How to Create a Ribbon Button in Siemens NX using NX Open API with C#

This guide provides step-by-step instructions on how to create a custom button in the ribbon of Siemens NX using the NX Open API with C#. It includes code snippets, UI definition files, and folder placement instructions.

# Step 1: Create the C# NX Open DLL

Write your NX Open code in C# using Visual Studio. Below is a simple example that shows a message box when the button is clicked:

using System;  
using NXOpen;  
  
public class MyNXApp  
{  
 public static void Main(string[] args)  
 {  
 Session theSession = Session.GetSession();  
 UI.GetUI().NXMessageBox.Show("Ribbon Button", NXMessageBox.DialogType.Information, "Button clicked!");  
 }  
  
 public static int GetUnloadOption(string dummy)  
 {  
 return (int)Session.LibraryUnloadOption.Immediately;  
 }  
}

Compile this code into a `.dll` file using Visual Studio.

# Step 2: Create `.btn` File (Button Definition)

Create a `.btn` file with the following content:

BUTTON MY\_CUSTOM\_BUTTON  
LABEL My Custom Button  
MESSAGE This button runs a custom NX Open DLL  
ACTION MyNXApp.dll

Place this file in the NX startup folder (e.g., `%UGII\_BASE\_DIR%\startup`).

# Step 3: Create `.men` File (Menu Definition)

Create a `.men` file with the following content:

VERSION 120  
EDIT UG\_GATEWAY\_MAIN\_MENUBAR AFTER UG\_HELP  
CASCADE\_BUTTON MY\_CUSTOM\_MENU LABEL My Tools  
END\_OF\_AFTER  
  
MENU MY\_CUSTOM\_MENU  
BUTTON MY\_CUSTOM\_BUTTON  
END\_OF\_MENU

# Step 4: Create `.rtb` File (Ribbon Definition)

Create a `.rtb` file with the following content:

TITLE My Tools  
VERSION 170  
  
BUTTON MY\_CUSTOM\_BUTTON  
RIBBON\_STYLE LARGE\_IMAGE

# Step 5: Place Files Correctly

Place the `.btn`, `.men`, and `.rtb` files into the appropriate NX folders:

- `.btn` → `%UGII\_BASE\_DIR%\startup`

- `.men` → `%UGII\_BASE\_DIR%\menus`

- `.rtb` → `%UGII\_BASE\_DIR%\rtb`

# Step 6: Restart NX

After placing the files and compiling your DLL, restart Siemens NX. You should see your custom ribbon button, and clicking it will run your C# code.