iBwave Design
ENTERPRISE

2TEST

BUILDING INGENUITY INTO WIRELESS NETWORK DESIGN

Buildings are the final frontier for wireless voice and data networks, a frontier that iBwave Design is taming. iBwave Design Enterprise is the leading software for in-building network design automation, enabling planning activities, accuracy and productivity when working on indoor wireless projects.

Start your initial design by importing floor plans for an accurate view of your building, edit the floor plans to reflect the building's physical environment when required, and add annotations to capture the building's materials and RF characteristics. Work with the latest parts in the network components database to simulate your distributed antenna system, dragging and dropping components, and the software automatically creates interconnections for your network, helping you assess the cost-benefit impact on coverage quality. Network validation and advanced calculations let you verify the soundness of your assumptions through error checking, compliance verification and uplink and downlink calculations. You can output a bill of materials for an accurate estimate of costs for the equipment needed and access a full range of reports, including notes on changes, equipment lists, comparisons of predictions with measured data reports and more.

For even more accuracy and vision in wireless network design, you can opt for **iBwave Design's Propagation, Optimization and Collection modules.**

The **Propagation module** delivers advanced 3D modeling of indoor and outdoor propagation predictions on your floor plan to simulate the network coverage in different areas of the building. The **Collection module** lets you import survey data and trace routes for display on output maps. The **Optimization module** offers the detection and analysis of available indoor and outdoor signal sources, and includes uplink and capacity analysis. System design considerations are optimized by integrating outdoor network transmissions, reducing the number of required antenna installations.

Benefits that will help your bottom line:

STREAMLINE INDOOR WIRELESS NETWORK PLANNING

Throughout the project lifecycle, from design and planning to implementation and maintenance, iBwave Design Enterprise enables a framework for design, validation, component selection, data collection, measurement, cost evaluation, documentation, reporting and more.

REDUCE CAPITAL EXPENDITURE

iBwave Design Enterprise lets you simulate your network before it's deployed, optimizing hardware beforehand for the most cost-efficient design.

IMPROVE NETWORK PERFORMANCE

You can design your in-building network for specific voice and data applications with desired reliability criteria in order to deliver performance that will impress and retain subscribers. iBwave Design supports all wireless technologies including LTE, 4G and beyond.

STAY IN CONTROL OF YOUR PROJECT

With complete information on costs, equipment, timelines and performance, you can deploy your in-building wireless network without surprises.

Link budget

Overlay components on floor plans

Equipment list report

3D stadium prediction analysis with Propagation module

Data rate map with survey

FULL INFORMATION IS THE NAME OF THE GAME

KNOW EXACTLY WHAT YOU'RE SPENDING, BEFORE YOU SPEND IT

iBwave Design Enterprise lets you evaluate project costs with an automatically generated bill of materials with data drawn from your design.
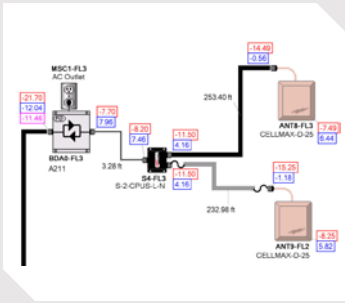
KNOW YOUR PHYSICAL ENVIRONMENT

iBwave Design Enterprise lets you import floor plans from AutoCAD and offers a complete set of tools to build a realistic model of the physical environment in order to achieve accurate prediction simulations.

DOCUMENT YOUR PROJECTS THOROUGHLY AND CONSISTENTLY

iBwave Design Enterprise's documentation and reporting function provide a project archive for more efficient and standardized information sharing, versioning and management.
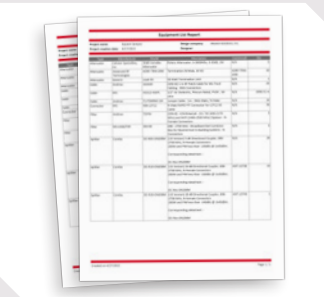
AND IT'S ONLY GETTING BETTER...

You'll be impressed by the productivity gains iBwave Design delivers. What used to require weeks of design work can now be completed in mere hours. Making the right core software investment from the start will lead to significant productivity gains in the future. Eliminate the cost of physical signal testing, while monitoring project costs through advanced tabulation.
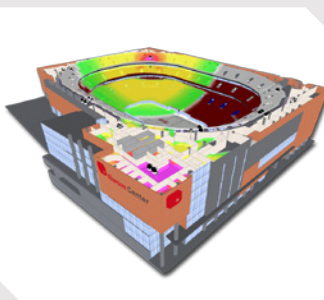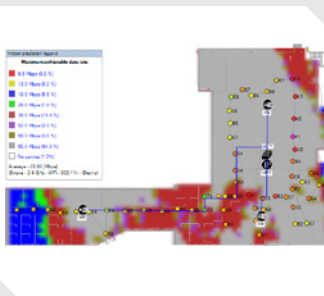
SYSTEM DESIGN	Trunking diagram for indoor RF system design • Multiple systems, technologies and bands • Support base stations and off-air repeaters • Power sharing interface (%) for neutral host system designs • Coaxial, radiating fiber-optic and CAT5 cable signal distribution • Multi-strand fiber-optic cables and components support for fiber modeling • Redundant DAS designs • Preferred lists of components • Connector validation for coaxial and fiber-optic cables • Automatic cable and splitter selection for optimal system balancing • Network validation and error checking • Grouping of systems by operator and wireless services • Wizard to duplicate sectors • LTE-Advanced Carrier Aggregation • Automatic wireless services creation for multi-band small cells and Wi-Fi components • Edit properties for multiple components at once • Support MIMO 2X2 DAS architectures
FLOOR PLANS	Multi-layered floor plans with layout plans, walls, DAS equipments, cables and more • Import floor plans from .dwg, .dxf, .jpeg, .bmp, .tiff, .gif or .pdf files • Automatic cable length measurements • Drawing tools for walls, lines, shapes, text and images • Ruler to calculate dimensions and areas • Display antenna contours and calculations
RF CALCULATION	Downlink calculations • Uplink calculations
3D BUILDING MODELLING	Draw generic walls and surfaces • Show floor plan and building in 3D with DAS equipment • Show building cuts in 3D • Draw inclined surfaces • Support inclined surfaces as trapezoids • Draw cables running along inclined surfaces • Create elevation view of the building on the Design Plan • Open building in Google Earth or Bing • Export building to Google Earth
PROJECT DOCUMENTATION	Print project documentation • Create project revisions • Create picture plans and photo mock-ups • Advanced text edition • Export project to .dxf format • Attach annotations (text, voice, picture, video) on design, layout and picture plans • Project file password protection
REPORTS	Electromagnetic field (EMF) • Equipment list • Cost details • Cable routing • Cross-reference • Antenna EiRP • Link budget • Horizontal link budget • Editor to modify report layout and content • Annotations • Output maps • RF survey
COMPONENTS DATABASE	Centralize component database of active and passive components including detailed technical specifications • Over 17,000 components from more than 260 vendors • Import and export libraries of components • Sub-component support • Database editor to add, edit or delete components • Customized pricing and part numbers • Share component database between multiple users • List of approved parts • List of equivalent parts • List of errors and warnings configurable in the database of components
TOOLS	Frequency converter • Power convertor • Intermodulation calculator
PLATFORM SUPPORT	64-bit support • Multiple processor support

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