# ASSET Radio for 5G







# ASSET delivers all the capabilities you need to design the best 5G network.

For over 20 years, TEOCO has delivered the best network planning tools for every major mobile technology. We understand what it takes. ASSET's 5G capabilities have been designed to meet your needs, especially over the next decade as 5G grows and matures; coping with the inevitable uncertainties and evolving to support new 5G technologies as they are developed.

We understand you value your existing investments in tools and business processes. Leveraging them is important to maintain efficient operations. This is why ASSET features strong integration capabilities, ensuring it can be seamlessly integrated into your organization.

# ASSET – Helping you deliver on the benefits of 5G



**STRATEGIC PLANNING** Maximize CapEx efficiency by validating 5G business cases and technology decisions



#### NETWORK DESIGN

Reduce pressure on design teams with highly efficient planning and design optimization capabilities



#### SCENARIO MODELING

Reduce time-to-market and maximize revenue potential with sound roll-out plans



#### **MULTI-TECHNOLOGY**

Maintain customer QoS by integrating 5G and your existing network technologies



### 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.



As new technologies such as 5G are adopted these need to be deployed on top of existing networks in the most cost-effective manner possible. This requires careful planning to ensure technology layers work together as a seamless network. Along with existing 2G, 3G and 4G support, ASSET has been a fully capable 5G radio planning tool since 2018. 5G NR modeling with advanced propagation models, complex antenna arrays and full multi-technology 3D coverage and capacity simulations are all supported.



# 5G coverage analysis

The move to millimeter wave frequencies in 5G requires a new approach to coverage modeling. ASSET 5G uses advanced propagation models that account for multi-path propagation and reflections. High resolution 3D building vector data support ensures accurate coverage modeling of 5G frequencies. Beamforming antennas are also supported with multi-array support for adaptive and switched-beam arrays. This enables modeling of complex arrays such as MU-MIMO and SU-MIMO configurations.



# 5G traffic modeling

ASSET 5G covers the full gamut of 5G traffic modeling capabilities from 5G NR gNodeB definition to code assignment and mobility planning. Standards-defined NR frequency bands, frame structures, numerology and carrier definitions are all supported too. Analysis capabilities include simulator arrays, cell level outputs and inter-technology interference analysis. Dynamic Spectrum Sharing, Latency, UL/DL and Bandwidth Part modeling are fully supported too. Finally 5G automatic cell planning (ACP) and automatic site placement (ASP) functionality helps operators design their 5G networks in record time.



# A flexible and efficient approach to 5G planning

ASSET's multiple-technology projects ensure you can plan 2G/3G/4G and 5G networks concurrently in a single tool. A multi-user architecture ensures multiple engineers can work on the network at once with changes seamlessly synchronized. Support for multi-operator networks, LTE-5G spectrum sharing use cases and V-RAN / C-RAN and Open RAN architectures ensure ASSET can support you whatever your technology path.



ASSET Radio 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.



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



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



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





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



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



# 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).









"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