

# ASSET Design



A glowing blue '5G' logo is positioned on a stylized circuit board. The background features a cityscape at night with vertical light beams and a complex network of blue lines and nodes, suggesting a digital or network environment.

## ASSET Design provides an automated approach to the optimization of existing cell configurations, as well as the placement of new sites.

ASSET Design has two modes: “Automatic Cell Planning” and ‘Automatic Site Placement’. The Automatic Cell Planning mode analyzes and optimizes the radio network configuration data and parameters of cells, to meet defined planning objectives such as coverage, capacity and quality of service, for today’s multi-technology networks.

In Automatic Site Placement mode, ASSET Design evaluates thousands of site candidates concurrently. It uses geolocated traffic maps, planning objectives and backhaul requirements for available site candidate locations to determine the optimal radio design.

“TEOCO is able to offer the kind of large-footprint solutions for assurance and network planning and optimization that CSPs increasingly desire.” - Analysys Mason

By integrating these two modules, ASSET Design can optimize your existing radio network and identify new small cell or macro site locations, creating a single network that meets your specified performance requirements. ASSET Design is unique in its ability to seamlessly move from optimization mode to site creation mode, bringing together the existing network and new sites.

ASSET Design works across multiple technologies including 2G, 3G, 4G and 5G. Shared components, such as multi-band antennas, can be optimized to meet shared performance objectives. ASSET Design balances these objectives to deliver the best heterogeneous network performance possible.



### TEOCO is a network engineering tools market leader

For over 5 years, Analysys Mason has ranked TEOCO as a leading vendor of network engineering software tools.

# ASSET Design



## Configure a candidate location strategy

ASSET Design can use pre-determined candidate locations or a greenfield approach when placing new cells. In a greenfield scenario, it can place candidate locations along roads, at evenly spaced grid intervals and uniquely, around buildings. If a list of candidate site locations is available this can be imported into ASSET Design via a csv file. These locations will then be used when evaluating new site locations. Importantly, this file can contain also cost information relating to site acquisition, rental, build, backhaul and power connectivity that can be used to add a cost element to the optimization algorithms.



## Optimize the network to your business and performance needs

ASSET Design has an extensive list of configurable objectives, constraints, and parameters to guide the optimization algorithm. Targets for coverage, interference and capacity can be set and it is possible to weight combinations of objectives and target levels, and to set inter-system objectives. Constraints can also be used to guide ASSET Design's optimization. Time and cost budgets can be placed on various types of changes and an overall budget can be assigned per project. ASSET Design will then work to achieve the optimization targets within the constraints. Constraints can also be placed on parameter changes. These can be high-level, such as only allowing electrical tilt changes, or detailed constraints, such as not allowing a certain azimuth range on a specific cell.



## Implement the optimized design

The implementation planning in ASSET Design takes a theoretical plan and makes it practical. ASSET Design ranks each proposed change according to the performance improvement it will have on the network. This ordered list allows the most valuable changes to be done first, providing the most network improvement at the earliest possible stage.

# ASSET Suite



ASSET Design is a part of TEOCO's ASSET Suite, a comprehensive planning portfolio designed to deliver cost-effective high performance networks. The ASSET Suite consists of the following products:



## ASSET Radio

Radio network planning. Coverage, capacity, cell parameter and neighbor planning for wireless networks.



## ASSET Backhaul

Wireless backhaul planning. Microwave link planning, path profiling and frequency interference analysis.



## ASSET Design

Automated network design. Automated optimization of existing cell configurations, as well as the placement of new sites.



## ASSET Web

Web UI for planning tasks. A lightweight and fast workflow-based UI for common planning tasks.



## ASSET Update

Planning tool update. Update ASSET with actual network configuration settings to enable planning from a valid baseline.



## ASSET Geo

Geolocated usage maps. Enables more accurate radio network planning and network design optimization.

# ABOUT TEOCO

**TEOCO is a leading provider of analytics, assurance and optimization solutions to over 300 communication service providers (CSPs) worldwide.**

Our solutions enable the digital transformation of CSPs while enhancing their network QoS, improving their customer experience and reducing their operational costs.

Through advanced analytics, TEOCO products provide actionable and measurable insights into network and customer behavior. This includes the optimization, effective monetization, and delivery of new and existing services, such as 5G.

Our commitment to network flexibility and agility makes TEOCO the obvious choice for CSPs looking to maximize the revenue potential of 5G investments and capitalize on new opportunities tied to the emerging Internet of Things (IoT).



**Global  
Footprint**



**Extensive  
Portfolio**



**Proven  
Solutions**



“TEOCO’s market leading position in Engineering Systems reflects the success of its extensive network planning and optimization solution set, built by some very cohesive acquisitions and integrated effectively to form a leading portfolio”

- Analysys Mason