project contains a Post-Build Event that will copy these files for you each time you build successfully.

### Add-in results

An Add-In can define and display a custom tab in the Ribbon. The definition of the Ribbon Tab and the items within the tab is done with an XML file. The display is done by calling the

Mastercam.Support.UI.MastercamRibbon.InsertThirdPartyRibbonTabs (xml) method.



Important aspects

Handling the “text” that is displayed for elements. The name of the Tab is declared in the XML data using the Label attribute in item. For the other elements, a string from the resources of the project is used.

Resources.resx		
abc	Strings	Access Modifier: Internal
	Name	Value
	COMMAND_ONE	Command One Description Command One
	COMMAND_THREE	Command Three Description
	COMMAND_TWO	Command Two Description Command Two
	DELETE	Click this to Delete something... Delete
	EDIT	Click this to Edit...
	RIBBON_GALLERY	Gallery Description
	RIBBON_ONE_GROUP	Group One
	RIBBON_ONE_GROUP_LAUNCHER	Group One Launcher Command
	RIBBON_TWO_GROUP	Group Two
	TipString	Ribbon Customization Tester
	Title	Ribbon Customization NET-Hook

Trouble shooting - “Something I have defined in the XML is not appearing in my Tab”!

The InsertThirdPartyRibbonTabs functionality “links” what you have declared you your XML with the commands you have declared in the FT file of your add-in. When your FT file is read, Mastercam searches for the functions you have defined. If in this declaration-to- definition loop something is not correct, your customer Ribbon tab will not be correct.

If in the XML declaration data we have:

```
<Group FTCommand="RibbonCustomization.MyRibbonGroupTwo" KeyTip="Z0" >
```

And in the FT file we have:

```
FUNCTION NET "RibbonGroupTwo"  
  HIDDEN  
  dnTIP "RIBBON_TWO_GROUP"  
  dnSPNG "GROUP_TWO_16"  
  dnLPNG "GROUP_TWO_32"
```

```
END_FUNCTION
```

The resulting Tab will look like this “Group Two” is missing!

From the declaration in the XML, Mastercam will be looking for a method in our .NET Assembly (DLL) by this ID ☐ Where RibbonCustomization is the APPLICATION “name” we’ve stated in the FT file and MyRibbonGroupTwo is the FUNCTION NET “name” in the FT file, which must match to a method within the .NET Assembly.

```
public Mastercam.App.Types.MCamReturn MyRibbonGroupTwo(int param)
{
    MessageBox.Show(Properties.Resources.RIBBON_TWO_GROUP);
    return Mastercam.App.Types.MCamReturn.NoErrors;
}
```

If we have done anything incorrectly here, this “linking” will be broken, and so will the resulting Ribbon Tab. In the case we’ve shown here, it’s a simple fix. We missed placing the proper “name” in the FUNCTION NET line of the FT file. It should be FUNCTION NET “MyRibbonGroupTwo”, to make what we’ve told Mastercam in the XML and what’s in the in the Add-In’s code match. Once we fix this, now our custom Group Two will appear.

If you encounter any issues with what is (or not) documented here, please let us know! [sdk@mastercam.com](mailto:sdk@mastercam.com)

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