![netAlly]

AirMagnet® Survey PRO
Wireless Design & Site Survey Analysis Software

Overview

Network professionals conducting and analyzing AirMapper Wi-Fi site surveys (using AirCheck™ G3 Pro or EtherScope® nXG) will many times find areas of the network with insufficient coverage or poor performance. Resolving those issues could require changes to the infrastructure, either installing new APs, relocating existing APs, and/or configuration changes.

With its powerful design tools AirMagnet Survey PRO enables network professionals to predictively model the required changes, ensuring that problems found during the AirMapper site survey are fixed correctly, resulting in improved Wi-Fi network performance and connectivity.

- Predictively model Wi-Fi 6 network changes or design a new network without physically rolling out APs
- Collect real-world data by performing true end-user experience measurements using AirMapper Site Survey on the AirCheck G3 and EtherScope nXG
- Generate heatmaps that provide full visibility of WLAN coverage, noise, SNR, interference, throughput, data rates, retries, loss, Voice-over-Wi-Fi MOS, and more on the 2.4GHz, 5GHz or 6GHz bands
- Save time by performing active and passive surveys in a single walk-through
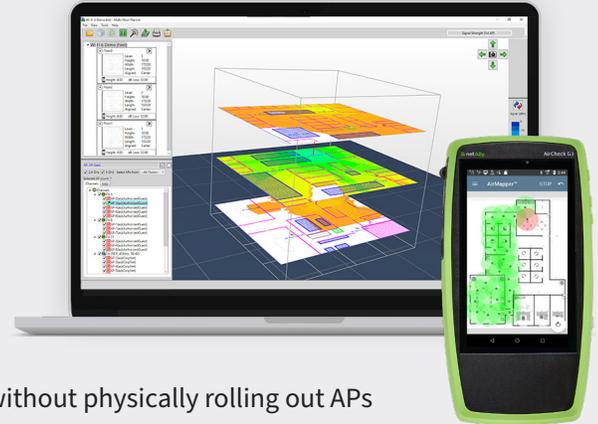
Key Features

📶 Wi-Fi 6E Survey Analysis

AirMagnet Survey PRO is a Wi-Fi design and site survey analysis solution that enables users to measure, as well as assess, true end-user experience of a Wi-Fi 6E network using AirMapper™ Site Survey on the AirCheck™ G3 and EtherScope™ nXG.

When using AirMapper for data collection AirMagnet Survey PRO goes beyond just verifying RF coverage by plotting actual end-user network performance measured in terms of PHY data rates, retry rates, operating mode, and channel width while taking environmental situations and network configuration into account.

This Wi-Fi design and site survey analysis solution shows the coverage of specific Wi-Fi parameters that boost performance, such as higher MCS schemes and wider channels. Plus, it helps identify where interference and legacy devices may impact network speeds. The result is a complete Wi-Fi "heat map" of all critical RF and end-user performance metrics on the 2.4 GHz, 5 GHz, and 6 GHz bands. These "real world" measurements collected using AirMapper allow you to predictively model network improvements accurately and help save time and money by avoiding end-user network complaints.

NOTE: The use of Wi-Fi 6E internal or USB based adapters is also supported.
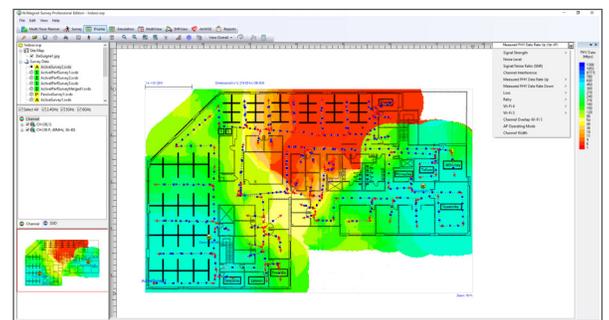

Maximum PHY Data Rates
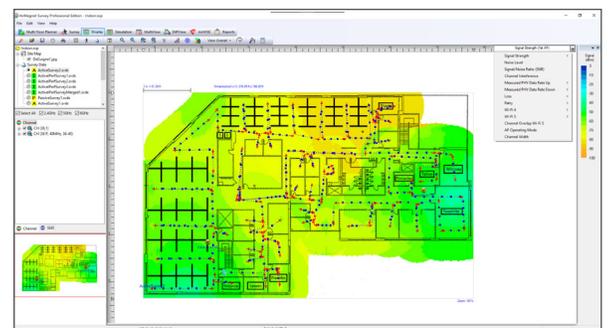
Interferer Power Heat Map

Integration with AirMagnet Planner

AirMagnet Planner is built into AirMagnet Survey PRO, providing a single, seamless application as one of the industry's most complete approaches to wireless LAN design, deployment, and ongoing optimization for Wi-Fi 6 networks. With this integrated solution, AirMagnet Planner can be used to accurately design WLANs by modeling building construction materials/obstructions, 802.11 APs, and visualizing coverage across multiple floors, then validating the results with real-world data in AirMagnet Survey PRO. Using active end-user performance metrics, users can further perfect their planning models over time.

Users also gain additional planning capabilities with the ability to test network plans against the AirWISE® engine for design requirements. AirMagnet Planner also integrates with AirMagnet Survey Express.
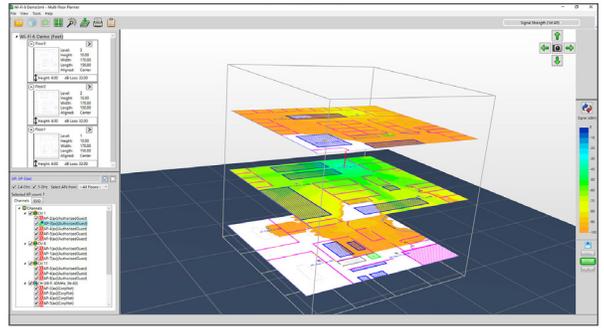
Automated WLAN Modeling using AirMagnet Planner

"Real-world" Survey Data Collection and Solution of "What-If" Scenarios

With the AirMapper app on the AirCheck G3 or EtherScope nXG users can quickly and easily gather location-based Wi-Fi measurements and create visual heat maps of key performance metrics in AirMagnet Survey PRO. Simple to use, the AirMapper app is ideal for quick site surveys of new deployments, change validation, and performance verification.
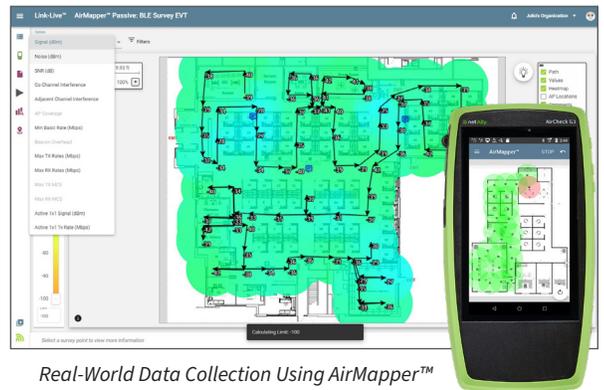
- Complete faster and easier Wi-Fi site surveys with an entirely mobile platform

- Perform enterprise-grade surveys without the need of a dongle or tethered device

- Collaborate - easily visualize and share survey data through AirMagnet Survey Pro or the Link-Live collaboration, reporting, and analysis platform

AirMapper's simultaneous wireless site surveying capability leverages dual integrated Wi-Fi radios to provide users with a solution to emulate real-world client behavior (using active surveys) – reducing site surveying time, effort and cutting costs by half as users only must walk the floor once to collect all required data.

With AirMagnet Survey PRO, users can also create "what-if" scenarios to simulate a variety of changes to the Wi-Fi network and preview the impacts. This includes changing AP transmit power, channel, SSID settings or the addition of environmental noise. Users can also simulate moving APs to new locations and preview the effect of adding additional APs.

Real-World Data Collection Using AirMapper™

AirMapper Site Survey App on the AirCheck G3
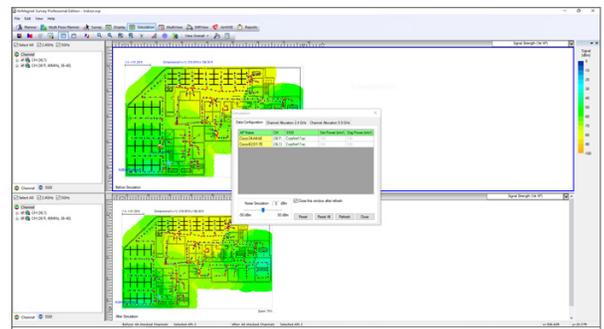

Simulate "What-if" Scenarios

Outdoor Wi-Fi Site Surveys

When using a Wi-Fi adapter for data collection, plus the combination of GPS support and integration with Google Earth, AirMagnet Survey PRO provides a clear path to fast, fully automated outdoor wireless site surveys. Users can leverage their NMEA-compliant GPS device to automatically collect outdoor wireless data. They can also import street maps of any city in the world, allowing results to be analyzed in the AirMagnet Survey PRO user interface, or exported into Google Earth for a zoomed-in view to any street within the city.
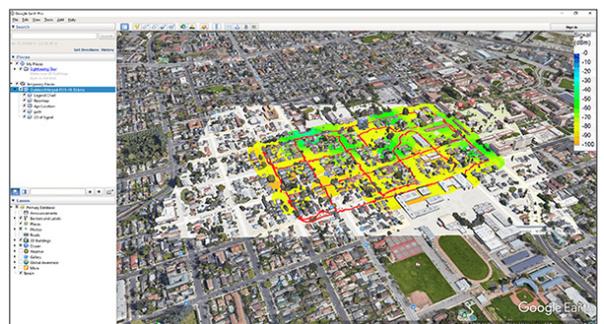

Google® Earth Integration for outdoor survey

Voice over Wi-Fi Survey

AirWISE for Validation

Customizable Survey Reports

Coverage and Performance Differences

Spectrum Analysis & Voice Over Wi-Fi Surveys

Before making any design and deployment decisions, it is important to account for RF interference from non-802.11 devices. AirCheck G3 or EtherScope nXG users can use the optional NXT portable spectrum analyzer to view spectrum analysis data before or after a survey has been performed. With this information, users can visualize RF energy and identify the presence of non-802.11 devices interfering with the WLAN.

While using a Wi-Fi adapter for data collection, AirMagnet Survey PRO addresses challenges faced by network installers and IT staff while deploying Voice over Wi-Fi networks and empowers them with a built-in voice readiness verification system that allows users to ensure that their network design is in line with the recommendations of the wireless phone vendor. With this unique survey capability, users can validate and plot phone call quality, capacity, and other voice specific parameters at every location on a floor plan, to help identify and minimize issues.
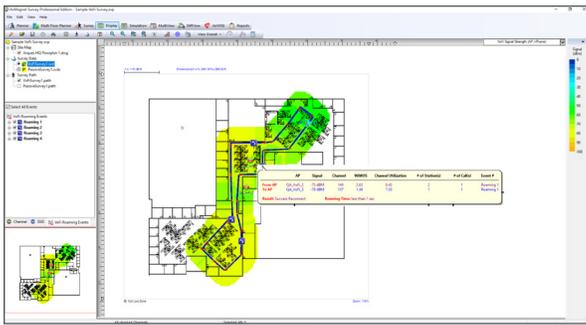
Validate User and Application Requirements

The AirWISE® engine allows users to set wireless network design or application requirements, such as signal coverage, throughput, PHY data rates, 802.11 specific parameters, and more, to help identify any problem areas. Once set, users are alerted to the areas on the floor map that meet, or do not meet the requirement, enabling them to take the necessary action to solve the coverage, performance, or capacity problems identified.

AirWISE includes the option to create profiles based on real-world survey data or wireless network modeling data that can be used to verify Wi-Fi deployment readiness for a variety of applications.

This single-click assessment of the Wi-Fi network helps save time, effort, and money by avoiding costly re-designs and minimizing IT troubleshooting costs. Users can also generate a Pass/Fail report that enables an efficient hand-over of results.
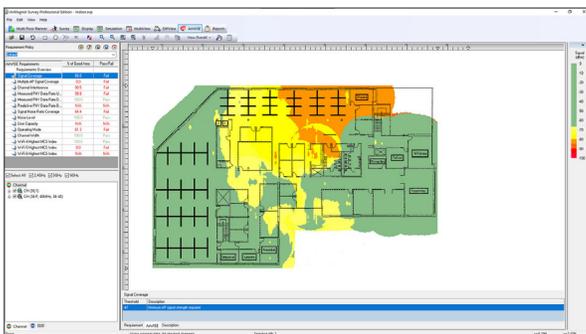
Professional Custom Reports

AirMagnet Survey PRO includes a completely integrated reporting module that instantly creates custom reports of designs, site surveys or simulations. Customized templates provide users with flexibility by allowing the creation of various reports based on project requirements. Users can customize reports further by including/excluding sections, adding in notes, or customizing logos, headers, and footers. Reports can be saved in multiple formats, such as PDF, XML, HTML, Excel, or Word.
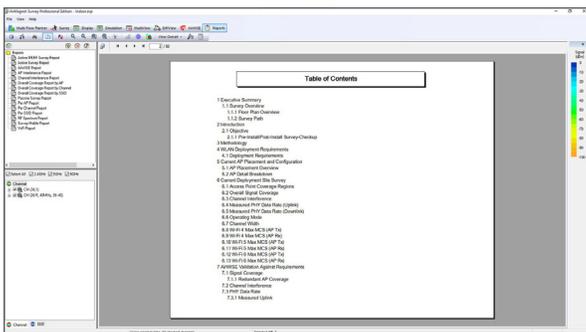
Visualize Coverage and Performance Differences Over Time

Wi-Fi environments are very dynamic, and to guarantee the best performance for end-users, it is important to be able to validate changes in coverage and performance in the network. AirMagnet Survey Pro's DiffView feature allows side-by-side visualization of differences between two separate surveys performed using AirMapper or a Wi-Fi adapter. The DiffView feature helps display how a site's wireless environment has changed over time. This view is a great way for IT professionals to validate the coverage and performance of the network on an on-going basis. Likewise,

users can use this feature to quickly compare a Wi-Fi design with actual site survey results. This information can then be used to fine-tune the environmental conditions within the planning tool for more accurate Wi-Fi network designs.

Integration with WLAN Infrastructure Vendors

AirMagnet Survey allows exporting of real-world survey data to Cisco Prime. This is critical for, not only calibrating Cisco's built-in planner modeling capabilities but also for specialized applications. For example, location services that mandate a calibration site survey for maximizing location accuracy for Wi-Fi clients, or tags, and Voice over W-Fi services that recommend the use of site surveys to validate real-world data versus the predictive capabilities of the infrastructure.

Take advantage of the planning capabilities built inside AirMagnet Survey PRO by creating and exporting planner projects directly into Cisco Prime. This integration eliminates the need to repeat these tasks within Cisco Prime, saving users time and resources needed, in setting up maps, AP locations, and other WLAN deployment modeling activities.
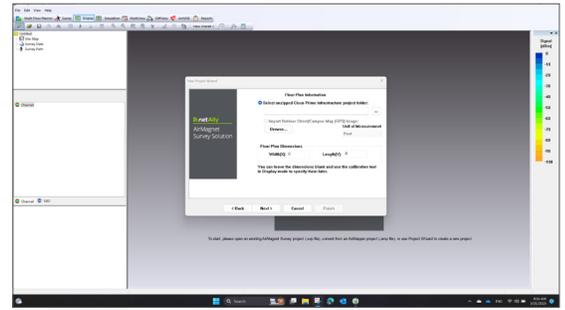
Integration with Infrastructure Vendors

Ordering Guide

Model Number/Name	Description
AM/A4018G	AirMagnet Survey PRO (includes Planner)
AM/B4010G	AirMagnet Survey Express
AM/A4016G	AirMagnet Survey Express to Survey PRO (upgrade model)
AM/D1095	AirMagnet Multi-Adapter Kit for Survey (different versions available depending on regulatory domain)
AIRCHECK-G3-PRO	AirCheck G3 Pro mainframe with 1 year of AllyCare support, shoulder sling bag, and AC charger
TEST-ACC	Test Accessory Pocket iPerf Server, for use with AirCheck G3 and AirMagnet Survey (can be used independently)

Support

Model Number/Name	Description
AM/A4018G-1YS	1 year AllyCare Support for AirMagnet Survey PRO (includes Planner) - AM/A4018G
AM/A4018G-3YS	3 year AllyCare Support for AirMagnet Survey PRO (includes Planner) - AM/A4018G
AM/B4010G-1YS	1 year AllyCare Support for AirMagnet Survey PRO - AM/B4010G
AM/B4010G-3YS	3 year AllyCare Support for AirMagnet Survey PRO - AM/B4010G
AM/A4016G-1YS	1 year AllyCare Support for AirMagnet Survey Express to Survey PRO - AM/A4016G
AM/A4016G-3YS	3 year AllyCare Support for AirMagnet Survey Express to Survey PRO - AM/A4016G
AIRCHECK-G3-PRO-1YS	1 year AllyCare support for all AIRCHECK G3 PRO models, including "E" (Partial Tri-Band) and "C" (Dual Band only) SKU'S: AIRCHECK-G3-PRO, AIRCHECK-G3-PRO-KT, AIRCHECK-G3-PRO-TKT.
AIRCHECK-G3-PRO-3YS	3 year AllyCare support for all AIRCHECK G3 PRO models, including "E" (Partial Tri-Band) and "C" (Dual Band only) SKU'S: AIRCHECK-G3-PRO, AIRCHECK-G3-PRO-KT, AIRCHECK-G3-PRO-TKT.

NOTE: The first year of AllyCare support is required for all AirMagnet products.

System Requirements

Laptop/Notebook PC/Tablet PC

Operating Systems: Microsoft Windows 10 Pro/Enterprise 64-bit, or Microsoft Windows 11 Pro/Enterprise 64-bit.

Intel® Core™ i5 2.00 GHz (Intel® Core™ i7 or higher recommended)

4 GB (8 GB or higher recommended)

800 MB free hard disk space

USB port or multiple ports in the PC when using multiple adapters.

AirMagnet-supported wireless network adapter(s) or Aircheck G3/EtherScope nXG with AirMapper™ *(recommended)*

Optional: AirMagnet Spectrum XT Adapter and license (required for viewing spectrum data and heat map; Survey PRO only)

A site map in a format supported by AirMagnet Survey (supported formats are: .bmp, .dib, .dwg, .dxf, .emf, .gif, vsd, .jpg, .wmf, .vdx or .png

Google® Earth must be installed in order to export the GPS data for outdoor surveys to Google Earth (Survey PRO only)

Supported GPS device. Here is a list of GPS devices that have been approved for use with the AirMagnet Survey product.
- Garmin eTrex LEGEND HCx, Garmin eTrex, Garmin eTrex Legend, Garmin GPS18X US, B Garmin GPS 18 Deluxe, Microsoft GPS-500 SIRF II, DeLorme Earthmate GPS LT-20, Magellan eXplorist 500, Pharos iGPS-180, US GlobalSat BU-353-S4 *(Recommended)*

Apple® Macbook® PRO

Operating Systems: MAC OS X v10.5 (Leopard™) or higher running a supported Windows OS (as noted under Laptop/Notebook PC/Tablet PC section) using Boot Camp®

Intel® Core™ i5 2.00 GHz (Intel® Core™ i7 or higher recommended)

4 GB (8 GB or higher recommended)

800 MB free hard disk space

USB Port or multiple ports when using multiple adapters

AirMagnet-supported wireless network adapter(s) or Aircheck G3 Pro/EtherScope nXG with AirMapper™ *(recommended)*

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- Garmin eTrex LEGEND HCx, Garmin eTrex, Garmin eTrex Legend, Garmin GPS 18 Deluxe, Garmin GPS18X USB, Microsoft GPS-500 SIRF III, Garmin GPSMap 60, DeLorme Earthmate GPS LT-2, DeLorme Earthmate GPS LT-40, Magellan eXplorist 500, Pharos iGPS-180, and US GlobalSat BU-353-S4 *(Recommended)*

Supported Adapters

AirMagnet Survey supports two categories of wireless adapters:

- Preferred Adapters: These adapters have been comprehensively tested by NetAlly and are recommended for use with AirMagnet Survey PRO. Drivers have been customized for extended feature support. For more information visit:
 www.netally.com/products/airmagnet-survey-pro

- Other Adapters: These adapters can be used with AirMagnet Survey PRO but have not been tested by NetAlly. Drivers have not been customized, will provide limited features, and could provide inaccurate data

NOTE: NetAlly is not responsible for the quality of the test results collected using Wi-Fi adapters not included on the Preferred category. Authentications supported by various adapters could be limited by their own capabilities, Windows wireless zero configurations and various other reasons.