

ProMark3 Tech Note: Avoiding data loss

9 August 2006

If you have experienced data loss with a ProMark3, do the following:

1. We recommend you use only SD cards that are shipped by Thales Navigation. Please follow these guidelines if you wish to use a non-Thales card:
 - a. Avoid cards larger than 1 GB or SanDisk Ultra II cards until Thales Navigation has had a chance to test them. Some users have had problems with these cards, although it is possible that they were simply not formatted correctly. Others have used them without problems.
 - b. Put all non-Thales SD cards in an SD card reader and format them to FAT format (32 MB cards and smaller) or FAT32 format (for 64 MB cards and larger). Card readers are available from most consumer electronics vendors or other places selling SD cards. You may alternatively format an SD card by inserting it into a MobileMapper Pro or Magellan handheld GPS receiver such as a Meridian or eXplorist.

We recommend you save your data to the SD card as the files will be more secure there. However, if you prefer, you may save data to the ProMark3's internal memory and, after closing the file, copy the data to the SD card. If you do this, however, you should never delete the files out of internal memory until you have downloaded the data to your PC. All ProMark3 raw files are automatically named according to the "RJOB1A06.088" naming convention, where:

- "R" indicates this is a Raw data file
- "JOB1" is the user-defined, four-character job name
- "A" means this is the first job of the day, "B" means it is the second job, etc.
- "06" stands for year 2006, etc.
- "088" is the Julian day number (the 88th day of the year)

If you delete the first session file, e.g., RJOB1A06.088, from internal memory and record a second session, it too will be named RJOB1A06.088. If you copy this second session to the SD card it will automatically overwrite the first session files and you will permanently lose this session's files. If you do not delete the first session files from internal memory the second session's files will be named RJOB1B06.088.

2. Never go out to the field with an SD card that you did not first test for data format compatibility. To test the card, take the receiver outside to a location where it has an open view of the sky, open the Utilities from the Desktop, run **GPSStatus** (the **Sig/Nav** tab) and wait until the receiver calculates a GPS position. Close **GPSStatus** and record some data into job. If you can download the job to your PC without any problem, the SD card is ready to take to the field.
3. Re-format all cards once per week by using an SD card reader, MobileMapper Pro or Magellan handheld GPS receiver such as a Meridian or eXplorist.

4. After inserting an SD card into the ProMark3, press the rubber dust seal securely into the receiver. Invasion by dust and water can potentially cause data communication errors. Should the dust seal become damaged, contact your dealer or Thales Tech Support for a replacement.
5. If you want to set up the receiver as a base, set the Power Properties screen's "Switch state to User/System Idle:" fields and the "Switch state to Suspend:" field to "Never." To do this, go to the ProMark3 Desktop, select **Settings** and **Power**. Then tap the **Schemes** tab.
6. Until a fix is released for the wrong GPS week in the ProMark3's ephemeris files, customers should follow the instructions in the tech note "PM3 Notice - Preventing date errors in rover files.pdf" found on <ftp.thalesnavigation.com> in the \Land Survey\PM3\Application Notes\ folder. The most important preventative action to take is to always allow the ProMark3 receiver to calculate a position before you open a job and begin logging data. Take the receiver outside to a location where it has an open view of the sky, open the Utilities from the Desktop, run **GPSStatus** (the **Sig/Nav** tab) and wait until the receiver calculates a GPS position. Then, after opening a job, check the job name as it is displayed on the ProMark3 logging screen and make sure the Julian day number in the file extension is correct.
7. When recording point positions as part of a Stop-and-Go survey with the Surveying application or when recording point features with the Mobile Mapping application, make sure you move at least 50 cm away before you record a subsequent position/feature.
8. When you record a Stop and Go point, the ProMark3 antenna must remain stationary while logging data for at least 7 epochs. However, for better accuracy with minimum time cost, we recommend you set the recording interval to 1 second and ensure the antenna is stationary for 15 seconds before closing the feature. Moving the antenna even a couple centimeters will cause the receiver to go into kinematic mode. Best results are obtained using a bipod or tripod. This will take more time, of course, so you should decide if the extra reliability and accuracy is worth the extra time.
9. First-time users sometimes forget to tap the LOG button on the logging screen. The ProMark3 will not begin to log any data until this button is tapped. If you do not press LOG, there will be two consequences: the Time-On-Site counter will not begin counting down and the point list will not be updated. The points you intended to record will not be post-processed as points and they will be missing from the data set.