

THALES NAVIGATION	Marketing & Technical Tips		
ZMax	N° 2004/02	Feb 17th	By : Patrick BOURIAUD Checked : Denis BERNARD
Uploading a Datum Grid and a Geoid model into Fast Survey			

1. Introduction.

For some countries like France, UK, US, datum grid and geoid processes have been implemented in both office software GNSS Studio and field software Fast Survey.

But the grid data files are not automatically exported from the office PC into the field terminal. The end user has to do it at least once when he gets its equipment.

After the transfer being done (as per the method hereafter) and as far as the end user doesn't perform a hard reset, the files will be kept in field terminal memory.

2. Geoid model upload

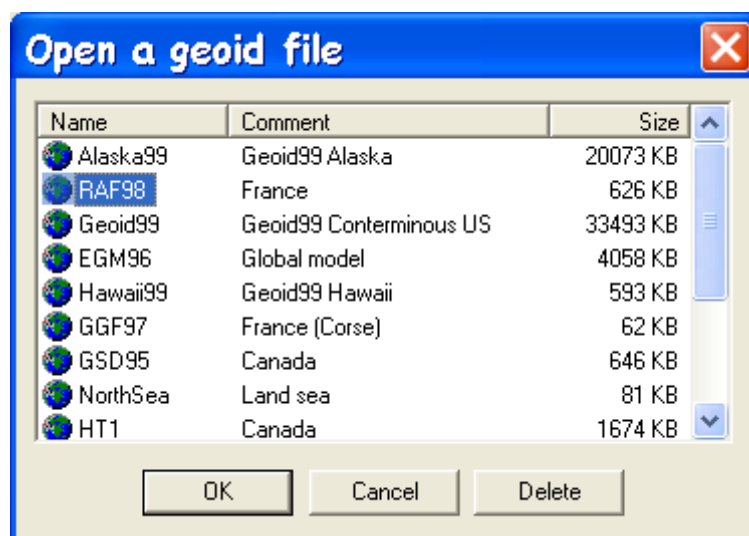
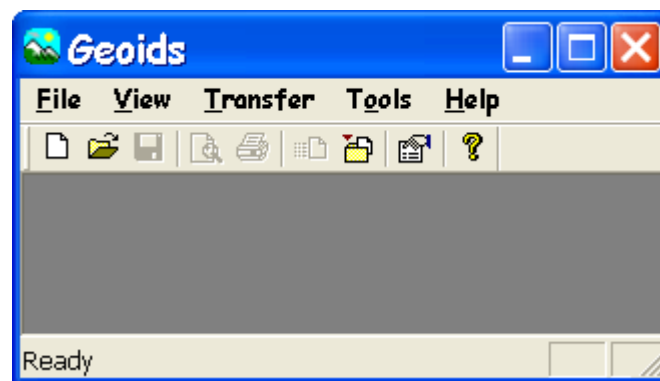
GNSS Studio comes with tool software modules called Geoid.exe and a Geoid database. The geoid models supported by Fast Survey (V1.21) and GNSS Studio (V1.12) are:

- Alaska99
- Geoid99 (US)
- EGM96 (Global model)
- RAF98 (France)
- GGF97 (France – Corse)
- GSD95 (Canada)
- Hawaii99
- HT1 (Canada)
- NAP (Holland)
- Northsea (Holland)
- PRVI99 (Puerto Rico)

Geoid software allows the end user transforming the local file format into Thales Navigation format in order to use the geoid model in GNSS studio and in Fast Survey. Geoid software includes transfer utility to upload the data files into the field terminal (Z-Max).

Procedure:

- Connect the field terminal to your PC serial COM port with the dedicated cable (Allegro: cable P/N = 730178; Symbol = Power + serial cable delivered with the field terminal).
- On the field terminal, run Fast Survey and select File/6 Data Transfer and press SurvCADD/Carlson Survey Transfer.
- Run Geoid from GNSS Studio/tools menu or from Start/Programs/Thales Navigation/Geoids. The following window will pop up on the PC screen:



- Go to File/Open and select the Geoid file available for your working area.

- When the file is opened, you may extract a part of the geoid model depending on your working area. To do so, go to File/Extract as
- Enter the name and comment for the extracted file. Note that this name will appear in GNSS Studio/Tools/coordinate System menu when you will create a new coordinate system.

Extract region from RAF98 geoid

Name:

Comment:

North: South:

West: East:

Approximate file size : 22.5 Ko

You may either enter the North/West and South/East points to define the geoid extracted area or use the World Map tool to graphically select a working area.

- Then Select Tools/Write and select Zmax data collector in the following window:

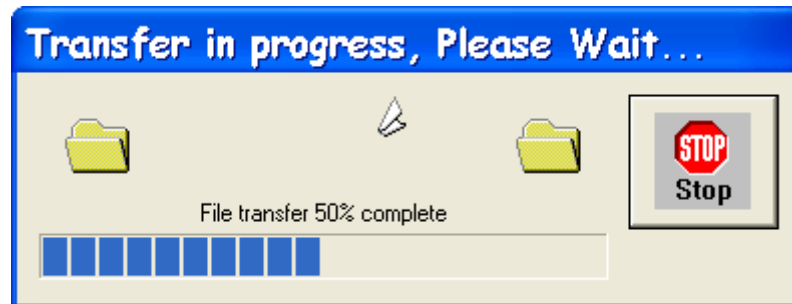
Extract region from RAF98-NA ...

North: South:

West: East:

Approximate file size : 52.5 Ko

- Press OK twice to upload the file into the field terminal. During the file transfer the following message appears on the PC screen.



- At the end of the transfer the software shows the following message:



- To use the geoid grid in your job, you may either create a new project in GNSS Studio using this geoid file or select this file in Job Settings/GPS/Geoid Separation File in Fast Survey.

3. Datum Grid upload

Like for Geoid model, a Datum grid files can be downloaded into Fast Survey but the procedure is quite different. The Datum grids available in the current GNSS Studio (V1.12) are:

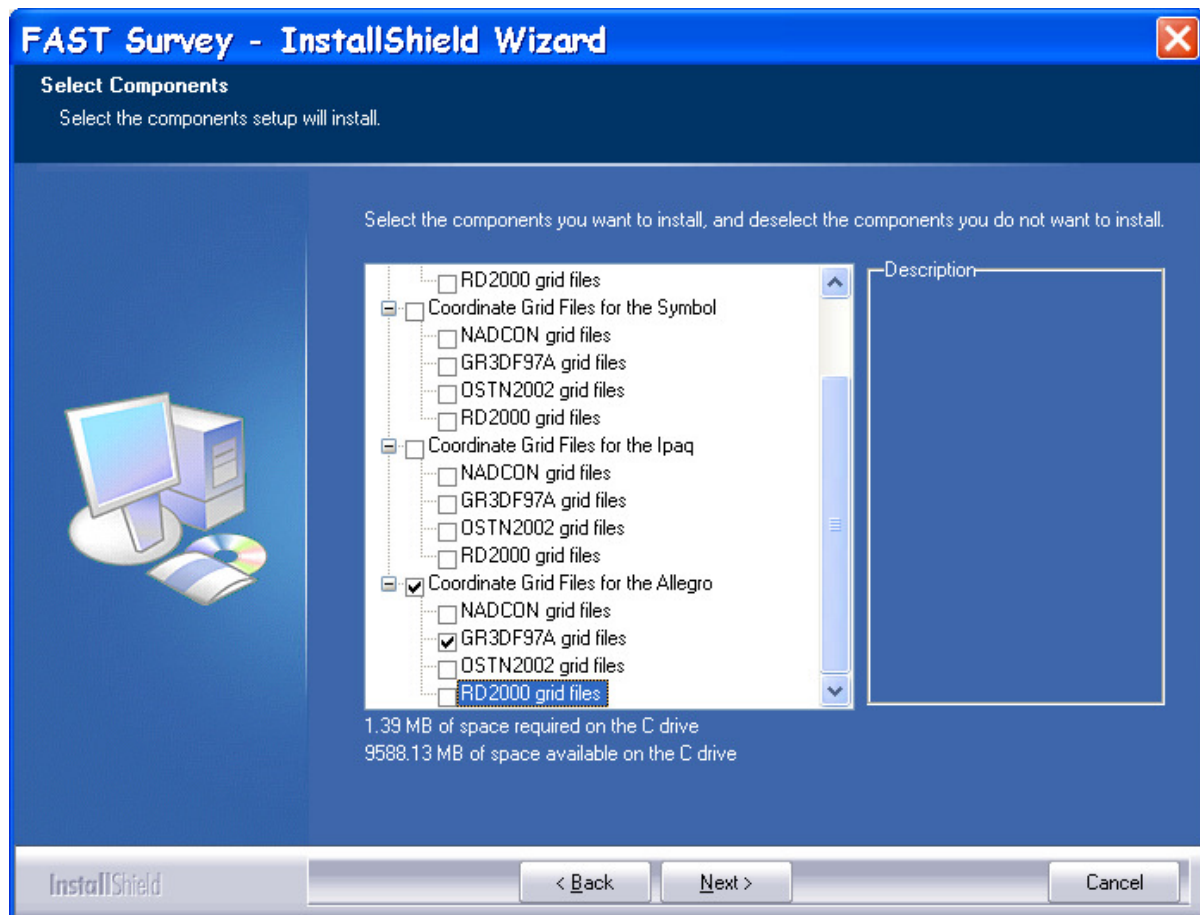
- NADCON Grid (US)
- GR3DF97A Grid (France)
- OSTN2002 (UK)
- RD2000 (Holland)

Procedure :

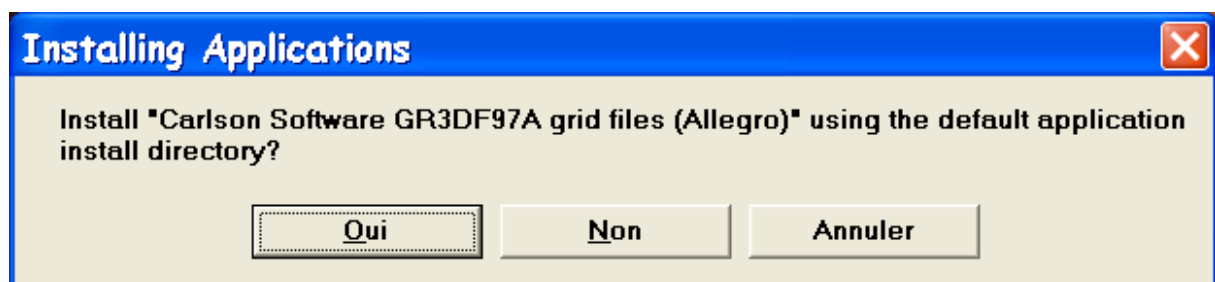
- Connect your field terminal to you PC COM port. Run ActiveSync on the PC and make the connection between the PC and the field terminal.
- Once ActiveSync connection is OK, insert Fast Survey CD Rom in you PC driver. The Autorun software will start the installation program:



- Select 'Install Fast Survey Datum Grid models'
- In the list select the right field terminal and the Datum grid (s) you want to upload into your field terminal; in the under example we selected the field terminal Allegro and French datum grid:

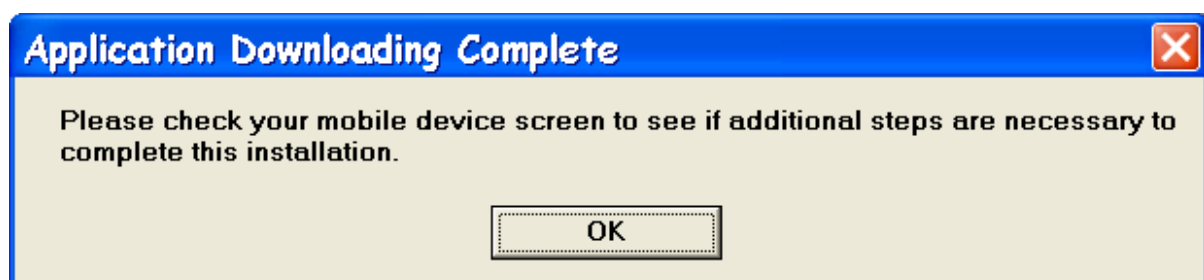


- Press Next and Install
- Wait until the file transfer is complete. At the question:



answer 'Yes'.

- Click OK in the last message box:



- Click on 'Finish' to close the Datum Grid installation software and Exit to quit Fast Survey Installation.
- The Datum grid file (s) is (are) ready and it will be used either when the end user select a coordinate system from predefined coordinate system list Fast Survey File/Job Settings/GPS tab or when a GNSS Studio project defined on Datum Grid has been uploaded into the field terminal.