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**Spreenauten**  
**Radio Technology (DMR,**  
**TETRA, ATEX, WLAN & 5G)**

- › DMR Radio Technology
- › Two-way Radios
- › TETRA Radios & Radio Cells
- › Atex Radios
- › Battery & Charging Technology for Radios
- › Headsets & Loudspeaker Microphones
- › WLAN - Wireless LAN as MESH-LAN & conservative WIFI
- › DECT Phones & Repeaters (Base Stations)
- › Tour Guide systems
- › Antennas & Antenna Technology
- › 5G

**Motorola & Hytera**  
**Service**  
**Radio technology**  
**Applications**

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**Apps > Heatmap software**

<https://staging.spreenauten.com/radio-technology-applications/heatmap-tool-dmr-tetra/>

Regular testing of the radio coverage is a central part of the evaluation of radio cells and of course also of maintenance measures and troubleshooting.



Internal factors such as hall conversions, new buildings (e.g. stages or fixed outdoor structures), but also changes to the equipment (high racks, pick towers, etc.) can have a significant impact on radio coverage and thus on radio communication.

To visualize the radio coverage within an area in an informative way we have developed our Heatmap Tool. It can be used intuitively and is suitable for quick coverage determination "on the fly" in the desired area.

The determination of the coverage at a position can be done manually with the help of a radio (in Motorola radio cells e.g. the Motorola DP4801e) or a spectrum analyzer. It is also possible to determine the attenuation automatically and to transfer it directly into the heat map. For this purpose, it must be possible to determine the position of the measurement point. This can be done by GPS positioning, via GPS capable radio or external GPS tracker but also via Bluetooth beacons (indoor).

In all cases the output is either with labeled measuring points and/or in the look of a weather map (the so-called heat map).

Where red = (hot) = excellent coverage and white = (cold) = no coverage.

Our Heatmap Tool is designed to be cooperative, i.e. several employees\* can work on a heat map at the same time. This has proven to be very advantageous, especially for large areas.

The output is as PDF or DXF file for further processing in your CAD program.

We focus on DMR, TETRA, DECT and WLAN when creating heat maps. Especially in the field of measurement of Motorola and Hytera radio cells as well as in WLAN we have extensive experience. Of course, our heatmap tool also allows all other measurable ranges in the radio spectrum.

**Heatmap Tool - the main features at a glance**

- › Fast and intuitive visualization of radio coverage
- › Automatic or manual transfer of the measured values
- › Cooperation with several employees\* possible
- › Output as PDF or DXF file

**Synergies Heatmap Tool & Fleet Management Solution**

In combination with our fleet management solution, user information, e.g. on missing coverage, can be integrated into the heat map and easily verified or checked.

In our experience, a ticket "radio contact breaks off" in an area with excellent coverage often indicates incorrect use of the radio or a defective radio with an otherwise very well functioning radio cell.

Our Heatmap Tool is inspired by technicians who deal with radio technology on a daily basis, e.g. IT, technical facility managers, building technicians. It is easy to use and can be applied immediately.

We offer it as SaaS (cloud based, server location: Frankfurt am Main, Germany) and as local installation (single user (Windows & Mac) & server).

Of course, we are also happy to create professional & informative heat maps for you in the context of maintenance or evaluations at your site.

We would be pleased to advise and inform you about the use of our Heatmap Tool free of charge and without obligation. We also offer a free demo (remote or at your site or at our premises).

Contact person for this is our technical department. You can reach them around the clock in case of emergencies and for general advice within our regular business hours (Mon - Fri from 09:00 - 18:00) by phone at [+49.\(0\)30.293.8197-0](tel:+4903029381970) and via e-mail [support@spreenauten.de](mailto:support@spreenauten.de)