



GeoSpatial Innovations, Inc.

Integrates **Trimble  
Global Positioning  
System (GPS)**  
technology.



# Facility Design with **GSI AssetManager**



**A mobile solution used by electric utilities  
to design overhead or underground  
electric lines while in the field.**



## GSI AssetManager

GSI AssetManager is used for designing overhead or underground electric lines while in the field. Our software enables designers and engineers to **quickly capture locations of structures and cables**, and add construction units and field notes for a **complete paperless design** in the field.

**“I especially like to use GPS on taps that go thru a grove of trees where you can’t see very well.”**

*Designer – Kingsport, TN*



## Quick Return on Investment

**Less than one year – that’s all it takes to break even on your GSI AssetManager investment.**

Subsequent years’ benefits increase every year, significantly impacting production costs in a very short time. A recent pilot study was conducted by our staff and the staff of a successful Midwest IOU.

Figure 1 represents the cost benefits curve.



**Figure 1 – Costs Benefits Curve of GSI AssetManager**  
Your savings will undoubtedly vary from these, but our analysis provides a reasonable benchmark for your utility. Please contact us to engage a study for you.

## Hardware Independence

Field workers use GSI AssetManager in the office, in the truck, and in the trench on **tablets, laptops, or Windows Mobile devices.**





## Where do your savings come from?

**GSI AssetManager produces an average labor savings of more than 20% per job by eliminating manual methods for measuring, sketching, and re-keying.**

Its flexible architecture and data exchange wizards provide powerful integration with enterprise systems in the office, such as GIS, work management, and job design.

### Save time capturing data

Field technicians capture accurate GPS locations, units, span lengths, and other relevant asset information directly on the unit during initial site visits. Technicians can also specify material and labor with construction units.

### Save time in the office

GSI AssetManager's back-office synchronization application seamlessly integrates information from the field to the office design application, saving many man-hours in the office. There's no rekeying, lost data, transferring of hand-written notes or need to interpret field employees' data.

### Save pole and guy costs

Material savings can be derived through improved in-the-field design techniques. For example, if a technician can save the cost of just 1 pole and 1 anchor per year at a cost of \$2,000 and you have 150 technicians, a savings of \$300,000 per year on materials can be realized.

	Current Process				GSI AssetManager		
	Number of Designers	Hours Per Day (Avg)	Days Per Year (Avg)	Total Cost Per Year	Savings (%)	Total Cost Per Year	Average Savings
<b>Job Preparation</b>							
Gather contact info, backdrop maps, plan job routing, find job location	150	0.25	150	\$196,875	10	\$177,188	\$19,688
<b>Field Job Design</b>							
Enter location, measure spans and angles, position, unit, and comment data at job site	150	3	150	\$2,362,500	20	\$1,890,000	\$472,500
<b>GIS Interaction</b>							
Enter location, position, unit, and comment data into GIS	150	2	150	\$1,575,000	50	\$787,500	\$787,500
<b>Survey Line</b>							
Set up transit, clear brush, use site rods, outside contractors	150	6	10	\$315,000	75	\$78,750	\$236,250
				<b>\$4,449,375</b>		<b>\$2,933,438</b>	<b>\$1,515,938</b>

150 = Number of Designers \$35 = Designer Loaded Rate

Table 1

## A Case Study: A Successful Midwest IOU

In this example, the distribution utility needed to change its design workflow to help reduce costs associated with designing new facilities as well as drive material savings from an optimized design performed in the field. The utility utilized hand-held GPS units that enabled the technicians to establish a design for the facilities that was optimized based on the lay of-the-land that offered a better route from the tap point to the service drop.

GSI AssetManager allowed this utility to realize substantial material savings through fewer poles, fewer guys and optimal span lengths. In order to establish a credible business case for GSI AssetManager implementation, the utility executed a pilot study that measured the difference compared to traditional methods. The pilot study focused on specific job types that included secondary/service orders, primary line extensions, highway relocation projects, and re-conductoring projects.

The benefit analysis focused on several key areas of the design process as shown in Table 1.

## Map Distribution

This module downloads facility map updates in the background while you're connected to your office network, so your maps are ready to go when you are.



GSI AssetManager is a software solution designed to streamline utility companies' distribution asset management. Shown above is a screen capture of GSI AssetManager running on a rugged tablet.

For more information or to schedule a demonstration, contact:

**866.GSI.WORKS**  
**(866-474-9675)**

**724.228.8828**

**info@gsiworks.com**

Download product brochures at:  
**www.gsiworks.com**

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## Interfaces

Included in GSI AssetManager's mobile infrastructure is the **ability to move data to and from the office**. Our development team draws on decades of experience in developing GIS and job design applications to offer both out-of-the-box and custom system interfaces that import and export GSI AssetManager data.

## Import...

Using an XML-based interface configured to your relational database, an engineer can **easily import data** from your office system into GSI AssetManager.

## Export...

After capturing data in the field, information is **exported to office computer systems** using a GSI AssetManager wizard. Export to:

- **GE Smallworld Core Spatial Technology™**
- **ESRI ArcGIS® Electric Template**
- **Autodesk® AutoCAD®**
- **Itron LD-Pro engineering software**
- **Microsoft® Excel® with Style Sheet customization**
- **Microsoft Visio®**

## Optional Modules

Need more capabilities? Choose from our optional modules for total stations, laser rangefinders and survey-grade GPS.



## GSI is an authorized reseller of Trimble GPS hardware

Run GSI AssetManager on the Trimble® GeoXH™ handheld, featuring:

- Rugged and reliable field computer running **Windows Mobile®** operating system
- Integrated **H-Star™ GPS technology** for decimeter to sub-foot accuracy in the field
- **Bluetooth® and Wi-Fi** enabled; synchronize remotely using cell phone connection

GSI partners with ESRI, GE Energy, Itron, Trimble and Xplore Technologies to deliver total field solutions.



Authorized Partner  
GE Energy

