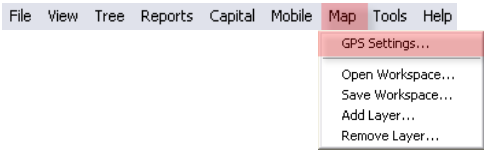
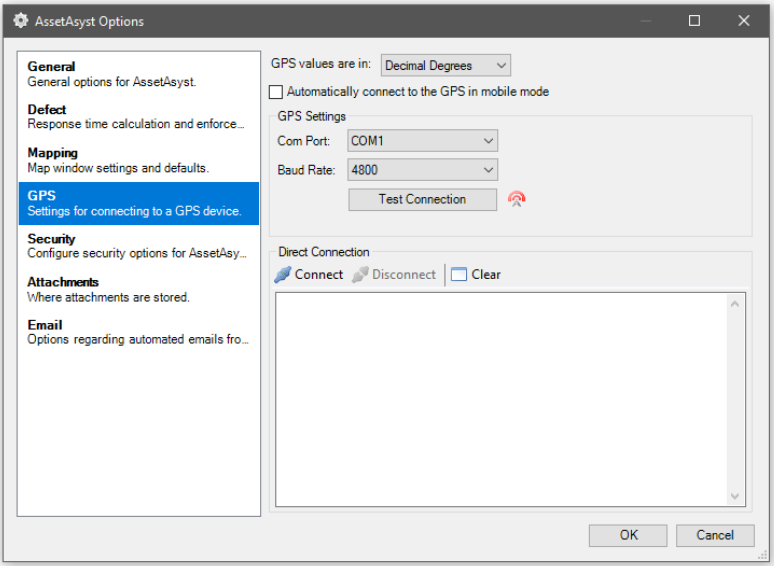
1. GPS Setup





To establish and test the connection status between the GPS and **AssetAsyst®**, open the **Tools > Options** menu and click on **GPS**, or open the **Map > GPS Settings** menu. Set the GPS **Com Port** and **Baud Rate**, then *click* the **Test Connection** or **Direct Connection Connect** button. This will immediately open the communication port to the GPS. If the correct Com Port and Baud Rate are set, a steady stream of comma delimited 'GPS string' information will cycle through 'Direct Connection' window.

Once the connection has been establish, *click* **OK**. These settings will be held in the system so that each time the same GPS is connected through Blue Tooth or USB cable it will make a connection.

The **Automatically connect to the GPS in mobile mode** *check box* can be checked on at any time. If checked on, **AssetAsyst®** will always try to connect to the GPS at start up when logging in to mobile mode.

1.1 GPS Strings

There are many different GPS strings, **AssetAsyst®** only needs a few of them to function properly. Examples of GPS strings and what they mean can be found in the table below.

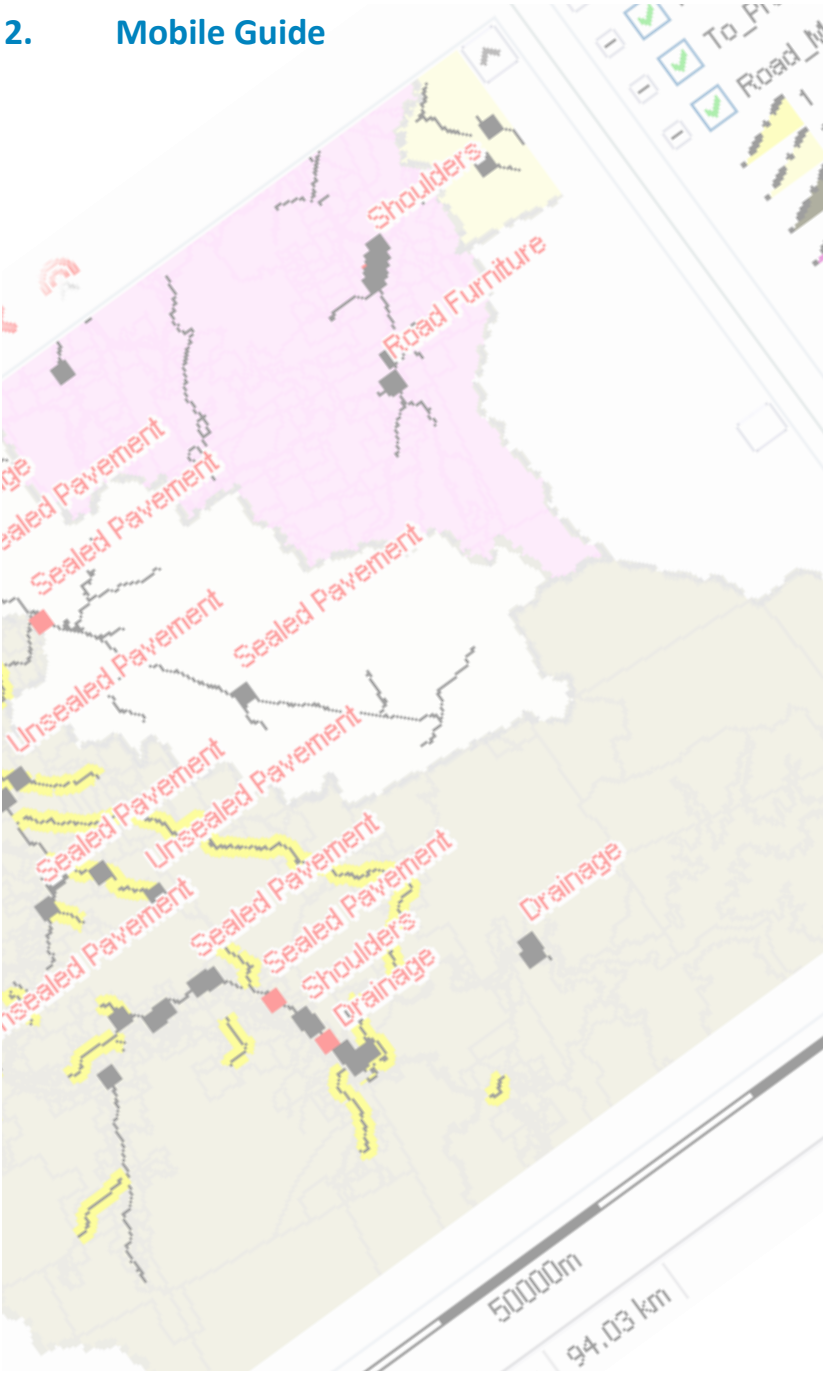
```
Example Strings:
$GPGLL,3907.3837,N,12102.4684,W,023042,A,A*5E
$GPGSA,A,3,20,11,25,01,14,31,,,,,,,2.6,1.7,1.9*3B
$GPGSV,3,2,11,09,47,229,42,10,04,157,00,14,00,305,00,24,70,154,33*79
$GPGGA,023042,3907.3837,N,12102.4684,W,1,04,2.3,507.3,M,-24.1,M,,*75
$GPRMC,023042,A,3907.3837,N,12102.4684,W,0.0,156.1,131102,15.3,E,A*3
6
$GPVTG,136.40,T,,M,0.14,N,0.3,K*66

String mean:
$GPGLL    Geographical position, latitude and longitude
$GPGSA    GPS dilution of precision and active satellites
$GPGSV    GPS satellite in view
$GPGGA    GPS fixed data
$GPRMC    Recommended minimum specific GPS/TRANSIT data
$GPVTG    Track made good and ground speed
```

1.2 GPS Trouble Shooting

After powering up a GPS, the amount of time it takes each GPS to transmit sensible position information may take a few seconds to 30 minutes. To address this common issue, we advise leaving the GPS running where it has a clear view of the sky, ideally the Northern sky.

Also, be sure to close all connections to the GPS before attempting a new connection, regardless of the software application. GPS send data to computers via a single serial port. Simultaneous connections cannot be made so if the GPS is still sending through a connected com port in one application, it cannot be seen in any other applications.

2. Mobile Guide



1. Introduction

AssetAsyst® provides the means for users to efficiently capture defect information in the field and minimises the time spent collating and transferring the collected information in the office.

There are two mobile interfaces that can be used with **AssetAsyst®**. The first involves running the full **AssetAsyst®** software on a laptop. This method is particularly useful for linear inspections such as roads and pathways.

The second involves the use of an Android tablet app. This touch interface is designed specifically for level 2 structure inspections. See the end of this chapter for more details on this app.

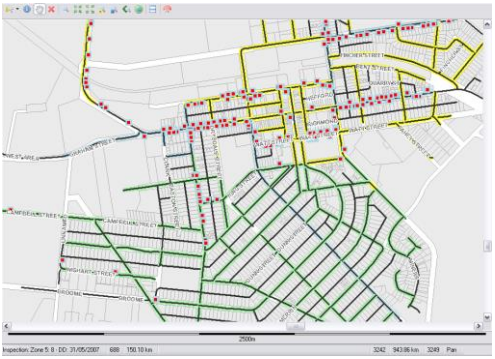
This section of the **AssetAsyst®** User Guide is aimed at the ***Mobile User*** or inspector. Mobile, in this case, means *remote* from the main server database. However, the **Mobile** and **Network** interfaces are identical; only editing and configuration limitations will be encounter by ***Mobile Users***.

Mobile Mode is designed for carrying out field inspections and recording infrastructure safety or routine maintenance faults. It is also designed to seamlessly synchronise back to **AssetAsyst®**.

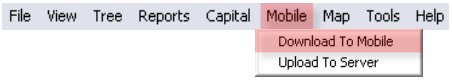
The steps involved to use **Mobile Mode** are:

1. Download to mobile device
2. Login to Mobile mode
3. Undertake inspection
4. Login to Network mode
5. Upload and check data

Typical Map Screen Display for Mobile Users

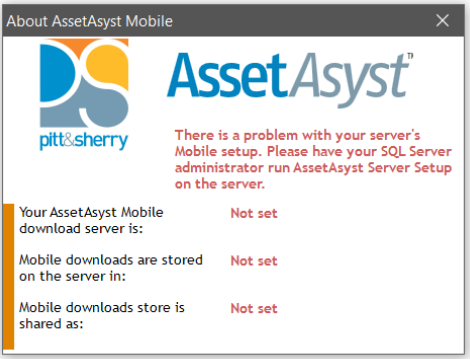


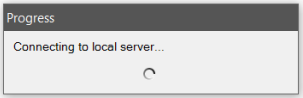
2. Download Data



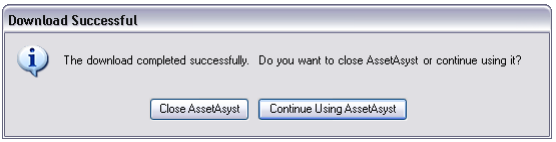
Data from the server must be downloaded to the mobile device to enable mobile mode activity. You must be logged into **Network** mode to be able to **Download to Mobile**.

This screen will appear if the setup wizard has not completed properly. Please contact your Administrator or User Support for assistance if this screen appears.





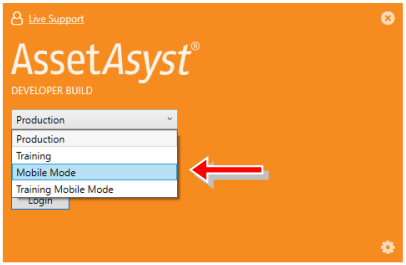
To initiate the download to mobile process, open the **Mobile** menu and select the **Download To Mobile** menu item. A copy of the **AssetAsyst®** database will be downloaded to your computer. At this point you may continue working with **AssetAsyst®** on the server if you wish, but any subsequent changes will not be see when you are off-line. You will not be working with your local data until you close **AssetAsyst®** and log back in as detailed in the next section.



3. Start Mobile Mode

3.1 Login

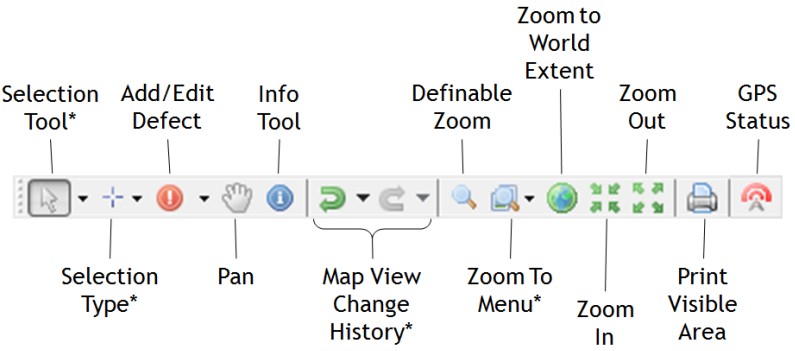
Use your standard login details but *click* the **Mobile** button to enter **Mobile Mode**. Users can do this in the office or in the field, however be sure to understand connection to the main server will not be available in this mode.



3.2 Map Toolbar

A user must have downloaded to mobile and then chosen **Mobile** on the login screen to enter ***Mobile Mode***.

The map toolbar has numerous features and function, all of which will be used during an inspection. Critical tasks however include marking an asset inspected and recording defects.



3.3 Connect to GPS

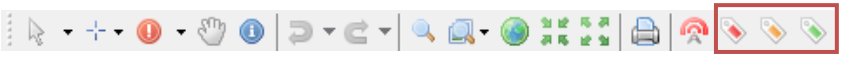
GPS outputting NMEA strings via COM ports are the only GPS currently accepted by **AssetAsyst®**.

3.3.1 Activate GPS Connection

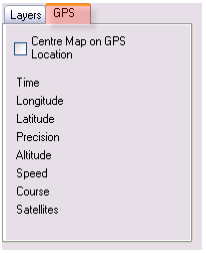
Connect the GPS to the device either via cable or Bluetooth, if the highlighted **GPS Connection** icon in the **Map** toolbar appears green, a connection to the GPS exists. If not, *click* the icon to establish a connection.
The icon can be *clicked* at any time to activate or deactivate the connection to the GPS.

3.3.2 GPS Status

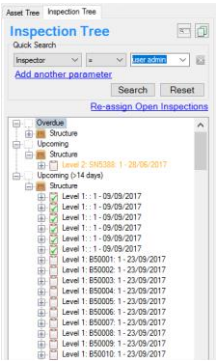
When **AssetAsyst®** is connected and receives data from the GPS, the **Add Defect** icons will be displayed. The three icons correspond to the three defect categories: Safety (red), Maintenance (orange) and Capital (green).



To view the GPS information being received by **AssetAsyst®**, *click* the **GPS** Tab on the layers pane. This will continuously display the last known position if the GPS is activated. If **AssetAsyst®** is receiving new positions, the displayed information will generally update every second.

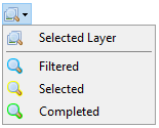


3.4 Select Inspection Set



After login, the inspection tree will automatically filter to only display the logged-in user's inspections. Each inspector can *click* on an inspection set to zoom to the extent of the inspection in the map window.

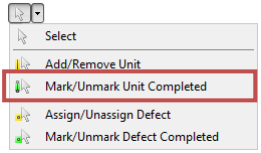
At any time, the user can zoom to the extent of selected inspection route by *clicking* the relevant icon in the map toolbar.

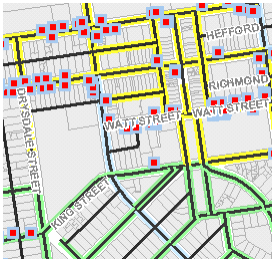


3.5 Conduct Inspection

Conduct inspection by recording defects and marking assets as being inspected. On return to the office or access to a network, users may upload the data recorded in the field in mobile mode.

3.5.1 Marking an Asset Inspected

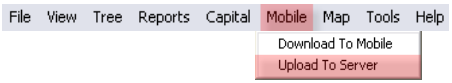


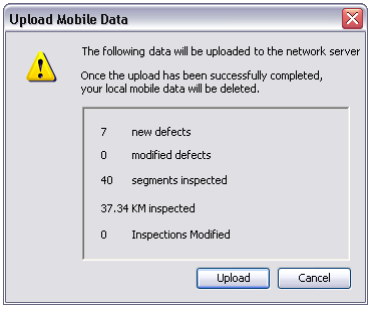


To mark assets as being inspected *select* the **Mark / Unmark Unit Completed** tool from the selection drop-down menu on the GIS toolbar, then *click* on a **yellow** asset unit. Assets will change to **green** as soon as they are marked as being inspected.

If an inspection is not completed, the data can still be uploaded to the **Desktop Module** then downloaded again the next day. Assets that had been inspected in the previous session will appear **green** and those that still need to be inspected will appear **yellow**.

3.6 Upload Data





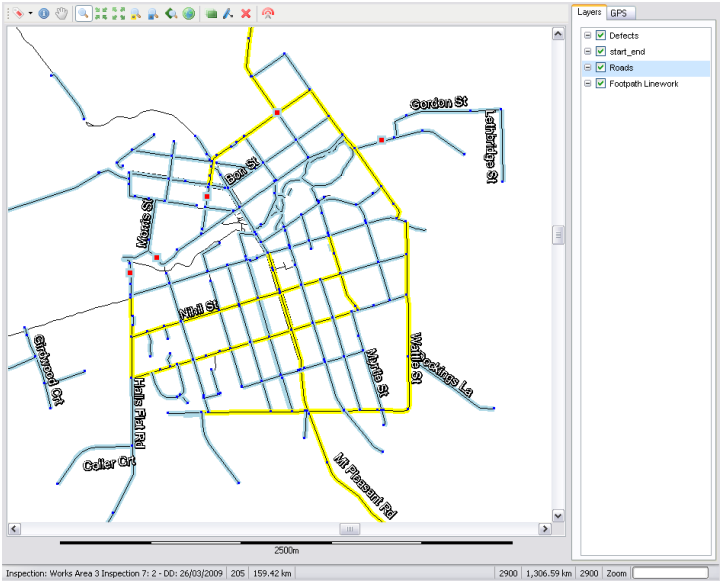
Login to **Network Mode** and an **Upload Mobile Data** form will appear displaying a general summary of the mobile session. This form should be used as a guide to ensure data is being recorded properly and transferred back to the server for action.

This data can be uploaded at any time and will not appear in the main system until the **Upload** button is *clicked*.

C*lick* **Upload** to transfer all inspection data information to the server.

Example Screen

The roads appearing in yellow are selected to be inspected. The status bar indicates the number of segments and distance to be inspected.





Brisbane
Level 2
276 Edward Street
Brisbane QLD 4000
T: (07) 3221 0080
F: (07) 3221 0083

Hobart
199 Macquarie Street
GPO Box 94
Hobart TAS 7001
T: (03) 6210 1400
F: (03) 6223 1299

Melbourne
Level 1, HWT Tower
40 City Road
Southbank VIC 3006
PO Box 259
South Melbourne VIC 3205
T: (03) 9682 5290
F: (03) 9682 5292

E: info@pittsh.com.au
W: www.pittsh.com.au

incorporated as
Pitt & Sherry (Operations) Pty Ltd
ABN 67 140 184 309

Devonport
Level 1
35 Oldaker Street
PO Box 836
Devonport TAS 7310
T: (03) 6424 1641
F: (03) 6424 9215

Launceston
Level 4
113 Cimitiere Street
PO Box 1409
Launceston TAS 7250
T: (03) 6323 1900
F: (03) 6334 4651

Sydney
Ground Floor Reception
100 Walker Street
PO Box 1142
North Sydney NSW 2060
T: (02) 8404 4121

CONSULT AUSTRALIA
Member Firm

AS/NZS 4801 www.inticert.com JAS-ANZ
ISO 9001 www.inticert.com JAS-ANZ
ISO 14001 www.inticert.com JAS-ANZ

pitt&sherry