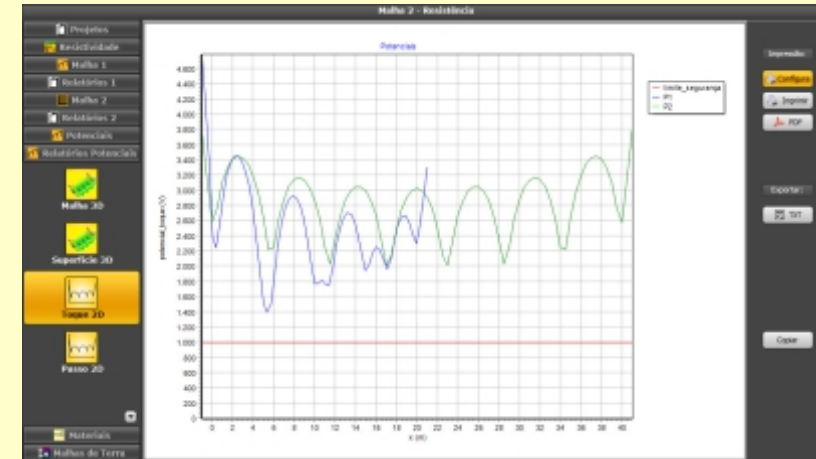
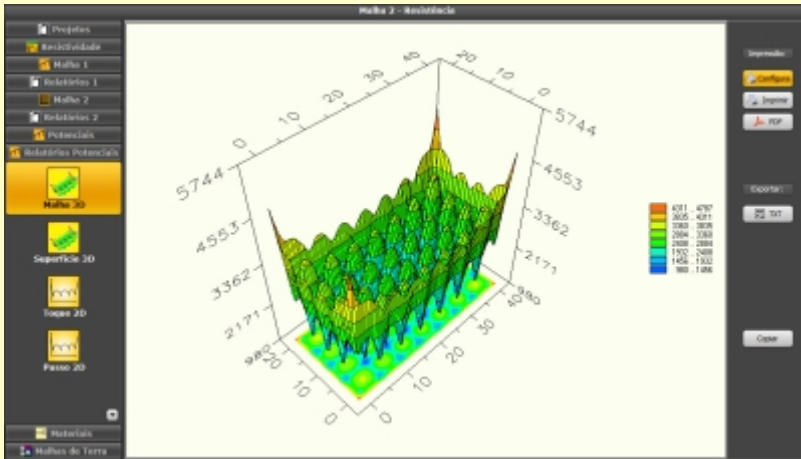


TECAT PLUS 6.5

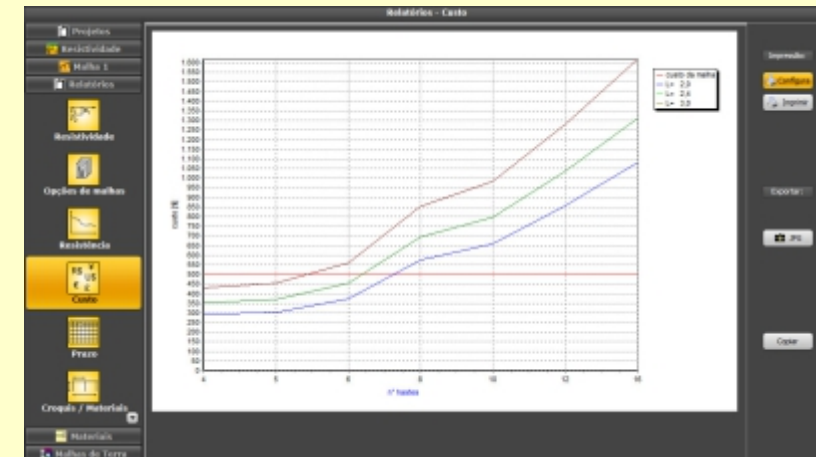
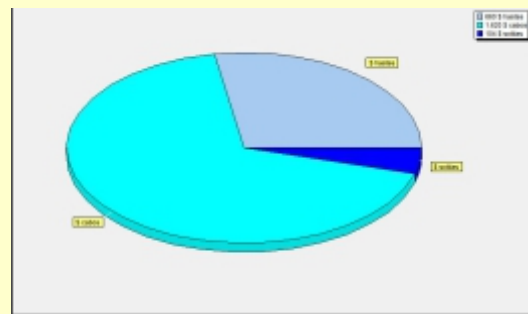
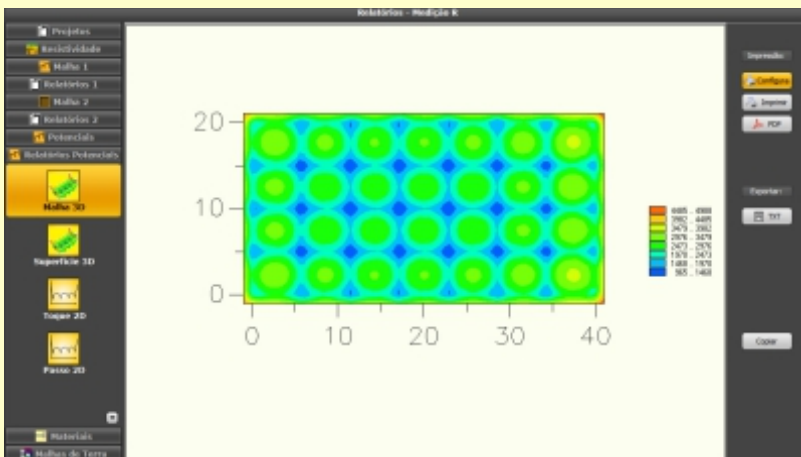
Software for grounding grid design

NEW! update 6.5 (October 2021)



With 27+ years of development, TecAt Plus is the best cost/performance solution on the market for designing grounding grids for any application in 2-, 3- or 4-layer soil.

Exceeding the requirements of any major standard, TecAt Plus also gives you the analysis tools you need to find the optimized solution for your grounding needs.



TECAT *PLUS* 6.5

Software for grounding grid design

TecAt Plus functions:

SOIL RESISTIVITY

- Wenner or Schlumberger
- stratification in 2, 3 or 4 layers

GRID RESISTANCE

- any size complex grids in multi-layer soil
- NEW in version 6.3: import CSV from CAD programs!
- quick comparative of small grids in 2-layer soil

SHORT-CIRCUIT POTENTIALS FOR SUBSTATION GRIDS

- grid and surface potentials in 3D view
- touch, step and surface potentials in 2D view

DESCRIPTIVE, CHARTS AND TABLES REPORTS

- export to PDF, TXT, XLS, CSV and JPG
- print or copy to another program
- materials list, costs of materials and manpower, and time to built

COMPARATIVE CHART ANALYSIS OF SEVERAL GRIDS

INCLUDES DIGITAL EDITION OF OUR BOOK: 'GROUNDING GRIDS'

TECAT PLUS 6.5

Software for grounding grid design

Resistivity - soil data

Resistividade - Medições

Fórmula: completa ☐ excluir pontos > 50 % fora da média

Modelo: Wenner Profundidade (h): 0,25 m

Dados em: Resistência

| | a | A | B | C | D | E | F | G | H | média |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1 | [m] | [Ohm] | [Ohm] | [Ohm] | [Ohm] | [Ohm] | [Ohm] | [Ohm] | [Ohm] | m |
| 2 | 1 | 21,1 | 21,5 | 0 | 0 | 0 | 0 | 0 | 0 | 147,1721 |
| 4 | 2 | 13,03 | 13,55 | 0 | 0 | 0 | 0 | 0 | 0 | 171,4645 |
| 8 | 4 | 7,73 | 7,65 | 0 | 0 | 0 | 0 | 0 | 0 | 194,5839 |
| | 8 | 1,35 | 1,65 | 0 | 0 | 1,45 | 0 | 0 | 0 | 74,68769 |

TecAt 6 - Edita Medição

Espacamento: Valores de Resistência

| a | A | B | C | D | E | F | G | H |
|---|------|------|---|---|------|---|---|---|
| 8 | 1,35 | 1,65 | 0 | 0 | 1,45 | 0 | 0 | 0 |

Dados em: Ω

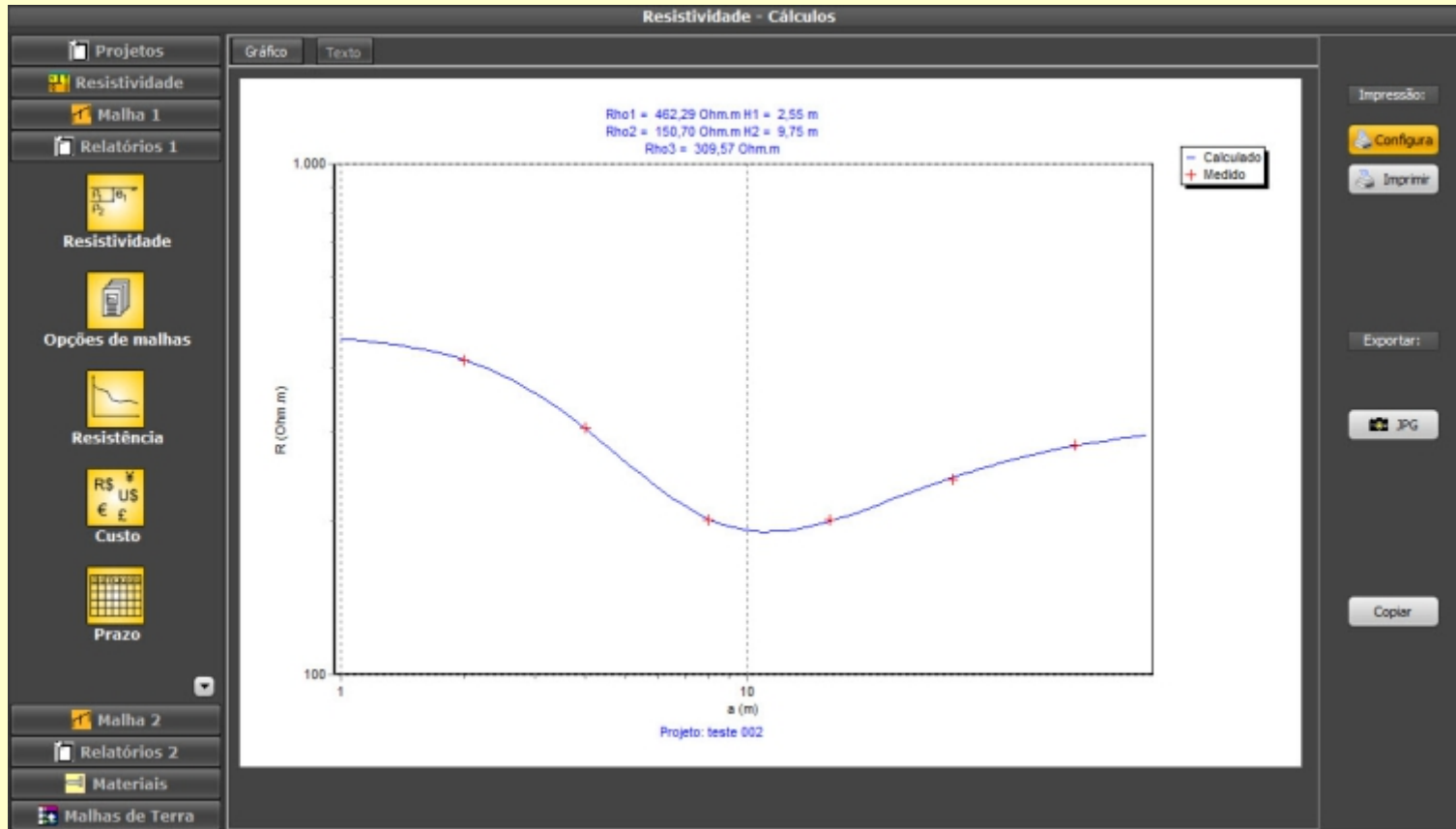
1. é necessário entrar, ao menos, os dados de 3 espaçamentos
2. após entrar os dados da tabela, clique em "Validar"
3. se os dados não estiverem aparecendo é porque faltou clicar em "Abrir" na tela de Projetos.

Using up to 8 measurement axis at a time, TecAt stratifies the soil in 2-, 3- or 4-layer model, with a numerical calculation, without the errors of graphical/manual methods - it not only gives you the best possible result, you can even check the errors of some stratification you got with another method or software!

TECAT PLUS 6.5

Software for grounding grid design

Resistivity - graph report



The stratification is then presented on a logarithmic chart and also a text report (see next)

TECAT PLUS 6.5

Software for grounding grid design

Resistivity - text report

The screenshot shows the 'Resistividade - Cálculos' window in the TECAT PLUS 6.5 software. The window has a sidebar on the left with various icons for projects, resistivity, and reports. The main area displays a table of resistivity data, a list of layers, and a diagram of the stratification.

Table 1: Resistivity Data

| Seleção: | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
|--------------|------|------|------|------|------|------|------|------|
| projeto | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| configuração | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| medições | 20 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| resultados | 70 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| diagrama | | | | | | | | |

Table 2: Layer Data

| camada | #1 | 462,29 [Ohm.m] | x | 2,55 [m] |
|-----------|----------------|----------------|----------|----------|
| camada #2 | 150,7 [Ohm.m] | x | 9,75 [m] | |
| camada #3 | 309,57 [Ohm.m] | x | | |

Table 3: Adjustment of Soil Resistivity Stratification

| espaçamento [m] | medida [Ohm.m] | calculada [Ohm.m] | desvio % |
|-----------------|----------------|-------------------|----------|
| 2,00 | 412,86 | 413,36 | -0,12 |
| 4,00 | 303,64 | 302,83 | 0,27 |
| 8,00 | 201,41 | 202,17 | -0,38 |
| 16,00 | 201,15 | 199,81 | 0,66 |
| 32,00 | 241,30 | 243,14 | -0,76 |
| 64,00 | 281,49 | 280,52 | 0,35 |

Diagrama:

| R1= | H1= | R2= | H2= | R3= | H3= |
|--------|------|--------|-------|--------|------|
| 462.29 | 2.55 | 150.70 | 12.30 | 309.57 | Inf. |

Select the data you want at the report, including deviations for each point and RMS of the whole set, proportioning full certainty of the adjustment between field data and calculated curve.

TECAT PLUS 6.5

Software for grounding grid design

Grid 2 module: complex grids

Malha 2 - Eletrodos

Condutores Visualização

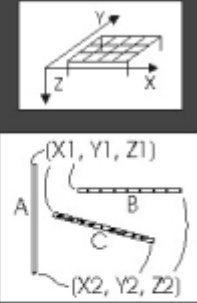
Ordenar por: Novo Editar Deletar

| Eletrodo | X1 | Y1 | Z1 | X2 | Y2 | Z2 | Raio | Descrição | Tipo |
|----------|-----|----|-----|----|----|-----|------|------------------------|------|
| n° | [m] | | | | | | [mm] | material | obs: |
| 1 | 0 | 0 | 0,5 | 40 | 0 | 0,5 | 4 | cabo cobre 50 mm² | |
| 2 | 0 | 4 | 0,5 | 40 | 4 | 0,5 | 4 | cabo cobre 50 mm² | |
| 3 | 0 | 8 | 0,5 | 40 | 8 | 0,5 | 4 | cabo cobre 50 mm² | |
| 4 | 0 | 12 | 0,5 | 40 | 12 | 0,5 | 4 | cabo cobre 50 mm² | |
| 5 | 0 | 16 | 0,5 | 40 | 16 | 0,5 | 4 | cabo cobre 50 mm² | |
| 6 | 0 | 20 | 0,5 | 40 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 7 | 0 | 0 | 0,5 | 0 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 8 | 5 | 0 | 0,5 | 5 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 9 | 10 | 0 | 0,5 | 10 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 10 | 15 | 0 | 0,5 | 15 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 11 | 20 | 0 | 0,5 | 20 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 12 | 25 | 0 | 0,5 | 25 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 13 | 30 | 0 | 0,5 | 30 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 14 | 35 | 0 | 0,5 | 35 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 15 | 40 | 0 | 0,5 | 40 | 20 | 0,5 | 4 | cabo cobre 50 mm² | |
| 16 | 0 | 0 | 0,5 | 0 | 0 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 17 | 40 | 0 | 0,5 | 40 | 0 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 18 | 0 | 4 | 0,5 | 0 | 4 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 19 | 40 | 4 | 0,5 | 40 | 4 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 20 | 0 | 8 | 0,5 | 0 | 8 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 21 | 40 | 8 | 0,5 | 40 | 8 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 22 | 0 | 12 | 0,5 | 0 | 12 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 23 | 40 | 12 | 0,5 | 40 | 12 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |
| 24 | 0 | 16 | 0,5 | 0 | 16 | 3,5 | 8 | aço cobreado 3 m x 5/8 | |

Validar

Calcular

Deletar todos

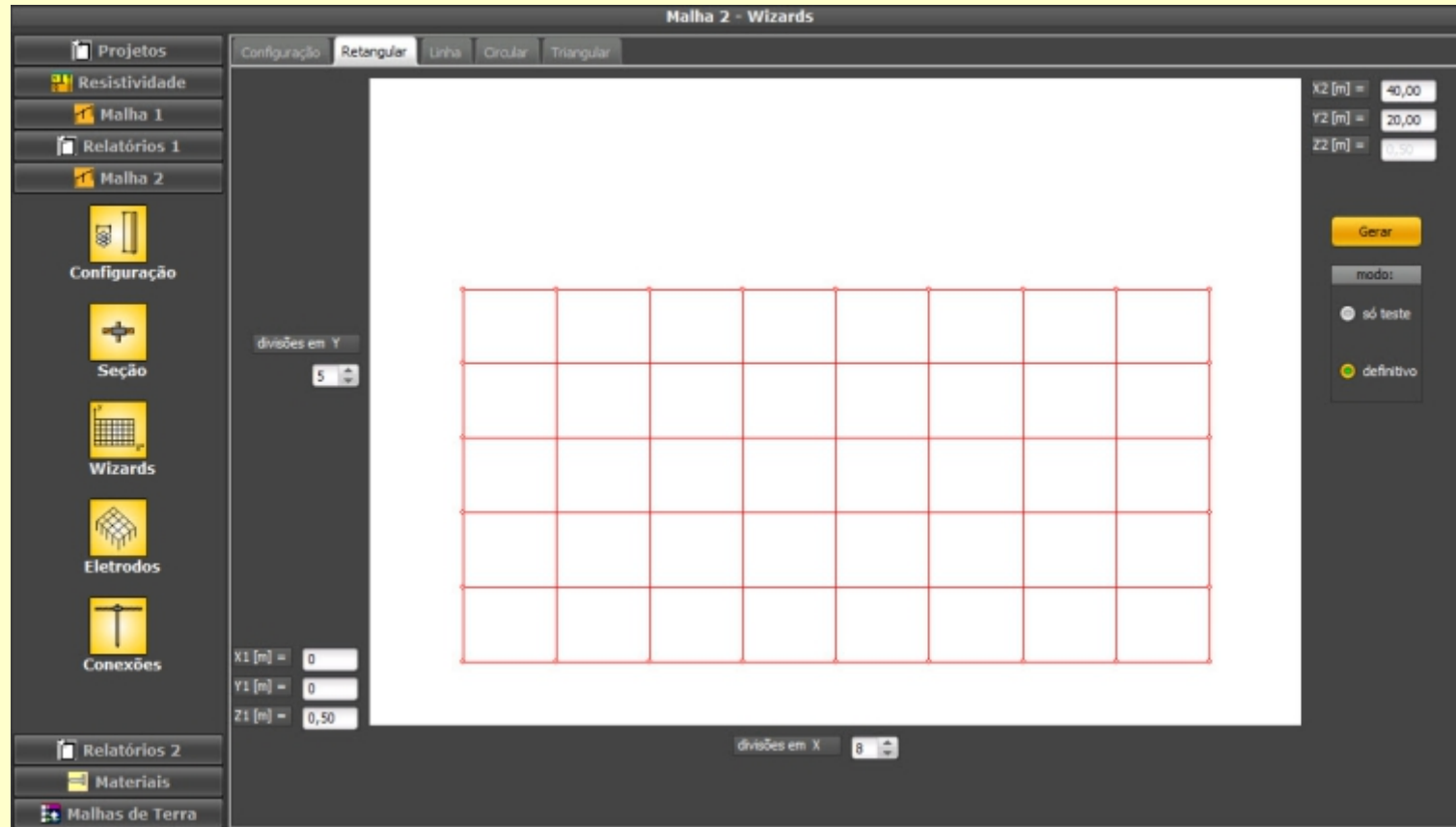


Grid 2 module for complex grids, substations: you can enter each electrode or use the 'wizards' for automatic generation;
new: import existing grid on a CAD program using CSV file!

TECAT PLUS 6.5

Software for grounding grid design

Grid 2 'wizards'



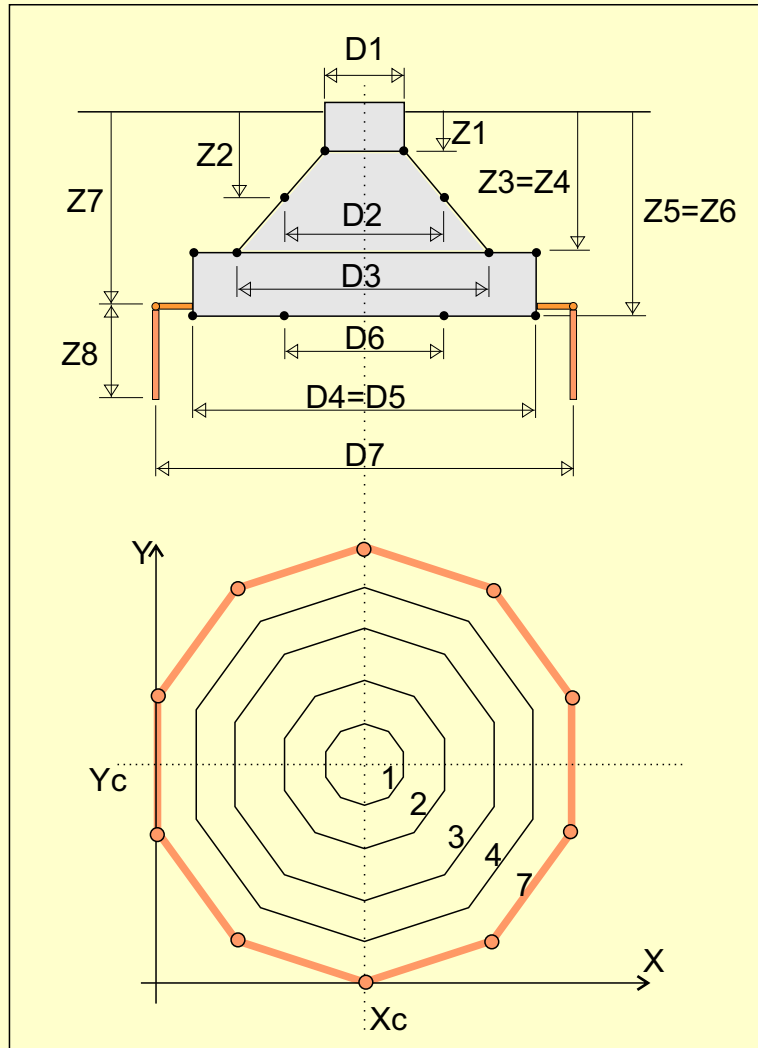
With TecAt 'wizards' you can generate automatically each regular portion of the grid; there are wizards for rectangular, linear, circular (poligon) and triangular portions, and the rectangular can have linear or geometric distance between cable lines (and its rods). You can build complex designs instantly!



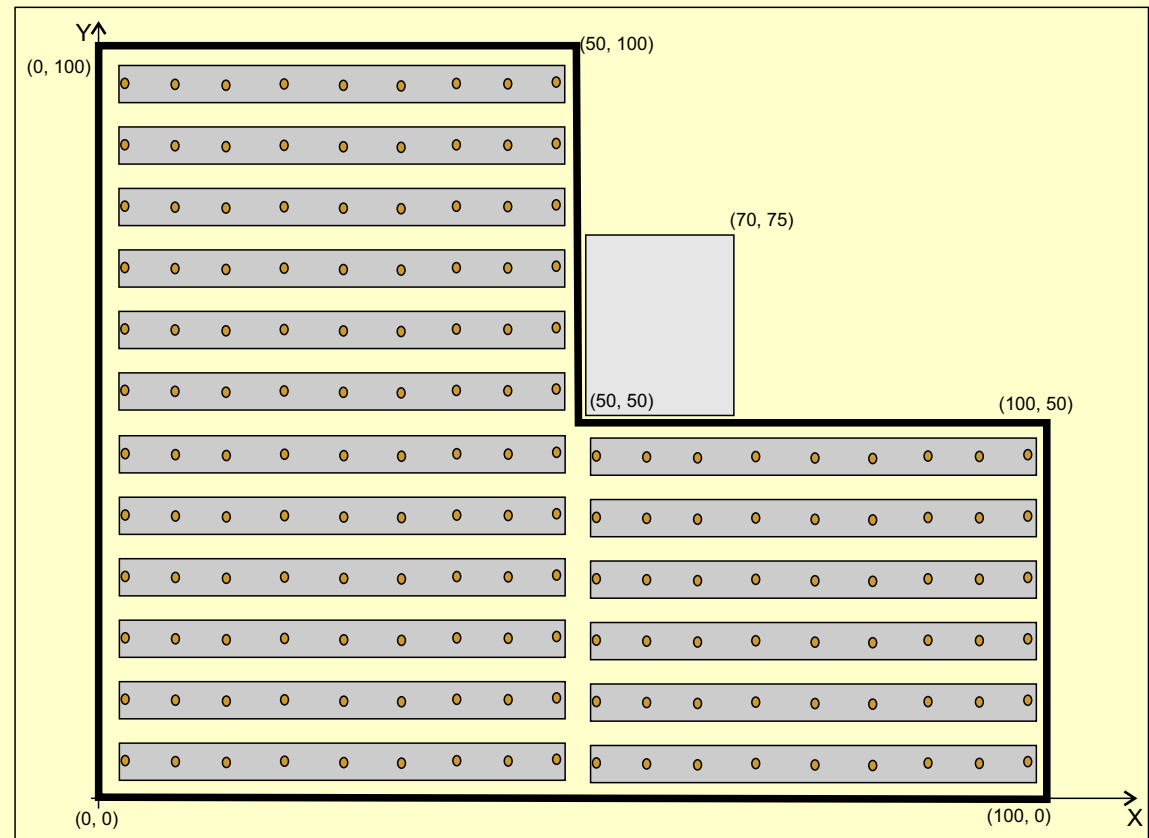
TECAT PLUS 6.5

Software for grounding grid design

New Wizards for version 6.5: Polygon, Wind Turbine and Photovoltaic:



the new TecAt 6.5 also has new wizards to generate the grids for the new applications of wind and solar!



TECAT PLUS 6.5

Software for grounding grid design

Resistance report

The screenshot displays the 'Malha 2 - Eletrodos' window in the TECAT PLUS 6.5 software. The interface includes a sidebar with navigation options: Projetos, Resistividade, Malha 1, Relatórios 1, Malha 2, Relatórios 2, Eletrodos, Resistência (highlighted), Conexões, Seção Condutor, and Materiais. The main window shows project data and a table of conductors.

Malha 2 - Eletrodos

Resistência da malha [Ohm]: 3,78 Corrente de falta [kA]: 0,00 Máximo potencial da malha [V]: 3783,47 ☐ incluir subdivisões

Dados do Projeto:
Projeto: teste 002
Cliente:
Data: 04/08/2014
Local:

Nº de camadas: 3
camada #1: 462,29 [Ohm.m] x 2,55 [m]
camada #2: 150,7 [Ohm.m] x 9,75 [m]
camada #3: 309,57 [Ohm.m] x

Resistência da Malha [Ohm] = 3,78
Máximo potencial da Malha [V] = 3783,47

condutores:

| Nr. | X1 (m) | Y1 (m) | Z1 (m) | X2 (m) | Y2 (m) | Z2 (m) | Raio (mm) | NºSub | Tipo |
|-------|--------|--------|--------|--------|--------|--------|-----------|-------|------|
| cabos | | | | | | | | | |
| 1 | 0,0 | 0,0 | 0,5 | 40,0 | 0,0 | 0,5 | 4,0 | 9 | A |
| 2 | 0,0 | 4,0 | 0,5 | 40,0 | 4,0 | 0,5 | 4,0 | 9 | A |
| 3 | 0,0 | 8,0 | 0,5 | 40,0 | 8,0 | 0,5 | 4,0 | 9 | A |
| 4 | 0,0 | 12,0 | 0,5 | 40,0 | 12,0 | 0,5 | 4,0 | 9 | A |
| 5 | 0,0 | 16,0 | 0,5 | 40,0 | 16,0 | 0,5 | 4,0 | 9 | A |
| 6 | 0,0 | 20,0 | 0,5 | 40,0 | 20,0 | 0,5 | 4,0 | 9 | A |
| 7 | 0,0 | 0,0 | 0,5 | 0,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 8 | 5,0 | 0,0 | 0,5 | 5,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 9 | 10,0 | 0,0 | 0,5 | 10,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 10 | 15,0 | 0,0 | 0,5 | 15,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 11 | 20,0 | 0,0 | 0,5 | 20,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 12 | 25,0 | 0,0 | 0,5 | 25,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 13 | 30,0 | 0,0 | 0,5 | 30,0 | 20,0 | 0,5 | 4,0 | 6 | A |
| 14 | 35,0 | 0,0 | 0,5 | 35,0 | 20,0 | 0,5 | 4,0 | 6 | A |

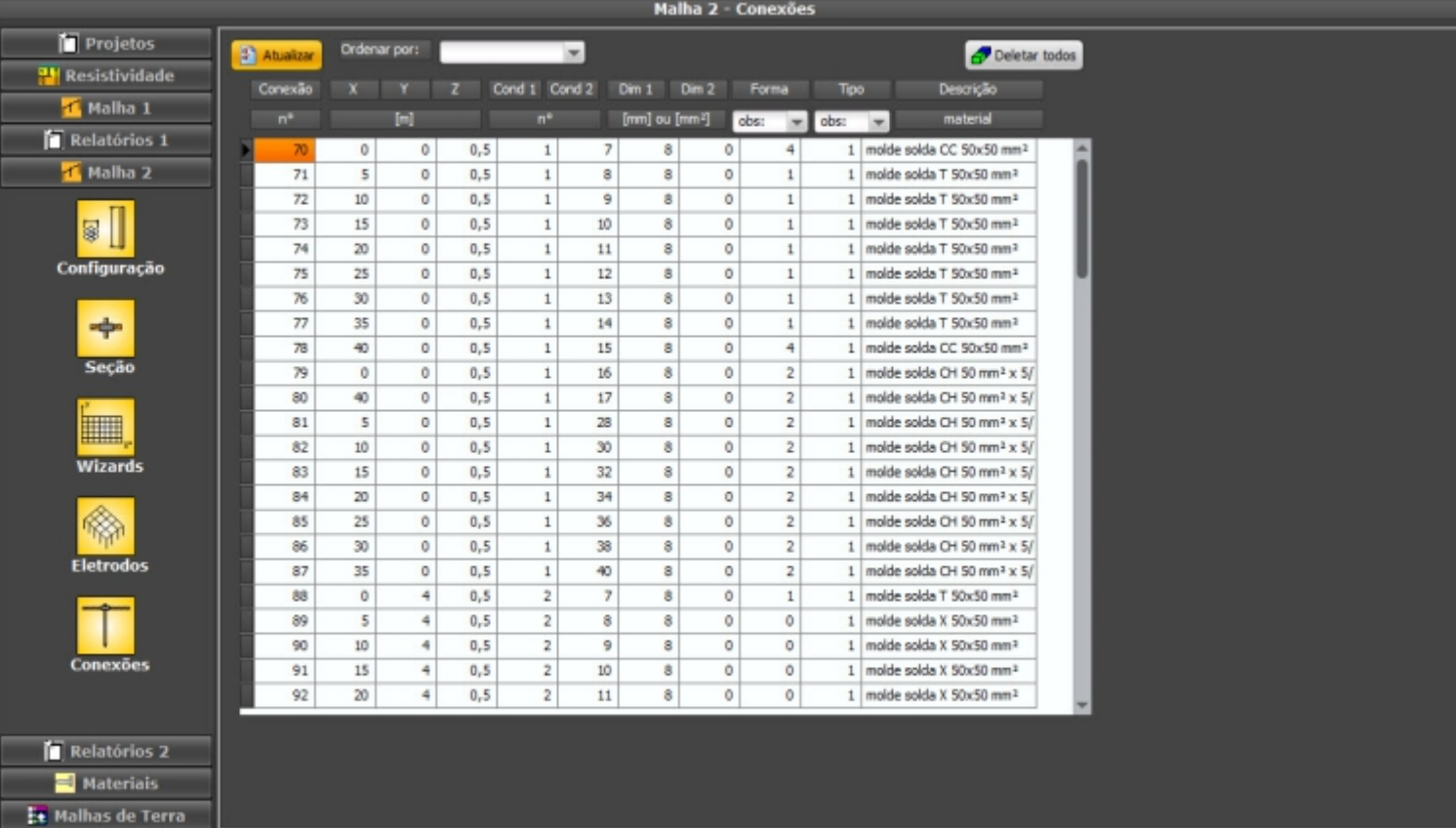
Buttons on the right: Impressão, Configura, Imprimir, PDF, Exportar, TXT, Copiar.

Text report with the resistance calculated and all the electrodes - you can also list the electrodes as divided for the calculations (for better precision)

TECAT PLUS 6.5

Software for grounding grid design

Connections report



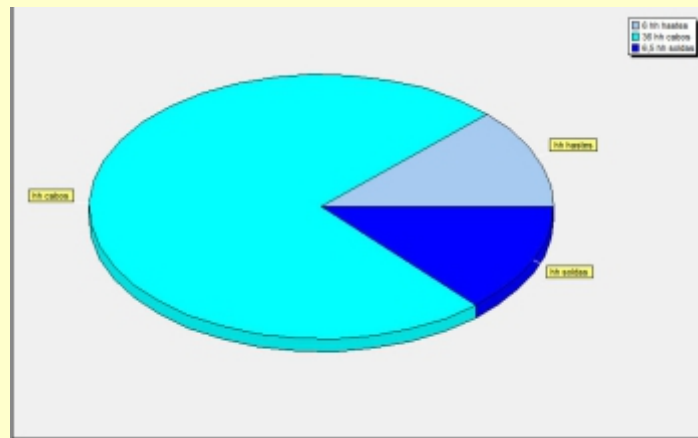
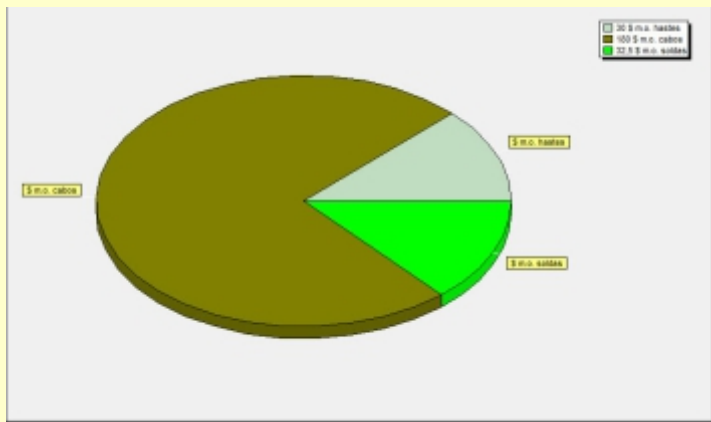
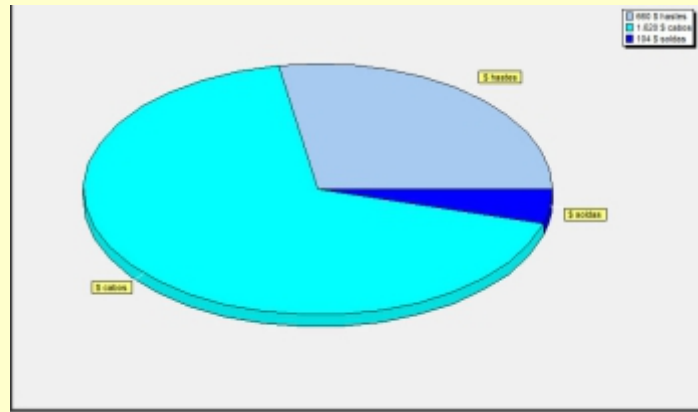
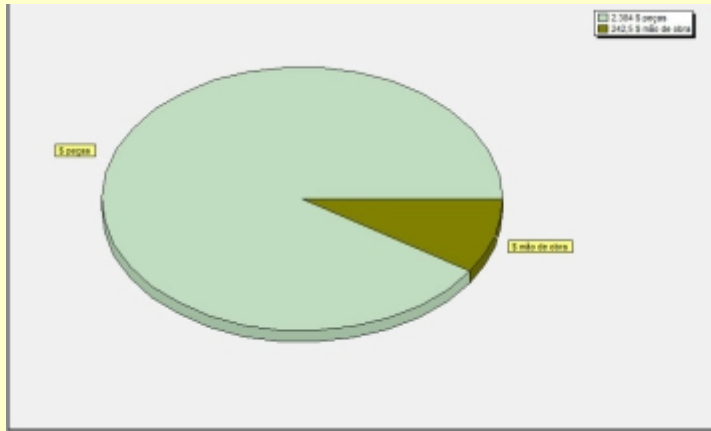
| Conexão | X | Y | Z | Cond 1 | Cond 2 | Dim 1 | Dim 2 | Forma | Tipo | Descrição |
|---------|-----|---|-----|--------|--------|---------------|-------|-------|------|----------------------------|
| n° | [m] | | | n° | | [mm] ou [mm²] | | obs: | obs: | material |
| 70 | 0 | 0 | 0,5 | 1 | 7 | 8 | 0 | 4 | 1 | molde solda CC 50x50 mm² |
| 71 | 5 | 0 | 0,5 | 1 | 8 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 72 | 10 | 0 | 0,5 | 1 | 9 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 73 | 15 | 0 | 0,5 | 1 | 10 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 74 | 20 | 0 | 0,5 | 1 | 11 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 75 | 25 | 0 | 0,5 | 1 | 12 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 76 | 30 | 0 | 0,5 | 1 | 13 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 77 | 35 | 0 | 0,5 | 1 | 14 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 78 | 40 | 0 | 0,5 | 1 | 15 | 8 | 0 | 4 | 1 | molde solda CC 50x50 mm² |
| 79 | 0 | 0 | 0,5 | 1 | 16 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 80 | 40 | 0 | 0,5 | 1 | 17 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 81 | 5 | 0 | 0,5 | 1 | 28 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 82 | 10 | 0 | 0,5 | 1 | 30 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 83 | 15 | 0 | 0,5 | 1 | 32 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 84 | 20 | 0 | 0,5 | 1 | 34 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 85 | 25 | 0 | 0,5 | 1 | 36 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 86 | 30 | 0 | 0,5 | 1 | 38 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 87 | 35 | 0 | 0,5 | 1 | 40 | 8 | 0 | 2 | 1 | molde solda CH 50 mm² x 5/ |
| 88 | 0 | 4 | 0,5 | 2 | 7 | 8 | 0 | 1 | 1 | molde solda T 50x50 mm² |
| 89 | 5 | 4 | 0,5 | 2 | 8 | 8 | 0 | 0 | 1 | molde solda X 50x50 mm² |
| 90 | 10 | 4 | 0,5 | 2 | 9 | 8 | 0 | 0 | 1 | molde solda X 50x50 mm² |
| 91 | 15 | 4 | 0,5 | 2 | 10 | 8 | 0 | 0 | 1 | molde solda X 50x50 mm² |
| 92 | 20 | 4 | 0,5 | 2 | 11 | 8 | 0 | 0 | 1 | molde solda X 50x50 mm² |

TecAt automatically locates every electrodes junctions of the grid and, using the selected components from the material database, builds the full list of connections

TECAT PLUS 6.5

Software for grounding grid design

Cost and time analysis

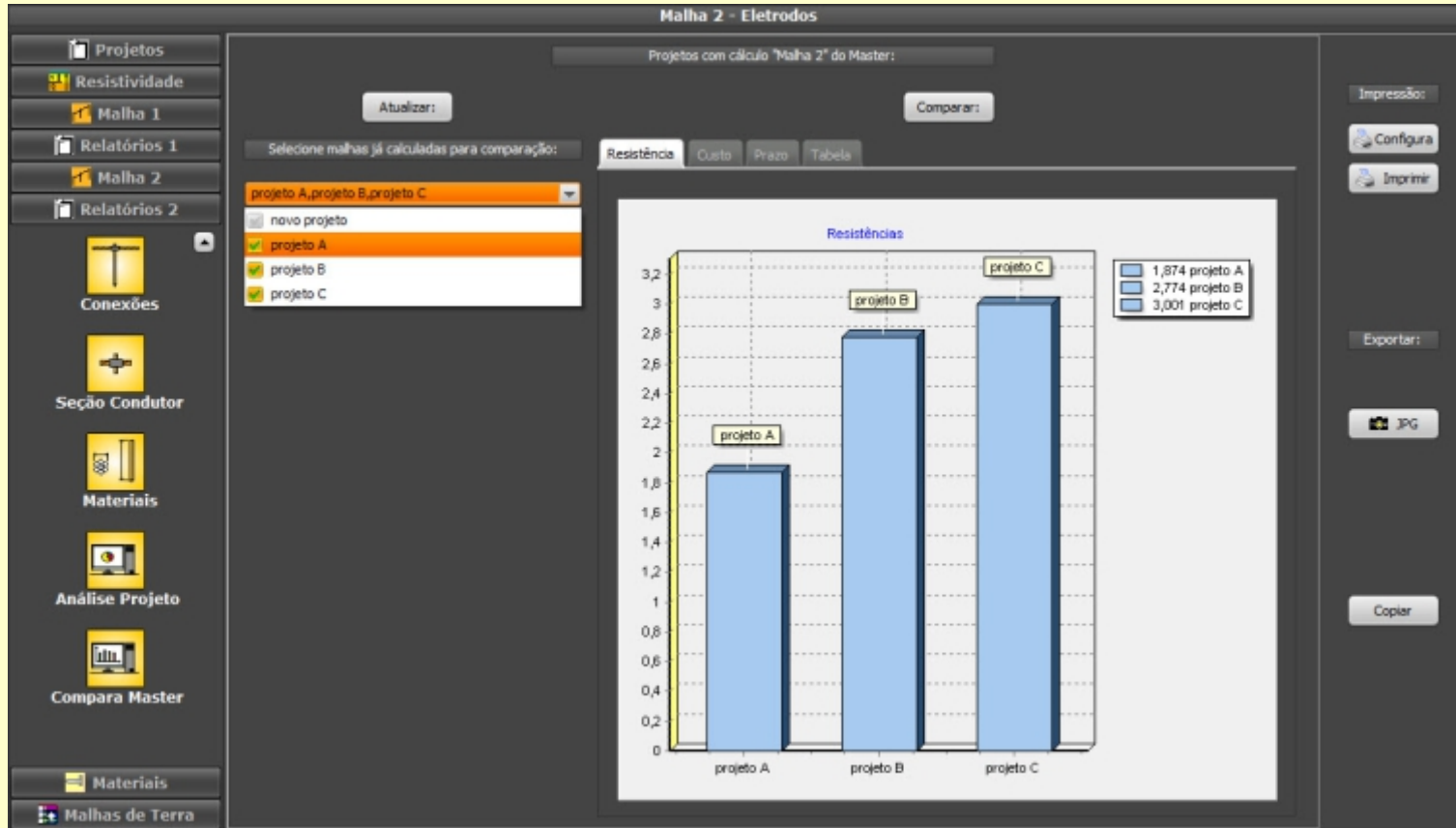


For each grid, you can compare the costs between materials and manpower for the whole grid, costs and manpower from cables, rods and connections and the time to build the grid

TECAT PLUS 6.5

Software for grounding grid design

Comparative between grids

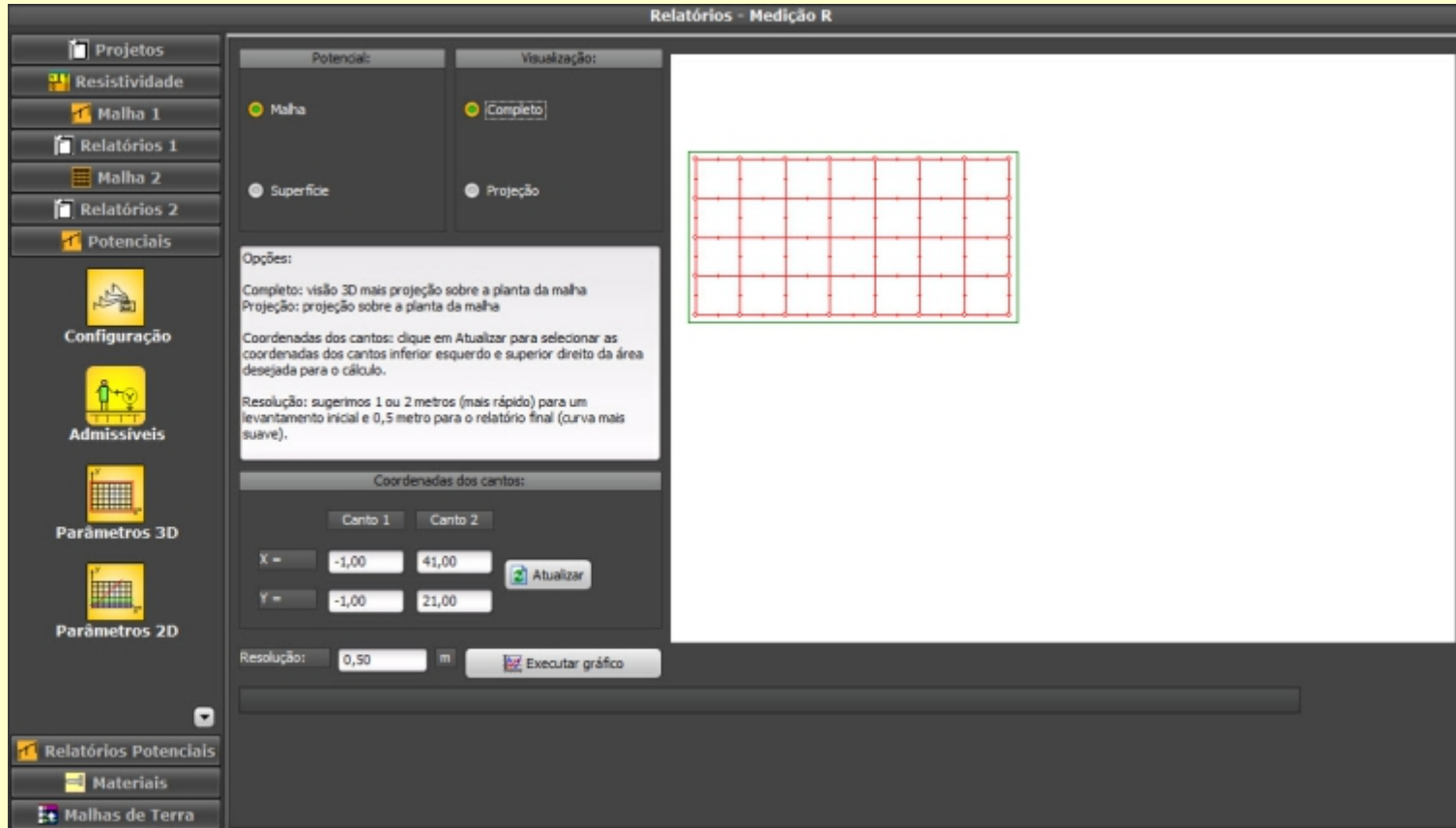


You can group several grids on the same 'Master' file, then, after calculating each one, compare the results for resistance, costs and time to build

TECAT PLUS 6.5

Software for grounding grid design

Potentials module: defining the area

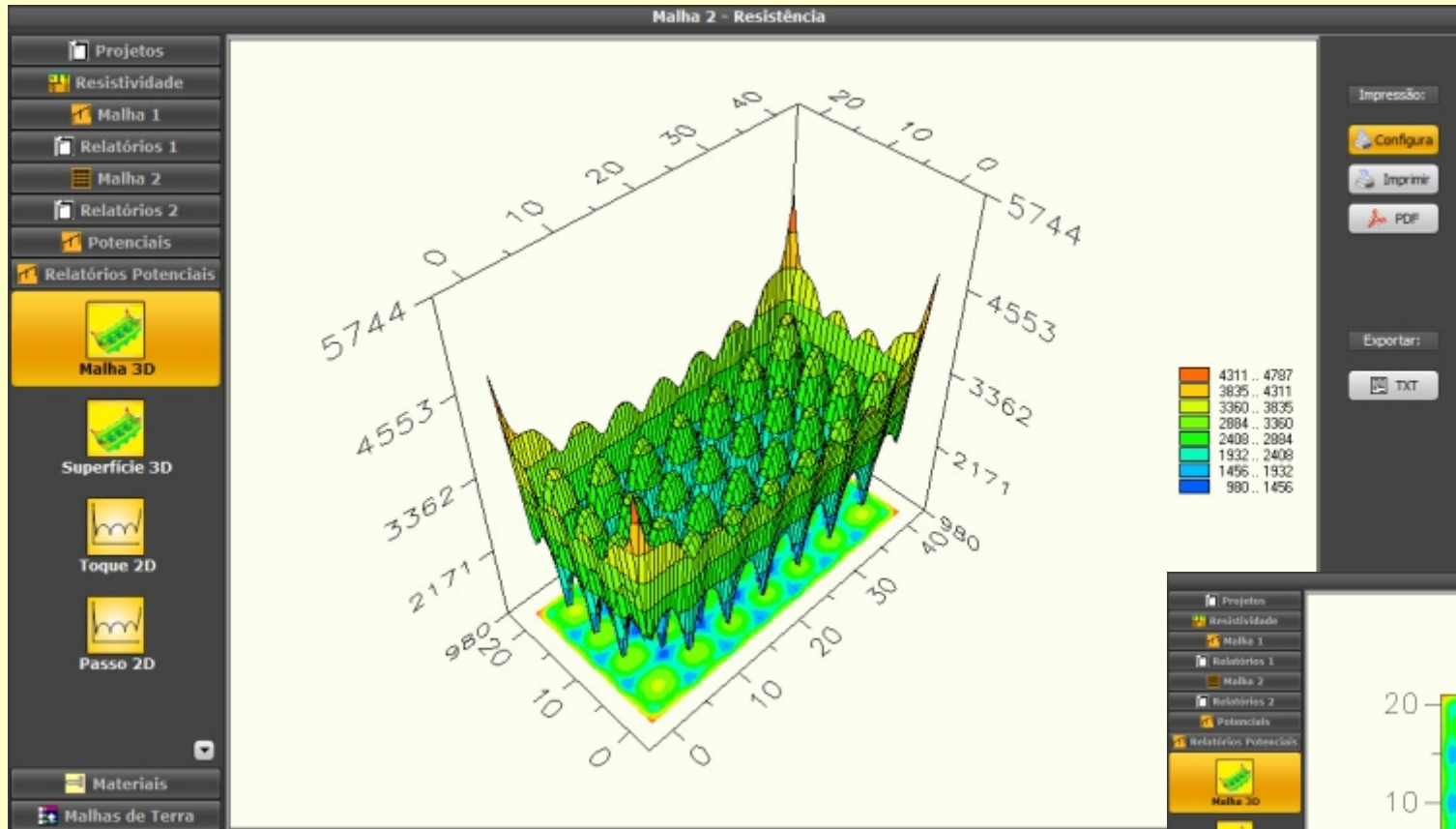


For the 3-D view of grid and surface potentials, you can set the desired area - the full grid, part of it or the surrounding area.

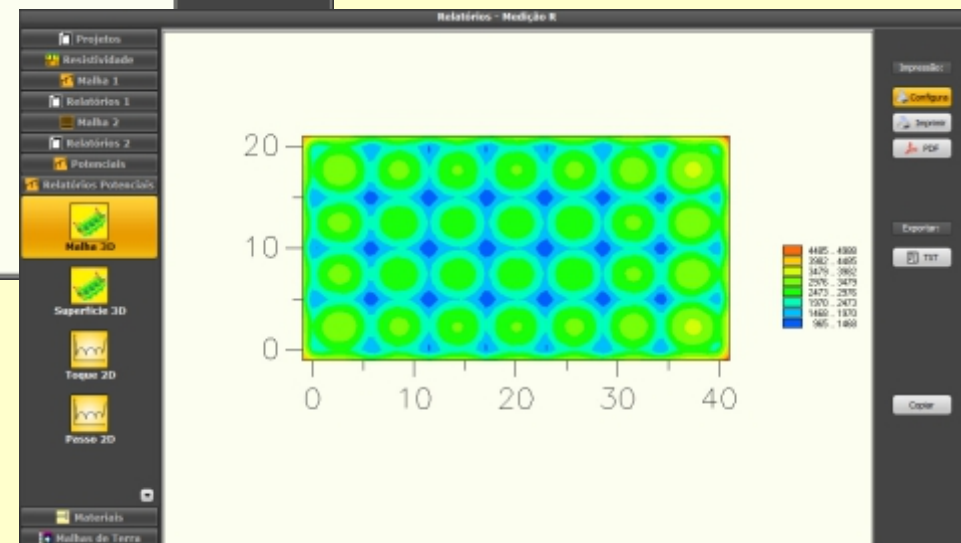
TECAT PLUS 6.5

Software for grounding grid design

Potentials module: 3-D view



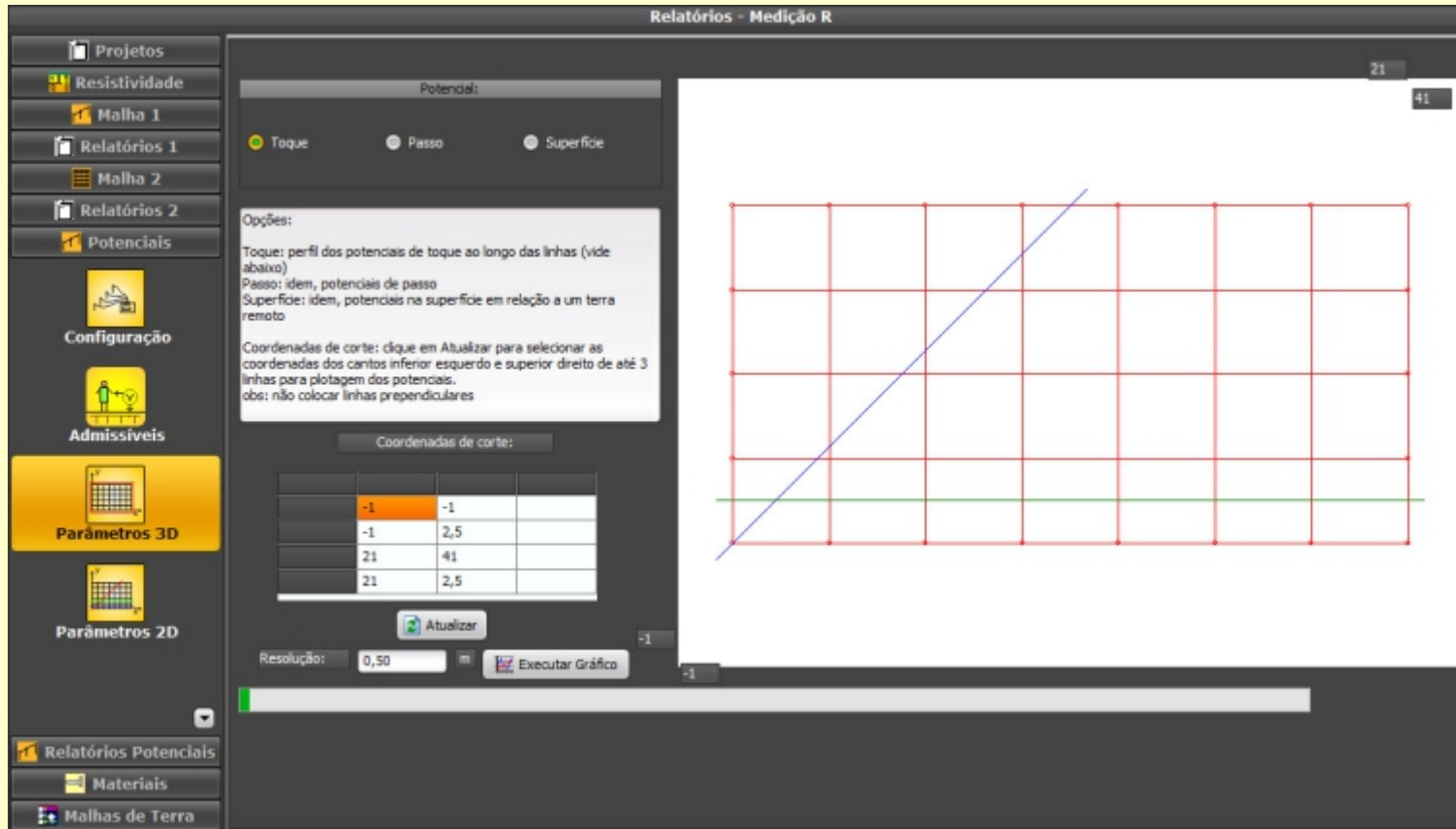
You can also set the chart resolution to get a better speed while defining the grid, then draw it again with a more smooth surface



TECAT PLUS 6.5

Software for grounding grid design

Potentials module: 2-D view

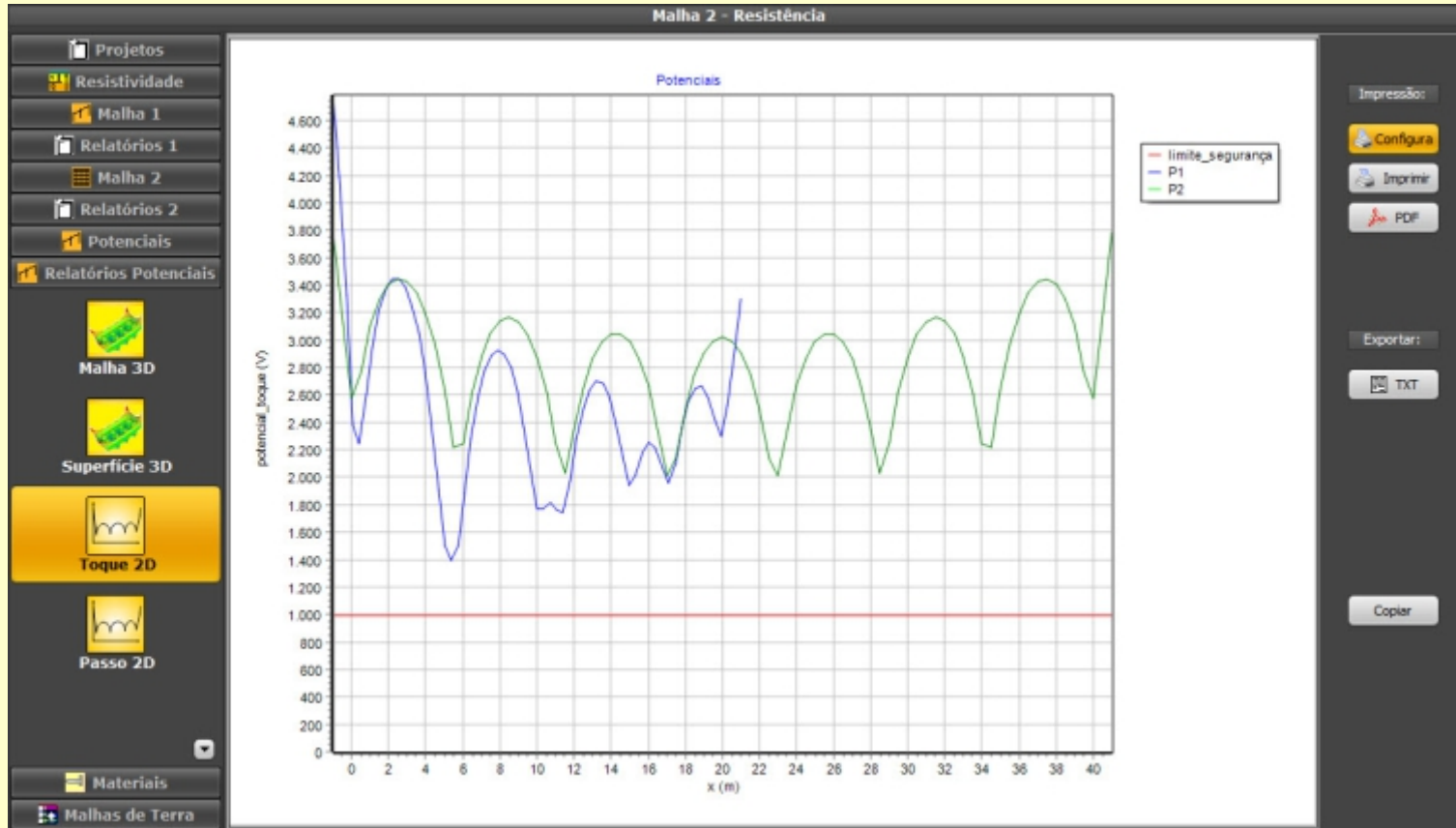


For the 2-D view of touch, step and surface potentials, you can set up to 3 lines at a time, including coordinates outside the grid; as in the 3-D view, you can also set the chart resolution

TECAT PLUS 6.5

Software for grounding grid design

Potentials module: 2-D view

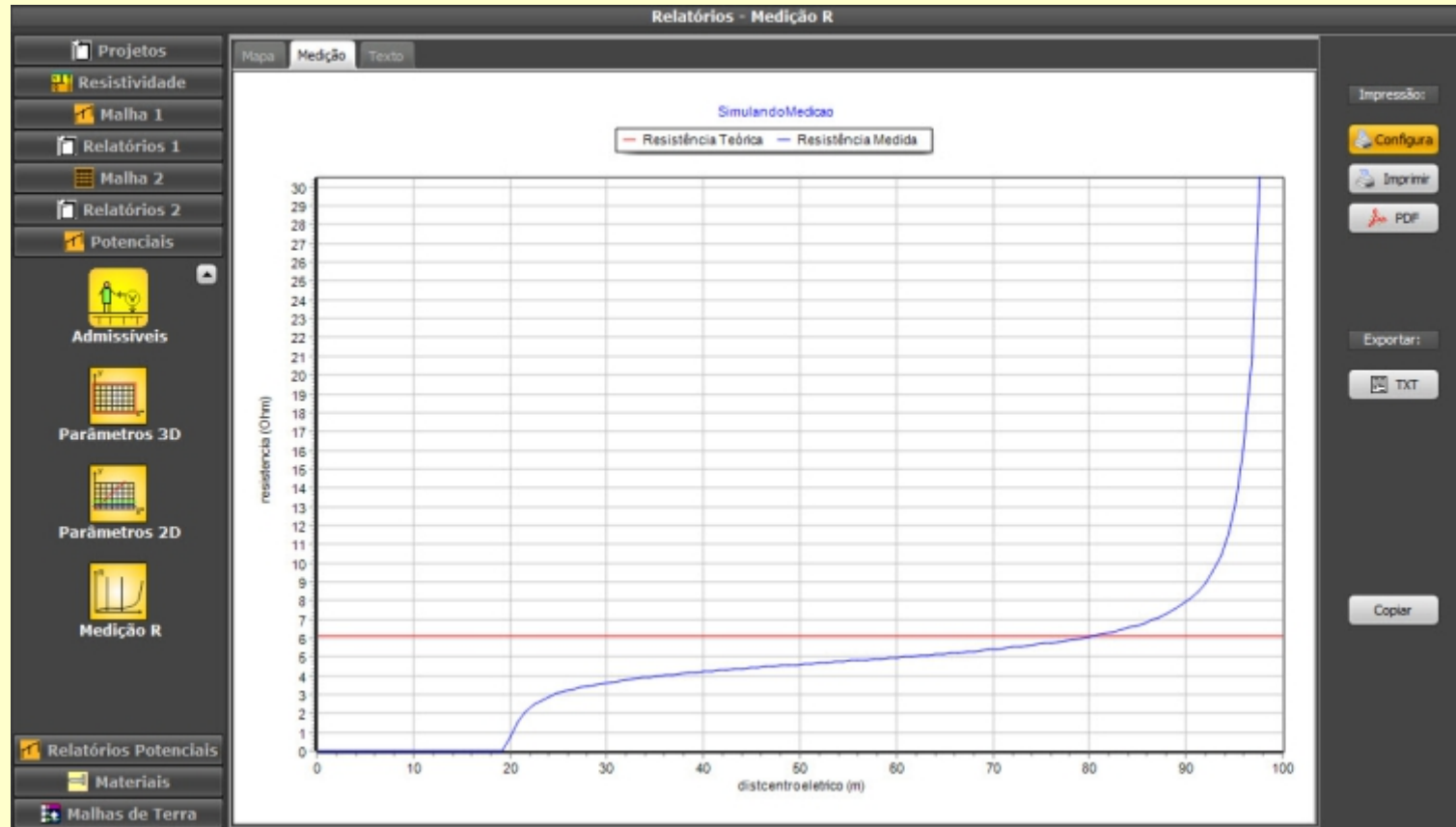


At the 2-D view of touch, step and surface potentials, the potentials along each defined line is plotted, along with the tolerable touch/step potential (calculated separately - see next); for the surface potentials, the red line represents the GPR

TECAT PLUS 6.5

Software for grounding grid design

Resistance measurement simulation



An additional feature of TecAt is the possibility to simulate the resistance measurement after the grid is built on the given soil; that's very handy when you don't have enough space to perform a full measurement

TECAT PLUS 6.5

Software for grounding grid design

Auxiliary calculations

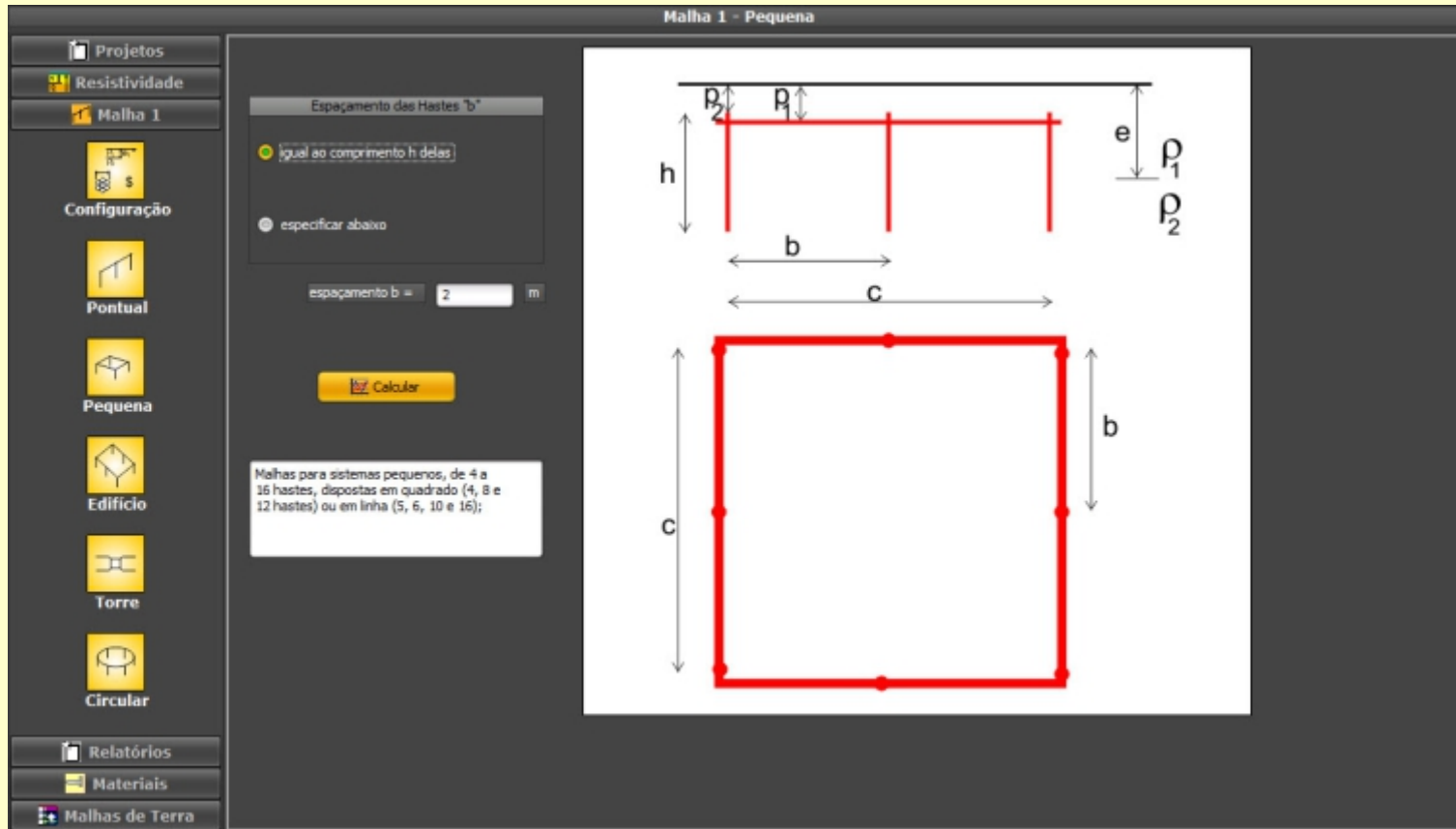
The screenshot displays the 'Malha 2 - seção do condutor' (Grid 2 - conductor section) window in the TecAt PLUS 6.5 software. The interface is organized into a sidebar on the left with icons for 'Projetos', 'Resistividade', 'Malha 1', 'Relatórios 1', 'Malha 2', 'Configuração', 'Seção', 'Wizards', 'Eletrodos', 'Conexões', 'Relatórios 2', 'Materiais', and 'Malhas de Terra'. The main window contains a 'Projeto:' section with input fields for 'Corrente de curto:' (1,00 [kA]) and 'Tempo de proteção:' (0,50 [s]). Below these is a text box explaining the calculation: 'Cálculo térmico da seção mínima dos condutores na conexão entre o cabo de descida da corrente de curto e o condutor da malha. Selecione um dos padrões ou entre os dados se preferir.' To the right, the 'Material:' section includes a 'padrões:' dropdown menu with options like 'entrar dados', 'cobre mole, solda', 'cobre meio-duro', 'meio-duro, sem recozer', 'aço-cobre 40%', 'aço-cobre 30%', 'aço cobreado 254', and 'aluminio'. Below the dropdown are input fields for 'T máx.', 'T amb.', 'T ref.', 'α 0', 'α 20', 'ρ 20' (1,7774), 'ε' (0,0941 [cal / g / °C]), and 'densidade' (8,9000 [g / cm³]). There is a checkbox for 'usar TCAP' and a 'TCAP' input field (0). At the bottom, there are 'Atualizar' and 'Calcular' buttons.

TecAt also has calculations for the conductor section and tolerable potentials (voltages); for conductor section, there are all the standard predefined materials or you can enter your own parameters; for tolerable touch and step potentials, TecAt uses the IEEE-80 formulation (you'll need the grid current and the short-circuit duration)

TECAT PLUS 6.5

Software for grounding grid design

Grid 1 module: quick grid comparative

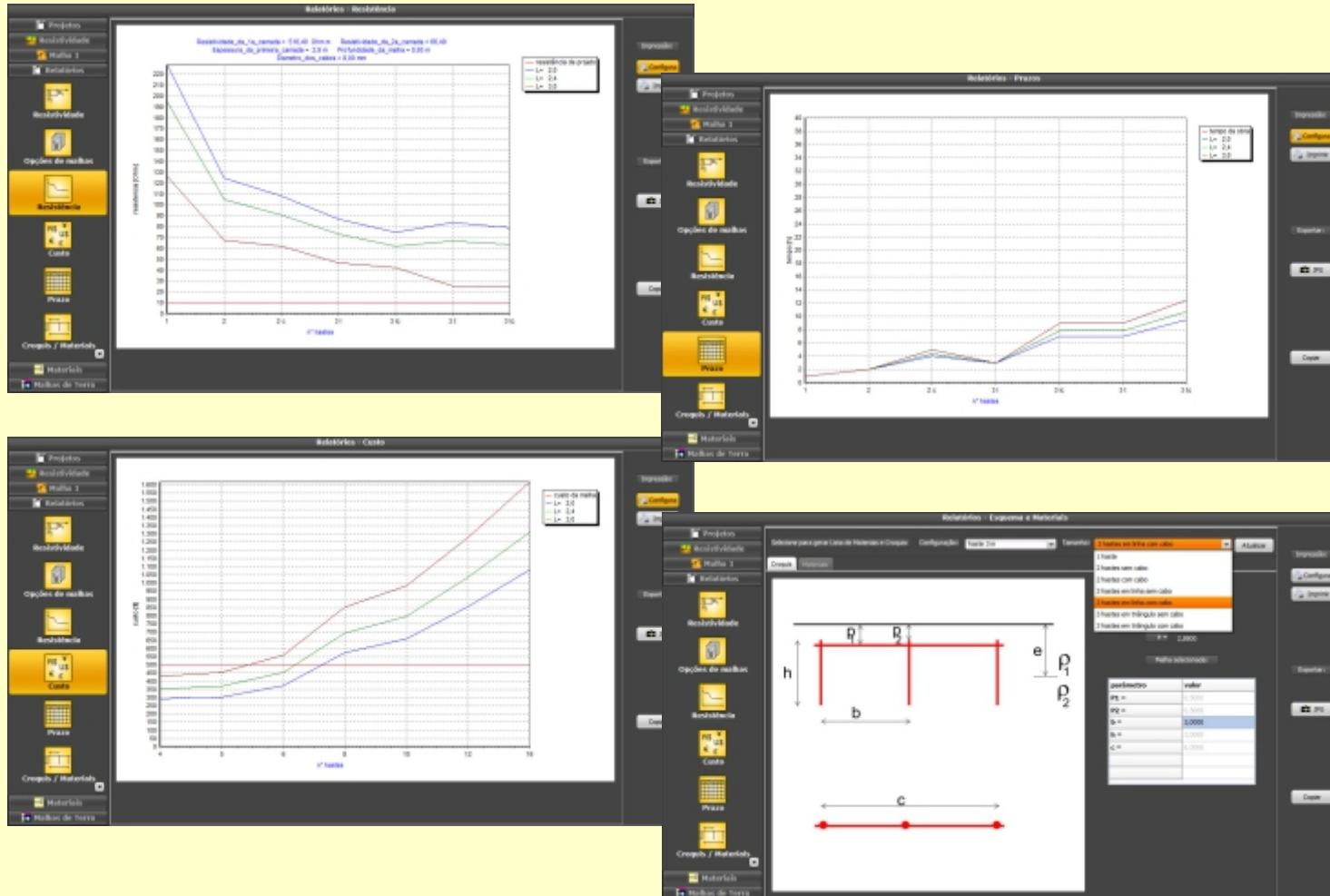


Besides the complex grid calculations in up to 4-layer soil on module Grid 2, the module Grid 1 gives you quick comparatives in 2-layer soil for several predefined configurations, like rectangular or circular (poligon) rings with up to 16 rods, with 3 rod lengths

TECAT PLUS 6.5

Software for grounding grid design

Grid 1 module: quick grid comparative



On the Grid 1 module, TecAt calculates instantly 21 different grids with the same configuration but different sizes, presenting comparative charts of resistance, cost and time to build; after you select the best solution for your case, you can generate its descriptive (with draft) and materials reports

TECAT PLUS 6.5


Software for grounding grid design

Materials database

Materials - Consulta

Ordenar: Descrição Procurar:

| Descrição | Grupo | Dimensões | Característica 01 |
|---------------------------|------------|--------------|--------------------|
| aço cobreado 2.0 m x 3/4" | Hastes | 2 m x 3/4 | aço cobreado |
| aço cobreado 2.0 m x 5/8" | Hastes | 2 m x 5/8 | aço cobreado |
| aço cobreado 2.4 m x 3/4 | Hastes | 2.4 m x 3/4 | aço cobreado |
| aço cobreado 2.4 m x 5/8 | Hastes | 2.4 m x 5/8 | aço cobreado |
| aço cobreado 3 m x 3/4 | Hastes | 3 m x 3/4 | aço cobreado |
| aço cobreado 3 m x 5/8 | Hastes | 3 m x 5/8 | aço cobreado |
| Brita | Brita | #3 | |
| cabo cobre 50 mm² | Cabos | 50 mm² | |
| cabo cobre 70 mm² | Cabos | 70 mm² | cobre eletrolítico |
| Compressão C 50 mm² | Conectores | 50 x 50 mm² | |
| Compressão C 70 mm² | Conectores | 70 x 70 mm² | |
| Compressão duplo G 50 mm² | Conectores | 50 x 50 mm² | |
| Compressão duplo G 70 mm² | Conectores | 70 x 70 mm² | |
| Compressão G 50 mm² x 5/8 | Conectores | 50 mm² x 5/8 | |
| Compressão G 70 mm² x 3/4 | Conectores | 70 mm² x 3/4 | |
| Linha rosca 3/4 | Conectores | 3/4 x 3/4 | |

Foto ou croquis: 

Comentários:

Novo Copia p/ novo Editar Deletar

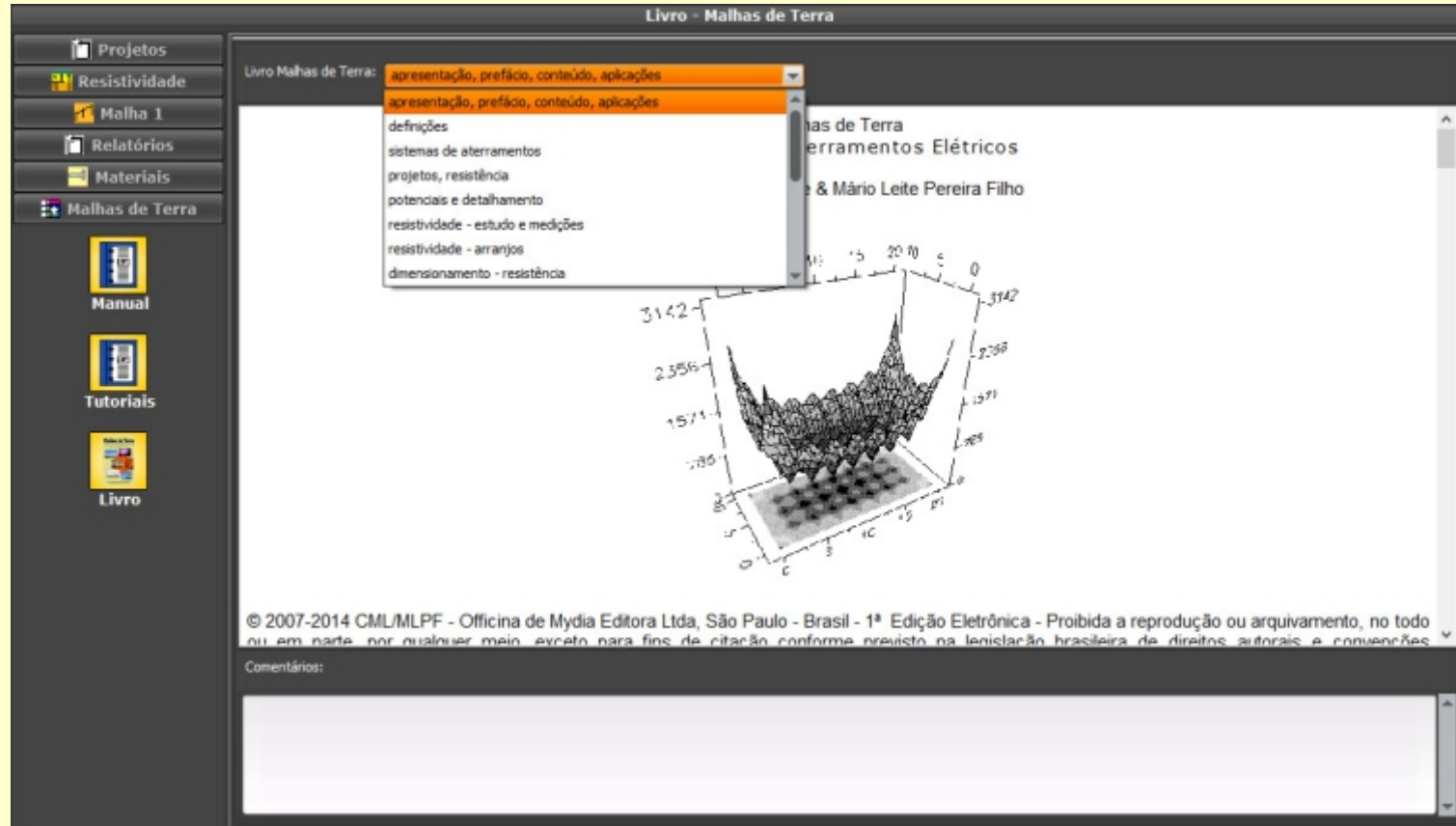
Malhas de Terra

TecAt has a database of materials and suppliers - it's fully editable and you can generate the data-sheet for each material.

TECAT PLUS 6.5

Software for grounding grid design

Documentation



From inside the program, you have access to the manual, some tutorials (more tutorials available at our site) and the book 'Malhas de Terra' (Grounding Grids) with all the theory - as we are revising the text and the book structure, it's not translated to English yet, we hope to finish this as soon as possible (honest!) and, of course, all users will receive this update.

| | |
|------------------------------------|--|
| ANY MAJOR STANDARD ^[1] | IEEE 80, IEEE 81, NBR 7117, NBR |
| MULTI-LANGUAGE ^[2] | English; Português, Español |
| MULTI-USER | mono-user version multi-user: 2 users or more on the same network |
| SOIL STRATIFICATION | Wenner and Schlumberger ^[3] methods fully numerical calculation generates 2-, 3- and 4-layer stratification |
| GRID RESISTANCE | Full no-excuses numerical computation Grid in 2-, 3- or 4-layer soil Any grid format, any size electrodes |
| TOUCH, STEP AND SURFACE POTENTIALS | Full no-excuses numerical computation Grid in 2-, 3- or 4-layer soil 2-D and 3-D view |
| MATERIALS LIST | Materials database (fully editable) Detailed and consolidated lists Data-sheet for each component |
| QUICK 2-LAYER OPTION | Several pre-defined models Instantaneous calculation and analysis 21 grids resistance compare |
| REPORTS in PDF format | Export to PDF All reports (texts, charts) can be copied to paste on another software |

More on the web:

www.voltsandbolts.com

TecAt page:

www.voltsandbolts.com/grounding/grounding_tecat.htm

Examples, tutorials, manuals:

www.voltsandbolts.com/howto/docs.htm

Sales:

sales@voltsandbolts.com

notes:

[1] - ask for specific details

[2] - for both program and reports; Spanish for program only, more languages can be added as demand justifies it - if you can help translate to your language, please contact us at

sales@voltsandbolts.com

[3] - Schlumberger support - see docs