Programm - 1

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'Version 3.2 vom 01.11.2004
'Erstellt von René Müller, HTWK Leipzig
'**************************************



Dim Ex As Excel.Application
Dim WB As Excel.Workbook
Dim i As Long
Dim x As Long
Dim t As AcadText
Dim npnr As Integer
Dim np(0 To 1) As Double
Dim w As Double
Dim BLay As AcadLayer
Const Schriftgröße = 350
Const Abstand = 0
Const Radius = 100

Public Sub Start()
init
dialog.PI.Value = i
dialog.NGr.Value = Schriftgröße
dialog.NAbst.Value = Abstand
dialog.rad = Radius
dialog.Show
End Sub

Public Sub init()
If Application.Documents.Count = 0 Then
    MsgBox "Es ist keine Zeichnung geöffnet!", vbExclamation, "Fehler"
    End
End If

i = 1       'Startindex
x = 5       'Startzeile
npnr = 1    'Nullpunktnummer
np(0) = 0   'aktueller Nullpunkt
np(1) = 0


On Error GoTo err
Set Ex = New Excel.Application
Ex.Visible = False
Set WB = Ex.Workbooks.Add(xlWBATWorksheet)
WB.Activate
WB.ActiveSheet.Name = "Daten aus AutoCAD"
Ex.Cells(1, 1).Font.Bold = True
Ex.Cells(1, 1).Font.Size = 12
Ex.Cells(1, 1).Value = "Punkte aus der Zeichnung : " & Application.ActiveDocument.Name
Ex.Cells(2, 1).Value = Now
Ex.Range("A2:B2").Merge
Ex.Range("A2:B2").HorizontalAlignment = xlLeft
Ex.Range("A4:C4").Font.Bold = True
Ex.Range("A4:C4").HorizontalAlignment = xlCenter
Ex.Range("A4").Value = "Nummer"
Ex.Range("B4").Value = "x"
Ex.Range("C4").Value = "y"
Exit Sub

err:
MsgBox "Bei der Initialisierung von Excel trat ein Fehler auf!" & Chr(13) & "Fehlernr.: " & e
rr.Number & Chr(13) & err.Description, vbCritical, "Fehler"
On Error Resume Next
Ex.Quit
End
End Sub

Public Sub Einzelauswahl()
If dialog.ja.Value = True Or dialog.markierung.Value = True Then
    Set BLay = ThisDrawing.Layers.Add("Punkte")
    BLay.Color = acBlue
    BLay.LayerOn = True
    ThisDrawing.ActiveLayer = BLay
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End If
On Error GoTo abbruch
i = dialog.PI.Value
For x = x To 100000
    pkt = ThisDrawing.Utility.GetPoint(, "Punkt: " & Str(i))


    If dialog.markierung.Value = True Then
        Set k = ThisDrawing.ModelSpace.AddCircle(pkt, dialog.rad.Value)
        k.Color = acByLayer
    End If
    If dialog.ja.Value = True Then
        pkt(0) = pkt(0) + dialog.NAbst.Value
        Set t = ThisDrawing.ModelSpace.AddText(Str(i), pkt, dialog.NGr.Value)
        t.Color = acByLayer
    End If
    pkt = trans(pkt)
    Ex.Cells(x, 1).Value = i
    Ex.Cells(x, 2).Value = pkt(0)
    Ex.Cells(x, 3).Value = pkt(1)
    i = i + 1
Next x
MsgBox "Zu viele Punkte gewählt!", vbCritical, "Fehler"
dialog.PI.Value = i
Exit Sub
abbruch:
Select Case err
    Case -2145320928
    dialog.PI.Value = i
    Exit Sub
    Case -2147352567
    dialog.PI.Value = i
    Exit Sub
    Case Else
    MsgBox "Es trat ein nicht behandelter Fehler auf!" & Chr(13) & "Fehlernummer:" & err.Numb
er & Chr(13) & err.Description, vbCritical, "Punkte auslesen"
    End
End Select
End Sub

Public Sub Nullpunkt()
Dim pkt1 As Variant
ThisDrawing.SendCommand ("bks welt ")

If dialog.ja.Value = True Or dialog.markierung.Value = True Then
    Set BLay = ThisDrawing.Layers.Add("Punkte")
    BLay.Color = acBlue
    BLay.LayerOn = True
    ThisDrawing.ActiveLayer = BLay
End If
On Error GoTo abbruch
pkt = ThisDrawing.Utility.GetPoint(, "Neuen Nullpunkt wählen")
pkt1 = ThisDrawing.Utility.GetPoint(pkt, "Richtung wählen")
w = ThisDrawing.Utility.AngleFromXAxis(pkt, pkt1)
np(0) = pkt(0)
np(1) = pkt(1)
    Ex.Cells(x, 1).Value = "Nullpunkt " & Str(npnr)

    If dialog.markierung.Value = True Then
        Dim l As AcadLine
        Dim k As AcadCircle
        Dim p As AcadLWPolyline
        Dim SP(0 To 2) As Double
        Dim EP(0 To 2) As Double
        Dim PEP(0 To 2) As Double
        Dim SPy(0 To 2) As Double
        Dim EPy(0 To 2) As Double
        Dim PEPy(0 To 2) As Double
        Dim npa(0 To 1) As Double
        Dim hp(0 To 2) As Double
        Dim pl(0 To 3) As Double

        Set k = ThisDrawing.ModelSpace.AddCircle(pkt, dialog.rad.Value)
        k.Color = acByLayer
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```
        hp(0) = 0: hp(1) = 0: hp(2) = 0
        npa(0) = np(0): npa(1) = np(1)
        np1 = trans(hp)
        np(0) = np1(0): np(1) = np1(1)
        w = -w

        'x-Achse
        SP(0) = dialog.rad.Value: SP(1) = 0: SP(2) = 0
        EP(0) = dialog.rad.Value + 10000: EP(1) = 0: EP(2) = 0
        PEP(0) = dialog.rad.Value + 10250: PEP(1) = 0: PEP(2) = 0
        SP1 = trans(SP)
        EP1 = trans(EP)
        PEP1 = trans(PEP)
        Set l = ThisDrawing.ModelSpace.AddLine(SP1, EP1)
        l.Color = acByLayer
        pl(0) = EP1(0)
        pl(1) = EP1(1)
        pl(2) = PEP1(0)
        pl(3) = PEP1(1)
        Set p = ThisDrawing.ModelSpace.AddLightWeightPolyline(pl)
        p.SetWidth 0, 100, 0
        p.Color = acByLayer
        'y-Achse
        SPy(0) = 0: SPy(1) = dialog.rad.Value: SPy(2) = 0
        EPy(0) = 0: EPy(1) = dialog.rad.Value + 1000: EPy(2) = 0
        PEPy(0) = 0: PEPy(1) = dialog.rad.Value + 1250: PEPy(2) = 0
        SPy1 = trans(SPy)
        EPy1 = trans(EPy)
        PEPy1 = trans(PEPy)
        Set l = ThisDrawing.ModelSpace.AddLine(SPy1, EPy1)
        l.Color = acByLayer
        pl(0) = EPy1(0)
        pl(1) = EPy1(1)
        pl(2) = PEPy1(0)
        pl(3) = PEPy1(1)
        Set p = ThisDrawing.ModelSpace.AddLightWeightPolyline(pl)
        p.SetWidth 0, 100, 0
        p.Color = acByLayer
        np(0) = npa(0): np(1) = npa(1)
        w = -w
    End If
    If dialog.ja.Value = True Then
        pkt(0) = pkt(0) + dialog.NAbst.Value
        Set t = ThisDrawing.ModelSpace.AddText(" NP" & Str(npnr), pkt, dialog.NGr.Value)
        t.Color = acByLayer
    End If


x = x + 1
npnr = npnr + 1
Exit Sub

abbruch:
Select Case err
    Case -2145320928
    Exit Sub
    Case -2147352567
    Exit Sub
    Case Else
    MsgBox "Es trat ein nicht behandelter Fehler auf!" & Chr(13) & "Fehlernummer:" & err.Numb
er & Chr(13) & err.Description, vbCritical, "Punkte auslesen"
    End
End Select
End Sub

Public Sub Trennung()
Ex.Cells(x + 1, 1).Value = "*****"
Ex.Range(Ex.Cells(x + 1, 1), Ex.Cells(x + 1, 3)).Merge
Ex.Range(Ex.Cells(x + 1, 1), Ex.Cells(x + 1, 3)).HorizontalAlignment = xlCenter
x = x + 3
End Sub

Public Sub tabelle_einfügen()
dialog.Hide
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Dim schrift As String
Dim a As Integer
For a = 4 To x - 1
    If InStr(Ex.Cells(a, 1).Value, "Nullpunkt") > 0 Then
        Ex.Range(Ex.Cells(a, 1), Ex.Cells(a, 3)).Font.ColorIndex = 5
    End If
Next a


Ex.Range(Ex.Cells(4, 1), Ex.Cells(x - 1, 3)).Select
Ex.Selection.NumberFormat = "0"
With Ex.Selection.Borders(xlEdgeLeft)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
With Ex.Selection.Borders(xlEdgeTop)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
With Ex.Selection.Borders(xlEdgeBottom)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
With Ex.Selection.Borders(xlEdgeRight)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
With Ex.Selection.Borders(xlInsideVertical)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
With Ex.Selection.Borders(xlInsideHorizontal)
    .LineStyle = xlContinuous
    .Weight = xlThin
    .ColorIndex = xlAutomatic
End With
q = x - 4
a = 4
If q > 74 Then
    While q > 74
    Ex.Range(Ex.Cells(a, 1), Ex.Cells(a + 73, 3)).Select
    Ex.Selection.Copy
    ThisDrawing.SendCommand ("inhalteinfüg ")
    a = a + 74
    q = q - 74
    Wend
    Ex.Range(Ex.Cells(a, 1), Ex.Cells(a + q - 1, 3)).Select
    Ex.Selection.Copy
    ThisDrawing.SendCommand ("inhalteinfüg ")
Else
    Ex.Selection.Copy
    ThisDrawing.SendCommand ("inhalteinfüg ")
End If
Unload dialog
safe
End Sub

Public Function trans(punkt) As Variant
Dim t(0 To 2) As Double
t(0) = Cos(w) * (punkt(0) - np(0)) + Sin(w) * (punkt(1) - np(1))
t(1) = -Sin(w) * (punkt(0) - np(0)) + Cos(w) * (punkt(1) - np(1))
t(2) = 0
trans = t
End Function

Public Sub safe()
On Error GoTo err
Ex.Visible = True
Ex.WindowState = xlMaximized
```

```
Ex.Application.Dialogs(xlDialogSaveWorkbook).Show
WB.Close
Ex.Quit
Exit Sub

err:
MsgBox "Das Speichern der ausgelesenen Daten schlug fehl!", vbCritical, "Fehler"
On Error Resume Next
Ex.Quit
End Sub
```