

# **XF2** Data Controller – Enable Internal GPS Module

Part Number 874-0305-000 Released: February 13, 2013

#### Overview

This document describes how to enable and use the internal GPS module in the XF2 data collector. It describes how to select the COM Ports and Baud rates to output GPS data from the XF2's internal GPS module to software programs installed on the XF2 data controller that can include the u-Center Mobile GPS Evaluation software and the Carlson SurvCE software.

#### Equipment and Software Required:

- Hemisphere GNSS XF2 Data Collector, Part Number: 940-2097-000
- Carlson SurvCE software, Part Number: 750-2008-000
- u-Blox u-Center Mobile software

The free ublox Mobile Terminal Application – GPS Evaluation software can be downloaded from the following link: <u>http://www.u-blox.com/en/evaluation-tools-a-software/u-center/u-center-</u>

Unzip and install the ublox mobile u-Center software onto the XF2 using the USB cable and Windows Mobile Device Center software.

The Carlson SurvCE software can be downloaded from the following link:

http://www.hemispheregps.com/Products/SurveyConstruction/S320LandingPage/tabid/640/Defau It.aspx

From the S320 Landing page, the SurvCE software can be downloaded from the **Resources**, **XF Series Data Collectors** area.

#### SurvCE Software Download for XF2 (English and Spanish)

For the XF2 Data Collector, download the file: XF2\_SurvCE\_ENG\_SPA.zip

Unzip and install the Carlson SurvCE software in the preferred language onto the XF2 using the USB cable and Windows Mobile Device Center software.



## Procedure

Screenshot or Graphic	Step
Image: Sign in to Aufindows Live:         Sign in to Aufindows Live:         Bind:         Getting Started         Image: Phone off         Phone off         No unread messages         No unread messages         Image: No upcoming appointments         Device unlocked         GP5 disabled         Image: Notific         Contacts	<ol> <li>Press the Power button the XF2 data collector, turning the XF2 unit On,</li> <li>From the Windows Mobile Desktop, tap/select the Windows Start icon on the lower left corner of the task bar,</li> </ol>
Start Surv CE Hone Hone Hone E-mail Internet Explorer Calendar	3. From the <b>Start</b> menu, navigate to the <b>Settings</b> icon, tap/select <b>Settings</b> ,
Settings Bluetooth Bluetooth Clock & Alarms Clock & Alarms Clock & Alarms Clock & Alarms Clock & Alarms Connections Notifications Notifications Personal System Excel System	<ol> <li>From the Settings menu, navigate to the System icon, tap/select System,</li> </ol>



Screenshot or Graphic	Step
System 3 4 Corrificates About Corrificates Backlight Flag Customer Redback Device Information Error Reporting Full Screen Mode External GP5	5. From the <b>System</b> menu, navigate to the <b>External GPS</b> icon, tap/select <b>External GPS</b> ,
GPS Settings       Image	<ol> <li>From the GPS Settings menu, select the <access> menu,</access></li> <li>Activate the [X] Manage GPS automatically (recommended) option,</li> </ol>
GPS Settings       Image: Constraint of the set	<ul> <li>8. From the GPS Settings menu, select the <hardware> menu,</hardware></li> <li>From GPS hardware port: (none) option, tap/select the down-arrow to reveal the COM port options,</li> </ul>



Screenshot or Graphic	Step
GPS Settings Image: The set of the	9. From the <b>GPS Hardware port:</b> COM port options, tap/select <b>COM3</b> ,
GPS Settings       Image: Access         Programs       Hardware       Access         Specify the hardware port to which your GPS device is consecuted at the end of the train of the	10. From the GPS Hardware port: Baud rate: option, tap/select the down- arrow to reveal to Baud rate options, select 9600,
GPS Settings       Image: Constraint of the set	11. GPS Settings <hardware> GPS hardware port: COM3 Baud rate: 9600</hardware>



Screenshot or Graphic	Step
GPS Settings       Image: The set of the point of the po	12. From GPS Settings menu, select <programs> menu, From GPS program port: (none), tap/select the down-arrow to reveal the Port options,</programs>
GPS Settings (a)     Access Programs   Hardware Choose the port that programs will use to COM4 COM4 COM5 COM6 COM7 COM8 COM8 COM8 COM COM8 COM	13. From the <b>GPS Program Ports</b> options, tap/select <b>COM6</b>
GPS Settings 🚯 🖏 $\sum_{x} 4 \notin (\mathbf{E} 9:25)$	14. GPS Settings
Access Programs Hardware	<programs> menu</programs>
GPS program port:	GPS program port: COM6 Tap/Select the OK button on the task bar.



Screenshot or Graphic	Step
System About Certificates Backlight Customer Peedback Device Information Error Reporting External GPS	<ul> <li>15. User is returned to the System menu, Tap/Select the (X) icon on the task bar. The user will be returned to the Windows Mobile Desktop.</li> <li>This completes the required steps to enable the internal GPS module on the XF2 data controller.</li> </ul>
Image: Sign in to Windows Live     Bind     Getting Started     Getting Started     Phone off     Write Off     Write off     No unread messages     Povice unlocked     GPS disabled     Contacts     Notific     Contacts	<ul> <li>The following steps describe how to view GPS satellite data and record log files in the u-Center Mobile software.</li> <li>The following steps presume the u-Center Mobile software has already been installed on the XF2 data collector.</li> <li>1. From the Windows Mobile Desktop, tap/select the Windows Start icon on the lower left-corner of the task bar,</li> </ul>
Start Task Manager Task Manager Task Manager Compass Office Mobile 2010 Office Mobile 2010 Agunction Mobile Barometer Barometer Barometer Barometer	<ol> <li>From the Start menu, navigate to the u-Center Mobile icon, tap/select u-Center Mobile,</li> </ol>



Screenshot or Graphic	Step
u-CenterMobile 4 (2) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	3. U-Center Mobile 4 splash screen,
u-CenterMobile 4 🛞 🗰 🏹 ң€ 🔁 9:30	4. From the <b>u-Center Mobile 4</b> software,
N Lon Lat Alt SoG	From the task bar menu along the bottom of the display, tap/select <b>RX</b> menu,
W L L L L L L L L L L L L L L L L L L L	The <b>RX</b> menu will pop-open,
Port     50       Baudrate     40       Autobauding     30       Action     10       Baudrate     10	Tap/Select <b>Port &gt;</b>
u-CenterMobile 4 🔞 🗰 🏹 帐 🖻 9:30	5. From the <b>Port &gt;</b> menu
COM2 Alt SoG UTC Date COM4 50 COM5 te 50 40 COM6 auding 20 COM7 10 dB	Browse the Ports list, select <b>COM6</b>



Screenshot or Graphic	Step
u-CenterMobile 4 3 # Y 4 2 9:30	<ul> <li>6. From the u-Center Mobile 4 software, From the task bar menu along the bottom of the display, tap/select RX menu, The RX menu will pop-open, Tap/Select Baudrate &gt;</li> </ul>
u-CenterMobile 4 (3) #**	7. From the Baudrate > menu, Browse the list, select 9600
u-CenterMobile ③ ♣ ♥	<ul> <li>8. The u-Center Mobile software will connect to the internal GPS module in the XF2 data controller.</li> <li>The user should observe live/active GPS data being displayed in SV Summary menu.</li> <li>Note the Green (active) connection icon on the task bar. To disconnect from the internal GPS module, tap on the connection icon on the task bar. The connection icon will separate, disconnect from the internal GPS module. To restore the connection, simply tap on the connection icon again. This will refresh the display.</li> </ul>



Screenshot or Graphic	Step
u-Center       V       10:04         V       SV Summary       34094 9         10:40 m       0 km/h         10:40 m       0 km/h         0 km/h       59.000         3/2012       World Map         0       10         10       Packet Console         10       9         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         10       10         11       10         12       13         13       13         10       13         10       13         11       10         12       13         13       13         14       13 <t< th=""><th><ul> <li>9. From the u-Center Mobile software, From the task bar menu along the bottom of the display, tap/select View menu, The View menu will pop-open, Browse the list, select Text Console,</li> </ul></th></t<>	<ul> <li>9. From the u-Center Mobile software, From the task bar menu along the bottom of the display, tap/select View menu, The View menu will pop-open, Browse the list, select Text Console,</li> </ul>
u-CenterMobile       0       1       10:04         16:59:03       \$GEPRC, 165903.00, A, 412         16:59:03       \$GPGGA, 165903.00, 4129.         16:59:03       \$GPGSX, A, 3, 10, 04, 02, 17         16:59:03       \$GPGSV, 3, 1, 10, 02, 67, 31         16:59:03       \$GPGSV, 3, 2, 10, 12, 39, 26         16:59:03       \$GPGSV, 3, 3, 10, 25, 25, 30         16:59:03       \$GPGPCV, 65904, 00, A, 412         16:59:04       \$GPPTG, T, M, 0.193, N, 0         16:59:04       \$GPGPCV, 3, 1, 10, 02, 67, 31         16:59:04       \$GPCGV, 3, 3, 10, 24, 02, 17         16:59:04       \$GPCGV, 3, 3, 10, 04, 02, 17         16:59:04       \$GPCGV, 3, 1, 10, 02, 67, 31         16:59:04       \$GPGGV, 3, 2, 10, 12, 39, 26         16:59:04       \$GPGSV, 3, 2, 10, 12, 39, 26         16:59:0	<ul> <li>10. Example Text Console display, The current GMT time with corresponding NMEA message sentences are displayed. The NMEA messages include: GSA,GSV,GLL,ZDA,GGA and VTG.</li> <li>To change the View, tap/select View on the task bar menu, select SV Summary, or select other available views,</li> </ul>
u-Cc       2.851663 °         1.484069 °         41.80 m         0 km/h         :01:38.000         2/03/2012         30         Open         1.1         50         Close         Database Empty         9         2         Preferences         2         2         2         2         2         2         2         2         31         File         Vew Rx Play         10	<ul> <li>11. To capture Log Files from the internal GPS module in the XF2, tap/select File from the task bar menu,</li> <li>Note, the Log files consist of a series of NMEA messages output by the internal GPS module.</li> <li>12. From the File menu, browse the list, select New</li> </ul>



Screenshot or Graphic	Step
u-CenterMobile       Image: Type:       COM6_121203_170645         Folder:       Business       Image: Type:         u-blox Log Files (*.ubx)       Image: Type: Type:         Location:       Main memory         Save       Cancel	<ul> <li>13. New File configuration menu,</li> <li>Name: S/w automatically names the file: COM6_MMDDYR_GPS Seconds of the Week format. The filename can be change by the user if required.</li> <li>Folder: tap down-arrow to select Folder.</li> <li>Type: u-blox Log Files (*.ubx)</li> <li>Location: Select from options:</li> <li>Main memory or Storage Card</li> <li>Note: If Storage Card option is selected, the user must insert a Micro SD-Card into the XF2 battery compartment.</li> <li>Tap/Select Save</li> <li>Log File is opened and stored in specified folder location.</li> </ul>
u-CenterHobile ⑧	14. From the SV Summary display, note the Green connection (Active) icon and the Record File icon on the task bar.
u-CenterMobile V 2 2 2 2 2 2 2 2 2 2 2 2 2	<ul> <li>15. To stop the data collection, close the Log file, on the task bar tap/select Play</li> <li>Browse the list, select Stop.</li> <li>Alternatively, the user can also tap/select the Play icon on the task bar, toggling the icon to Stop.</li> </ul>



Screenshot or Graphic	Step
u-CenterHobile       ③       ↓	<ul> <li>16. From the SV Summary menu, Note the u-Center Mobile is still connected to the internal GPS module green (active) connection icon, but the software is not currently logging a file; the red circle icon is displayed on the task bar.</li> <li>To start a new Log file, tap the Red circle icon on the task bar, the new file menu will be displayed to the user, tap/select Save, a new log file will be opened, NMEA messages recorded into the log file.</li> </ul>
U-Cr U-Cr Database Empty Database Empty Preferences AlmanacPlus Recent Files Exit Solution 1.494259 ° 27.50 m 0 km/h :32:04.000 2/03/2012 30 2.4 10 1.5 10 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 1.494259 ° 27.50 m 0 km/h :32:04.000 2/03/2012 50 40 50 40 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 5	<ul> <li>17. To exit from the u-Center Mobile software, tap/select File, browse the list, select Exit</li> <li>18. The user is returned to the Windows Mobile Desktop.</li> <li>19. If needed, the u-Center Mobile Log files can be copied from the XF2 data controller to the office PC using USB cable and Windows Mobile Device Center software.</li> </ul>
Image: Sign in to Windows Live   Phone off   Write Off   Windows Live   No unread messages   Solution	<ol> <li>The following steps describe the steps to output data from the XF2's internal GPS module to the Carlson SurvCE software. <i>The following steps presume the Carlson</i> <i>SurvCE software has already been</i> <i>installed on the XF2 data collector.</i></li> <li>From the Windows Mobile Desktop, tap/select the Windows Start icon on the lower left-corner of the task bar,</li> </ol>



Screenshot or Graphic	Step
Start SurvCe Home Home Home E-mail Contacts E-mail Calendar Calendar	3. From the <b>Start</b> menu, navigate to the <b>SurvCE</b> icon, tap/select <b>SurvCE</b> ,
	4. Carlson SurvCE splash screen,
SurvCE 🔞 🧰 🏹 🌾 (문 4:25	5 From the <b>File</b> menu
DOB:NEWJOB	Select from the two available options.
Survey COGO Road	Continue Last Job
<u>Equip</u>	Select New/Existing Job,
2 <u>C</u> ontinue Last Job	In this Example, choose:
3     Select New/Existing Job       4     Kaw Data       9     White Note	Tap/select <b>Select New/Existing Job</b>
<u>5 Feature</u> <u>0 Exit</u>	



Screenshot or Graphic	Step
SurvCE	6. From the <b>Coordinate Files</b> menu Tap/Select into the <b>Name:</b> template,
SurvCE  B  Fi  SurvCE F  S	7. The virtual keyboard will pop-open, Using the stylus, tap into the Name template, enter a new job name, when finished entering a suitable job name, tap the green check mark, the virtual keyboard will close.
SurvCE Coordinate Files Coordinate Files CRD File Program Files\SurvCE\Data Backup ADM.crd GSMP2P.crd SMP2P.crd NewJob.crd VS330-DEMO.crd Name: XF2-INTERNAL-GPS	<ol> <li>From the Coordinate Files menu, Name: XF2-Internal-GPS The name of the new job has been entered, tap the green check mark again,</li> <li>Select the Linear Units for the new job. In this example: Metric was selected.</li> </ol>



Screenshot or Graphic	Step
SurvCE B T C C 4:30 Sob Settings C C C 4:30 Format Options Stake New Job System Distance: Metric Angle: Degrees, Minutes, Seconds LL: Degrees, Minutes, Seconds Zero Azimuth Setting: North Projection: Edit Projection List USA/NAD83/CT V	<ul> <li>9. From the Job Settings   System menu, Projection: tap/select the down-arrow to select a previously used Projection.</li> <li>If the Projection you need is not available from the drop-down menu; tap/select on the Edit Projection List, then tap/select the Add Predefined menu button, set the Country: (in this example) USA/NAD83,</li> <li>Browse the list of States/Zones, select the Projection needed for your project, then tap/select the green check mark. Tap/select the green check mark again to save the Job Settings.</li> </ul>
SurvCE       Image: File       Image: File       Image: File         Survey       COGO       Road         File       Equip         1       Total       Image: File         2       GPS Base       Z       Monitor/         3       GPS Rover       Image: File       Image: File         4       GPS       Image: File       Image: File         4       GPS       Image: File       Image: File         5       Configure       Image: File       Image: File	<ul> <li>10. User is returned to the SurvCE main menu,</li> <li>11. Select the Equip   <u>3</u>GPS Rover menu,</li> </ul>
SurvCE S I A:29 GPS Rover S I A:29 Current Comms Receiver Manufacturer: MMEA GPS Receiver Model: NMEA GPS Receiver Load Save Rename Delete	12. From the <b>GPS Rover   Current</b> menu, Select the following options, Manufacturer: <b>NMEA GPS Receiver</b> Model: defaults to NMEA GPS Receiver,



Screenshot or Graphic	Step
SurvCE  SurvCE SurvCE SurvCE SurvCE SurvCE SurvCE SurvCE Stop Bits: Data Bits:	<ul> <li>13. From the GPS Rover   Comms menu, Select the following options, Type: Cable Port: COM 6 Baud: 9600 Parity: None Stop Bits: 1 Data Bits: 8</li> </ul>
SurvCE	<ul> <li>14. From the GPS Rover   Receiver menu, Select the following options: [Unknown] Unknown</li> <li>(•) <u>Vertical</u> This sets the antenna model for the GPS Rover. In this case, it's best to select the Unknown GPS antenna model. The GPS antenna is an internal antenna inside the XF2 data collector. Tap the Green check mark to accept these settings and continue</li> </ul>
SurvCE           SurvCE       Image: The second	15. Configuring rover display Connected to NMEA GPS Receiver



Screenshot or Graphic	Step
Survee       Image: File       Image: File       Image: File         Survey       COGO       Road         File       Equip         1       Station       Image: File         2       GPS Base       Z       Z         3       GPS Rover       Image: File       Image: File         4       GPS       Image: File       Image: File         4       GPS       Image: File       Image: File         5       Configure       Image: File       Image: File	16. User is returned to the <b>Equip</b> menu 17. Select <b>Equip   <u>5</u>.Configure,</b>
SurvCE	<ul> <li>18. From the Configure   General menu,</li> <li>19. Un-check the option for Store Fixed Only (GPS).</li> <li>This setting applies only for RTK surveying, when the user only wants to store Fixed RTK measurements.</li> <li>When using the Internal L1 only GPS module, (NMEA GPS Receiver), the accuracies will be at Autonomous GPS level, not differentially corrected.</li> <li>Set No. Readings to Average for GPS: 1 Tap the Green check mark to save settings and continue.</li> </ul>
Survet       Image: Second secon	20. User is returned to the <b>Equip</b> menu 21. Select <b>Equip</b>   <u>8</u> Tolerences,



Screenshot or Graphic	Step
SurvCE (3) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	<ul> <li>22. From the Tolerances menu, Set reasonable HRMS, VRMS and Stakeout Tolerances for the NMEA GPS Receiver equipment currently being used. In this example, HRMS Tolerance: 3.000 m VRMS Tolerance: 5.000 m Stakeout Tolerance: 3.000 m Note: the RMS values may not be available from the currently selected GPS Tap the Green check mark to save settings and continue</li> </ul>
Survee   Survey   COGO   Road   File   Equip   1   Station   6   Localizat   2   GPS Base   7   7   Skyplot   3   GPS Rover   8   Tolerances   9   Peripherals   1   5   Configure   2   O   About   Survee	<ul> <li>23. User is returned to the Equip menu,</li> <li>24. Select Equip   <u>7</u> Monitor/Skyplot, In this menu, the user will be able to confirm the NMEA GPS Receiver is sending data into SurvCE; the user can view the Quality, Position, SATView and SATInfo menus to confirm the NMEA data streams.</li> </ul>
SurvCE       Image: The second s	<ul> <li>25. From the Monitor/Skyplot   Quality menu,</li> <li>The Status: Autonomous</li> <li>Latency: 0 Date: 12/03/2012</li> <li>Satellites: 4/11 Time: 16:27:53.0</li> <li>Local Northing, Local Easting, Local Elev</li> <li>HDOP, TDOP, VDOP, GDOP, PDOP</li> <li>HRMS: N/A</li> <li>VRMS: N/A</li> </ul>



Screenshot or Graphic	Step
SurvCE B III To C C 4:33 Monitor/Skyplot C SATView SATInfo Quality Position Latitude: N 41°29'02.90400" Longitude: W 72°51'05.68140' Ellipsoid Elev: 43.0000 Geoid: None Geoid Shift: None Localization File: None Base Shift: None Local Northing: 224682.6179 Local Easting: 296317.2947 Local Elev: 43.0000 Projection: USA/NAD83/CT	<ul> <li>26. From the Monitor/Skyplot   Position menu,</li> <li>The Latitude, Longitude and Ellipsoid Elev are coordinates displayed.</li> <li>Local Northing, Local Easting and Local Elev coordinates are displayed.</li> <li>Selected Projection is displayed.</li> </ul>
SurvCE SurvCE SurvCE SurvCE SurvCE SurvCe	27. From Monitor/Skyplot  SatView menu, The currently tracked GPS SV's are displayed in a Sky Plot view. The Sat S/N (Signal to Noise Ratios) are displayed.
SurvCE       Image: The system       Image: The system         Quality       Position         SATUew       SATInfo $3$ GPS 286 0 0       0	<ul> <li>28. From the Monitor/Skyplot   SATInfo menu,</li> <li>The Individual PRN, SV Type, Azimuth, Elev and S/N Ratio are displayed.</li> <li>SV's depicted with an asterisk * are above the Elev Mask Angle and being used.</li> <li>All four of these menus confirm the NMEA GPS receiver data is being sent into SurvCE. If there is no data displayed in these menus, check/verify the NMEA GPS Receiver Port and Baud Rate settings in the Equip   GPS Rover menu.</li> <li>Tap/Select the Orange Left arrow (Return) button in the upper right corner.</li> </ul>



Screenshot or Graphic	Step
SurvCE       Image: File       Equip         File       Equip         Survey       COGO       Road         1       Store       Image: File       Equip         Survey       COGO       Road         1       Store       Image: File       Equip         2       Stake       Image: File       Equip         2       Stake       Image: File       Eleveling         3       Stake       Image: File       Image: File         4       Offset       Image: File       Image: File         5       Elev       Image: File       Image: File         5       Elev       Image: File       Image: File	<ul> <li>29. The user is returned to the SurvCE main menu,</li> <li>30. The user can start collecting data,</li> <li>31. Select Survey   <u>1</u>Store Points,</li> </ul>
SurvCE       Image: Store PTS         S       A       O       C         Autonomous       Image: Hot 6/11       30 m         Autonomous       Image: Hot 6/11       30 m         Image: Hot 6/11       10 m	<ul> <li>32. From the Store Points menu, Enter a starting PT: number Enter a Description: Leave the HT: 0000 m When ready to Store the Point/Feature, Tap/Select the [S], or Store button, Continue storing Points/Features as needed, When finished Storing Points, tap/select the Red [X] button in the upper right corner of the menu,</li> </ul>
SurvCE       Image: Constraint of the second s	<ul> <li>33. If the user wants to store a continuous line or trajectory,</li> <li>34. Select <u>Survey   6</u>Auto by Interval menu,</li> </ul>



Screenshot or Graphic	Step
SurvCE       ③ #	<ul> <li>35. From the Auto Store by Interval menu, Select from the two available options: Distance or Time method,</li> <li>In this example, to get best data coverage, select the Time option Enter a 1-second time interval, Enter a Starting PT ID and Description, Tap the Green check mark to save settings and start the Auto Store,</li> <li>36. From the Auto INTVL menu, Note the Green [&gt;] icon, this indicates the Auto INTVL is active, storing points every second</li> </ul>
Pt: 59       Desc:       HT: 0         N:224674.2425       E:296308.9890       Z:51.3000         HSDV:N/A       VSDV:N/A         Image: Comparison of the system of the s	Points stored are displayed in the Map view screen, Tap the <b>[C]</b> icon, or Configure to control what information is displayed in the Map View, To stop the <b>Auto INTVL</b> Store Pts, tap/Select the Green [>] arrow, this will stop the Auto INTVL Store Pts, it will toggle the icon to a <b>Red [■]</b>
SurvCE       Image: Autonomous       Image: Autonomous       Image: Autonomous         Autonomous       Image: Autonomous       Image: Autonomous       Image: Autonomous         Autonomous       Image: Autonomous       Image: Autonomous       Image: Autonomous         Autonomous       Image: Autonomous       Image: Autonomous       Image: Autonomous         Pt:       B2       Desc:       HT:       0         N:224679.6459       E:296310.3873       Z:46.4000         HSDV:N/A       Image: Autonomous       Image: Autonomous         Image: Autonomous       Image: Autonomous       Image: Autonomous	<ul> <li>37. From the Auto INTVL menu,</li> <li>If the Red [■] icon is displayed, no Auto INTVL points are being stored.</li> <li>To start the Auto INTVL again, tap/Select the [■] icon again, it will toggle the icon to [&gt;] again, resume storing Auto INTVL points again.</li> <li>If the user is finished storing Auto INTVL points, tap/Select the Red [X] in the upper right corner of the menu.</li> </ul>



Screenshot or Graphic	Step
SurvCE       Image: Construction of the second	38. User is returned to the main menu, 39. To exit SurvCE, select <b><u>F</u>ile   <u>0</u>Exit,</b>
SurvCE   Survey   COGO   Road   File   Equip   1 Job   6   Transfer   2   Are you sure you want to exit?   3   Yes   4   Raw Data   9   Write Note   5   Feature   0   Exit	40. SurvCE confirmation message, Are you sure you want to exit? Select Yes or No In this example, Yes was selected, The user is returned to the windows Mobile Desktop.
Image: Sign in to Windows Live   Bind   Getting Started   Image: Sign in to Windows Live   Bind   Getting Started   Image: Sign in to Windows Live   Image: Sign in the Windows Live   Image: Sig	The data files from the SurvCE software can be copied from the XF2 to the office PC using the USB cable and Windows Mobile Device Center software. The SurvCE data files can be found on the XF2 \Program Files\SurvCE\Data folder. Files to copy: CurrentJobName with file extensions: .crd,.inf, .ref, .rw5, .sys



### **Further Information**

The Precision Products Technical Support team in Scottsdale has coordinated defining these Quick Reference Guides. You can contact Precision Products Technical Support at techsupport@hemispheregnss.com for further information.

This document is provided for technical support purposes only. Refer to the product documentation for warranty, license, and safety information associated with the product.

#### Notes: