

# Mobile & Cellular Module

AN ADD-ON TO SIGNALPRO® FOR DESIGNING, DEPLOYING AND OPTIMIZING MOBILE AND CELLULAR NETWORKS, AS WELL AS POSITIVE TRAIN CONTROL (PTC) SYSTEMS

The Mobile & Cellular Module includes advanced network planning features and specialized area studies that allow engineers to determine cell site locations, analyze system capacity and gauge system evolution.

## Automatic System Layout

Automatically lay out cell sites within a service area using criteria such as fixed hexagon grids with adjustable cell service radius.

## Traffic Loading

Calculate traffic loading on individual sectors based on real service areas and a selection of multiple service types.

## Automatic Frequency Planning

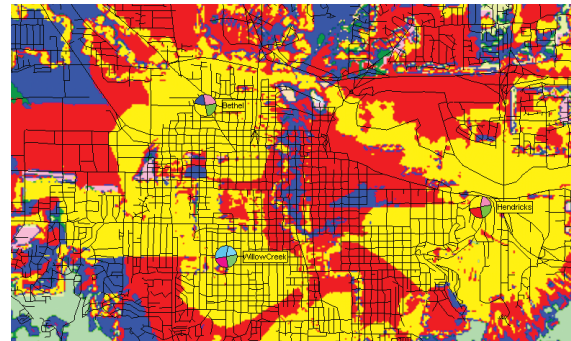
Assign optimal channels based on calculated or measured traffic data.

## Point-to-Multipoint

Simultaneous uplink/downlink evaluation across multiple technologies in a point-to-multipoint network architecture.

## Neighbor List

Calculations based on received power or best channel most likely servers (interference sensitive).



## Specialized Area-Wide Studies

The Mobile and Cellular Module offers technology-specific studies for mobile and cellular, nomadic and WCDMA/UMTS:

- Best and second best server based on pilot  $E_c/I_0$  or traffic
- Uplink BER and mobile (UE) power
- Uplink and downlink available data rates based on channel quality and  $E_b/N_0$
- Blocking rate with predicted or measured traffic
- Sector scrambling conflict analysis (signal ration and time delay)
- Automatic PN offset (scrambling code) assignment
- Handoff regions (hard, soft, soft + softer, 3-way to 6-way soft)
- EDGE maximum mobile data rate
- And many more