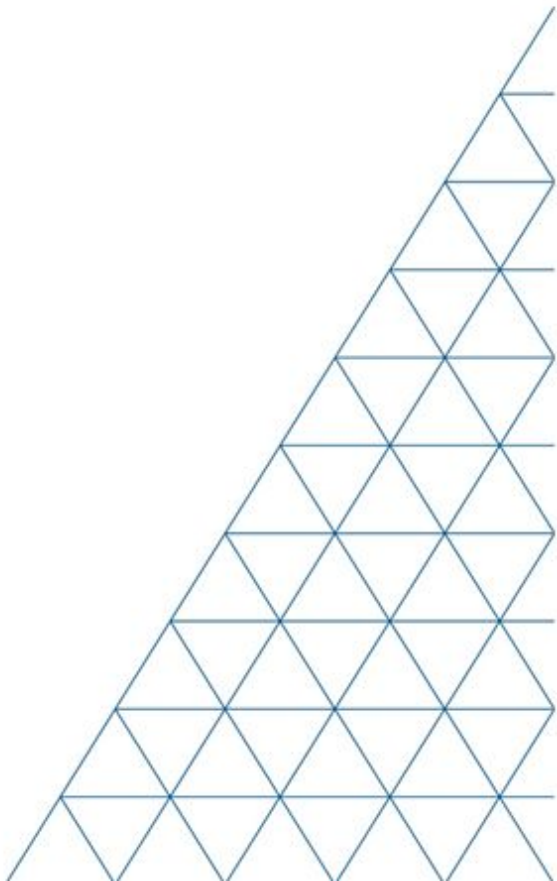
YOUR CONSTRUCTION TECHNOLOGY PROVIDER

Field Reference Guides

TRIMBLE SITEWORKS SE GNSS 900MHz Version 1.43

SITECH XXX

SITECH-XXX.COM



Field Reference Guide

Siteworks SE GNSS 900MHz Version: 1.43

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Training Acknowledgement:

Customer Signature **Date** **SITECH Representative** **Date**

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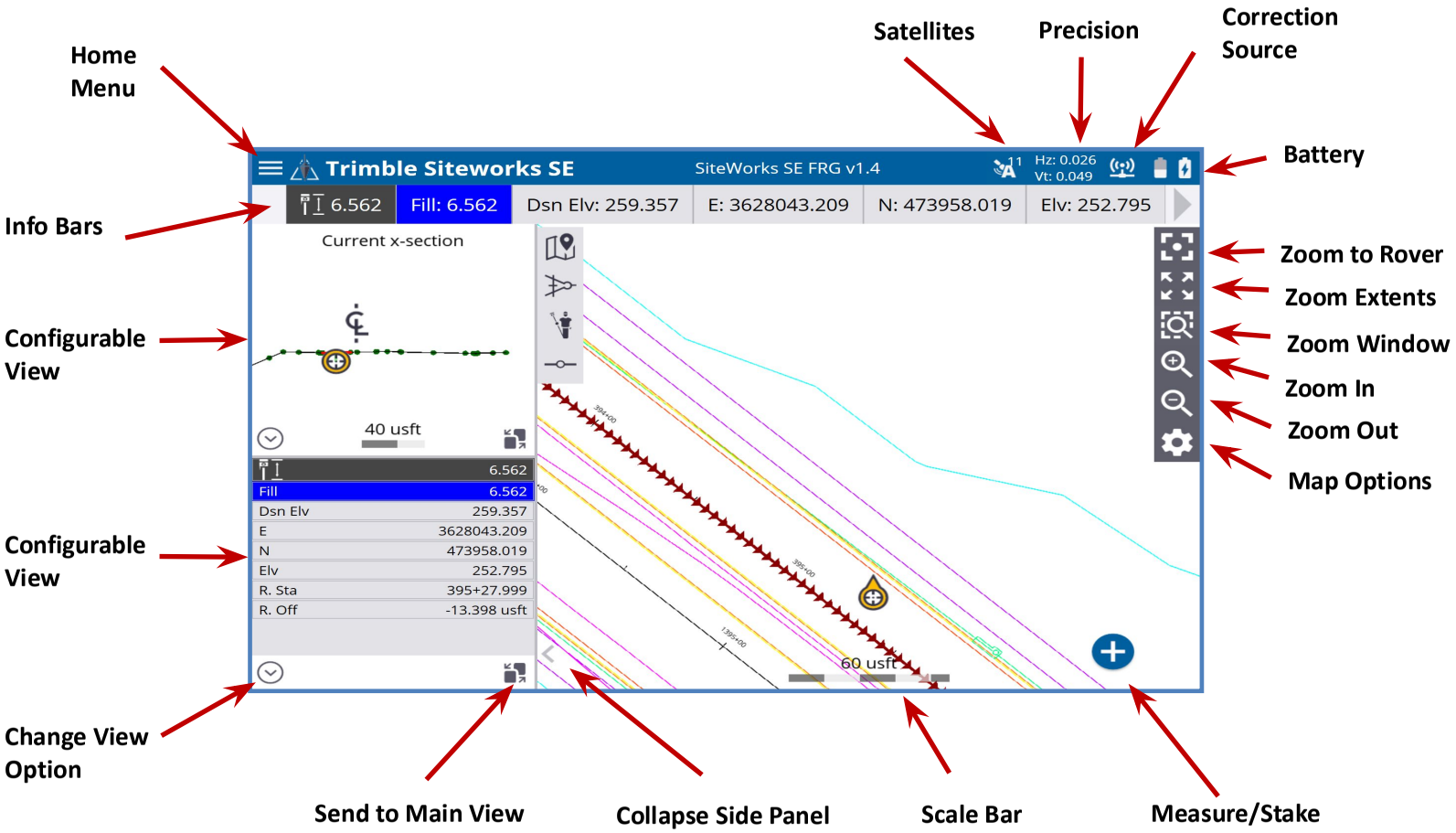
Main Screen Layout



Create a New Site / Work Order

1. **Power On** TSC7 Data Collector
2. Press **"Trimble Siteworks"**
3. Select " ⊕ " and **Enter Project Name** in the Project pull down menu
4. Select the desired units for "**Distance" "Angles**" **"Coordinate Order" "Grid coordinate" "Azimuth"** "**Stationing**" and Press **"Next"**
5. If a site map is available on the collector check the checkbox and **"tap to select file"**
6. If a calibration file is available on the collector check the checkbox and **"tap to select file"**
7. If a control point file is available on the collector check the checkbox and **"tap to select file"**
8. To define a coordinate system check the checkbox and select the desired coordinate system
    - If a site calibration is to be performed do not select a Coordinate System.
9. Press **"Finish"**
10. Select " ⊕ " to add a new **Work Order**
11. Enter **Work Order Name** and add instructions (optional) and Press **"Finish"**
12. Select **"(No design needed)"** if no design files are on the collector.
    - Select " ⊕ " if design files are on the collector. Name the design; check the checkbox for the design components you wish to include and **"tap to select file"** Press **"Finish"**
13. Press "**Accept**"

Create New Design from Hard Disk / USB

1. **Power On** TSC7 Data Collector
2. Press **"Trimble Siteworks"**
3. Select **"Project" and "Work Order"**
4. Select " " to add **New Design**
5. Plug Hard disk into USB port
    - ***Note: Android Devices will prompt the user to establish permission for Siteworks to "Allow Access" and "Use this Folder" when importing from or exporting to a USB stick for the first time on the device.***
6. Enter the Design Name
7. Check the box next to Select design file
8. Tap in the Box to Browse to the location on the USB that holds the design surface file
9. Highlight then tap "**Accept**"
10. Check the box next to Select design map
11. Tap in the box to Browse to the location on the Hard Disk that holds the design map file
12. Highlight then tap "**Accept**"
13. Check the box next to Select stakeout points
14. Tap in the box to Browse to the location on the Hard Disk that holds the stakeout point file
15. Highlight then tap "**Accept**"
16. Press "**Finish**"
17. Press "**Accept**"

Configure Information Bar / Panel

1. From the main Trimble Siteworks SE screen Press
2. Press **“Settings”**
3. Press **“Info Bar/Panel”**
4. Information Bar: Check the following boxes:
   - **Cut/Fill A**
   - **Design elevation A**
   - **Antenna/ Target height**
   - **Northing**
   - **Easting**
   - **Elevation**
5. Press - hold and Drag “ “ to match order above
6. Press Information Panel at the top of the screen: Check the following boxes.
   - **Cut/Fill A –**
   - **Design elevation A**
   - **Antenna/ Target height**
   - **Northing**
   - **Easting**
   - **Elevation**
   - **Reference Station**
   - **Reference Offset**
   - **Vertical Offset**
7. Press - hold and Drag “ “ to match order above
8. Press **“Accept”**

Start Rover using Internal 900MHz Radio

1. **Power On** TSC7 Data Collector
2. Press **“Trimble Siteworks”**
3. Select **“Site, Work Order and Design”** Press **“Accept”**
4. Next Page by default is Receiver Setup
5. Connection type **“Bluetooth”** Press **“Select”**
6. Select **Model** and **SN** of the Rover
7. Select Correction Method **“Radio in Receiver”**
8. Select Base Station Broadcast Network ID
9. Select Base Station Name
10. Specify if using Quick Release
11. Specify if using tilt compensation
    - If using tilt compensation you will not be able to take static mode measurements
12. Enter Antenna height and Press **“Accept”**

Enter / Edit Control or Stakeout Points

1. From the main Trimble Siteworks SE screen Press **“Menu”**
2. Press **“Data Management”**
3. Press **“Point Manager”**
4. Press **“Enter/ Edit Control Points”**
5. To Add a control point, select “**Add**”

   - Select Type either “**1D, 2D, 3D**”
   - Enter “**Point name and code**”
   - Enter “**Northing and Easting**” if applicable
   - Select Point’s elevation Type either “**Key-in ,Extract from point or Extract from surface**” if applicable
   - Enter Elevation if applicable
   - Select “**Save**”
6. To Edit a control point, select **“Edit”**

   - Edit the desired element of the control point
   - Select “**SAVE**” when finished

Recheck System Setup

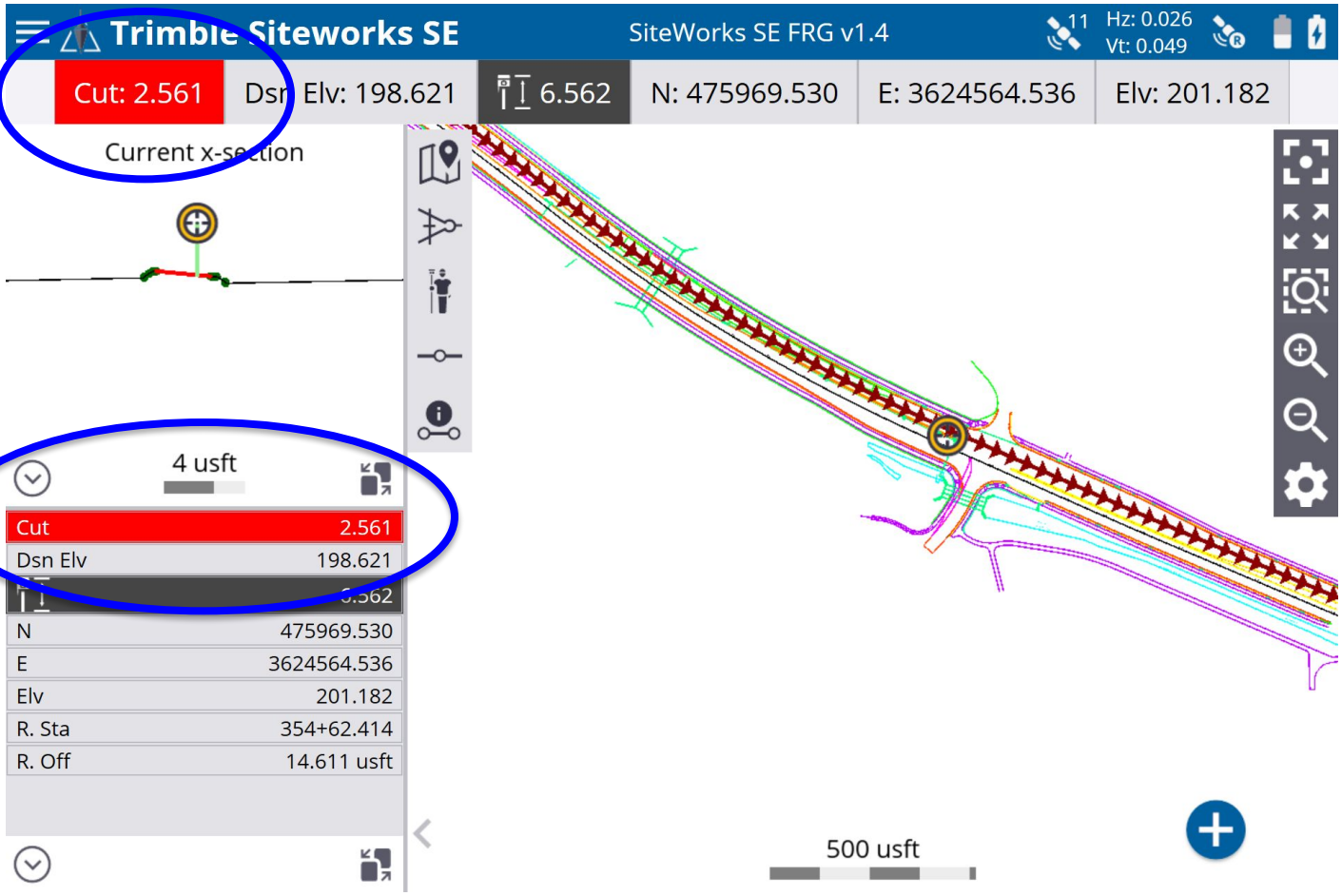
1. From the main Trimble Siteworks SE screen Press
2. Press “**Project Setup**”
3. Press “**Recheck System**”
4. Select control point to check by Pressing the point on the screen or selecting from list
5. Press “**Measure**”

6. Select Measure method that pertains to your setup
7. Enter Vertical height that corresponds with measure method selected
    - If unsure Press for more information
8. Set Horizontal and Vertical Tolerance **“0.082usft” or “0.025m”** (default)
9. Select Minimum measuring time “**15 Seconds”** (default)
10. Press “**Start”**
11. Check that all measured values for deviation from control are acceptable to your tolerances
12. Press “**Accept**”

Check Grade

1. Connect to your device and load the design you would like to utilize to check grade.
   - Refer to previous reference guides for instructions
2. Plumb the rod over the spot in which you would like to check grade.
   - Must be within a roadway or site model to calculate Cut/Fill Values
3. Cut/Fill information will be located on the top left hand corner on the info bar or on the info panel

NOTE: To add Lightbar to side panel select ⌄ on either side panel then select **“Lightbar”**



Measure Point: Standing

1. From the main Trimble Siteworks SE screen Press **or**
2. To select measurement method Press
3. Select if a Quick release is being used
4. Enter the Antenna Height and Press **"Accept"**
5. Navigate to the location you would like to measure and plumb the rod
6. Press ⊕ to measure a new point
7. Define Point name (it is recommended to allow the system to name the point)
8. Define Point code
    - Point type SiteWorks SE only records Feature points
        - Feature is intended to be a point that defines a feature on your project
9. Define if you would like the dialog box to Show every time
10. Define if you would like to Create a report after storing point
11. Press "**Accept**"

Measure Point: Vehicle Distance

1. From the main Trimble Siteworks SE screen Press or
2. Press "**Vehicle**"
3. Select if a Quick release is being used
4. Enter the antenna Height: Height should the distance from the ground to bottom of antenna or bottom of quick release
5. Record Method "**Fixed Distance**"
6. Enter Horizontal Interval at which you would like the points recorded
7. Enter Vertical change at which you would like additional points recorded and Press **"Accept**"
8. Press "**OK**" to the warning after reading
9. Navigate to the location you would like to start measuring and Press
10. Define Point name (it is recommended to allow the system to name the point)
11. Define Point code
    - Point type SiteWorks SE only records Feature points
        - Feature is intended to be a point that defines a feature on your project
12. Show every time "**No**" and Press "**Accept**"
13. Drive the desired route in which you would like to collect points.
14. Press the to add a point in-between automatic shots
15. Press "**Stop**" when finished

Measure Point: Vehicle Time

1. From the main Trimble Siteworks SE screen Press **or**
2. Press "**Vehicle**"
3. Select if a Quick release is being used
4. Enter the antenna Height: Height should the distance from the ground to bottom of antenna or bottom of quick release
5. Record Mode "**Fixed Time**"
6. Enter the time interval at which you would like the points to record and Press **"Accept**"
7. Press "**OK**" to the warning after reading
8. Navigate to the location you would like to start measuring and Press
9. Define Point name (it is recommended to allow the system to name the point)
10. Define Point code
    - Point type SiteWorks SE only records Feature points
        - Feature is intended to be a point that defines a feature on your project
11. Drive the desired route in which you would like to collect points.
12. Press the to add a point in-between automatic shots
13. Press "**Stop**" when finished

Navigate to Object

1. From the main Trimble Siteworks screen Press
2. Press “**Navigate**”
3. Select the point or line to navigate to by either
    - Pressing the point or line on the screen
    - Selecting the list icon and selecting it from the list
    - You can also define a line by selecting then defining the line by selecting various vertices within the Design Linework
4. Navigate to the object that you have selected
    - A key difference in Navigate mode vs. Stakeout is that there is no ability to measure an as-staked point, therefore there is no stake writer tool or storyboard information available. Users needing measured as-staked data must use Siteworks Standard.

Start Rover using IBSS

1. **Power On** TSC7 Data Collector
2. Double Press **Trimble Siteworks**

3. Select **“Site, Work Order and Design”** Press **“Accept”**
4. Select **“Rover, Bluetooth”**
5. Select Model and SN of the Rover
6. Select Correction Method “**IBSS**”
7. Enter Organization and Password, Press **“Accept”**
8. Select IBSS base from pull down list, Press “**Accept"**
9. Specify if using **“Quick Release”**
10. Enable **“Tilt Compensation”**
11. Enter Antenna height and Press **“Accept”**

Start Rover using VRS

1. **Power On** TSC7 Data Collector
2. Double Press **Trimble Siteworks**

3. Select **“Site, Work Order and Design”** Press **“Accept”**
4. Select **“Rover, Bluetooth”**
5. Select Model and SN of the Rover
6. Select Correction Method “**Internet**”
7. Enter the VRS “**Server Address, Port number, User name, Server Password**
8. Select the Correction Type, Press “**Accept”**
9. Specify if using **“Quick Release”**
10. Enable **“Tilt Compensation”**
11. Enter Antenna height and Press **“Accept”**

Start Rover using RTX before Datum Shift

1. **Power On** TSC7 Data Collector
2. Double Press **Trimble Siteworks**

3. Select **"Site, Work Order and Design"** Press **"Accept"**
4. Select **"Rover, Bluetooth"**
5. Select Model and SN of the Rover
6. Select Correction Method "**Centerpoint RTX**"
7. Set horizontal and vertical precision to **".082"**
8. Specify if using **"Quick Release"**
9. Disable **"Tilt Compensation",** this must be disabled to perform a Datum Shift
10. Enter Antenna height and Press **"Accept"**
11. Select **"Yes"** to the prompt, **"A datum shift is required if your base position was not established using RTX. Would you like to measure a datum shift?"**
12. Select a control point to measure from the map view or the list
13. Press **"Measure"**
14. Verify **"Measure Method", "Antenna Height"**
15. Press **"Start"**
16. Press **"Accept"**
17. Press

then press **"Settings"**
18. Press **"Enable Tilt Compensation"** select **"Yes",** press **"Accept"**

Start Rover using RTX after Datum Shift

1. **Power On** TSC7 Data Collector
2. Double Press **Trimble Siteworks**

3. Select **“Site, Work Order and Design”** Press **“Accept”**
4. Select **“Rover, Bluetooth”**
5. Select Model and SN of the Rover
6. Select Correction Method “**Centerpoint RTX**”
7. Set horizontal and vertical precision to **“.082”**
8. Specify if using **“Quick Release”**
9. Enable **“Tilt Compensation”**
10. Enter Antenna height and Press **“Accept”**

Start Rover using EM100

1. **Power On** TSC7 Data Collector
2. Press **“Trimble Siteworks”**
3. Select **“Site, Work Order and Design”** Press **“Accept”**
4. Mode **“Rover”**
5. Connection type **“EM100”** Press **“Select”**
6. Select Correction Method from the following EM100 compatible services:
   - VRS (~75cm)
   - IBSS (~75cm)
   - ViewPoint RTX (~50cm)
7. Antenna Type select **“EM100 Internal”**
8. Enter Antenna height and Press **“Accept”**

Start Rover using EM100 with External Antenna

1. **Power On** TSC7 Data Collector
2. Press **"Trimble Siteworks"**
3. Select **"Site, Work Order and Design"** Press **"Accept"**
4. Mode **"Rover"**
5. Connection type **"EM100"** Press **"Select"**
6. Select Correction Method from the following EM100 compatible services:

   Accuracies when used with external antenna (GA830) and Precise Rover Code

   - VRS (H: 8mm + 0.5 ppm V: 15mm + 0.5ppm)
   - IBSS (H: 8mm + 1ppm V: 15mm + 1ppm)
   - Centerpoint RTX (H: 4cm V: 12cm)
7. Antenna Type select **"GA830"**
8. Enter Antenna height and Press **"Accept"**