

W-planning(v1.3)

Business



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2.1 Public participation into 5 6 1.1.3 Update data 1.1.3.

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2 to the neighbor relationship between positive and negative query and display 12 1. 2. 5 Simulation coverage analysis tool: 15 1. 2. 6 Tools 16 W-Planning is based on MapInfo plug-in plug-ins developed for WCDMA / GSM network settings check and optimization. The advantage is to show intuitive, easy to operate.

Main features are: • NodeB / BTS base stations, a map of the information; • in accordance with the cell number, fuzzy station name to search the area; • GSM frequency planning, WCDMA scrambling code planning; • in accordance with the BSC (RNC) / LAC geographical boundaries of the simulation; • Cell simulation coverage; • 2/3G adjacent area optimization; • One-way inspection and graphical adjacent areas; 1. 1 The production part of the data This section describes the production of the raw data CSV table format, and precautions 1. 1. 1 the production of source data

The original cell information is CSV file, the workers into participating in a specific format, note the information must be accurate, especially in the items required. (1) GSM data format • LAC_CI ----- cell ID items, such as 14466_55001, required; • LAC ----- - LAC area, required; • CI ----- cell number, such as 55001, are required; • SITE_NO ----- station number, optional; •

SITE_NAME ----- site name, required; • CELL_NAME
 ----- district name, such as water juncture -1, required; •
 BSC ----- attribution BSC , required; • BSIC
 ----- BSIC, required; • BCCH
 ----- BCCH, required; • TCH1 ~ TCH12
 ----- TCH frequency, required no filling 0 • LONGITUDE /
 LATITUDE ----- base station latitude and longitude, required • AZIMUTH
 ----- azimuth, all the stations 360, change the fill •
 LENGTH ----- geography of the area covered by the
 system; ?? 1. 1 GSM_Site.

csv [pic] ? 1. 1 GSM_Site. csv (2) 2) WCDMA data format LAC_CI

----- cell ID items, such as 14466_55001, required; •
 LAC ----- - LAC area, required; • CI
 ----- cell number, such as 55001, are required; •
 NodeBID ----- station number, optional; • NodeBName
 ----- site name, required; • Cell_Name -----
 district name, such as water juncture -1, required; • RNCID
 ----- RNC attribution , required; • UARFCN
 ----- frequency, required; • P-SC -----
 scrambling code, required • Longitude / Latitude ----- base station
 latitude and longitude, required • Azimuth ----- azimuth,
 all the stations 360, change the fill • length -----
 geography of the area covered by the system ?? 1. 2 WCDMA_Site. csv
 [pic] ? 1.

2 WCDMA_Site.csv Note: Please use the above base station naming attribute, otherwise it will cause read errors, the user can add other attributes any column, the column can be in no particular order.

Users also can extend the range of properties for base station identification, such as routing area, configuration, antenna height, secondary carrier frequency, the next angle, coverage, business offices, district and other information sharing, these attributes column names and the content can be customized ((3) o-zone data Written examples bsname PT_BSC512 s_network 2G s_lac 14466 s_cellid 50272 sitename BS5027_JiangKouPingMin-27 d_network 2G d_lac 14353 d_cellid 10582 BCCH_UARFCN 110 bsic_psc 21 direction 2G_2G Note: s_network / d_network complete specifications for the 2G (3G), direction complete specification 2G_2G/2G_3G/3G_3G/3G_2G 1. 2. 1 Open table command Description: There in the menu bar “ open work table . .. ” command, or click on the button (below the toolbar (red).

Execute this command, open the folder in the specified relevant Mapinfo Table. Of course, the Open menu in Mapinfo Table can also open the appropriate form, select the appropriate forms as needed Note: To open the form must be in the same directory [pic] 1.

1. 2. 1 ????? ????? Create Map With GSM_Site ,??????? : [pic] ????? , Create Map With WCDMA_Site, Import Neighbor ??????? , WCDMA,????? 1. 1. 3 Update Data Planning data often change, frequency and scrambling code operation of the existing network need to be updated. Relatively simple method of updating data.

1. 1. 3. 1 update existing community participation work Comes with mapinfo tools info_tool, click to edit the object (Figure 1. 1. 3.

Modify cell data) as shown to directly modify => Save, and if, a change in latitude and longitude, to refresh the layers, you can select the area has changed , then refresh the data menu as shown in Figure 1. 1. 3. 2), note the update position, must take LAC_CI, LAC, CI and other data filled out correctly Modify the cell data in Figure 1. 1.

3. 1[pic] ? 1. 1. 3. 1 ?????? [pic] ? 1.

1. 3. 2???? 1. 1. 3. 2 Add station The simplest way to change the layer is programmable, and then copy an existing base station, drag the newly added cell layer, and then modify the information, select the refresh, add the site to be completed [pic] 1.

2 Basic functions About shortcut buttons (1) to open the Layer (2) cell search (3) GSM frequency planning (on a frequency point) (4) GSM frequency planning (the next frequency point) 5) WCDMA scrambling code planning (on a scrambling code) (6) WCDMA scrambling code planning (the next scrambling code) (7) neighborhood search (forward search) (8) neighborhood search (reverse lookup) (9) BSC / RNC geographical boundaries of (10) LAC geographical boundaries of (11) to open the Legend (12) file exportGoogleKml (13) refresh the layers 1. 2. 1 Open table command Description: There in the menu bar “ open work table ...

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Note: To open the form must be in the same directory [pic] 1. 2. 2 Cell Search Selected as shown above, to find Select the network you want to find, enter the district number, district name to search, exact match, it will center the display, and displays the corresponding Message, as shown below (Find Wat Stone Town -1 cell) [pic] ?????? ,???? [pic] [pic] 1.

2. 3 Planning Tools 1. 2. 3. 1 GSM frequency planning application: 12 carrier configuration tool can query the plot, the use of red, blue, and green display BCCH, TCH1 to TCH12 frequency planning situation.

Related commands “ Find frequency” “ Find previous frequency” “ Find next frequency” Query results as follows.

And the tool also provides the relevant shortcut button (upper-state frequency point on a P / N under what frequency) [pic] 1. 2. 3. 2 WCDMA scrambling code planning application: Tools can be found scrambling code 1-512, using red, blue, and green shows the planning of PSC, by way of scrambling code planning, you can choose +1, +8 two kinds of presentation.

Related commands “ Find psc” “ Find previous psc” “ Find next psc” Query as shown below” [pic] ?????? [pic] 1. 2. 4 neighbor Tools: Neighbor Tools main menu as shown below, it allows the entire network neighbor data analysis, forward and backward neighbor relationship query and display; single neighborhood query (2/3G) [pic] 1. 2. 4.

1 Database Analysis: Find Single Way neighbor” One-way analysis of whole web of neighbor problem. Analysis of the data sheet relates only to Neighbor. Neighbor data must include the column, the data related to the source cell, target cell data, as follows: Source cell data: bscname, s_network, s_lac, s_cellid Target cell data: d_network, d_lac, d_cellid Global mark: direction Interface as follows: (1) Export Single Direction_neighbor. csv report export-way adjacent areas, in the C: / OneWay. csv (2) Show Single Direction neighbor sub-project is complete, one-way adjacent areas of geographical graphical, easy and intuitive, reducing much of the inspection process.

: [pic] 1. 2. 4. to the neighbor relationship between positive and negative query and display Neighbor relations tool Mapinfo query must be used, as long as the map with this tool, click on the desired CELL query area, and then use the command shown below to complete the normal or reverse neighbor queries display. “ Display Neighbors for a selected cell”: a positive neighbor relations for query and display (cut out). “ Display a cell Neighbors in backward”: reverse-neighbor relations for query and display (cut into).

As a way users can also choose to use shortcut keys to execute commands the way (1) GSM neighbor search The following is a GSM cell positive effect chart to find Description: The gray lines for the 2G_2G the adjacent area, the green line to the adjacent area between 2G_3G Following is a GSM cell reverse lookup renderings

Description: The gray lines in the neighborhood for the 2G_2G, brown lines, the neighborhood relations for the 3G_2G (2) WCDMA neighbor search The

following is a forward lookup renderings WCDMA cell Description: The red line is 3G_3G the neighborhood, brown lines, the neighborhood relations for the 3G_2G The following are renderings WCDMA cell reverse lookup Description: The red line is 3G_3G the adjacent area, the green line to the adjacent area between 2G_3G?? [pic] [pic] [pic] [pic] 1. 2. 5 Simulation coverage analysis tool: Daily work, we often need to have a network coverage about understanding, such as the division of each BSC, LAC region division, as well as analog cellular coverage area, etc. this tool can be achieved BSC / LAC zone automatic calculation simulation program areas, marked with different colors. Function menu as follows: BSC designated Area Picture (LAC similar), as follows: Tool can match Toolmate “ Embed Thematic in map” shows the legend layer, which is more convenient to view the results as follows ?????? : [pic] BS [pic] ??? Toolmate??? “ Embed Thematic in map “???????? ,???????? ,???? : [pic] 1.

2. 6?? [pic] (1. 2. 6 Tools (1) “ Embed Thematic in map” layers within the legend display (2) “ Export mapinfo2google” The picture shows the export mapinfo google Note that this operation requires you to not to maximize and minimize the window, the window as shown below, and shown that all the objects for display operation,