Sub CreateAndConfigureGunline()

' This code creates a new copy of the gunline assembly template in our new folder structure

' It then updates the gunline geometry based on values we pass to the assembly

Dim strNewGunlineFilename As String

' This string represents the new name of our unique, copied gunline assembly file

strNewGunlineFilename = PROJECT\_PATH & PROJECT\_ID & "\Gunline Assy\Gunline Assy - " & PROJECT\_ID & ".iam"

' We first check to make sure the gunline assembly file has not been previously created

' If it hasn't yet been created, we do a Windows Copy operation to make a new copy in our new folder

If System.IO.File.Exists(strNewGunlineFilename) = False Then

System.IO.File.Copy(TEMPLATE\_PATH & "Gunline Assy\Gunline Assy.iam", strNewGunlineFilename)

End If

' In order to locate where to put the gunline assembly in our master assembly file, we will use matrix positioning

' See presentation included in this kit that explains how matrix positioning works - it's easier than it looks or sounds

Dim matrixC = ThisDoc.Geometry.Matrix(-1, 0, 0, GUNLINE\_HOR\_OFF, 0, 1, 0, -GUNLINE\_VERT\_OFF, 0, 0, -1, TANK\_L / 2 + DISH\_DEPTH, 0, 0, 0, 1)

' This can be taken from an iLogic snippet, and is used to insert components into assemblies

' This code inserts our newly created gunline assembly into our master tank assembly file

' Instead of placing at the origin, it places it based on our input matrix we created (matrixC)

' Note that we are grounding all geometry, and we are not using any constraints to place the assembly

Dim componentC = Components.Add("Gunline Assy:1", strNewGunlineFilename, position := matrixC, grounded := True, visible := True, appearance := Nothing)

' These statements pass parameters from our master assembly file into the gunline assembly file

Parameter("Gunline Assy:1", "TANK\_OD") = TANK\_OD

Parameter("Gunline Assy:1", "TANK\_L") = TANK\_L

Parameter("Gunline Assy:1", "PROJECT\_ID") = PROJECT\_ID

Parameter("Gunline Assy:1", "PROJECT\_PATH") = PROJECT\_PATH

Parameter("Gunline Assy:1", "SHELL\_Q\_1") = SHELL\_Q\_1

Parameter("Gunline Assy:1", "SHELL\_Q\_2") = SHELL\_Q\_2

Parameter("Gunline Assy:1", "GUNLINE\_SIZE") = GUNLINE\_SIZE

Parameter("Gunline Assy:1", "GUNLINE\_F\_FL\_TYPE") = GUNLINE\_F\_FL\_TYPE

Parameter("Gunline Assy:1", "GUNLINE\_R\_FL\_TYPE") = GUNLINE\_R\_FL\_TYPE

Parameter("Gunline Assy:1", "GUNLINE\_F\_FL\_END") = GUNLINE\_F\_FL\_END

Parameter("Gunline Assy:1", "GUNLINE\_R\_FL\_END") = GUNLINE\_R\_FL\_END

Parameter("Gunline Assy:1", "DISH\_DEPTH") = DISH\_DEPTH

' Once all the parameters are updated in the gunline assembly file, we want to run its creation rule

' This will allow the gunline assembly to update all its own parts and components itself

iLogicVb.RunRule("Gunline Assy:1", "Set Gunline Size")

iLogicVb.RunRule("Gunline Assy:1", "Calculate Gunline Spacing")

iLogicVb.RunRule("Gunline Assy:1", "Push Parameters")

iLogicVb.RunRule("Gunline Assy:1", "Spray Nozzle Length")

iLogicVb.RunRule("Gunline Assy:1", "Assemble Flanges")

End Sub