Sub CopyComponents(strFilePath As String, strAssemblyName As String, strFolderName As String)

' This function copies an assembly and all of its components to a new location

' It also updates the references in the new assembly so they point to the new components created

' If there are files in the assembly you do not want new copies of, then this routine will not work for you

' This uses the Inventor API to make a variable that references the assembly name passed to this routine

' It opens it up in the Inventor interface to see what is happening to the file

Dim oAsmDoc As AssemblyDocument

oAsmDoc = ThisApplication.Documents.Open(strFilePath & strAssemblyName, True)

' This is like selecting "Save As" in the Inventor interface, and saves a new copy of the assembly that was passed in

oAsmDoc.SaveAs(PROJECT\_PATH & PROJECT\_ID & "\" & strFolderName & "\" & Left(strAssemblyName, strAssemblyName.Length - 4) & " - " & PROJECT\_ID & ".iam", False)

' This continues to use the more advanced API routines available with Inventor

' A DocumentsEnumerator object will let us access the names of all the files referenced inside of the assembly

Dim oRefDocs As DocumentsEnumerator

oRefDocs = oAsmDoc.AllReferencedDocuments

' A document object represents a specific file reference in the Inventor assembly

Dim oRefDoc As Document

' We will iterate through all of the currently referenced documents, and make copies of them

For Each oRefDoc In oRefDocs

Dim strNewFileName As String

Dim strOldFileName As String

strOldFileName = strFilePath & oRefDoc.DisplayName

strNewFileName = PROJECT\_PATH & PROJECT\_ID & "\" & strFolderName & "\" & Left(oRefDoc.DisplayName, oRefDoc.DisplayName.Length - 4) & " - " & PROJECT\_ID & ".ipt"

' Here is where a new copy of the referenced files are made, with a new name based on PROJECT\_PATH and PROJECT\_ID

oRefDoc.SaveAs(strNewFileName, True)

' This code is like the "Replace Components" command inside of Inventor

' It replaces the reference to the old part, with a reference to the new part we recently created

oAsmDoc.File.ReferencedFileDescriptors.Item(strOldFileName).ReplaceReference(strNewFileName)

' Next repeats this same process for all the files in our assembly, until we get to the end of the list

Next

End Sub