

KETIV

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```
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
```