Software Release Notes	Land Survey

DATE: MARCH 22, 2013
PRODUCT: FAST SURVEY
SUBJECT: NEW FAST SURVEY RELEASE
NUMBER: V3.1 (3.1.12)

Introduction

This release is a new version for FAST Survey. It is an update of the latest version of FAST Survey V3.0 including the support of the ProMark 700 GNSS receiver, as well as several other enhancements and bug fixings.

FAST Survey 3.1 application software is compatible with the following devices and data collectors:
- ProMark 100, ProMark 200, MobileMapper 100
- Ashtech FT-1
- MobileMapper CX
- MobileMapper 6
- ProMark 220, ProMark 120, MobileMapper 120
- MobileMapper 10
- Ranger 3 Data Collector
- T41 Data Collector

And with the following external GNSS receivers (FW version):
- ProMark 800
- ProFlex 800
- ProMark 500
- ProFlex 500

Components

The installation program is available on the Spectra Precision web site (under *Support* tab):
- http://www.spectraprecision.com/products/surveying-software/fast-survey/

To install FAST Survey you should establish a Microsoft ActiveSync connection between your PC and the data collector and execute the respective FAST Survey exe file on your PC. Then follow the instructions.

Registering as a FAST Survey User
The first time you start FAST Survey, you will be prompted to register your license of the software. If you do not register, FAST Survey will remain in demo mode, limiting each job file to a maximum of 30 points.

How to Register
FAST Survey registration is done via the Internet at the following address:

- http://www.survce.com/FASTSurvey

Open FAST Survey on the handheld device and navigate to the EQUIP tab and then to the About FAST Survey choice. Select "Change Registration". You will be required to enter:
- Your company name
- Your phone number
- Your email address
- Your FAST Survey serial number
   Hardware ID Number 1
   Hardware ID Number 2
- The registration code that the program will generate

After you submit this information, your change key will be displayed and emailed to the address you have submitted. Keep this for your permanent records.

If you do not have access to the Internet, you may fax the above information to (+1) 606-564-9525. Your registration information will be faxed back to you within 48 hours. During this time, you may continue to use the program but with the 30-point restriction.

After you receive your Change Key, enter it and tap OK. You can then create a new FAST Survey job.

Saving your registration in the Data Collector
With your devices, the code is automatically and safely saved at the end of the registration procedure (no extra save operation is required).

If it is not the case after you register FAST Survey, you may need to perform a RAM backup or a System Save to be sure your authorization code will not be lost the next time the data collector reboots. If you cannot find this option on your Start menu, then open the Control Panel and choose RAM backup (such a need is not applicable to all data collectors).

Languages supported

The following languages are supported with this version:
- Chinese
- Czech
- Dutch
- English
- French
- French Canadian
- German
- Greek
- Hungarian
- Italian
- Korean
- Norwegian
- Polish

- Portuguese
- Romanian
- Russian
- Serbian
- Spanish
- Turkish

New features/Enhancements/Changes

- **ProMark 700 GNSS receiver support**: Rover mode in RTK Networks (no raw data collection is possible with 3.1 version)
- **EPOCH 50 GNSS receiver support**: Base and Rover configurations (no raw data collection is possible with 3.1 version)
- **T41 Data Collector support**: with a new WVGA display resolution proper support
- **GLONASS only tracking mode:** GLONASS only tracking and data collection capability is now possible for ProMark 800, ProFlex 800 and ProMark 120/220 (requires *26 GNSS FW)
- **QZSS system support:** possibility to enable/disable QZSS satellites for ProMark GNSS receivers 100/120/200/220/500/800 (requires *26 GNSS FW)
- **Selection of type of base receiver**: in RTK Rover mode, possibility to specify type of Base receiver improving RTK performance: Automatic (default value), Trimble, Spectra, Novatel…
- **CPD,NET command update:** $PASHS,CPD,NET,1,**1** (it used to be $PASHS,CPD,NET,1,**0**) command is now issued for all Spectra Precision receivers (except ProMark 700, Epoch 50 and Z-Max) allowing better operation in RTK Rover mode in RTK Networks
- **Data Collector Phone feature**: possibility to use CSD mode through the data collector controller GSM modem (ProMark 100/120/200/220)
- **GMP message (1025 RTCM message usage) support** : new setting "Use RTK XYZ Position RTCM3.1" under GPS Rover/Advanced/More menu (the default setting is off); requires *25 GNSS FW
- **Antenna height limit increased** to 100 m (serial commands $PASHS,ANT / ANH) for ProFlex 500/800
- **External antenna connection/disconnection warning for ProMark 100/200/120/220:** warning indicating external antenna connection/disconnection added in Monitor/Skyplot, Store Points, Stake Points screens
- **Romanian coordinate systems**: ETRS89/TM NE, zones 34 and 35
- **New Stereographic 1970 coordinate system for Romania:** TransDatRo
- **GMP NMEA message:** GMP NMEA messages are now processed by Fast Survey allowing normal operation is SAPOS like networks (covering Message Type 1025).

Resolved problems/Improvements

- FAST Survey doesn't manage antenna height above 6.553m in ProFlex 500/800
- TYP parameter should be 1 for GPS BASE configuration (NTRIP Server)
- Height problem after RTK localization (RTK RTCM datum used)
- The user can't exit from init bar mode
- Incorrect syntax of ARR,MOD command at the end of BAR Initialization routine
- "RTK Reset" (as well as "On the fly initialization") improvement for RTK Rover mode
- "Static on the fly initialization" improvement

Known issues

- **FAST Survey used with ProMark 700 GNSS receiver**: NTRIP connection to some specific NTRIP casters may not be very reliable (system reset is recommended in such a case)
- **ProMark 700 / EPOCH 50 Rover in Direct Dial (CSD) mode**: with MM10/T41/Ranger3 data collectors the CSD connection does not work
- **Localized versions of FAST Survey:** localized versions of FAST Survey may contain English words, truncated strings, etc. in some screens and menus
- **ProMark with ADL RX:** if the channel 1 is empty, FAST survey generates an alarm.

Recommendations

- **Installation procedure**: It is recommended to uninstall previous FAST Survey version and delete manually \Fast Survey\ folder from the data collector before installation the new one.
- **FAST Survey with ProMark 700 GNSS receiver:** Sometimes when FAST Survey configures ProMark 700 as an RTK rover for, it is not possible to complete the RTK rover configuration and FAST Survey starts behaving slowly. This may occur when FAST Survey is exited; the Bluetooth led on ProMark 700 remains permanently blue (indicating BT connection). If this happens it is recommended to turn off both the data collector and ProMark 700, then turn them On, launch FAST Survey (without connecting to the latest used receiver), go to *\Equip\GPS Rover* select "*Cable or Generic Device*" type of communication (under *RTK* tab) and confirm the configuration for the cable. Make sure the receiver is tracking SAT in *Monitor/Skyplot*. Then you should go to *\Equip\GPS Rover* screen, select *NTRIP* and continue with RTK rover NTRIP configuration.
- **FAST Survey and Survey Pro on the same device:** It is strongly recommended not to use FAST Survey and Survey Pro on the same data collector.
- **Radio settings** : we recommend with these radios the following settings:

Rover Base	Ulink				ADL 12.5 Khz				
	Protocol	baud rate	FEC	Scrambling	Format	Protocol	baud rate	FEC	Scrambling	Format
Ulink	Transparent/Tranparent	4800	No	NO	Atom RTCM3	Transparent/Ulink	4800	no	NO	ATOM RTCM3
ADL 12.5 KZ	Ulink/ Transparent	4800	no	no	Atom RTCM3	Transparent	4800	yes	Yes	Atom Compact
ADL 12.5 KZ						TransparentFST	9600	Yes	Yes	Other format than Atom Compact