

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
```