

Appendix B: Python Code

```
import arcpy
import os.path

fc = r"V:\2010-2011 Contract\Task2_streams\sythetic_perr_stream_inHU.shp"
newpath = r"D:\NHD\NHD_contracts\task2\python_test"
newname = "n.shp"
newfc = newpath + "\\ " + newname
#probably need to add new fields to newfc – one for name and one for first or last node_type
#may need to declare variables for name and node_type
#does python do msgboxes asking for user input? May not want to delete.
if os.path.exists(newfc): #won't work for geodatabases
    arcpy.Delete_management(newfc)
arcpy.CreateFeatureclass_management(newpath, newname, "Point")
pt_type = "pt_type"
feat_nm = "feat_nm"
arcpy.AddField_management(newfc,pt_type,"TEXT")
arcpy.AddField_management(newfc,feat_nm,"TEXT")
fldnm = "PerCode" #name of the field that contains the identifier to pass through

desc = arcpy.Describe(fc)
rows = arcpy.SearchCursor(fc)
cur = arcpy.InsertCursor(newfc)
ptArray = arcpy.Array()
ID = -1

for row in rows:
    feat = row.getValue(desc.ShapeFieldName)
    nm_feat = row.getValue(fldnm)
    print fldnm

    ptArray.add(feat.firstPoint)
    print "1"
    newfeat = cur.newRow()
    print "2"
    # newfeat.shape = ptArray
    newfeat.shape = feat.firstPoint
    print "3"
    newfeat.setValue(pt_type,"first")
```

```
print "4"
newfeat.setValue(feat_nm,nm_feat)
print "5"
cur.insertRow(newfeat)
print "6"
ptArray.removeAll()

ptArray.add(feat.lastPoint)
newfeat = cur.newRow()
# newfeat.shape = ptArray
newfeat.shape = feat.lastPoint
newfeat.setValue(pt_type,"last")
newfeat.setValue(feat_nm,nm_feat)
cur.insertRow(newfeat)
ptArray.removeAll()

print "All Done"
```