SWIFT TOOLS Overview

OVERVIEW OF SWIFT TOOLS

SWIFT TOOLS is an optional PC based programming and diagnostic utility for use with SWIFT wireless systems.

It is feasible to perform a site survey, assign profiles, and set up a wireless mesh using only SWIFT devices. However, system setup and evaluation can be accomplished faster and with more information using SWIFT TOOLS, allowing you to set up robust mesh networks with the best performance.

What's required?

SWIFT TOOLS can be downloaded for free from esd.notifier.com. This program is used with the W-USB USB radio dongle (which must be ordered separately), and a Windows PC with the following minimum requirements:

> **Operating System:**
> Windows XP Professional (SP3), Vista, Windows 7, or Windows 8 (32 or 64 bit)
> **Hard Drive:** 20 GB hard drive space with minimum 1GB free space on hard disk
> **RAM:** Minimum 512MB RAM
> **Processor speed:** 1GHz minimum (2.4 GHz recommended)
> **Processor cache:** 512K

How does SWIFT TOOLS work?

SWIFT TOOLS uses the W-USB adapter to communicate wirelessly to SWIFT devices in two ways:

- Communicates directly with any SWIFT devices that are within about 20 feet of the SWIFT TOOLS PC and have not been configured into a mesh network.

- Communicates with any gateway within 20' of the PC running SWIFT TOOLS. When the gateway is part of an active mesh network, all devices in the network can be viewed via SWIFT TOOLS.

SWIFT wireless devices that are within communication range of the SWIFT TOOLS PC are displayed in the "Communicator" section on the right hand side of most SWIFT TOOLS screens. The Communicator section is where individual devices or mesh networks (by gateway) are selected for other operations in SWIFT TOOLS.

What is included in SWIFT TOOLS?

The SWIFT TOOLS suite incorporates three different elements – **Site Survey**, **System Configuration**, and

Diagnostics.

Each of these elements uses the **Communicator** to for selection of specific devices or mesh networks.

Site Survey

A Site Survey is performed without SWIFT TOOLS using two or more SWIFT input devices (the gateway is not used in a Site Survey). The devices must be in factory fresh state (no mesh profile has been assigned), and operating with only one battery installed. The Site Survey process tests the point to point signal strength between successively addressed SWIFT devices, and if selected, will also analyze the ambient background RF level on all channels used by SWIFT. During the Site Survey, the devices provide an indication of the point to point signal strength by flashing LED patterns – four flashes are excellent, three good, etc.

After devices have been used to perform a Site Survey, the test results can be captured using SWIFT TOOLS. This provides you with an analysis of the point to point signal strength between each pair of devices measured in db, as well as the background RF noise results if run. This information allows you to analyze a site and determine if it is a suitable application for SWIFT, as well as identifying areas that may need extra devices as repeaters.

The Site Survey test can provide you and your customers with the confidence that your application is appropriate for a SWIFT wireless mesh.

Create a Mesh Network

To create a SWIFT wireless mesh network, all devices that will be in a mesh are programmed with a unique mesh **profile**. Once that is accomplished, the devices are installed in place and **mesh formation** is initiated. This process can be accomplished without SWIFT TOOLS using magnets and using LED indications on the devices. Using SWIFT TOOLS to perform these tasks can make the process more organized, allowing you to select each device for profile assignment in the Communicator by address and device type. Once the profile has been assigned to all devices (including the gateway), SWIFT TOOLS allows you to initiate the mesh formation, and provides a graphic view of the mesh as it is formed which includes the signal strength for all communication paths. The initial mesh formation may incorporate some less than ideal communication links, but once the system has located all devices it will initiate a mesh reconfiguration, where signal strength between every device and every other device is measured, and the system then assigns all communication links (both primary and secondary) in the most logical configuration.

SWIFT TOOLS provides a graphic view of the mesh in all stages, with the signal strength of communication links and other useful information. The graphic view allows you to drag device icons to chosen relative locations so that the view makes sense. This allows you to visually confirm the operation of the mesh configuration, providing assurance that the SWIFT system has solid, robust connectivity.

Diagnostics

The Diagnostics element of SWIFT TOOLS has extensive capabilities to display both real-time and historical data. Diagnostics includes a graphic view of your selected SWIFT mesh network that provides detailed information about all devices in the mesh, including signal strength of all connections, battery levels, and many other options.

Extensive information is also available in tabular format – historical data for all devices can be extracted from the gateway and used to ascertain or verify system events, providing the basis of informed decisions. You may not need to use SWIFT Diagnostics, but if you do, all of the information you need regarding your SWIFT mesh network is there to help.

Summary

SWIFT TOOLS is intended to help you create well-designed, robust wireless systems, and it does this by helping you to pre-qualify jobsites, installing systems faster with confirmation that the configurations are fundamentally sound, and providing the information needed when it is necessary to diagnose events. With the release of SWIFT TOOLS version 1.5, this suite is faster and better than ever. SWIFT TOOLS helps you to design, install, and maintain the most advanced wireless fire alarm system in the world. Check it out, and see if you don't agree.