

PYTHAGORAS

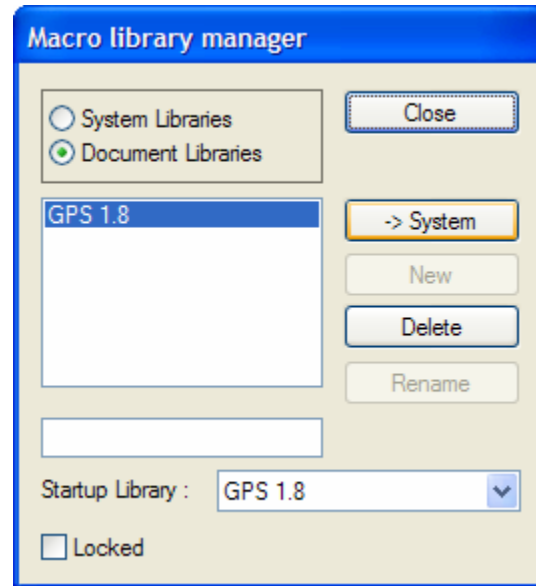
Pythagoras GPS

Version 1.00
February 2005

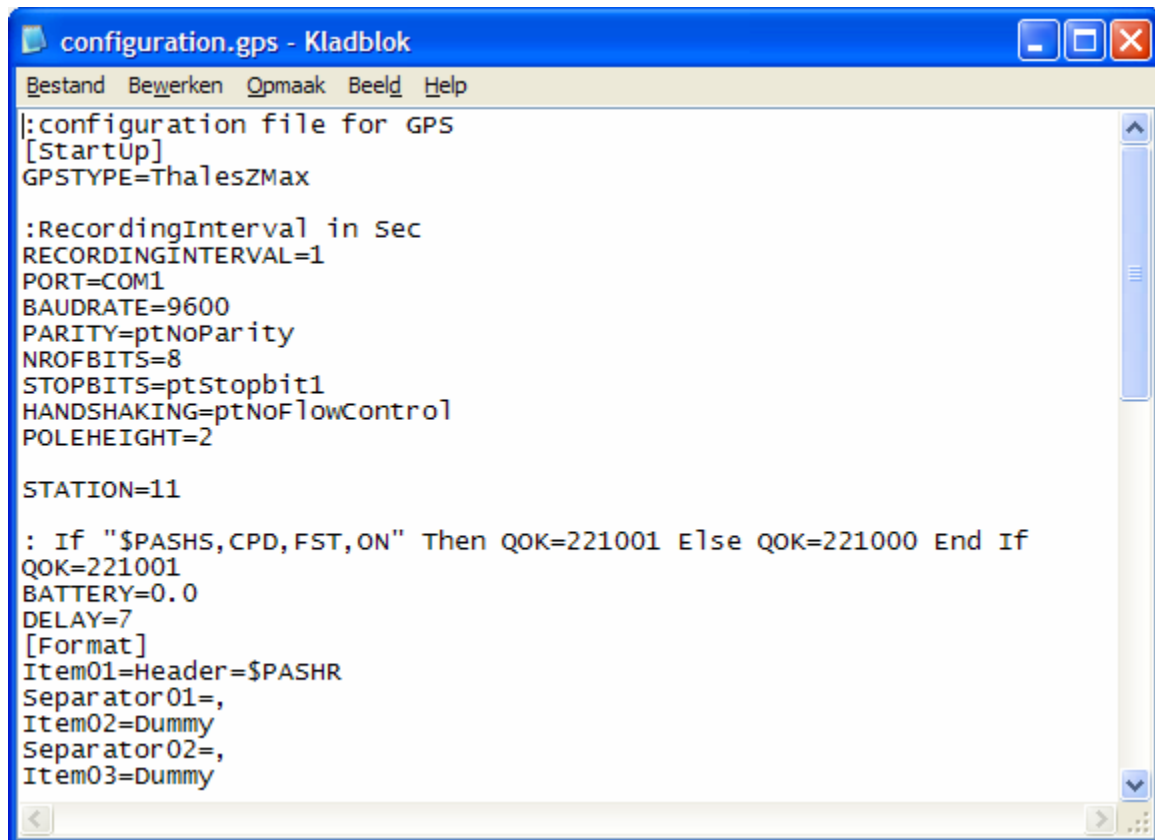


Chapter 1 -. Installation

1. Start up Pythagoras
2. Open the Pythagoras drawing *GPS n.n.pyt*, where n is the version number
3. Save the macro library to the Pythagoras system: Open *File/Macro Library Manager ...*, select *Document Libraries* and select the *-> System* key. In the *System Libraries*, you can select the GPS macro to start-up automatically when you start-up Pythagoras



4. Make a new directory *GPS* in the Pythagoras directory (Normally *C:\Program Files\Pythagoras\GPS*).
5. Copy the file *Configuration.GPS* to the new directory.



```
|:configuration file for GPS
[StartUp]
GPSTYPE=ThalesZMax

:RecordingInterval in sec
RECORDINGINTERVAL=1
PORT=COM1
BAUDRATE=9600
PARITY=ptNoParity
NROFBITS=8
STOPBITS=ptstopbit1
HANDSHAKING=ptNoFlowControl
POLEHEIGHT=2

STATION=11

: If "$PASHS,CPD,FST,ON" Then QOK=221001 Else QOK=221000 End If
QOK=221001
BATTERY=0.0
DELAY=7
[Format]
Item01=Header=$PASHR
Separator01=,
Item02=Dummy
Separator02=,
Item03=Dummy
```

6. If you open the *Configuration.GPS* with a text editor, you can change some settings like the Recording interval, Pole height, etc and the order of the

incoming GPS strings. Be very careful; make first a backup copy of the file, before you make some changes.

7. If the incoming coordinates are world coordinates, you may have to copy some other files. In the Netherlands you have to copy next files to the GPS directory: *nlgeo04.grd*, *y2c.grd* and *x2c.grd*. Don't make any changes on these files!

Chapter 2 -. GPS program

1. In the *GPS* menu select *Initialisation*. If it's possible to send strings to the GPS receiver, then the program will ask to select a *cfg* file and click on the *Open* button. The *cfg* file should only contain strings, witch the GPS receiver can receive.

This procedure can take a few minutes, depending on what the receiver has to do: starting up a modem, making a phone connection....

2. Now you can start up the roving mode by clicking the *Roving* button in the macro toolbar or selecting *Roving* in the *Tools* menu



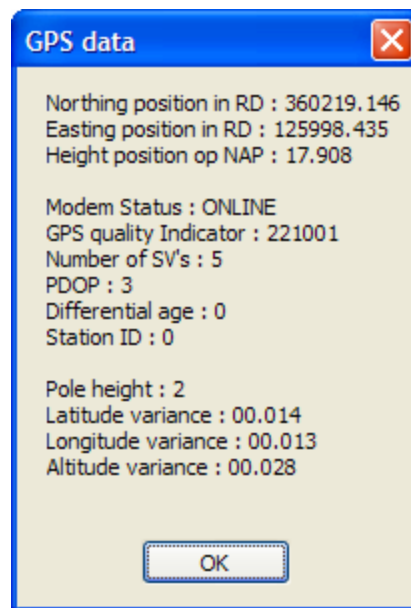
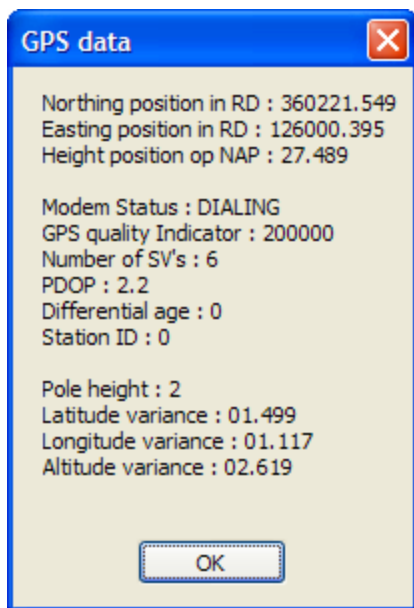
3. When in roving mode, a pointer is on the coordinates that the receiver has send.



The pointer is either in GPS searching mode:  or in fixt mode: 

If the pointer is in GPS searching mode, then the quality string that the receiver sends is not the same as the QOK value in the *Configuration.gps* file.

4. You can check all details with *Read Current Data* in the *GPS* menu.



5. To measure a point, you can select *Measure Point* in the *GPS* menu, click on the *P* button in the macro toolbar or key-in number 9 on your keyboard.
6. To measure a line, you can select *Measure Line* in the *GPS* menu, click on the *L* button in the macro toolbar or key-in number 6 on your keyboard.
 If there was no point measured before, then only a point will be drawn.
 Otherwise a point will be drawn and a line from that point to the previous point.
7. To measure an arc, you can select *Measure Arc* in the *GPS* menu, click on the *A* button in the macro toolbar or key-in number 3 on your keyboard.
 If there was no point measured before, you have to measure 3 times with *Measure Arc*, before the arc will be drawn. Otherwise you have to measure 2 times with *Measure Arc*, before the arc will be drawn

The arc is always a *3 points arc*, the first point is the beginning off the arc, the second point is a point on the arc and the third point is the last point of the arc.

8. All defaults off Pythagoras are used to draw the point, line and arc. You can also use the *User Defaults*.
9. If you want to assign a number to a point, then select *Point Number* in the *GPS* menu and key-in a number. The points will be ascended numbered. If you don't want a number leave it blank or key-in *0*.
10. You can change the height of the pole, by selecting *Pole Height* in the *GPS* menu. This value will be subtracted from the height value of the GPS string.
11. With *Select Station*, you can switch between different base stations.