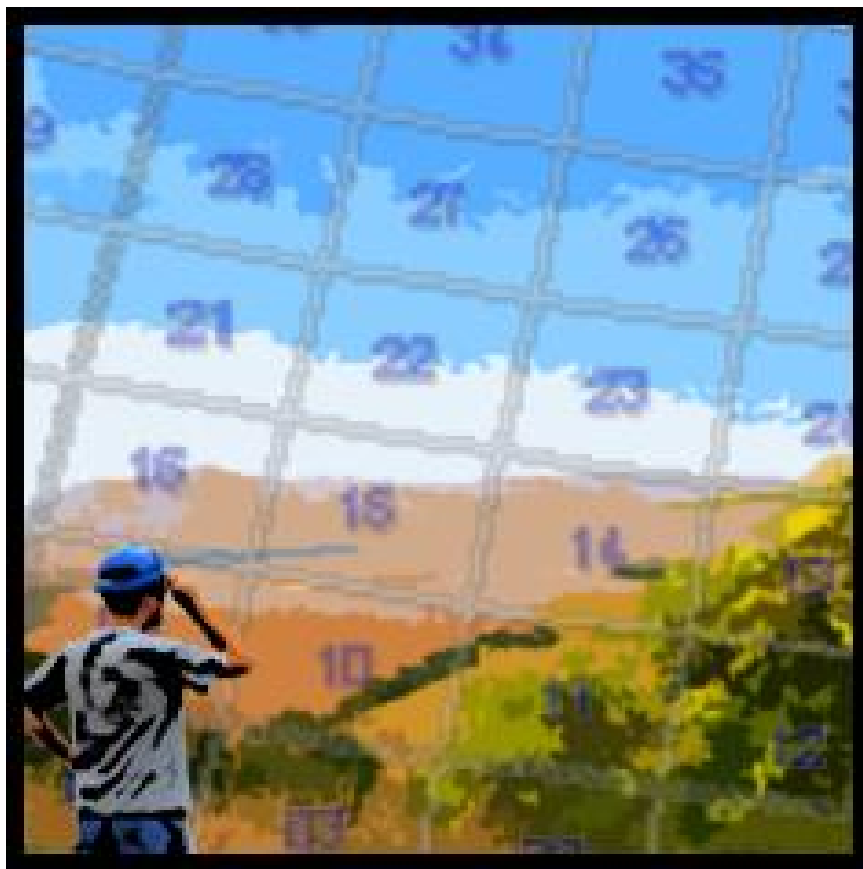


# Field Scout

Version II





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# Program Overview

## FUNCTIONAL OVERVIEW

Field Scout II is designed to facilitate the collection and management of well or waypoint records while working in the field. It is particularly designed for managing well records. However, other types of point data can be collected.

- Datasets can be created, imported and exported. Exported datasets on one copy of Field Scout II, can be imported and used in another copy of the program on a different Pocket PC. They can also be opened and used in the original Field Scout program.
- Data can be entered and edited by user input or it can be entered and edited via GPS input.
- Field Scout II provides a mapping component to show your location and well locations referenced to the Alberta Township System and Saskatchewan Township System grids. A variety of map sets can be displayed in addition to the township data.
- A redline layer is provided allowing for the creation of ad hoc drawing and annotation on the map. This layer can also be used in other map programs for display.
- Track tables can be created, and using the GPS, your travel route can be recorded. The currently loaded route will be displayed on the map. You can record many routes in one table or record each route in its own table. These routes can also be exported and shared with other Field Scout II users or imported into map programs for display. With the GPS on, a user can follow a track back to its origin.
- A well or waypoint record can be set as a destination. If there is a drilling target set for the well, you will also see this displayed on the map. In addition, you can pick a section corner or road intersection on the map to use as your destination. If the GPS is on, Field Scout II will tell you the distance and azimuth to this destination, from your current location.
- With the GPS on, a user can see their current location on the map, enter a new point record or update the current point record and obtain distance and bearing information relative to the user's selected destination.

## HARDWARE REQUIREMENTS

Field Scout II is designed for Pocket PC's and devices running the Windows Mobile 2003 Second Edition operating system. It has been less extensively tested on Windows Mobile 5. The following are the hardware requirements for running the program.

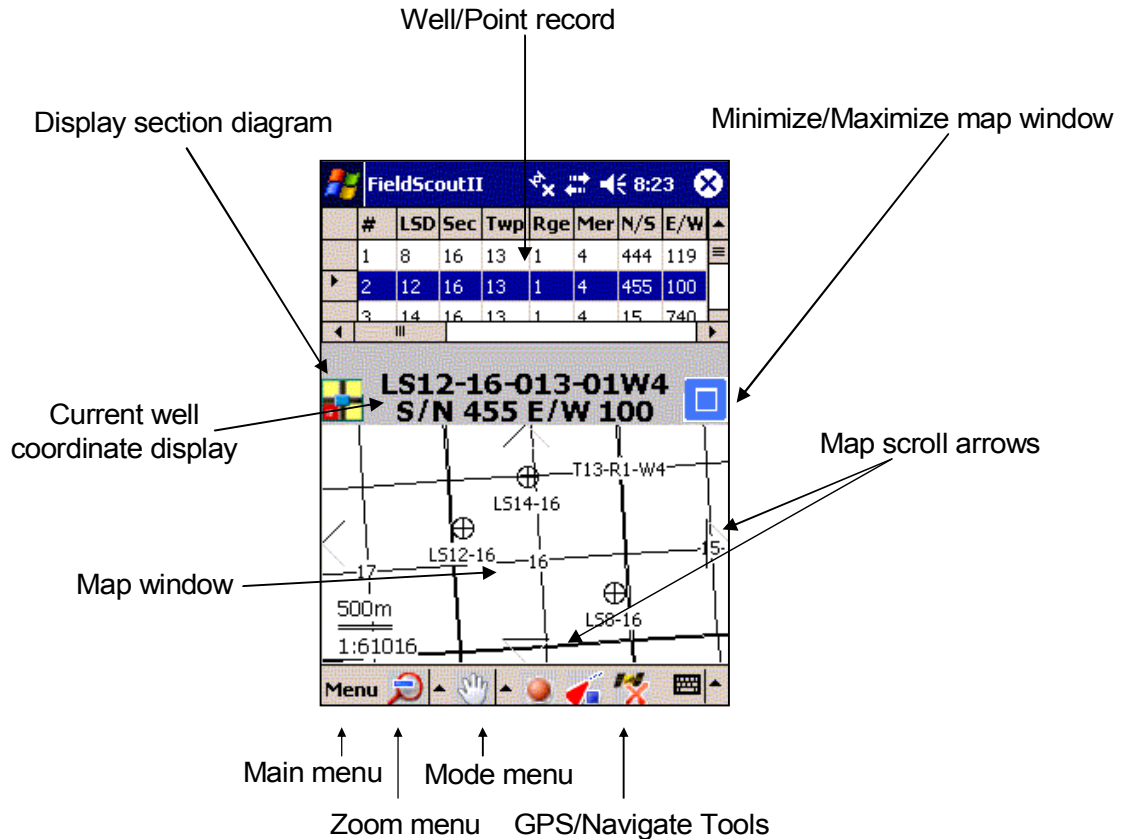
- A Pocket PC with Windows Mobile 2003 Second Edition operating system or Windows Mobile 5.
- Minimum combined total of 15MB of “*Program Memory*” and “*Storage*” as reported by Pocket PC memory tool. Highly recommend you have at least 18MB of “*Program Memory*” and “*Storage*” before running Field Scout II)
- An SD Card slot for the Field Scout memory card provided by Can-Am.
- A GPS device that can connect to the Pocket PC.

## MAP DATA SETS PROVIDED

There are several map sets included with the program.

- The Alberta Township System data files (Based on ATS 2005 as provided by AltaLIS).
- The Saskatchewan Township System data files.
- The Peace River Block Township System data files.
- The British Columbia, Petroleum Natural Gas Grid.
- An Alberta, a Saskatchewan and a British Columbia Base Map providing a high level background map with Contours, Hydrography, Indian Reservations and Métis Settlements, Airports and Airfields and Parks. This dataset is viewable at map scales from 1:60000 to 1:20000
- Urban Center Boundaries for British Columbia, Alberta and Saskatchewan.
- Major Highways and Roads for British Columbia, Alberta and Saskatchewan.
- Secondary Roads for British Columbia, Alberta and Saskatchewan.

## USER INTERFACE OVERVIEW



Well / Point record data grid	Data grid displaying all well records for the currently loaded table. Scroll left and right to see additional record details. Double click to access well record functions.
Display section diagram	Tap this button to display an enlarged view of a section with details of the current well record displayed graphically.
Minimize / Maximize map window	Tap this button to enlarge and shrink the map window.
Current well coordinate display	Displays the legal description for the currently selected well record in the data grid. If the GPS is on, this displays the legal location as calculated from the GPS output.
Map window	Map display window showing, ATS and STS Grid, redlines, tracks, well records, background maps etc.
Map scroll arrows	These four arrows provide a simple scrolling mechanism for the map. Tap in each area to move the map in the direction indicated.
Main menu	Access file, GPS, track, map and program options information from the main menu.

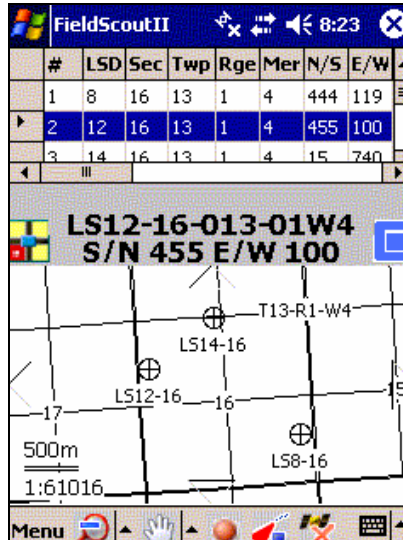
Zoom menu	Provides zoom in, zoom out and zoom previous functions. In addition a zoom to township option allows the user to enter a township and re-centers the screen on that township at the current zoom level.
Mode menu	Sets program modes for coordinate tracking, measure tool, redline, redline eraser, zoom window and pan. In addition, auto zoom can be toggled in this menu.
GPS /Navigate tools	Quick access buttons to turn on/off the GPS, to turn on/off navigate mode and to turn on/off recording to a track.

## Operating Field Scout II

This section of the manual provides a summary of Field Scout II operations.

### Working with Well Records

#### SELECT WELL RECORDS




To select a well record in the data grid, simply tap on the row with your stylus. The row will highlight and the coordinate display will update to reflect the values in the selected record. In the data grid you can scroll left and right to see more detail for a particular record. If there are several well records in the file, a scroll bar will be displayed on the right side of the data grid allowing you to scroll through the records.

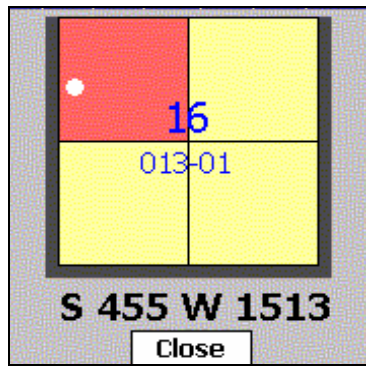
---

Field Scout opens the most recently used data file each time the program is started. If you start the program and no points are displayed, either you have deleted the last opened file or you have not yet saved any data to a file. When a record is added or updated in the well data grid, it is automatically written to the current data file.

---


#### VIEW ENLARGED SECTION SCHEMATIC

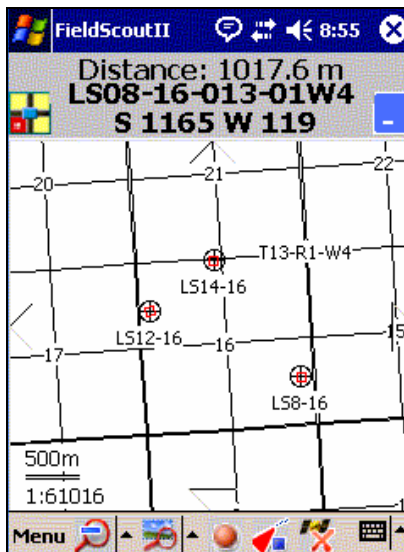
To enhance visibility and safety, an enlarged view of the section schematic is provided. To see the enlarged view, tap on the section schematic button  on the left side of the coordinate readout. The following screen will be displayed.



The enlarged section schematic is not supported in the PNG grid!

### MAXIMIZE MAP DISPLAY

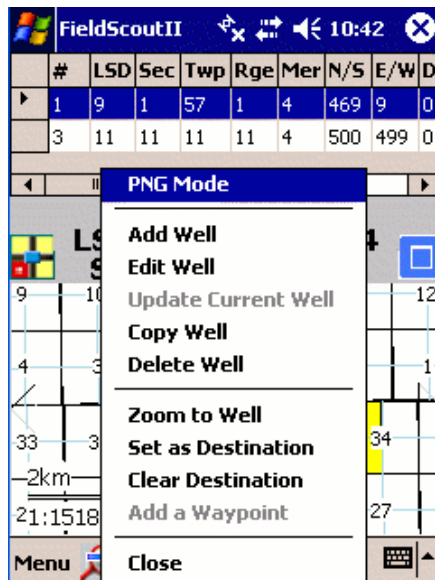
To enhance visibility, an enlarged view of the map is provided. To see the enlarged view, tap on the maximize button  on the right side of the coordinate readout. The screen will update as shown below.



To return to the default view, with access to the list of points/wells, tap on the minimize  button.

### ACCESSING THE WELL MENU

To access the well menu, double tap on the data grid. The well context menu will be displayed as shown in the graphic below.



## PNG MODE


Field Scout II supports well records created and displayed in Township System (ATS, STS and PRB) format as well as the PNG (Petroleum Natural Gas) grid for British Columbia. To switch between Township and PNG modes, double tap on the data grid and choose **PNG Mode** from the data grid menu. The program commands and interface will update accordingly.

## CREATING WELL RECORDS

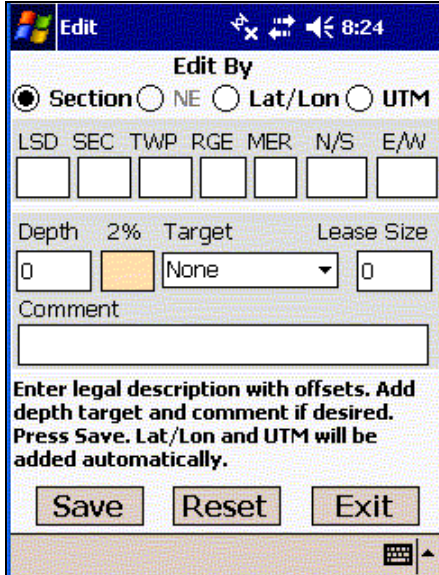
To add a new record, double tap on the data grid and choose **Add Well** from the menu. The dialog below and on the left will be displayed. Select one of the *radio buttons* to enter a record by typing in NE Offsets, Lat/Long or UTM values. A full legal description including offsets must be entered if using *Section* or *NEC* as your input mode. If entering *Lat/Long* all degrees, minutes and seconds fields must be filled in. For *UTM*, enter a northing and easting and select the appropriate zone. A *Depth*, *Target*, *Comment* and *Lease* size may also be added to the record. These values are optional.

*PNG Mode:* Operating in PNG mode the dialog below, on the right, will be displayed. A full PNG description, including offsets, must be entered on the PNG tab. If entering *Lat/Long* all degrees, minutes and seconds fields must be filled in. Select one of the tabs to enter a record by typing in NE Offsets, Lat/Long or UTM values. For *UTM*, enter a northing and easting and select the appropriate zone. A *Depth*, *Target*, *Comment* and *Lease* size may also be added to the record. These values are optional.

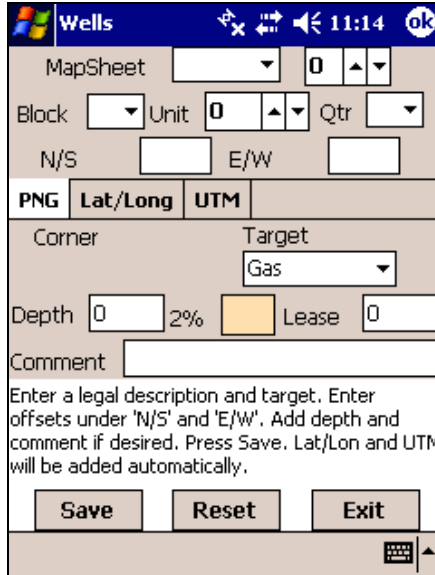
---

If you have GPS mode on, wells are added by GPS input. To add wells manually turn GPS mode off then double tap on the data grid and choose Add Well. The GPS mode button will look like this when it is turned off. 

---



*Add by Section Offset*



*Add by PNG*

---

When a well record is saved, the values on the other views are automatically calculated. For example, if you add by section offset, then north east corner offsets, lat/long and UTM values are all calculated and stored in the table.

---

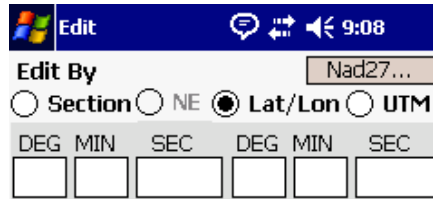
- Tap the **Save** button to write the record to the database. When the record is saved the data entry form will clear. You can add another new record or tap **Exit** to return to the main program screen.
- Tap the **Reset** button to clear the data entry screen.
- Tap the **Exit** button to close the data entry form.

---

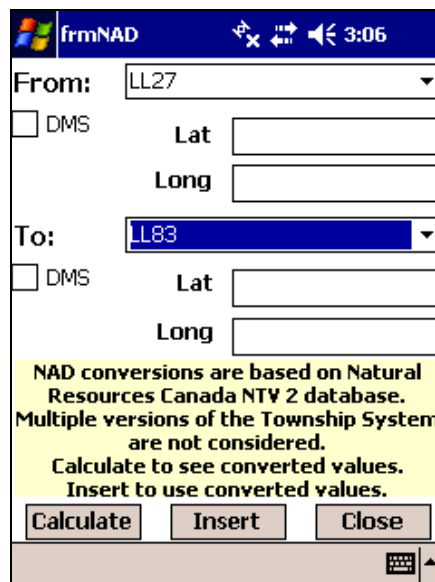
When a record is added or updated in the point list, it is automatically written to the current data file.

---

## NAD 27 INPUT



When adding new wells to the database you may have a need to enter your coordinates in NAD 27 instead of NAD 83 format. While adding a record in Lat/Long or UTM format, tap the **Nad27...** button on the editor screen. This will load the coordinate conversion form as shown below. Type the NAD 27 values in the fields labeled *From*: Tap **Calculate** to preview the converted values, tap **Insert** to convert the values and insert them into your data entry form. Tap **Close** to exit without converting.



---

NAD conversions are based on the Natural Resources Canada NTV2 database. There is no conversion between older and newer versions of the Alberta Township System or Saskatchewan Township System data files.

---

## EDITING POINT RECORDS

To edit a record, double tap on the record in the data grid and choose **Edit Well** from the menu. The dialog, shown in the Add Well section above, will be displayed. Select a radio button and then edit by typing in Offsets, Lat/Long or UTM values. A full legal description including offsets must be entered if using *Section* or *NEC* inputs. If you use *Lat/Long*, then all degrees, minutes and seconds fields must be filled in. For *UTM*, enter a northing and easting then select the appropriate zone. A *Depth*, *Target*, *Comment* and *Lease* size may also be added. These values are optional.

*PNG Mode:* To edit a record in PNG Mode, double tap on the record in the data grid and choose **Edit Well** from the menu. The dialog, shown in the Add Well section above, will be displayed. Select one of the tabs to edit by typing in Offsets, Lat/Long or UTM values. A full PNG description, including offsets, must be entered for the PNG tab. If you use *Lat/Long*, then all degrees, minutes and seconds fields must be filled in. For *UTM*, enter a northing and easting and select the appropriate zone. A *Depth*, *Target*, *Comment* and *Lease* size may also be added. These values are optional.


- Tap the **Save** button to write the record to the database.
- Tap the **Reset** button to clear the edit screen.
- Tap the **Exit** button to close the edit form.

---

When a record is added or updated in the point list, it is automatically written to the current data file.

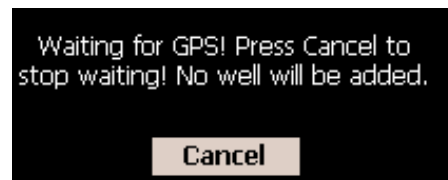
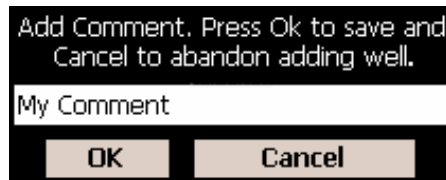
---

### ADDING/EDITING IN GPS MODE

You are operating in GPS mode when the GPS is turned on,  connected to Field Scout II and is receiving data. In this mode *Add Well*, *Update Well* and *Add Waypoint* all receive their data input from the GPS receiver.

### ADDING RECORDS BY GPS

To add a record in GPS mode you double tap on the data grid. Choose **Add Well** from the menu. A comment input form will be displayed. You can enter a comment or leave the input blank.



Tap **OK** to add the GPS Point or **Cancel** to return to the program. If you tapped OK, you will see the message box shown above, on the right. The program will wait for a valid point from the GPS receiver and then this box will close, adding the new record. If you do not wish to wait, tap **Cancel** and the add operation will be cancelled.

---

If you have a good GPS lock and signal then there will only be a very nominal delay in obtaining the point from the GPS receiver.

---

When a record is added or updated in the point list, it is automatically written to the current data file.

---

### UPDATING RECORDS BY GPS

To update a record in GPS mode you double tap in the data grid on the well record that you wish to

update. Choose **Update Current Well** from the menu. A comment input form will be displayed showing the current comment for this record. You can edit the comment or leave it unchanged.

Tap **OK** to update the GPS Point or **Cancel** to return to the program. If you tapped OK, you will see the message box shown above, on the right. The program will wait for a good point from the GPS receiver and then this box will close, updating the currently selected record. If you do not wish to wait, tap **Cancel** and the update operation will be cancelled.

---

If you have a good GPS lock and signal then there will only be a very nominal delay in obtaining the point from the GPS receiver.

When a record is added or updated in the point list, it is automatically written to the current data file.

---

### **COPYING POINT RECORDS**

If you need to enter records where only one or two record details change then use the *Copy Well* command. Double tap on the well record you want to duplicate and then choose **Copy Well** from the data grid menu. The record is copied and the edit dialog will open displaying the record details. Edit the details as instructed above in the section titled *Editing Point Records*.

### **ZOOMING TO POINT RECORDS**

To center a well location on the map, double tap on the well record you want to view and choose **Zoom To Well** from the data grid menu. The map will move such that the well is in the center of the map display.

### **SETTING A WELL AS A NAVIGATION DESTINATION**

Field Scout II provides feedback to assist in navigating to a selected location. To select a well as your destination, double tap on the well record then choose **Set as Destination** from the data grid menu. A pushpin will be displayed on the map at the point location.

---

To receive navigation assistance the GPS must be on and navigation mode enabled. These items are documented in greater detail, further on in this manual.

---

### **CLEARING A NAVIGATION DESTINATION**

To clear a destination, double tap on the well list and choose **Clear Destination** from the menu.

## ADDING A WAYPOINT

If you are operating in GPS mode, the Add a Waypoint menu item is enabled. Choose **Add A Waypoint**. A comment input form will be displayed. You can enter a comment or leave the input blank.

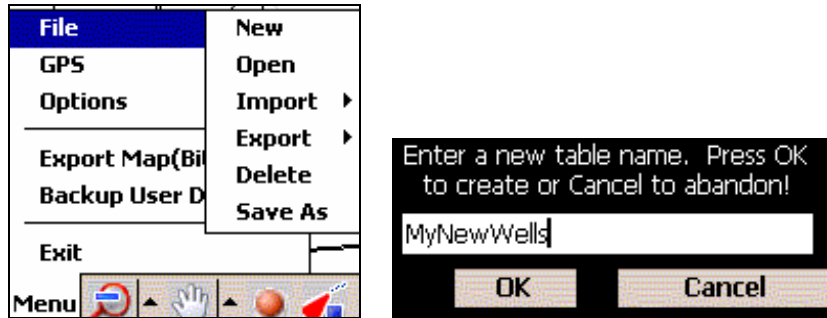


Tap **OK** to add the GPS Point or **Cancel** to return to the program. If you tapped OK, you will see the message box shown above, on the right. The program will wait for a valid point from the GPS receiver and then this box will close, adding the new record. If you do not wish to wait, tap **Cancel** and the add operation will be cancelled.

# Managing Well Data Files

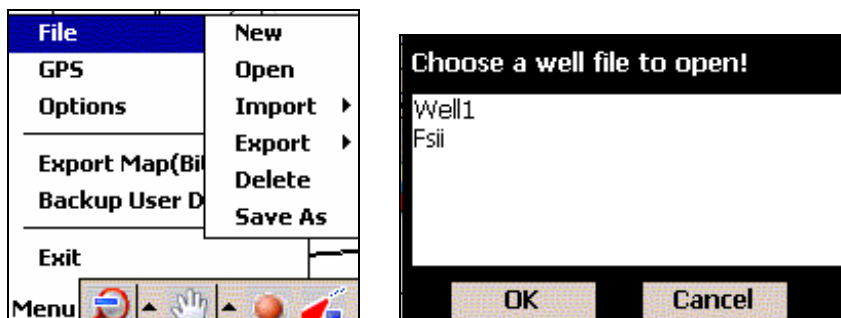
So far we have reviewed how to work with individual well records. The following section details how to work with the data tables that store the well records.

## CREATING A DATA TABLE



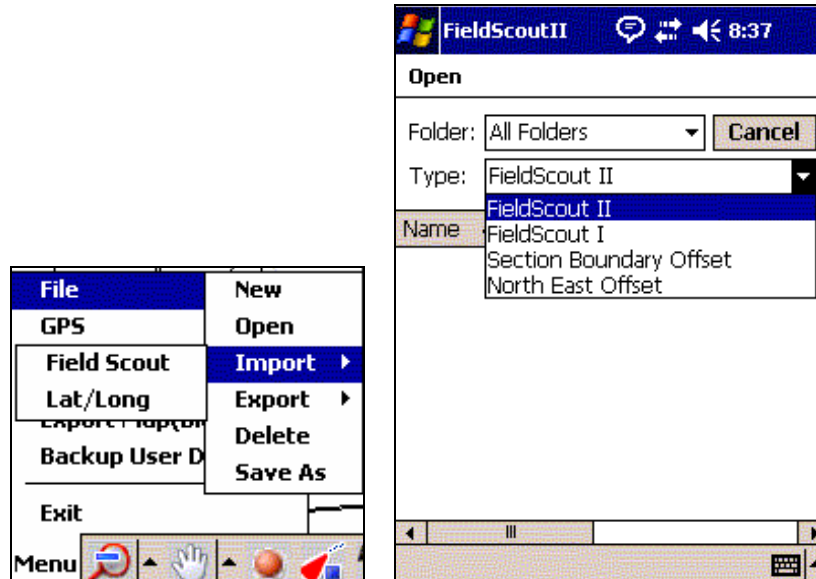
Field Scout data is stored in tables, in a database file. You can create tables to organize the data in any way you choose. There is always a default table called *Well1*. This table is created by the program and can never be deleted. You can use this table to store records if you wish. To create a new data table, choose **Menu File New**. Enter a table name when prompted. Tap **OK** to create the new table and *make it your current data table*. Tap **Cancel** to return to the program without creating a table.

## OPENING A DATA TABLE



To open an existing data table, choose **Menu File Open**. Select a table from the list. Tap **OK** to open the table and *make it your current data table*. Tap **Cancel** to return to the program without opening the table.

## IMPORTING A DATA TABLE



To import a data file into Field Scout II, choose **Menu File Import**. Browse for a file using the *Open Dialog*. Tap on a file displayed in the dialog to import the file and *make it your current data table*. Tap **Cancel** to return to the program without importing the table.

Data can be imported into Field Scout in a variety of formats. The *import* menu and the *file type* choices on the *open* dialog are used to determine what type of data you are importing. The following details may be helpful in choosing your import file format.

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[See the appendices at the end of this document for detailed of import file format information.](#)

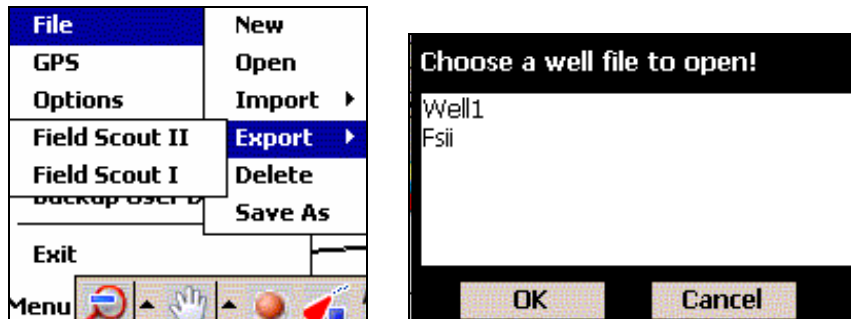
---

- Field Scout
  1. Field Scout II
    - Any file created using the *Export* command on the Field Scout II *File* menu.
  2. Field Scout I
    - Any “.csv” file created in the original of Field Scout.
  3. Section Boundary Offset
    - A “.csv” file that contains a legal description including section boundary offsets.
  4. North East Offset
    - A “.csv” file that contains a legal description including offsets from the North East corner of a section.

- Lat/Long
  - A “.txt” or “.csv” file that contains lat and long values.

An imported file will create a new data table in the database with the same name as the import file. If a data table already exists by the same name as the import file, the records will be imported into that table.

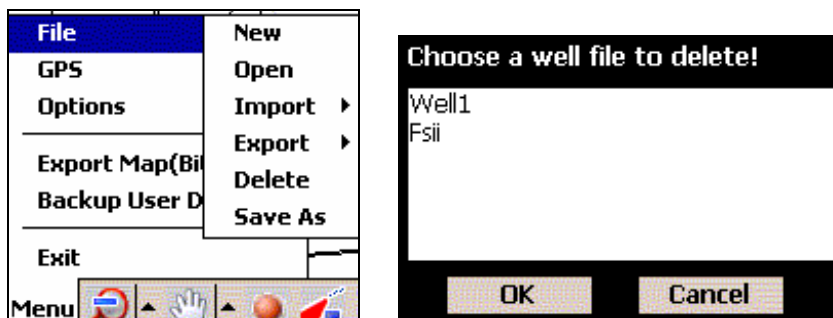
### EXPORTING A DATA TABLE



To export a data file, choose **Menu File Export**. Select FieldScout II or FieldScout I from the menu. Select a well table to export from the list. Tap **OK** to export the file. Tap **Cancel** to return to the program without importing the table.

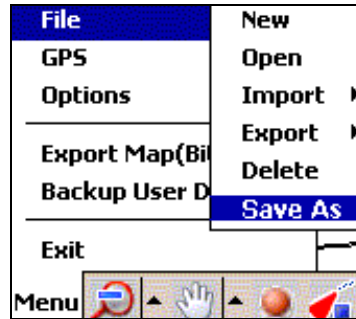
[See the appendices at the end of this document for detailed of export file format information.](#)

### DELETING A DATA TABLE



To delete a data file, choose **Menu File Delete**. Select a table from the list. Tap **OK** to delete the table. Tap **Cancel** to return to the program without deleting the table.

## SAVE AS DATA TABLE



To save your current data table to a new data table, choose **Menu File Save As**. Enter a table name when prompted. Tap **OK** to save the data table to the new name and *make it your current data table*. Tap **Cancel** to return to the program without creating a table.

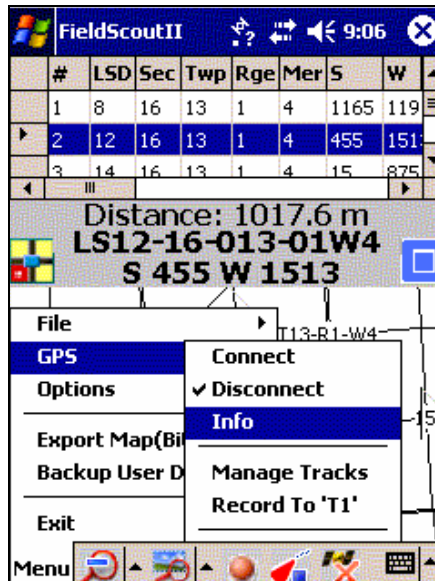
---

When you use the Save As command, the original data table remains intact. A new data table is created and this becomes your current table.

---

## Working with the GPS

Field Scout II provides all the tools necessary to collect and edit well locations and waypoints via GPS. In addition you can record tracks as you travel and use these as a guide to re-trace your tracks in the future. A well a waypoint, a road intersection or a section corner can be set as a navigation destination. With the GPS on and *navigation mode* set, you will receive visual and verbal prompts indicating the bearing and distance to your selected destination. To access these functions use the *GPS menu*.

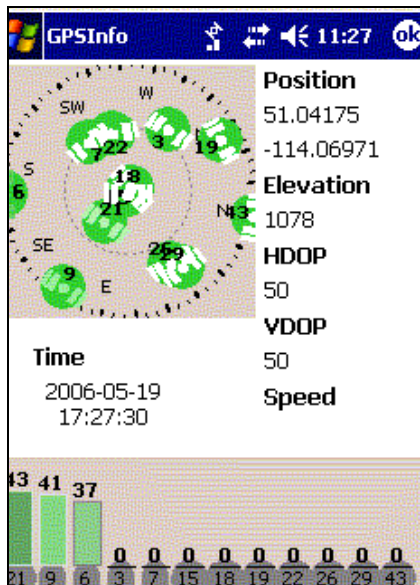


### CONNECT/DISCONNECT FROM THE GPS

Choose these menu options to attach to or detach from your GPS device. Your GPS device should be powered on before trying to connect. If you are using a Bluetooth device you should power on the GPS and ensure that it is paired with your Pocket PC.

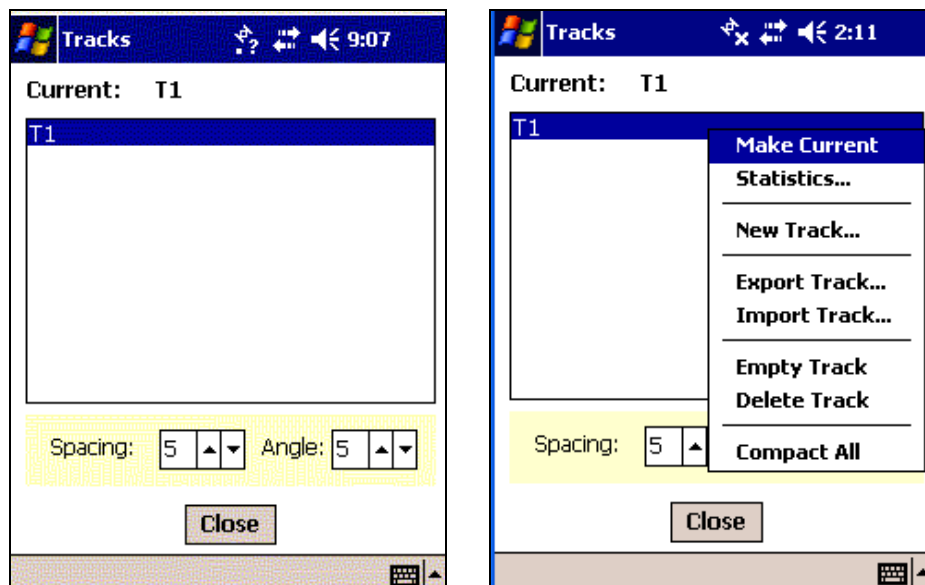
### VIEW GPS INFO

Choose **Info** on the GPS menu to access the following information dialog. Tap **OK** to close the dialog.



## MANAGING TRACKS

Field Scout II supports extensive track recording functionality. Tracks may be recorded in a single table in or separate tables. It is usually best to record each track to its own table but there may be a time when recording multiple tracks to one table is useful. For example, if you want to see several tracks, on the map at the same time, you can record them all in one table. Each *Start/Stop* record action will create an independent track segment. Choose **Manage Tracks** on the GPS menu to display the *Tracks* dialog. To access the *Tracks* menu, press and hold inside the track list box. The following context menu will be displayed. Each menu item is documented below.

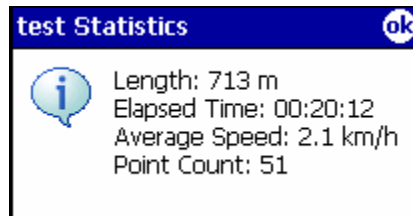


## Make Current

Choose this option to make the selected track the current track for recording and display.

## Statistics

Display statistics for the selected track. Tap OK to close the display.



## New Track...

Choose this option to create a new track. Type in a track name and press **OK** to create the track table.

## Export Track...

Choose this option to create an export of the track as a “.csv” file. This file can be imported by other Field Scout II users or you can import it into other mapping programs that support this data format.

## Import Track...

Choose this option to import a track file that has previously been exported from Field Scout II. A track table will be created with the same name as the import file.

## Empty Track

Choose this option to delete any existing data from a selected track file.

## Delete Track

Choose this option to delete the selected track table.

---

Track “T1” is a special instance track file. It cannot be deleted. It is used as the default track file if no other file has been created. Choosing delete will simply empty this track file of any recorded information.

---

## Compact All

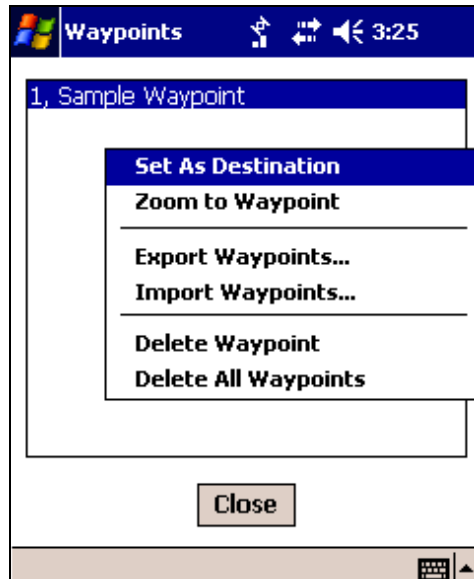
Choose this option to remove dead space from recorded tracks. When data is added and deleted from track files, dead space may be created in the files. This option optimizes the storage space used by each track file.

## RECORD TO “T1”

Choose this option to begin recording to the selected track. The default track for recording is “T1”. The name you select from the list of tracks will be displayed in this place. Tap this menu choice again to turn off track recording.

## MANAGE WAYPOINTS

Choose this option to manage collected waypoints.



### Set As Destination

Waypoints may be used as navigation destinations. To select a waypoint as your destination, press and hold the stylus on the waypoint record and then choose **Set as Destination** from the menu. A pushpin will be displayed on the map at the point location.

---

To receive navigation assistance the GPS must be on and navigation mode enabled. These items are documented in greater detail, further on in this manual.

---

### Zoom to Waypoint

To center a waypoint on the map, press and hold the stylus on the waypoint record and then choose **Zoom To Waypoint**. The map will re-center itself on the selected waypoint.

### **Export Waypoints...**

Choose this option to export your waypoints to a csv (comma separated values) file. Specify a name and a location for the file and tap the **Save** button to export the file

### **Import Waypoints...**

Choose this option to import waypoints from a csv (comma separated values) file. Browse to the location of the file and select the file name from the list.

### **Delete Waypoint**

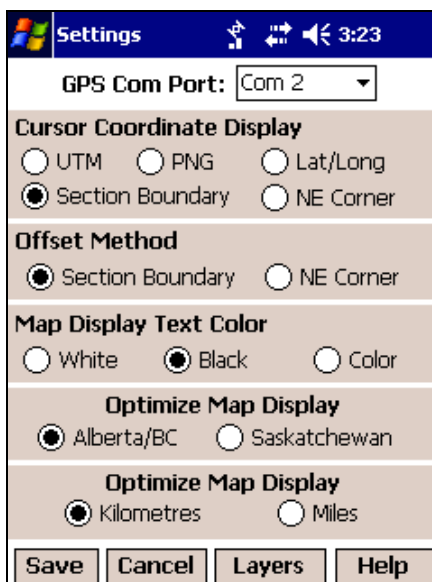
To delete a waypoint, press and hold the stylus on the waypoint record and then choose **Delete Waypoint** from the menu. Choose **Yes** or **No** to confirm the deletion.

### **Delete All Waypoints**

To delete all the waypoints, press and hold the stylus on a waypoint record and then choose **Delete All Waypoints** from the menu. Choose **Yes** or **No** to confirm the deletion.

## Options

The following section describes the program options that can be set by the user. Set an option by making your selection in the dialog and then tapping the **Save** button. Tap **Cancel** to close the dialog without saving your changes.



### GPS COM PORT

Use this to set the com port for your GPS device. You can set this to “*Redetect*”. Next time you choose to connect to the GPS, Field Scout II will attempt to automatically detect the GPS com port for your device. If it successfully detects the device it will save this in the settings file.

### CURSOR COORDINATE DISPLAY

Chooses what data will be displayed when you use the “*Track Coordinates*” tool that is documented below under *Mode Menu*.

<b>UTM</b>	Display Northing and Easting in the currently set UTM coordinate system
<b>Lat/Long</b>	Display Latitude and Longitude
<b>Section Boundary</b>	Display Legal location including offsets from the section boundaries.
<b>NE Corner</b>	Display Legal location including offsets from the north east corner of section.

### OFFSET METHOD

Choose the method used in well record offset calculations.

<b>Section Boundary</b>	Calculate offsets from the closest section line boundaries.
-------------------------	---

<b>NE Corner</b>	Calculate offsets from the North East corner of the section.
<b>PNG</b>	Calculate offsets from the offsets from the closest unit boundaries.

### MAP DISPLAY TEXT COLOUR

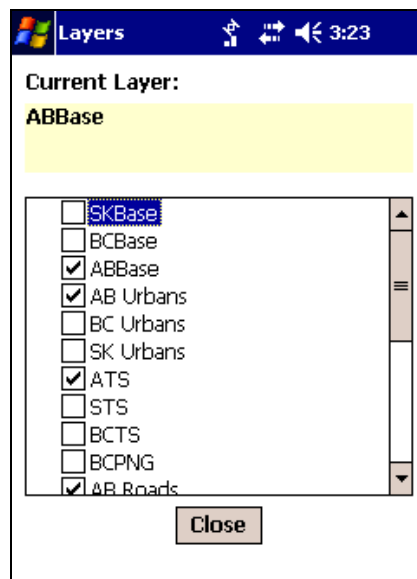
Choose the color scheme to be used in drawing the map lines and text. *White* is useful for display on dark backgrounds while *Black* is works well on light backgrounds. *Color* is the default display mode.

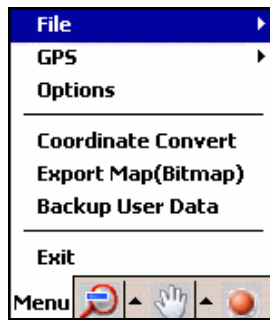
### OPTIMIZE MAP DISPLAY

Choose the coordinate system most suitable for your area of interest. This is currently limited to a 10TM projection with a central meridian optimized for Alberta display or for Saskatchewan display. You may also choose to see measurements and navigation information in Meters/Kilometres or Feet/Miles.

### Layers

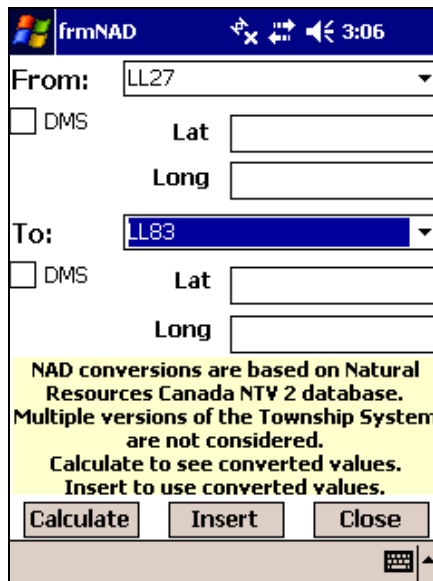
To control the display of layers, tap the **Layer** button on the options dialog. The following dialog will be displayed. You can turn on or off any of the listed layers except *Wells*. Tap **Close** to return to the *Options* dialog. You must use the **Save** button on the *Options* dialog to save the layer settings from one Field Scout session to the next. Otherwise your layer changes will apply only until you exit the program.





## COORDINATE CONVERT

Field Scout has a built in coordinate conversion tool. Choose the *Coordinate Convert* command from the main menu. Select a *From:* coordinate system and a *To:* coordinate system. Enter the values you wish to convert and press **Calculate**.



---

NAD conversions are based on the Natural Resources Canada NTV2 database. There is no conversion between older and newer versions of the Alberta Township System or Saskatchewan Township System data files.

---

## EXPORTING MAPS

To export a map for printing or importing into other programs, use the *Menu, Export Map(Bitmap)* command as shown on the dialog below. In the File Save dialog, choose a folder and type in a filename. Tap **Save** to write the map to the selected folder and filename. This file is a windows bitmap file that can be printed as it is or it can be inserted into other software and documents.

There is a BMPW file created with the same name as your exported map. (I.E. “*test.bmp*” & “*test.bmpw*”) This file can be used to geo-reference the image to other map data in programs like AutoCAD, ArcMap, MapInfo or other mapping programs.

### **BACKING UP YOUR DATA FILES**



For performance reasons, the Track Log and Redline data files are stored in main memory. They are kept in the *Program Files\FieldScoutII* folder. Use the *Backup User Data* command, as shown on the dialog above, to copy these data files to the Storage Card. They will be backed up to the FieldScoutII folder on your storage card. In the event of a data loss, these files can be copied from the storage card back into main memory, restoring your latest backup. As this backup only takes a few seconds, it is recommended that you do this each time before exiting the program.

### **EXITING THE PROGRAM**


By design, pocket pc applications do not close when you tap the “**X**” button in the upper right corner of the program window. Instead, tapping this button minimizes the application, leaving it running. It can be maximized by selecting the program name in the task list. To exit the program completely and shut it down, use the *Exit* command on the menu as shown in the dialog above.

# GPS NAVIGATE TOOLS



## GPS ON/OFF

To turn on the GPS data stream, tap on the satellite button  on the bottom toolbar. You will get an audible confirmation when the GPS is successfully connected. To turn the GPS data stream off, tap the button.  You will receive an audible disconnect message.

## NAVIGATE

Choose this option to receive navigation assistance. Turn the mode on and off by toggling the Navigate button on the menu bar at the bottom of the Field Scout II screen. The navigate icon looks like this  when navigate mode is turned on. The GPS icon will change from an arrow to an arrow with a line at the point. The arrow shows the direction of travel as reported by the GPS, and the line at the point is always pointing to your selected destination. The coordinate display area, just above the map, will show you a bearing and distance to your selected destination.





## RECORD TO TRACK

Choose this option to begin recording to your selected track. The GPS must be on, as noted in the paragraph above, before any track data can be recorded. To begin recording, tap this  button. To stop recording, tap this  button.

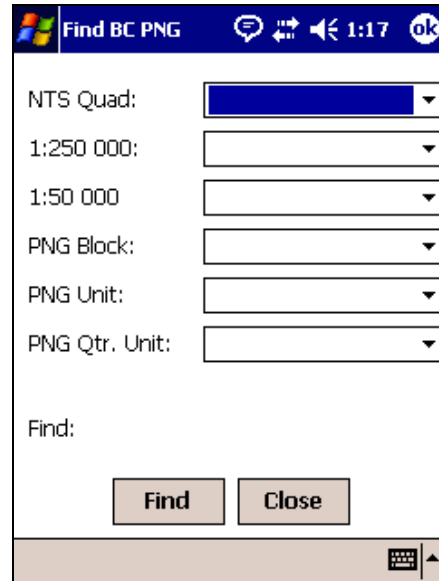
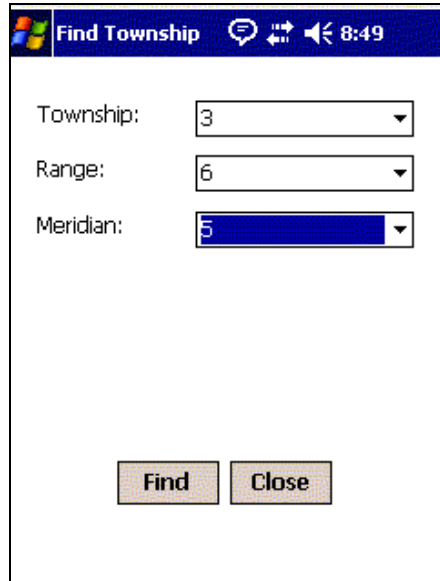
## ZOOM MENU

The following zoom functions are available by tapping the arrow, beside the first icon on the Field Scout II toolbar. Each choice is documented in the table below.

<b>Zoom In</b>
<b>Zoom Out</b>
<b>Zoom Previous</b>
<b>Zoom Township</b>
<b>Zoom PNG</b>
<b>Zoom Scale</b>

<b>Zoom In</b> 	Tap to zoom in to 50% of current display.
<b>Zoom Out</b> 	Tap to zooms out to 50% of current display.
<b>Zoom Previous</b> 	Tap to zoom to previous map view. (10 previous viewed stored)
<b>Zoom Township</b> 	Displays the dialog shown below. Select a township, range and meridian

	from the drop down lists. Press Find to zoom to that location.
<b>Zoom PNG</b>	Displays the dialog shown below. Select Quad, Map sheet, Block, Unit and Quarter Unit. Zooms to the selected level of detail
<b>Zoom Scale</b>	Enter a zoom scale and press OK to zoom.



## MODE MENU








This is called the Mode menu because each of these commands puts the program into a specific “operating mode”. The following functions are available by tapping the arrow, beside the second icon on the Field Scout II toolbar. Some of these commands support *Snap* mode. See the note below for *Snap* instructions. Each mode choice is documented in the table below.

---

**SNAP MODE:** Field Scout II supports snapping. To use this feature hold down the *Enter* key on your device and then drag the stylus on the map until you see a blue circle appear around a point or object. Lift the stylus first and then release the *Enter* key to complete the snap.

---



<b>Auto Zoom</b>		In GPS mode this will automatically zoom you closer as you approach a destination.
<b>Track Coordinates</b>		This tool allows you to display a coordinate readout as you drag your cursor around the screen.
<b>Measure Distance</b>		Use this tool to measure distances on the map. Select a start point and drag to an end point. Lift your stylus to complete.
<b>Pick Destination</b>		Use this tool to select a navigation destination on the map. If you hold the <i>Enter</i> key (snap) while dragging the stylus, it will snap to the nearest well or section corner.
<b>Draw Redline</b>		Use this tool to draw on the redline layer.
<b>Erase Redline</b>		Use this tool to erase on the redline layer. Draw a window around the redline objects you wish to erase.
<b>Zoom Window</b>		Use this tool to set a zoom window on the map. Tap on the screen and drag then lift the stylus to set the zoom window.
<b>Pan</b>		Use this tool to drag or move the map. Hold your stylus on the map screen and drag in any direction. Lift the stylus to end the drag or pan.

# Appendices

## TOWNSHIP BASED WELL FILE FORMAT AND CONTENTS.

Field Scout II uses a database system to store information. Well records are stored in tables in a database file called *fieldscout.db* or *filedscountpng.db*. This file can be found in the *FieldScoutII* program folder. Each collection of wells is stored in a user named table. There is always a default table called *well1*. This table can never be deleted and will be used as the default if no other table name is provided. Each table contains the following fields.

- Ptnum (A point number automatically assigned to each record), Required
- LSD (Legal Subdivision)
- Sec (Section Number)
- Twp (Township Number)
- Rge (Range Number)
- Mer (Meridian Number)
- NS (Offset from outside section line in North/South direction), *See diagram on page 5.*
- EW (Offset from outside section line in East/West direction), *See diagram on page 5.*
- Depth (Depth of the well in metres)
- Target (Target drilling area and acreage)
- Comment (A comment associated with the point)
- LatDeg (Degrees of Latitude)
- LatMin (Minutes of Latitude)
- LatSec (Seconds of Latitude to one decimal place)
- LonDeg (Degrees of Longitude)
- LonMin (Minutes of Longitude)
- LonSec (Seconds of Longitude to one decimal place)
- UTMX (Easting of point in NAD83 metres)
- UTMY (Northing of point in NAD83 metres)
- NEC\_S (Offset from North East Corner of section in a southerly direction)
- NEC\_W (Offset from North East Corner of section in a westerly direction)
- LEASE (Size of the well lease in meters)

## PETROLEUM NATURAL GAS BASED WELL FILE FORMAT AND CONTENTS.

- Ptnum (A point number automatically assigned to each record)
- Quad (NTS Quadrangle)
- MapSheet (NTS Mapsheet)
- Block (NTS Block)
- Unit (PNG Unit Number)
- QtrUnit (PNG Quarter Unit)
- NS (Offset from outside section line in North/South direction), *See diagram on page 5.*
- EW (Offset from outside section line in East/West direction), *See diagram on page 5.*
- Depth (Depth of the well in metres)

- Target (Target drilling area and acreage)
- Comment (A comment associated with the point)
- LatDeg (Degrees of Latitude)
- LatMin (Minutes of Latitude)
- LatSec (Seconds of Latitude to one decimal place)
- LonDeg (Degrees of Longitude)
- LonMin (Minutes of Longitude)
- LonSec (Seconds of Longitude to one decimal place)
- UTMX (Easting of point in NAD83 metres)
- UTMY (Northing of point in NAD83 metres)
- LEASE (Size of the well lease in meters)

## FIELDSCOUT II IMPORT/EXPORT FILE SAMPLE

### Field Scout Version II import or export file format.

This file will be created, by the program, when you use the *Export FieldScout II* command. It is the preferred export format for sharing data between Field Scout II users. It can also be created in external programs such as Excel. The file must have an extension of “.fsv”

- There must be a single header line with all field names as shown in the sample below.
- All fields are required except Comment.
- If you do not know the drilling target, specify *None* as your value.
- If you do not wish to set a depth or lease boundary, set them to 0.
- A comma must still be entered in the case of blank comments. See the sample below and note that although there are no comments, there is still a comma in each row of data where the comment would go.
- Valid target values are: None, BC Gas, BC Oil, #1 Gas 640, #1 Oil 160, #1 Oil 40, #2 Gas 640, #2 Gas 320, #2 Gas 160, #2 Oil 160, #2 Oil 80, # 2 Oil 40.

---

**Pt,LSD,SEC,TWP,RGE,MER,NS,EW,Depth,Target,Comment,LATdeg,LATmin,LATsec,LONdeg,LONmin,LONsec,UTMX,UTMY,NEC\_S,NEC\_W,Lease**

```
1,8,16,13,1,4,444,119,0,None,,50,4,51.9,110,4,29.2,566195.347704173,5548057.09226595,1164,119,0
2,12,16,13,1,4,455,100,0,None,,50,5,14.9,110,5,39.4,564793.056691506,5548749.03072008,455,1513,0
3,14,16,13,1,4,15,740,0,None,,50,5,29.1,110,5,7.2,565426.771442248,5549196.32834592,15,874,0
4,12,16,13,1,4,455,100,0,None,,50,5,14.9,110,5,39.4,564793.056691506,5548749.03072008,455,1513,0
5,14,16,13,1,4,15,740,0,None,,50,5,29.1,110,5,7.2,565426.771442248,5549196.32834592,15,874,0
6,14,16,13,1,4,15,740,0,None,,50,5,29.1,110,5,7.2,565426.771442248,5549196.32834592,15,874,0
```

---

*.fsv Field Scout II Township System import/export example*

*PNG Mode:* In the PNG Grid, offset rules are variable. For this reason the only file import format supported in PNG mode is the Field Scout II file format as show below.

- There must be a single header line with all field names as shown in the sample below.
- All fields are required except Comment.
- If you do not wish to set a depth or lease boundary, set them to 0.

- A comma must still be entered in the case of blank comments. See the sample below and note that although there are no comments, there is still a comma in each row of data where the comment would go.
- Valid target values are: Gas or Oil

---

```
Pt,Quad,MapSheet,Block,Unit,QrtUnit,NS,EW,Depth,Target,Comment,LATdeg,LATmin,LATsec,LONdeg
,LONmin,LONsec,UTMX,UTMY,Lease
1,94A,11,I,87,a,720,525,0,Gas,,56,44,6.452,121,4,49.464,617429.68,6289547.03,0
3,94G,8,A,30,b,508,748,0,Gas,,57,16,13.202,122,7,34.95,552684.61,6347816.78,0
7,94G,1,F,3,a,612,453,0,Gas,,57,5,9.849,122,16,53.413,543545.86,6327196.01,0
```

---

*.csv Field Scout II Petroleum Natural Gas Grid import/export example*

### Coordinate based import files.

At times it is faster to create your data records in an external program such as Excel and then import them into the program. The following simpler file format examples are all supported by the *Import* command.

1. A record specifying a full legal description including offsets calculated from the section boundaries. The file must have an extension of “.sec”
2. A record specifying a full legal description including offsets calculated from the north east corner of the section. The file must have an extension of “.nec”
3. A record specifying lat and long in the first two data columns. The file must have an extension of “.csv or .txt”

---

#### LSD,SEC,TWP,RGE,MER,NS,EW

```
8,16,13,1,4,444,119
12,16,13,1,4,455,100
14,16,13,1,4,15,740
12,16,13,1,4,455,100
14,16,13,1,4,15,740
14,16,13,1,4,15,740
```

---

*.sec boundary import example*

---

#### LSD,SEC,TWP,RGE,MER,NEC\_S,NEC\_W

```
8,16,13,1,4,1164,119
12,16,13,1,4,455,1513
14,16,13,1,4,15,874
12,16,13,1,4,455,1513
14,16,13,1,4,15,874
14,16,13,1,4,15,874
```

---

*.nec boundary import example*

---

**Lat,Long**

50.081094,-110.074785

50.087471,-110.094265

50.091424,-110.085331

---

*.txt or .csv lat/long import example*

**Field Scout Version I full import/export file.**

A file import/export in Field Scout I format is included to allow users of both programs to share data. This file will be created, by the program, when you use the *Export FieldScout I* command. It is loaded by selecting the “*FieldScout I*” option from the import dialog. It can also be created in external programs such as Excel. The file must have an extension of “.csv”

- There must be a single header line with all field names as shown in the sample below.
- All fields are required except Comment.
- If you do not know the drilling target, specify *None* as your value.
- If you do not wish to set a depth set this to 0.
- A comma must still be entered in the case of blank comments. See the sample below and note that although there are no comments, there is still a comma in each row of data where the comment would go.
- Valid target values are: None, BC Gas, BC Oil, #1 Gas 640, #1 Oil 160, #1 Oil 40, #2 Gas 640, #2 Gas 320, #2 Gas 160, #2 Oil 160, #2 Oil 80, # 2 Oil 40.

---

**Pt,LSD,SEC,TWP,RGE,MER,NS,EW,Depth,Target,Comment,LATdeg,LATMin,LATsec,LONdeg,LONmin,LONsec,UTMX,UTMY**

1,6,23,54,17,5,750,547,0,None,c1,53,40,43.1,116,24,13.7,539380.78,5947932.81

2,6,13,54,17,5,600,700,0,None,c2,53,39,32.6,116,22,26.5,541367.11,5945771.44

3,8,10,54,17,5,700,350,0,None,c3,53,38,37.4,116,25,1.2,538540.66,5944040.48

4,4,2,54,17,5,100,200,0,None,c4,53,38,4.7,116,23,54.9,539767.12,5943039.83

---

*.csv Field Scout I import example*

## FIELDSCOUT II TRACK IMPORT/EXPORT FILE SAMPLE

### Track import/export file.

Track import/export allows users to share tracks between different copies of Field Scout version II. Use the *Menu, GPS, Manage Tracks* command to access track import and export functions. The file must have an extension of “.csv”

- There must be a single header line with all field names as shown in the sample below.
- All fields are required.
- dElev, dHDOP and dVDOP can all be entered as zeros if you do not have known values.
- The sDesc field can be specified as empty single quotes ‘’.
- The last record should have an sDesc of ‘Record Off’. This prevents track segments from being joined together from their endpoints.

---

#### dLat,dLong,dElev,dHDOP,dVDOP,utcTime,sDesc

```
50.991845,-114.082286666667,1057.29999959616,3.2,1.2,'2006-05-26 01:04:30',"
50.99185,-114.082388333333,1057.09999959624,7.9,1,'2006-05-26 01:04:32',"
50.991888333333,-114.082425,1057.09999959624,2.2,1.2,'2006-05-26 01:04:33',"
50.991923333333,-114.082415,1057.09999959624,3.1,1,'2006-05-26 01:04:34',"
50.992043333333,-114.082428333333,1056.89999959631,1.8,1.1,'2006-05-26 01:04:37',"
50.992065,-114.082403333333,1056.59999959643,1.9,1.2,'2006-05-26 01:04:38',"
50.992076666667,-114.082368333333,1056.59999959643,2.9,1,'2006-05-26 01:04:39',"
50.992083333333,-114.082305,1056.39999959651,2.8,1,'2006-05-26 01:04:41',"
50.992071666667,-114.082245,1056.59999959643,3.4,1,'2006-05-26 01:04:44',"
50.992066666667,-114.082211666667,1057.1999995962,3.4,1,'2006-05-26 01:04:48','Record Off'
```

---

.csv Track import/export file example

## FIELDSCOUT II WAYPOINT IMPORT/EXPORT FILE SAMPLE

---

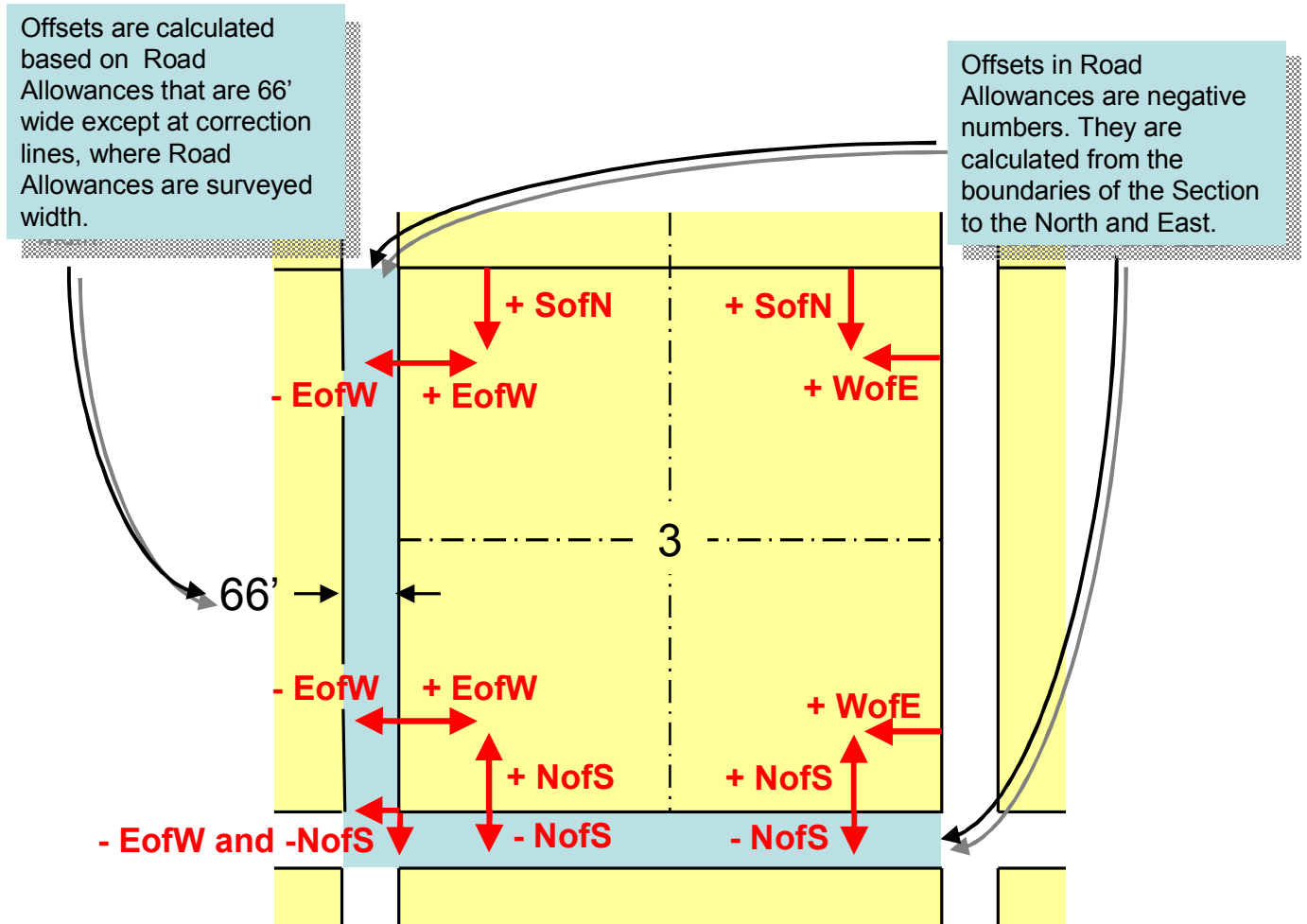
#### dLat, dLong, dElev, dHDOP, dVDOP, utcTime, sDesc

```
51.04503, -114.066, 0, 17.5, 8, '2007-02-07 20:58:01', 'Sample Waypoint'
51.0456, -114.1, 0, 12, 22, '2007-02-07 21:47:07', 'Sample Waypoint2'
51.03418, -114.208, 0, 10.5, 12, '2007-02-07 23:01:18', 'Sample Waypoint3'
```

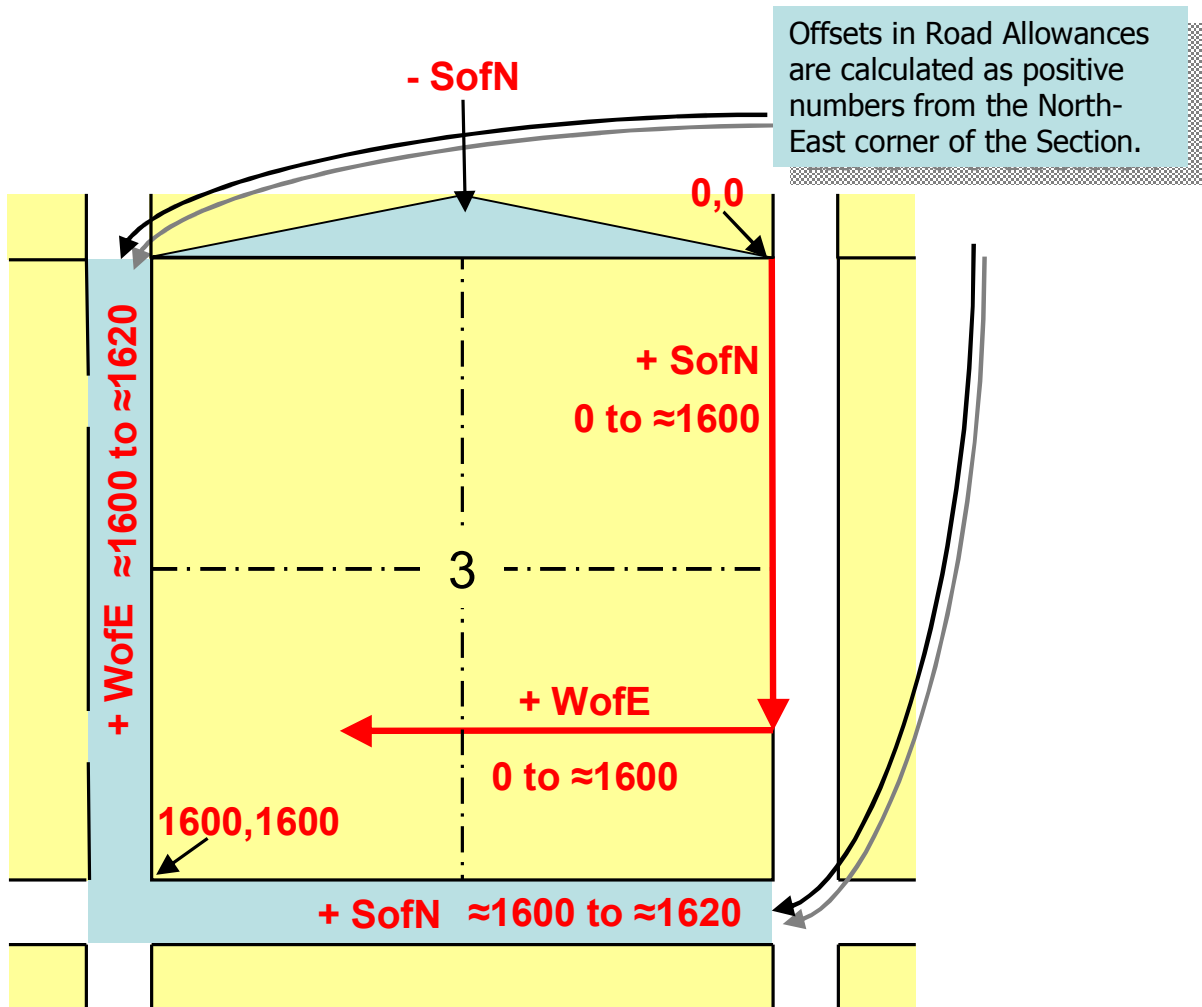
- 
- There must be a single header line with all field names as shown in the sample below.
  - All fields are required.
  - dElev, dHDOP and dVDOP can all be entered as zeros if you do not have known values.
  - The sDesc field can be specified as empty single quotes ‘’.

## SECTION OFFSET DIAGRAMS

The following diagram shows how the perpendicular offsets are displayed and interpreted. This applies to wells in Alberta, Saskatchewan and the British Columbia Peace River Block.

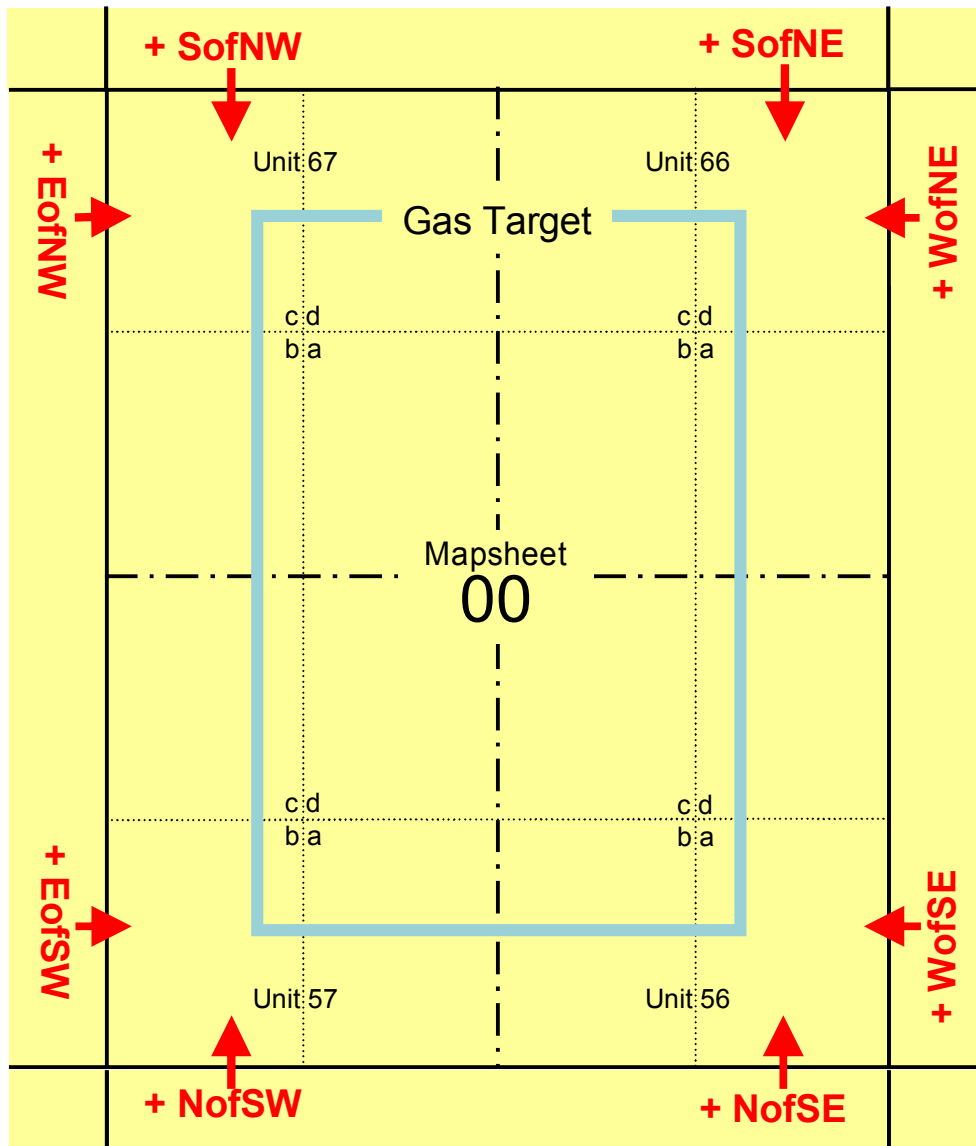


The following diagram shows how the North East Corner offsets are displayed and interpreted.

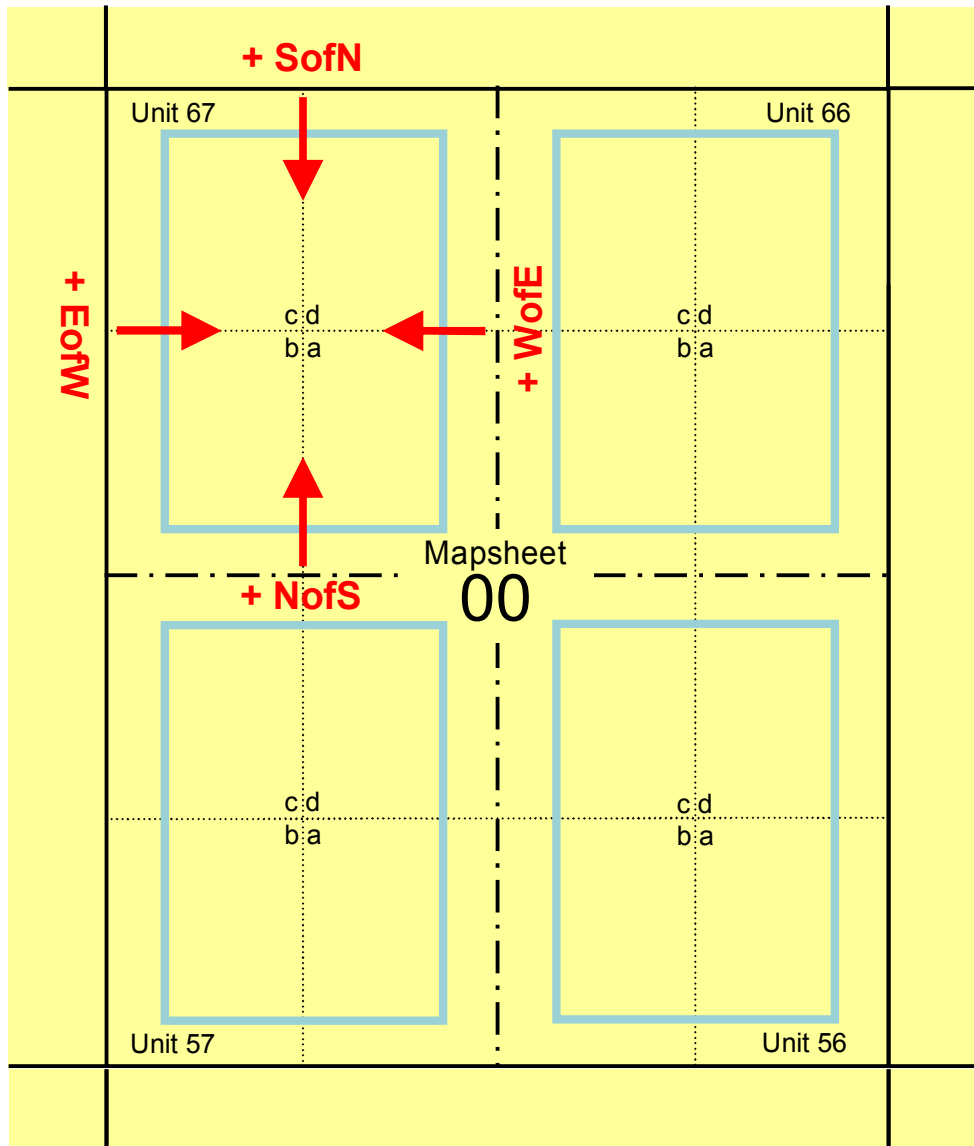


The following diagram shows how the British Columbia Petroleum Natural Gas Grid offsets are displayed and interpreted for Gas Wells. Offsets are calculated from 1:20000 Map sheet corners. The corner is selected by map sheet number as listed below.

- 1, 3, 5, 7, 9, 21, 23, 25, 27, 29, 41, 43, 45, 47, 49, 61, 63, 65, 67, 69, 81, 83, 85, 87, 89  
strNS = "S/NW" and strEW = "E/NW"
- 2, 4, 6, 8, 10, 22, 24, 26, 28, 30, 42, 44, 46, 48, 50, 62, 64, 66, 68, 70, 82, 84, 86, 88, 90  
strNS = "S/NE" and strEW = "W/NE"
- 12, 14, 16, 18, 20, 32, 34, 36, 38, 40, 52, 54, 56, 58, 60, 72, 74, 76, 78, 80, 92, 94, 96, 98, 100  
strNS = "N/SW" and strEW = "E/SW"
- 11, 13, 15, 17, 19, 31, 33, 35, 37, 39, 51, 53, 55, 57, 59, 71, 73, 75, 77, 79, 91, 93, 95, 97, 99  
strNS = "N/SE" and strEW = "W/SE"



The following diagram shows how the British Columbia Petroleum Natural Gas Grid offsets are displayed and interpreted for Oil Wells. Offsets are calculated as perpendicular offsets from the Unit boundaries.



## Program Accuracies

Field Scout II provides coordinate information in 3 formats; Local, Lat/Long and UTM. Local coordinate values are calculated by look-up in the Alberta Township System, Saskatchewan Township System, Peace River Block or Petroleum Natural Gas Grid data files. The accuracy of data in these files determines the accuracy of the Field Scout II results.

---

**In no way is Field Scout II to be regarded as a coordinate calculator. Data sources do not always guarantee the accuracy necessary to perform coordinate calculations.**

---

### ATS (ALBERTA TOWNSHIP SYSTEM)

The ATS data is derived from the ATS Master File MATS 2005, NAD 83, with a published accuracy of plus or minus 3 metres.

### STS (SASKATCHEWAN TOWNSHIP SYSTEM)

The STS data is derived from the STS v1.5 data files, NAD 83, with a varying degree of accuracy.

### PRB (PEACE RIVER BLOCK)

The PRB data is from a private data vendor and accuracy is not stated.

### PNG (PETROLEUM NATURAL GAS)

The PNG data is calculated based on a NAD 27, NTV 1.1 lat/long grid. All calculations will be accurate to the grid specification.

### GPS RECEIVER

Accuracy of data from your GPS receiver is dependent on both the specifications of your individual GPS device and the quality of data received from satellites. The accuracy of your GPS receiver is available in the documentation that came with the device. To obtain quality of signal information, look at the *HDOP & VDOP* values under **Menu, GPS, Info** on the Field Scout II main menu.

# DEVICE NOTES

## DEVICE SERIAL NUMBER

Record your device serial number below for quick reference.

---

This number may be required if you need to reinstall the program.

## HINTS ON POWER AND BACK-UPS

It is critical to back-up data that is stored in main memory on your Pocket PC. The main memory on your Pocket PC may be volatile. When the unit loses power or is cold-booted this data can be lost. For performance reasons, Field Scout II stores two data files in the folder “*Program Files\FieldScoutII*”. These files are called “*tracks*” and “*redline*”

There is a “*Backup User Data*” command on the “*File*” menu. Use this command to back up the data files from main memory to the SD Card. If your device loses power and you lose the data files in main memory, you can copy the two backup files, *tracks and redline* from the “*SD Card\FieldScoutII*” folder to the “*Program Files\FieldScoutII*” folder.

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On some devices the name “*SD Card*” may be different. It may say, “*Storage Card*” or something else like this. In that case your backup files would be found in a folder like “*Storage Card\FieldScoutII*”.

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## IMPORTANT DEVICE RESET INFORMATION

If your Pocket PC freezes, there is a Soft Reset button on the unit. Press the reset button with the stylus tip to reboot your Pocket PC. All data should remain intact. This is similar to using CTRL-ALT-DEL on a desktop or laptop.

Only perform a Hard Reset if it is absolutely necessary, as these types of operations may delete ALL your data and user-installed programs. Your user manual will contain instructions for performing a hard reset on your unit. **Do not** remove the battery to reset the unit.

If you do want to change batteries, ensure that the backup battery is charged before removing the main battery. If possible, perform a backup before switching batteries. At the very least, copy your current data files to the Safe Storage folder before swapping batteries.

Keep a close eye on the battery levels while using the unit. This will allow you to change batteries before too much power is lost from the backup battery, as well as ensure you secure your working data if power levels get too low.

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