We've got your back, every step of the way.
NEI Overview

Mobile platforms with the new R1 / R2 GNSS receiver

High Accuracy Cloud Based Data Collection

Geo 7X – Higher Accuracy Option

Selecting - the Right Tool for the Right Job
Field to Finish. We’ve got you covered.

Survey & Construction
Mapping/GIS
Marine
NEI Manufacturing
Fleet Management
Field Supplies
iOS® “Location Services” allows location-based apps and other Apple (and third-party apps) to use information from cellular, Wi-Fi, Global Positioning System (GPS) networks to determine the approximate location.

- If not within a clear line of sight to GPS satellites, the iOS device can determine location using crowd-sourced Wi-Fi and cell tower locations or iBeacons.
Hybrid Locational Systems

- Assisted GPS (A-GPS)
  ~ 5-8 m
- Wi-Fi Positioning
  ~ 74 m
- Cellular Network Positioning
  ~ 600 m

Make Accuracy Personal
TRIMBLE R1 GNSS RECEIVER
R1 GNSS Receiver

- **Small**
  - Fits in vest or pocket
  - 11.2 x 6.8 x 2.6 cm
  - (4.4 x 2.7 x 1 in)

- **Lightweight**
  - Carry all-day
  - 187 g (0.4 lb)

- **Rugged**
  - MIL-810 Spec
  - Real-world drop/impact protection
R1 GNSS Receiver

- **L1/G1**
  - GPS, GLONASS, Galileo, Beidou, QZSS
  - 44 channels, parallel tracking
- **Higher accuracy**
  - Autonomous positioning
  - Augmentation
  - Corrections
R1 GNSS Receiver

- **Trimble Software**
  - TerraSync
  - Positions extension
  - TerraFlex
  - GNSS Status

- **3rd Party Software**
  - ArcGIS Collector
  - Fulcrum
  - Flow GIS
  - Other
Technical Highlights

- A versatile GNSS rover solution for geospatial applications ranging from sub-meter to centimeter accuracies to support a variety of workflows.

- 220 channel Maxwell 6 technology
- Dual-frequency GPS/Glonass/Galileo/Beidou
- Integrated L-band (RTX/OmniSTAR)
- PP and SBAS/RTX/RTK/VRS modes
- RTK solution type: Fixed/Float
- Wide band receive-only 450 MHz radio
- Bluetooth, Wi-Fi, USB, Serial Coms
- Web user interface
- Removable Li-Ion battery
• Fast and efficient geospatial data collection
  – Across a fleet of mixed devices

• Streamlined data management
  – Keep your data organized, from field to office

• Work anywhere
  – Even in remote areas
Useable on a wide variety of Devices

- Consistent regardless of device
- Automatically syncs field with office
TerraFlex Workflow

Create Projects and assign to users

User fills out collection forms

Completed forms sync back with server when user is ready

Manage, Review, Export Forms

Sync Projects with field user device

Create Forms in a Project
Full Selection of Attribute Types
Import Existing Esri Schemas

Use ArcXML schema

Or Use TerraFlex Plugin for ArcMap
Manage Real-Time Configurations

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Primary Source</th>
<th>Secondary Source</th>
<th>Projects</th>
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</thead>
<tbody>
<tr>
<td>Gulfnet</td>
<td>Louisiana’s VRS (Paid)</td>
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<td>NONE</td>
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<tr>
<td>Trimble VRS now - Eric</td>
<td>Eric Demo</td>
<td>INTERNET</td>
<td>NONE</td>
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<td>SBAS</td>
<td>Integrated WAAS</td>
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<td>EGPS</td>
<td>VRS for Georgia (Paid)</td>
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<td>FLDOTD</td>
<td>Florida VRS (Free)</td>
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<td>ALDOT</td>
<td>AL DOT VRS (Free)</td>
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<td>NONE</td>
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<tr>
<td>Ed VRSnow</td>
<td>ED VRSnow Demo</td>
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<td>NONE</td>
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<td>Mississippi VRS RTK</td>
<td>Chad Hicks</td>
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</table>
Field Interface

Trimble TerraFlex™

- 2 Projects
  - Water Assets

- 1 Tasks
  - New Task 1
    - 34/180 Forms Updated

- 184 Forms

- Collect
  - WsEndCap
  - WsHydrant
  - WsMeter
  - More

- List
- Map

Cancel Tree Save

POINT COLLECTED

Is the tree healthy?
- YES
- NO

Species?
- Cottonwood

Record Date
- 26 November 2014

Trunk Picture(s)

Collect Line

Cancel Collect Line Save
You may need a range of portable files to share with disconnected colleagues.

- .gdb
- .shp
- .csv
- .kml
- .xml
• Import your existing asset and GIS data
• Create forms automatically from attributes
• Create tasks and push data to field users
• Update data or add new features on the fly
• Review, Edit, Export data
Streamline schema import to and data transfer from TerraFlex with a single click
<table>
<thead>
<tr>
<th>Type</th>
<th>Accuracy Range</th>
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<tbody>
<tr>
<td>SBAS</td>
<td>1m – 5m</td>
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<tr>
<td>Single Base</td>
<td>1cm – 1m</td>
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<tr>
<td>VRS</td>
<td>1cm – 1m</td>
</tr>
<tr>
<td>RTX</td>
<td>4cm – 1m</td>
</tr>
<tr>
<td>Other</td>
<td>0.1m – 5m</td>
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</tbody>
</table>
Real-time Corrections: SBAS

Satellite Based Augmentation System (SBAS)

- WAAS, EGNOS, MSAS, GAGAN
- 4-channel, parallel tracking
- Sub-meter accuracy
## VRS Networks in NEI Territory

<table>
<thead>
<tr>
<th>Name</th>
<th>State</th>
<th>Costs</th>
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<tbody>
<tr>
<td>LSU Gulfnet</td>
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<tr>
<td>GCGC</td>
<td>MS</td>
<td>Free*</td>
</tr>
<tr>
<td>ALDOT</td>
<td>AL</td>
<td>Free*</td>
</tr>
<tr>
<td>FDOT</td>
<td>FL</td>
<td>Free*</td>
</tr>
<tr>
<td>EGPS</td>
<td>GA</td>
<td>Subscription</td>
</tr>
<tr>
<td>Trimble VRSnow</td>
<td>MS, AL, FL</td>
<td>Subscription</td>
</tr>
</tbody>
</table>
Real-time Corrections: Trimble RTX

Trimble® RTX™ service:

- ViewPoint
  - Submeter within 5 mins

- RangePoint
  - 50cm within 15 mins

- Center Point
  - 4cm within 30 mins

- Delivered over IP network (see coverage) or satellite (L-Band)
# Real-time Corrections: Eliminate Post Processing

<table>
<thead>
<tr>
<th>Type</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>SBAS</td>
<td>Free</td>
<td>Need Direct Line of Sight, Coverage Area</td>
</tr>
<tr>
<td>Single Base</td>
<td>Accuracy, you are in control</td>
<td>Cell Coverage, Radio Coverage, Costs</td>
</tr>
<tr>
<td>VRS</td>
<td>Instant Accuracy, Free*</td>
<td>Cell Coverage, Coverage Area, Costs</td>
</tr>
<tr>
<td>RTX</td>
<td>Works all over</td>
<td>Cell Coverage*, Costs</td>
</tr>
</tbody>
</table>
**Questions**

**We’ve got your back, every step of the way.** The core concept behind everything we do is customization, from tailor-made cases and cables to unique training that fits your budget and schedule, we know that your company has diverse, complex and unique needs. In fact, we built our entire organization around those needs and we are always looking for new ways to diversify our solutions and customer service.