

Hyperworks ribbon

[hypermesh 功能区](#)

[hypermesh ribbons帮助](#)

[Extension文件夹结构](#)

[Extension.xml](#)

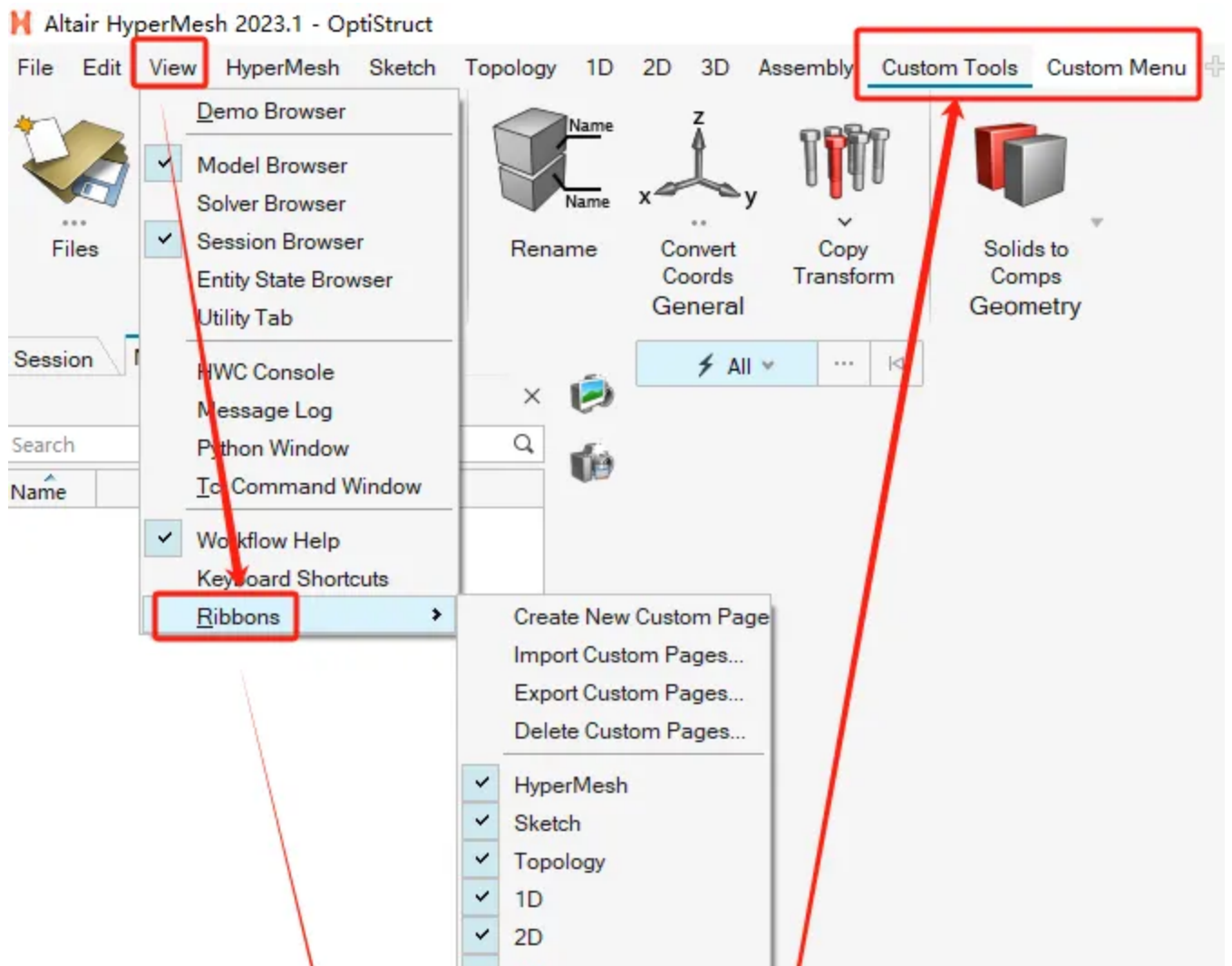
[创建新的ribbon](#)

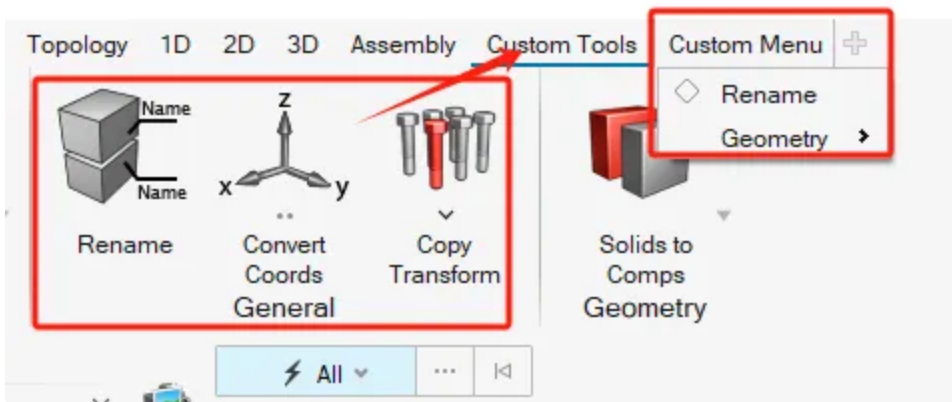
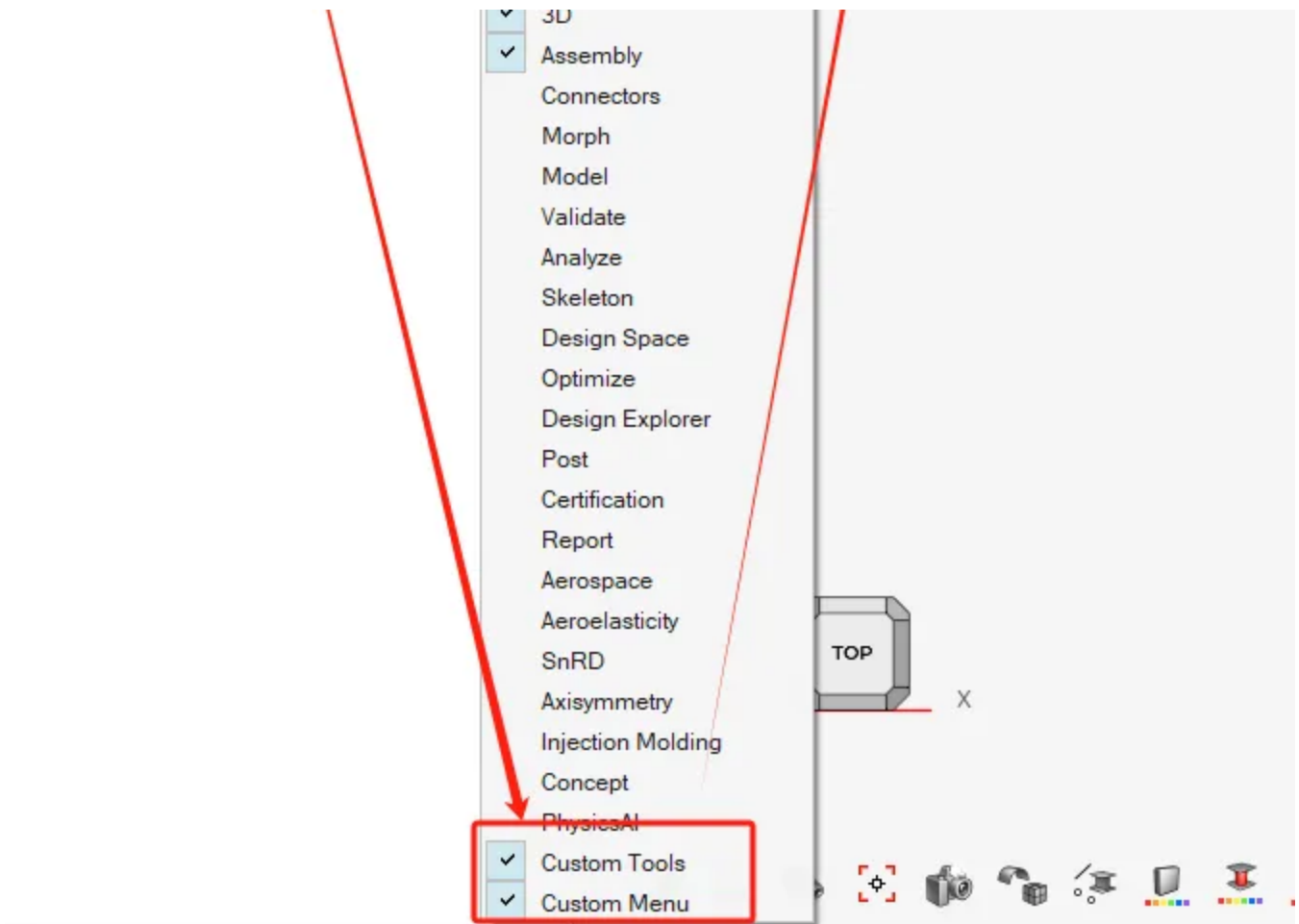
[hm-ribbon.xml](#)

[对应图标和按钮设置](#)

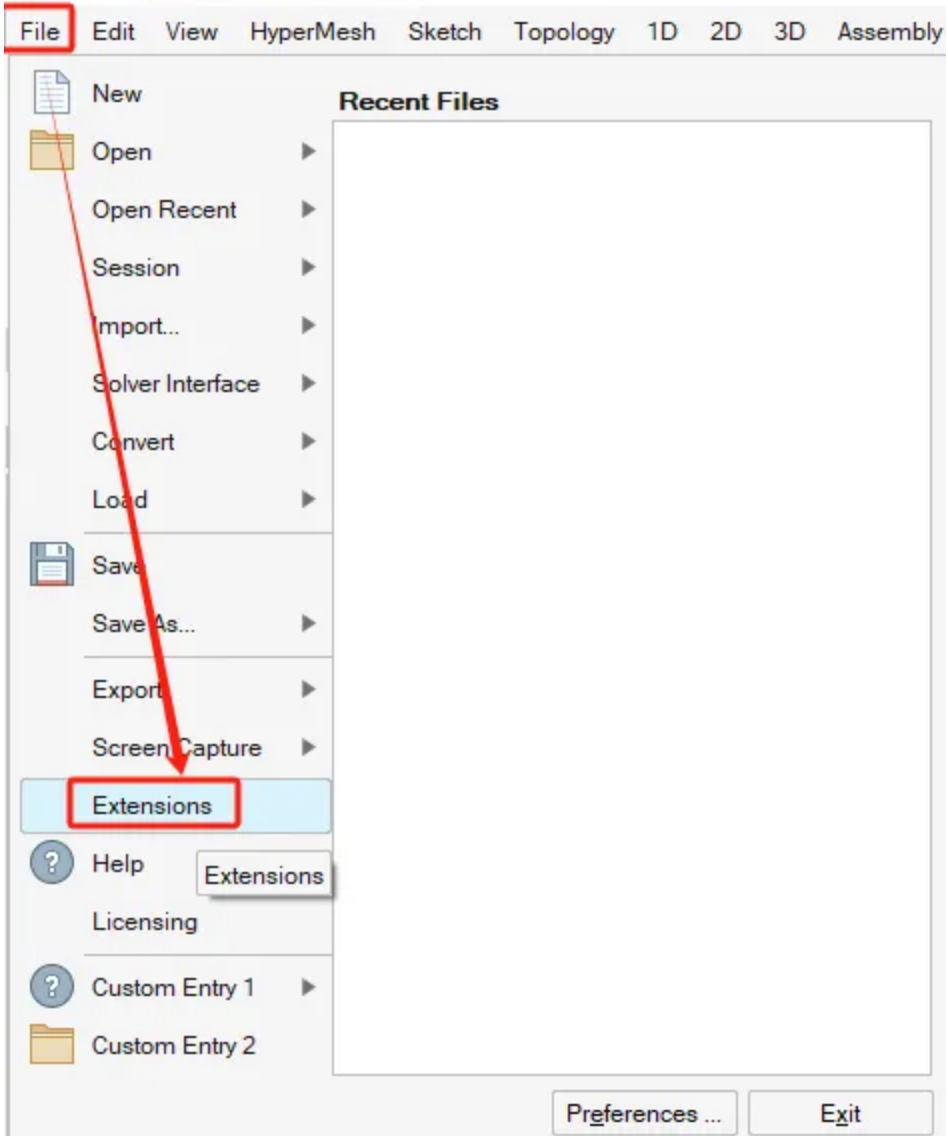
[绑定python命令](#)

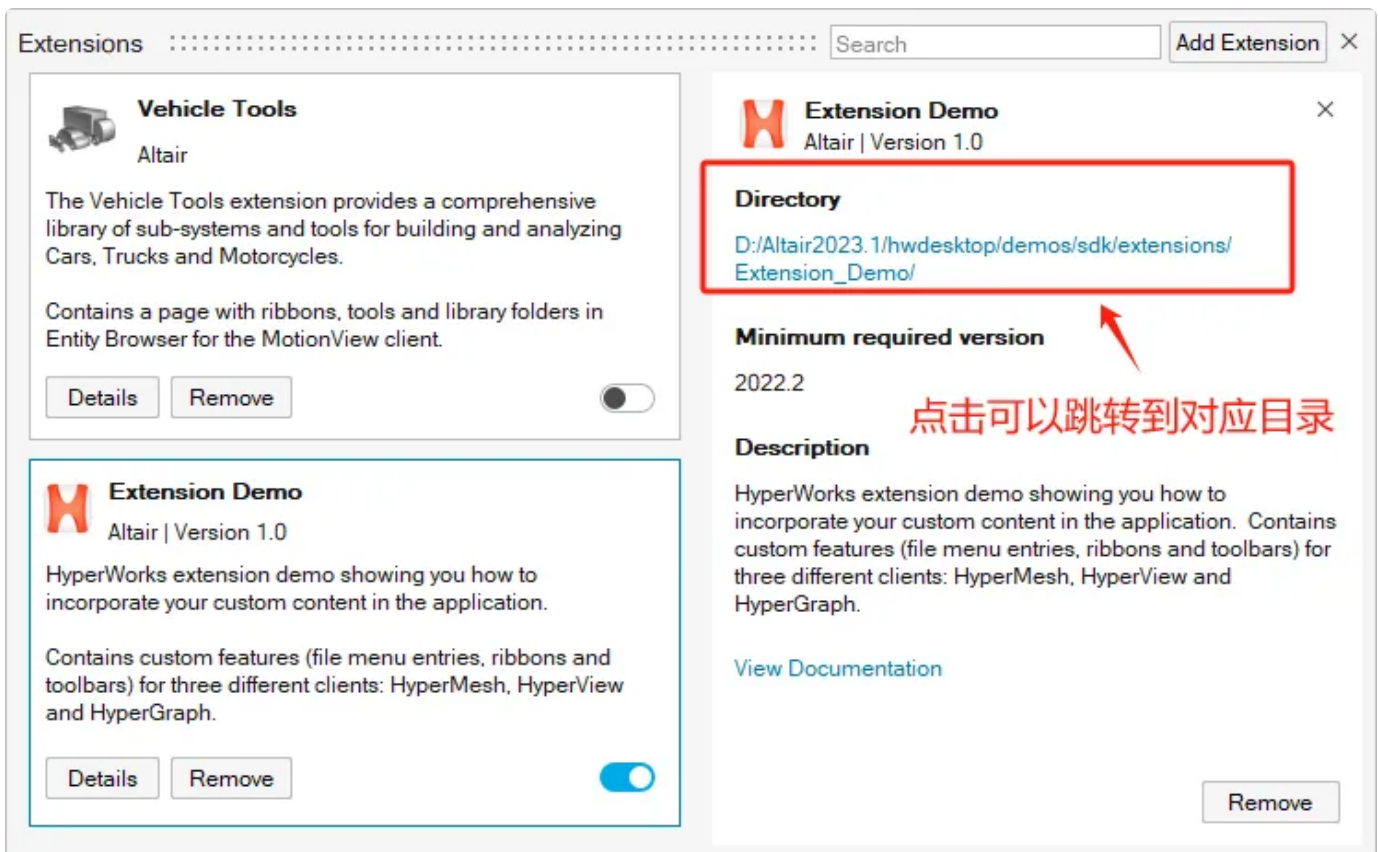
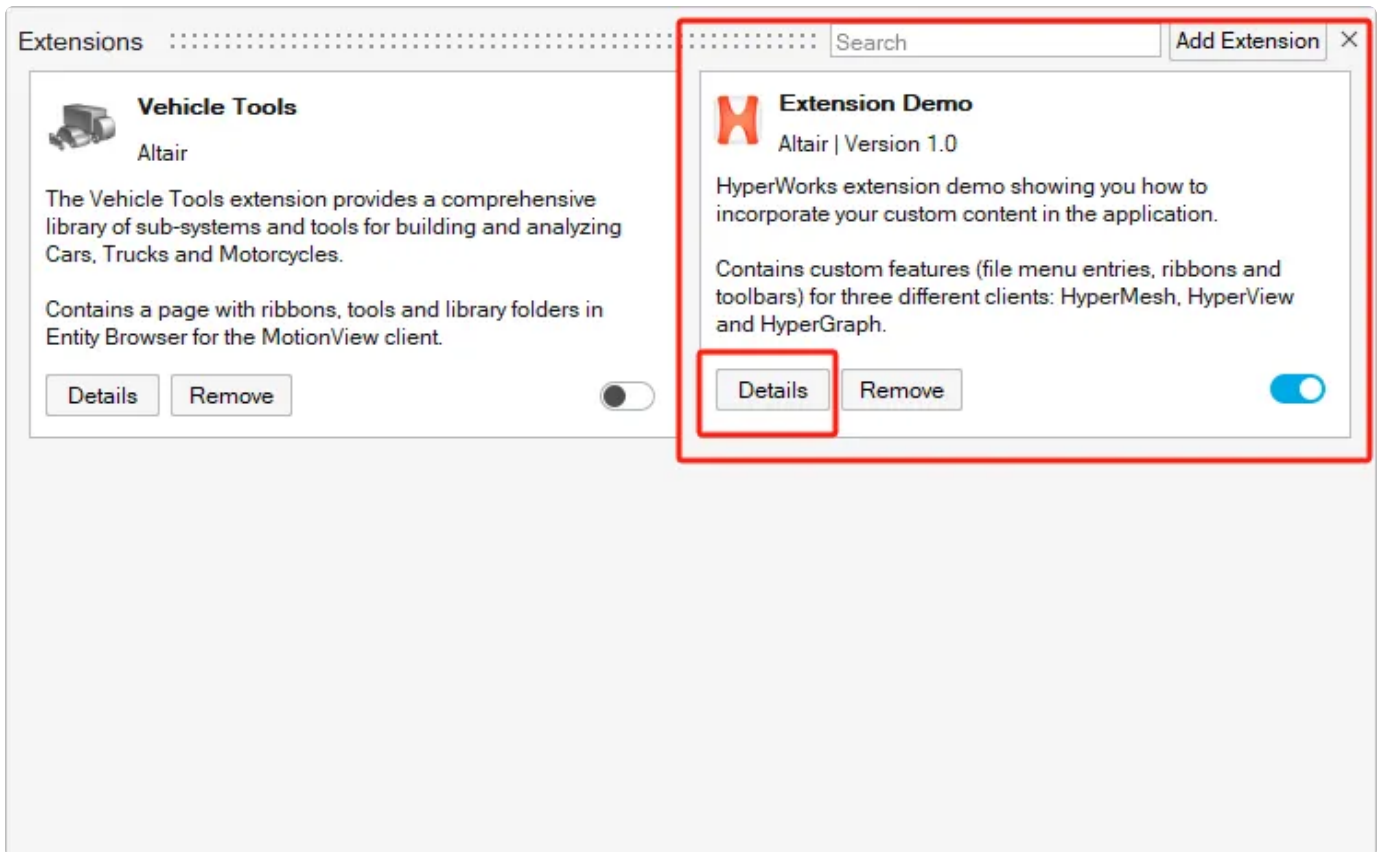
hypermesh 功能区





hypermesh ribbons帮助





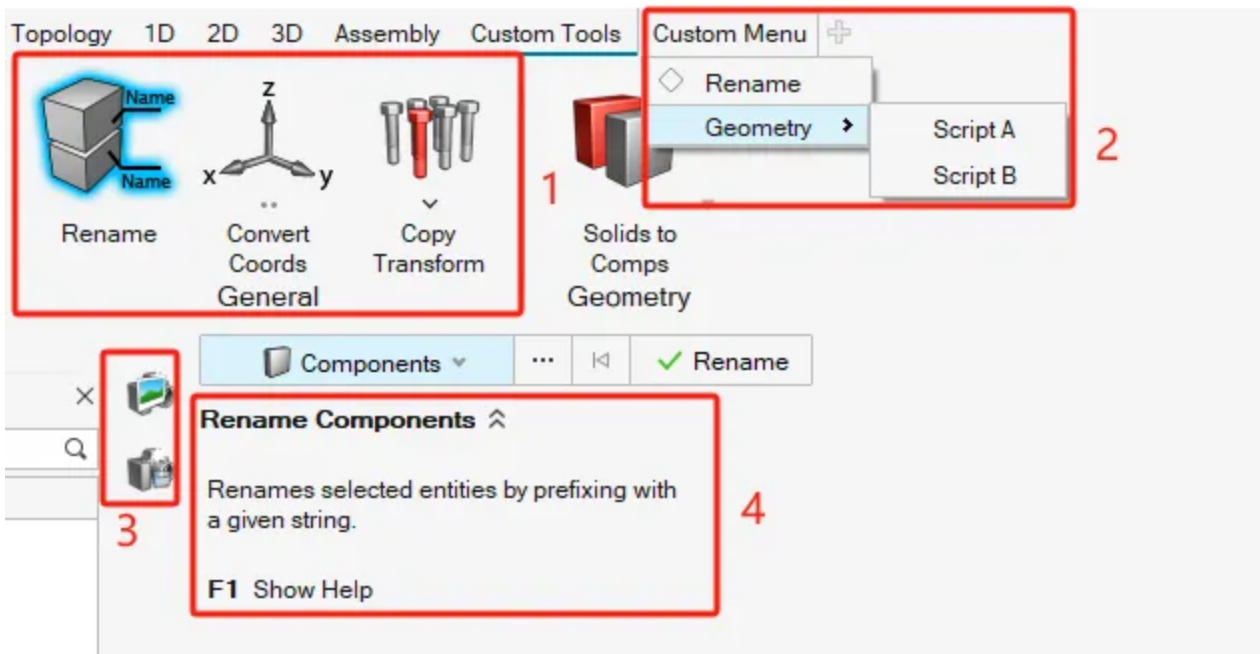
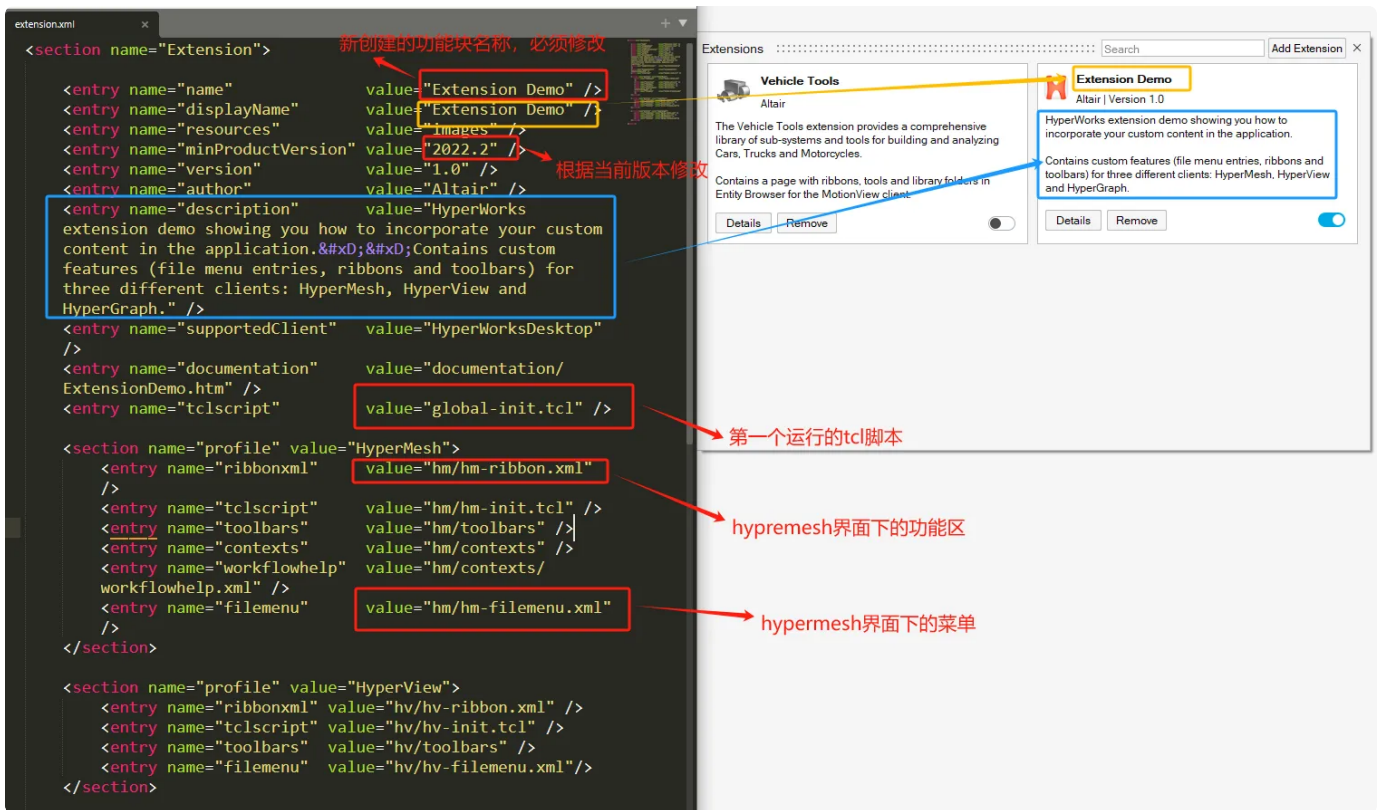
Extension文件夹结构

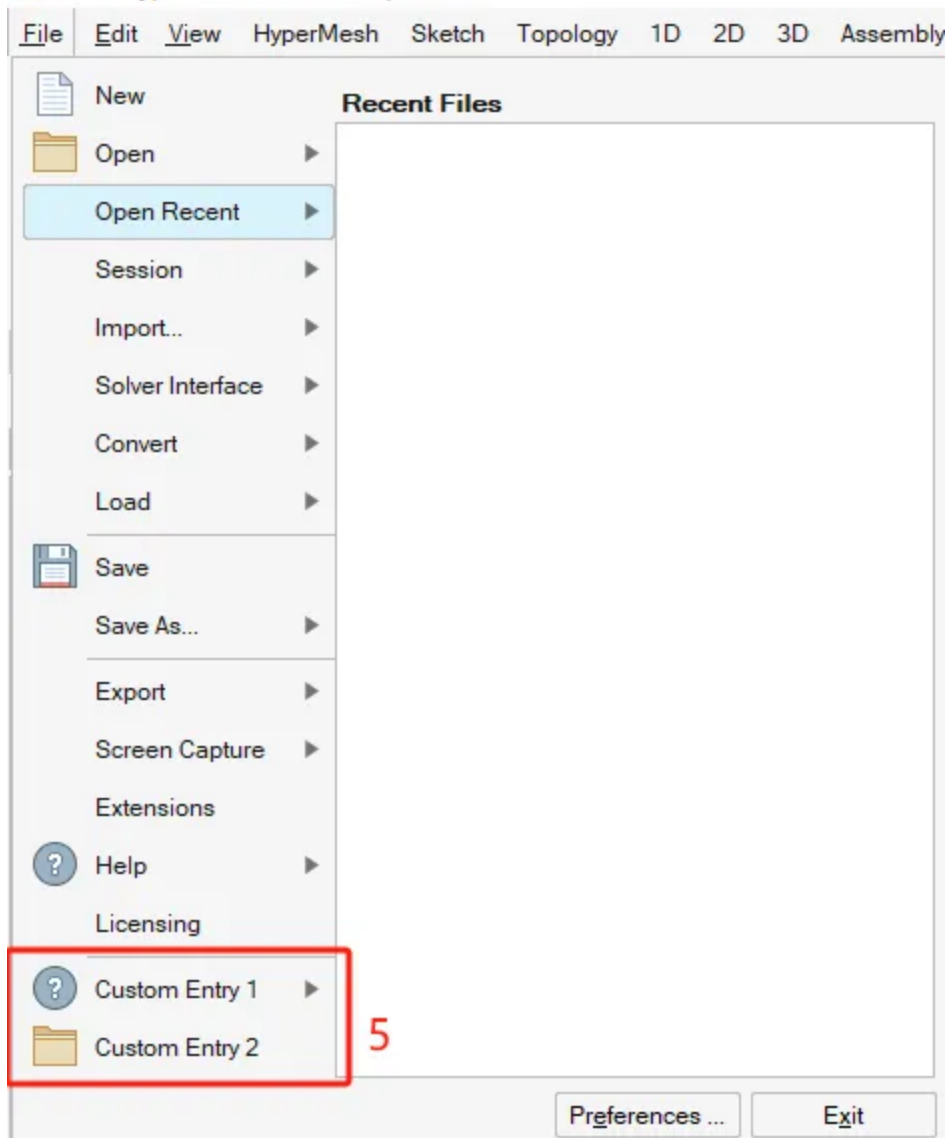
Altair2023.1 > hwdesktop > demos > sdk > extensions > Extension_Demo

名称	修改日期	类型	大小
documentation	2024/2/23 14:52	文件夹	
hg	2024/2/23 14:52	文件夹	
hm	2024/2/23 14:52	文件夹	
hv	2024/2/23 14:52	文件夹	
images	2024/2/23 14:52	文件夹	
extension.xml	2024/2/23 14:52	XML 文件	2 KB
global-init.tcl	2024/2/23 14:52	TCL 文件	2 KB

1. documentation文件夹，存放帮助文档
2. hg，hypergraph界面相关的配置
3. hm，hypermesh界面相关的配置
4. hv，hyperview界面相关的配置
5. images，存放自定义的界面功能图标
6. extension.xml，必须修改的配置文件
7. global-init.tcl，自定义存放全局变量，按需修改

Extension.xml





1. Custom HyperMesh Ribbon (defined in hm/hm-ribbon.xml)
2. Custom HyperMesh Menu (defined in hm/hm-ribbon.xml)
3. Custom HyperMesh Toolbar (defined in hm/toolbars/toolbar.xml), 没有可以删除该行
4. Custom HyperMesh Workflow Help for Custom Contexts (defined in hm/contexts/workflowhelp.xml), 没有可以删除该行
5. Custom HyperMesh File Menu Entries (defined in hm/hm-filemenu.xml), 没有可以删除该行

创建新的ribbon

新建一个ribbon时, 需要将Extension_Demo文件夹下的内容全部复制到一个新的文件夹下, 按需修改相应的文件

1. 修改模块名(value="##"), 名称不能与已有的ribbon重名

```
1 <entry name="name" value="Extension Demo" />
```

2. 修改版本号(value="##")

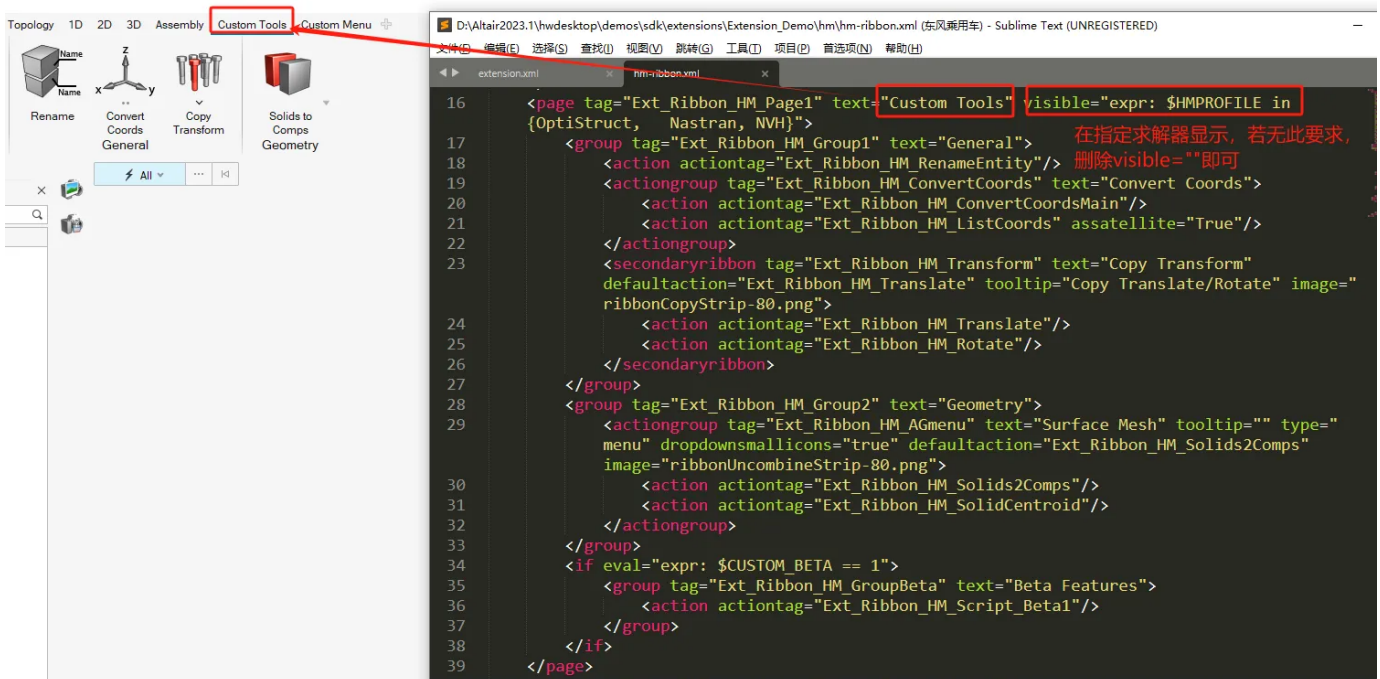
```
1 <entry name="minProductVersion" value="2022.2" />
```

3. 根据需求调整hypermesh, hyperview, hypergraph中的相关文件

```
1 <section name="profile" value="HyperMesh">
2   <entry name="ribbonxml" value="hm/hm-ribbon.xml" />
3   <entry name="tclscript" value="hm/hm-init.tcl" />
4   <entry name="toolbars" value="hm/toolbars" />
5   <entry name="contexts" value="hm/contexts" />
6   <entry name="workflowhelp" value="hm/contexts/workflowhelp.xml" />
7   <entry name="filemenu" value="hm/hm-filemenu.xml"/>
8 </section>
```

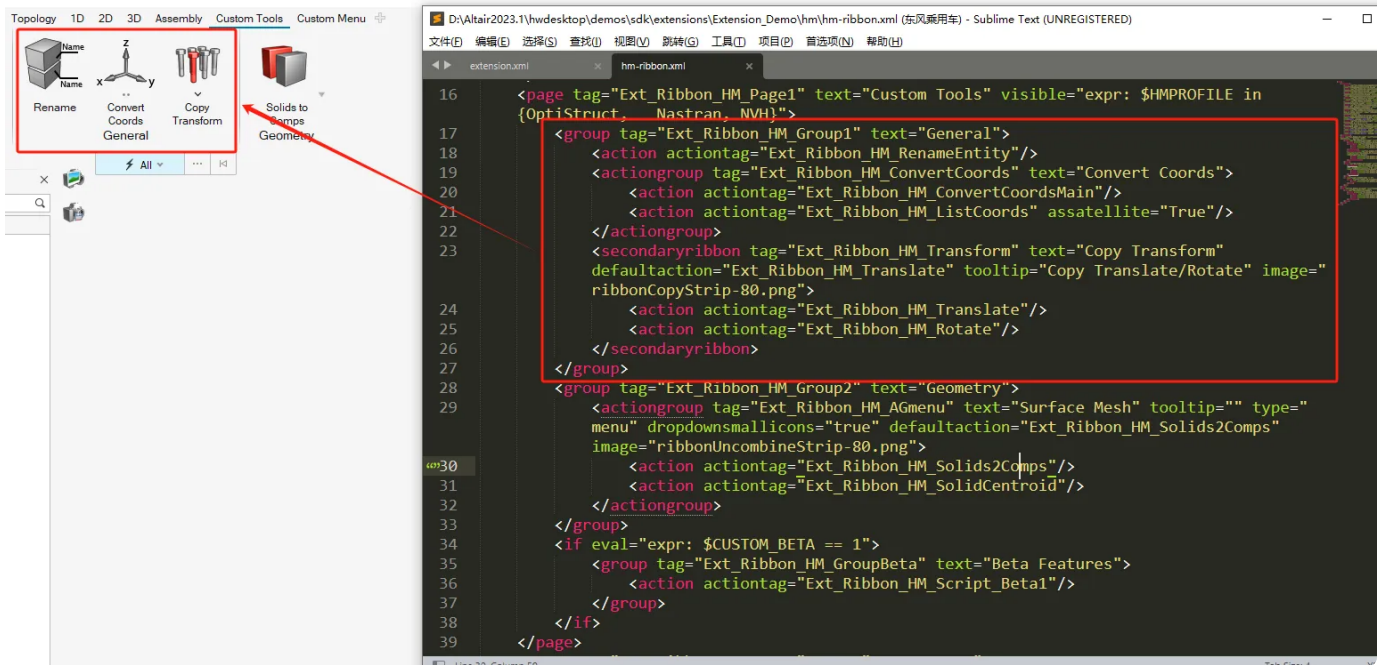
hm-ribbon.xml

菜单的显示，在不同求解器的显示设置



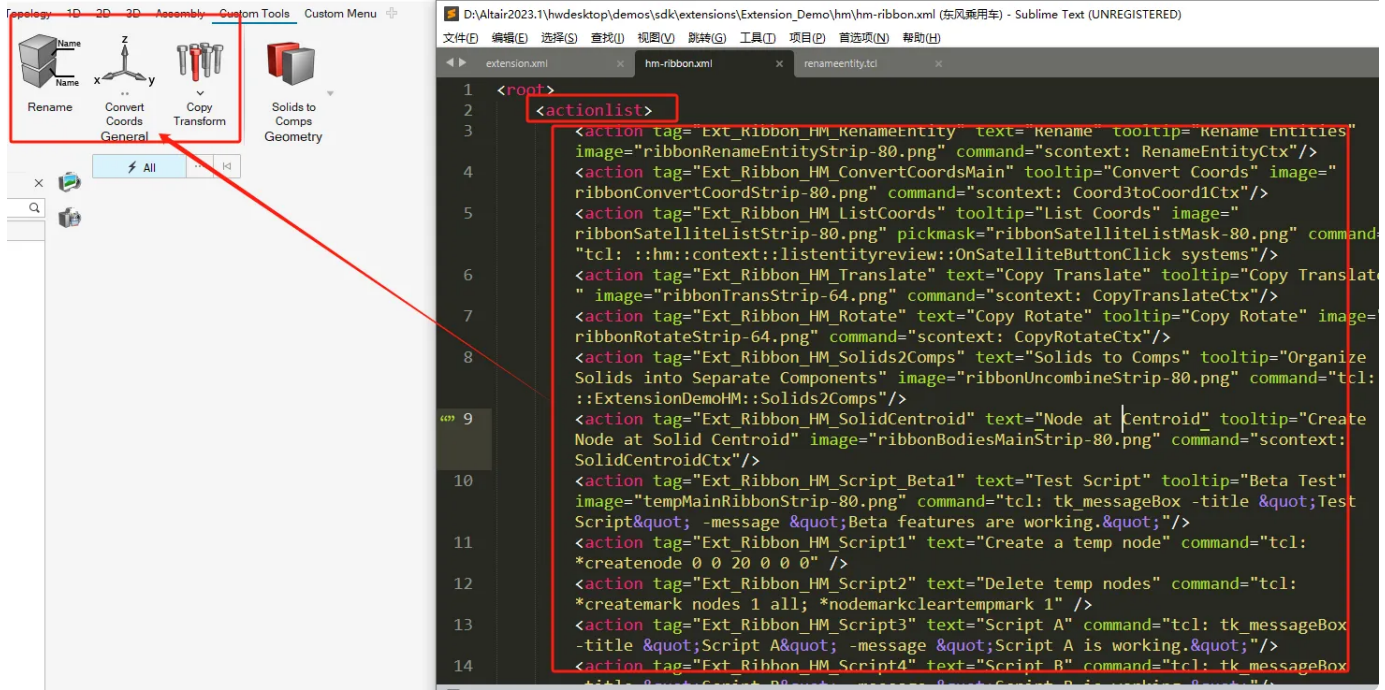
```
1 <page tag="Ext_Ribbon_HM_Page1" text="Custom Tools" visible="expr: $HMPROFILE in {OptiStruct, Nastran, NVH}">
2 </page>
```

一组功能



```
1 <group tag="Ext_Ribbon_HM_Group1" text="General">
2
3   # 单个功能
4   <action actiontag="Ext_Ribbon_HM_RenameEntity"/>
5
6   # 多个功能
7   <actiongroup tag="Ext_Ribbon_HM_ConvertCoords" text="Convert Coords">
8     <action actiontag="Ext_Ribbon_HM_ConvertCoordsMain"/>
9     <action actiontag="Ext_Ribbon_HM_ListCoords" assatellite="True"/>
10  </actiongroup>
11
12  # 多个功能
13  <secondaryribbon tag="Ext_Ribbon_HM_Transform" text="Copy Transform" d
    efaultaction="Ext_Ribbon_HM_Translate" tooltip="Copy Translate/Rotate" ima
    ge="ribbonCopyStrip-80.png">
14    <action actiontag="Ext_Ribbon_HM_Translate"/>
15    <action actiontag="Ext_Ribbon_HM_Rotate"/>
16  </secondaryribbon>
17 </group>
```

对应图标和按钮设置



```

1 <actionlist>
2   <action tag="Ext_Ribbon_HM_RenameEntity" text="Rename" tooltip="Rename Entities" image="ribbonRenameEntityStrip-80.png" command="scontext: RenameEntityCtx"/>
3   <action tag="Ext_Ribbon_HM_ConvertCoordsMain" tooltip="Convert Coords" image="ribbonConvertCoordStrip-80.png" command="scontext: Coord3toCoord1Ctx"/>
4   <action tag="Ext_Ribbon_HM_ListCoords" tooltip="List Coords" image="ribbonSatelliteListStrip-80.png" pickmask="ribbonSatelliteListMask-80.png" command="tcl: ::hm::context::listentityreview::OnSatelliteButtonClick systems"/>
5   <action tag="Ext_Ribbon_HM_Translate" text="Copy Translate" tooltip="Copy Translate" image="ribbonTransStrip-64.png" command="scontext: CopyTranslateCtx"/>

```

1. action tag与action actiontag中的名称对应；
2. tooltip为鼠标移动到图片显示的提示；
3. image为功能对应的图片，只需写图片名称即可，图片存放在images文件夹中；
4. command="tcl: "，建议写tcl命令

绑定python命令

```
1 <root>
2   <actionlist>
3     <action tag="Ext_Ribbon_HM_RenameEntity" image="ribbonRenameEntityStrip-80.png" command="tcl: ::ExtensionDemo_Byyq::Test"/>
4     <action tag="Test2_xyq" image="ribbonRenameEntityStrip-80.png" command="py: $EXTENSION_DIR.hm.test.function()"/>
5     <action tag="Test3_xyq" image="ribbonRenameEntityStrip-80.png" command="py: $EXTENSION_DIR.hm.contexts.test.function()"/>
6   </actionlist>
7   <page tag="Ext_Ribbon_HM_Page1" text="Tools By yq">
8     <group tag="Ext_Ribbon_HM_Group1" text="General">
9       <action actiontag="Ext_Ribbon_HM_RenameEntity"/>
10    </group>
11    <group tag="Ext_Ribbon_HM_Group2" text="General">
12      <action actiontag="Test2_xyq"/>
13    </group>
14    <group tag="Ext_Ribbon_HM_Group3" text="General">
15      <action actiontag="Test3_xyq"/>
16    </group>
17  </page>
18 </root>
```

注意command="py: \$EXTENSION_DIR"

1. \$EXTENSION_DIR指代的是extension目录；
2. 调用py中的命令，\$EXTENSION_DIR.hm.test.function()，表明调用的是extension/hm/test.py 中的function函数；
3. 在test.py中，function的参数定义必须为(*args, **kwargs)

```
global-init.tcl x hm-ribbon.xml x hm-init.tcl x test.py x
1 # @Author: yqxiang
2 # @Date: 2024-04-23 10:02:40
3 # @Last Modified by: yqxiang
4 # @Last Modified time: 2024-11-26 16:12:59
5
6 from hw import *
7 from hw.hv import *
8 from hwx.xmlui import gui
9 from hwx import gui as gui2
10 import os
11
12
13 def function(*args, **kwargs):
14
15     def onClose(event):
16         dialog.Hide()
17
18     def onRun(event):
19         dialog.Hide()
20         gui2.tellUser("Done!")
21
```