

Geometry View Calculate Far field plots

Name

Wires 0

No.

next

Sources 0

No.

next

(MHz)

Il software MMANA-GAL è opera intellettuale di JE3HHT (Makoto Mori), DL1PBD (Alex Schewelew) e DL2KQ (Igor Gontcharenko). Tutto il materiale scritto e grafico di tale software è di esclusiva proprietà degli Autori. (copyright) <http://mmhamsoft.amateur-radio.ca/>

Il presente tutorial è stato realizzato senza fini di lucro , con il solo scopo di aiutare gli appassionati di lingua italiana ad utilizzare il suddetto software. L'autore del tutorial , ik7jwy, non è in alcun modo collegato al progetto MMANA-GAL nè ad alcuno dei suoi Autori. Si declina qualsiasi responsabilità per l'uso scorretto del tutorial. Si rinvia in ogni caso all'help on line presente nel software MMANA-GAL.

Sono gradite segnalazioni di errori.

L'autore del tutorial è reperibile su <http://www.hamradioweb.org/forums>





Calculate

Tutorial n.4 (versione 1.0 15-9-2007)

In questo tutorial analizzeremo il contenuto della cartella "Calculate" del software.

Name yagi 4 el. 20 metri

Freq 14.150

MHz

lambda

Wires 0

Auto segmentation:

DM1 800

DM2 80

SC 2.0

EC 1

Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
next								

Sources 0

Auto Voltage

No.	PULSE	Phase dg	Volt. V
next			

Loads 0

Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						



Geometry View **Calculate** Far field plots

Noname

Freq 14.150 MHz

Ground

- Free space
- Perfect
- Real

Ground setup

Add height 15.00 m

Material No loss

WAVE LENGTH = 21.187 (m)
NUMBER OF PULSES IS ZERO....

In questa cartella si impostano alcuni parametri per il calcolo del modello di antenna precedentemente costruito in "Geometry" e visualizzato in "View". Ma carichiamo prima il file contenente il modello della nostra antenna (dipolo trappolato visto nel tutorial n.2).

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit





Noname

Freq MHz

WAVE LENGTH = 21.187 (m)
 NUMBER OF PULSES IS ZERO....

Ground

Free space

Perfect

Real

Add height m

Material

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Start/Stop

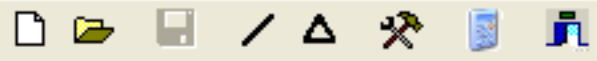
Optimization

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Plots

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Freq 14.150 MHz

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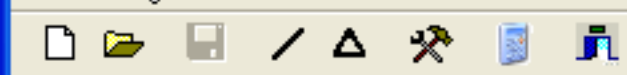
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Noname

Freq MHz

Ground

Free space

Perfect

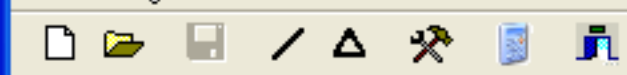
Real

Add height m

Material

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Freq MHz

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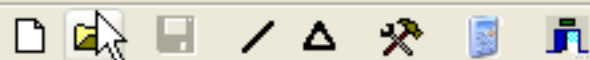
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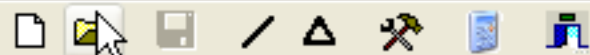
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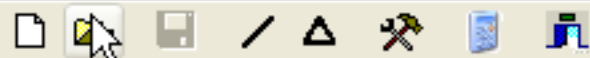
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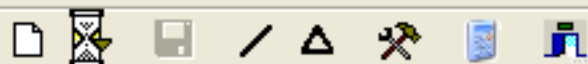
Real

Ground setup

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Geometry View Calculate Far field plots

Noname

Freq 14.150 MHz

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Free space

Perfect

Real

Ground setup

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Material No loss

Open antenna files

Cerca in: Trap

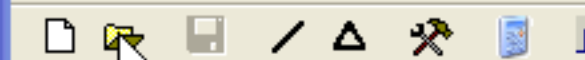
<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file: MMANA-GAL (*.maa)

Apri Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
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Noname

Freq MHz

Ground

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Material

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<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
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Noname

Freq MHz

Ground

Free space
 Perfect
 Real

Add height m

Material

Open antenna files

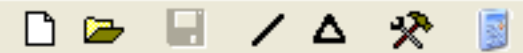
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
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No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry **Calculate** Far field plots

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

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<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
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Geometry View **Calculate** Far field plots

Noname

Freq 14.150 MHz

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Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

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Nome file: Apri

Tipo file: MMANA-GAL (*.maa) Annulla

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Noname

Freq MHz

Ground

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Material

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Apri

Annulla

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Tipo file: MMANA-GAL (*.maa)

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Tipo file:

Apri

Annulla

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Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

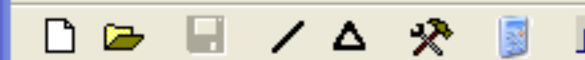
<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file: MMANA-GAL (*.maa)

Apri Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

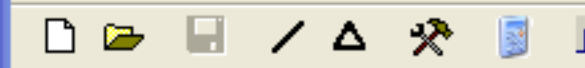
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry View Calculate Far field plots

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file: MMANA-GAL (*.maa)

Apri Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

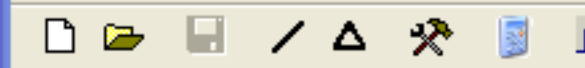
Nome file:

Tipo file:

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry View Calculate Far field plots

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

Apri Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file: MMANA-GAL (*.maa)

Apri Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

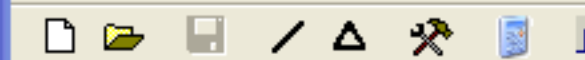
Nome file:

Tipo file:

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

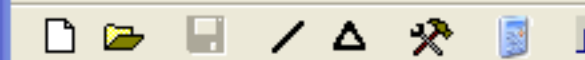
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
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<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

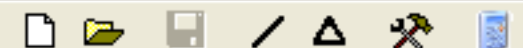
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry View Calculate Far field plots

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

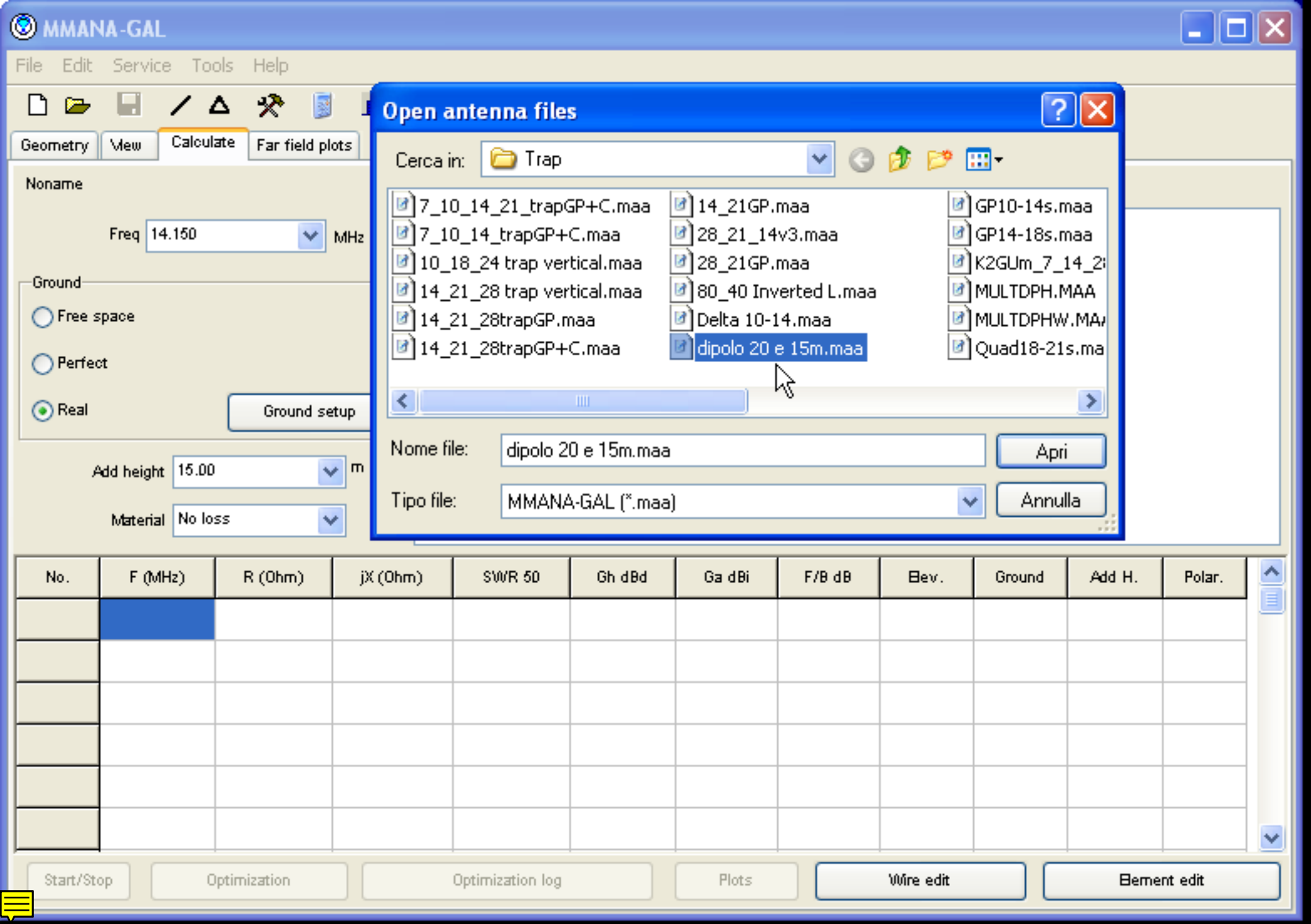
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Open antenna files

Cerca in: Trap

- 7_10_14_21_trapGP+C.maa
- 7_10_14_trapGP+C.maa
- 10_18_24 trap vertical.maa
- 14_21_28 trap vertical.maa
- 14_21_28trapGP.maa
- 14_21_28trapGP+C.maa
- 14_21GP.maa
- 28_21_14v3.maa
- 28_21GP.maa
- 80_40 Inverted L.maa
- Delta 10-14.maa
- dipolo 20 e 15m.maa
- GP10-14s.maa
- GP14-18s.maa
- K2GUm_7_14_21.maa
- MULTDPH.MAA
- MULTDPHW.MAA
- Quad18-21s.maa

Nome file: dipolo 20 e 15m.maa

Apri

Tipo file: MMANA-GAL (*.maa)

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

- 7_10_14_21_trapGP+C.maa
- 7_10_14_trapGP+C.maa
- 10_18_24 trap vertical.maa
- 14_21_28 trap vertical.maa
- 14_21_28trapGP.maa
- 14_21_28trapGP+C.maa
- 14_21GP.maa
- 28_21_14v3.maa
- 28_21GP.maa
- 80_40 Inverted L.maa
- Delta 10-14.maa
- dipolo 20 e 15m.maa
- GP10-14s.maa
- GP14-18s.maa
- K2GUm_7_14_21.maa
- MULTDPH.MAA
- MULTDPHW.MAA
- Quad18-21s.maa

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file: dipolo 20 e 15m.maa

Tipo file: MMANA-GAL (*.maa)

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file: dipolo 20 e 15m.maa

Tipo file: MMANA-GAL (*.maa)

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space
 Perfect
 Real

Add height m

Material

Open antenna files

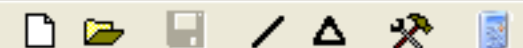
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24_trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28_trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry View Calculate Far field plots

Noname

Freq MHz

Ground

Free space

Perfect

Real

Ground setup

Add height m

Material

Open antenna files

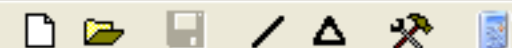
Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Geometry View Calculate Far field plots

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input checked="" type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Open antenna files

Cerca in:

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file:

Tipo file:

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file: dipolo 20 e 15m.maa

Tipo file: MMANA-GAL (*.maa)

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Noname

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Open antenna files

Cerca in: Trap

<input type="checkbox"/> 7_10_14_21_trapGP+C.maa	<input type="checkbox"/> 14_21GP.maa	<input type="checkbox"/> GP10-14s.maa
<input type="checkbox"/> 7_10_14_trapGP+C.maa	<input type="checkbox"/> 28_21_14v3.maa	<input type="checkbox"/> GP14-18s.maa
<input type="checkbox"/> 10_18_24 trap vertical.maa	<input type="checkbox"/> 28_21GP.maa	<input type="checkbox"/> K2GUm_7_14_2:
<input type="checkbox"/> 14_21_28 trap vertical.maa	<input type="checkbox"/> 80_40 Inverted L.maa	<input type="checkbox"/> MULTDPH.MAA
<input type="checkbox"/> 14_21_28trapGP.maa	<input type="checkbox"/> Delta 10-14.maa	<input type="checkbox"/> MULTDPHW.MAA
<input type="checkbox"/> 14_21_28trapGP+C.maa	<input type="checkbox"/> dipolo 20 e 15m.maa	<input type="checkbox"/> Quad18-21s.ma

Nome file: dipolo 20 e 15m.maa

Tipo file: MMANA-GAL (*.maa)

Apri

Annulla

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

con questo menù è possibile indicare la frequenza con riferimento alla quale va effettuato il calcolo

Ground

Free space

Perfect

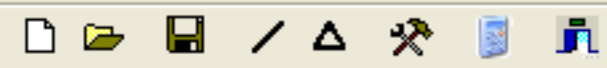
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space
 Perfect
 Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

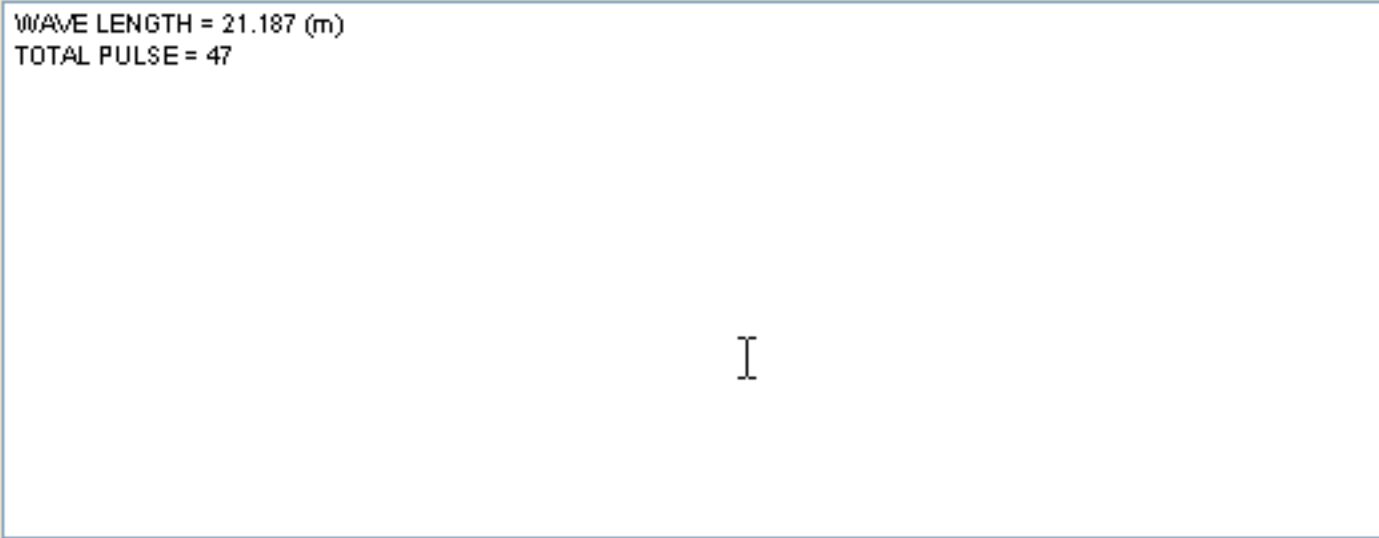
Perfect

Real

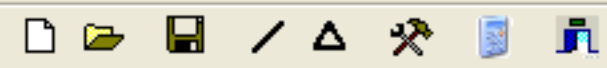
Ground setup

Add height 15.00 m

Material No loss



No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

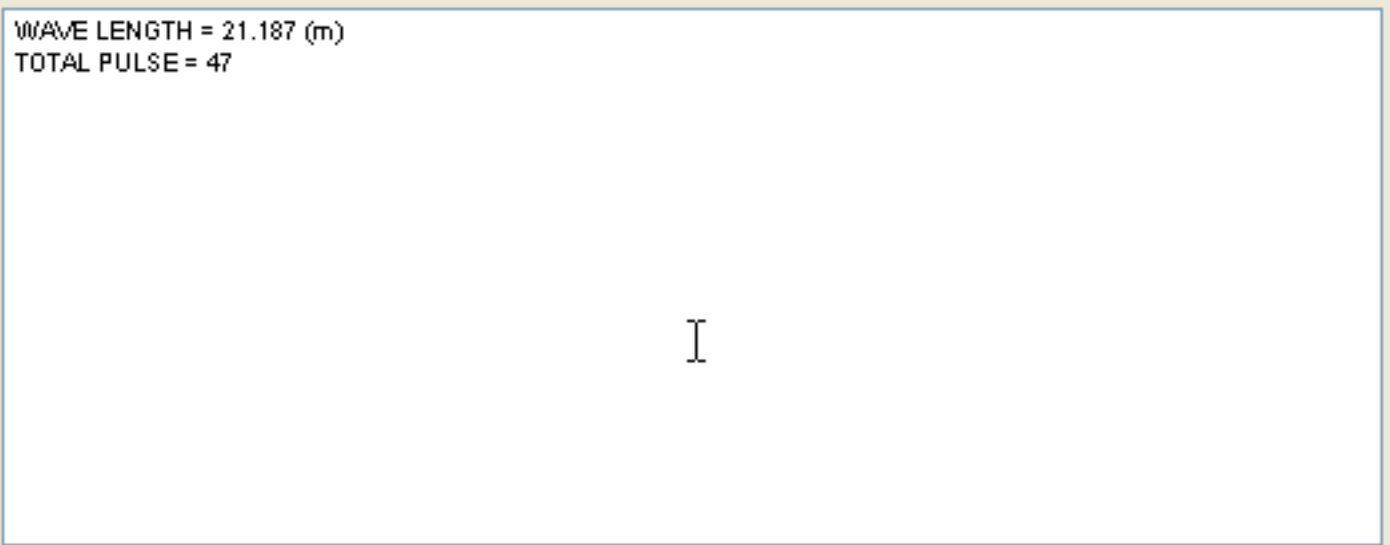
Perfect

Real

Ground setup

Add height 15.00 m

Material No loss



No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

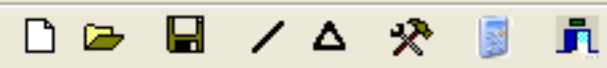
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

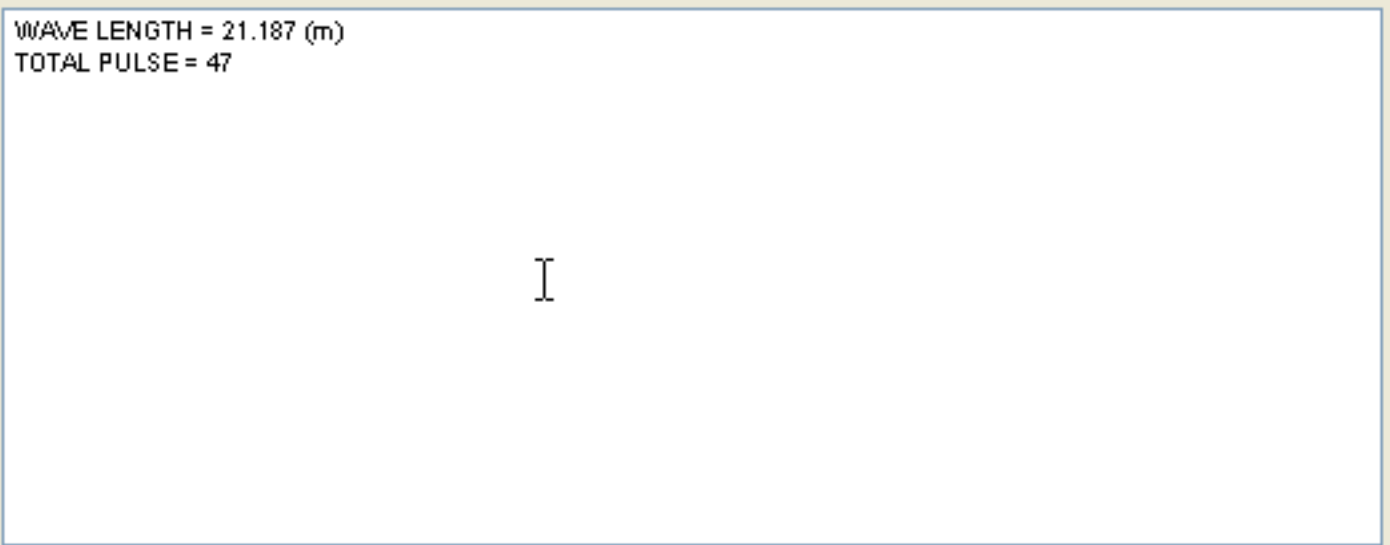
Perfect

Real

Ground setup

Add height 15.00 m

Material No loss



No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

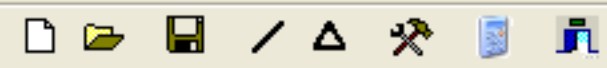
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

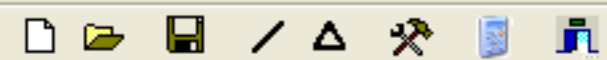
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

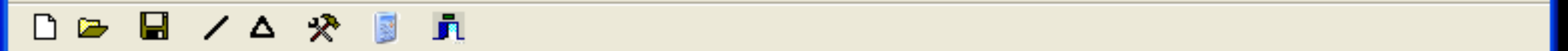
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

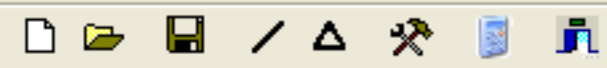
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

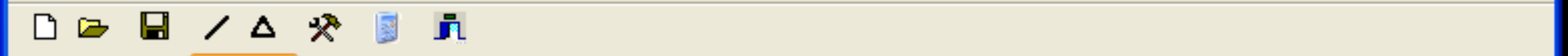
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

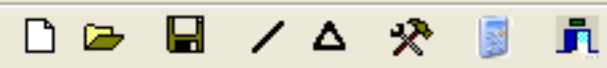
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

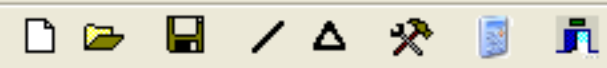
Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

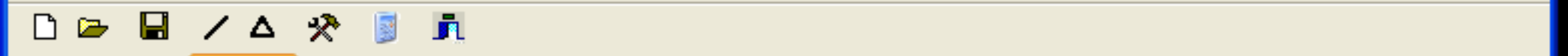
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Free space
 Perfect
 Real

Ground

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Free space
 Perfect
 Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

14.150
18.080
18.120
21.050
21.200
24.900
24.940
28.200

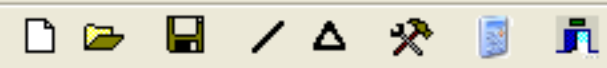
Setup

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

Ground

Free space

Perfect

Real

18.080

18.120

21.050

21.200

24.900

24.940

28.200

Setup

WAVE LENGTH = 21.187 (m)

TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

18.080

18.120

21.050

21.200

24.900

24.940

28.200

Setup

WAVE LENGTH = 21.187 (m)

TOTAL PULSE = 47

Add height m

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Freq MHz

Ground

Free space

Perfect

Real

18.080

18.120

21.050

21.200

24.900

24.940

28.200

Setup

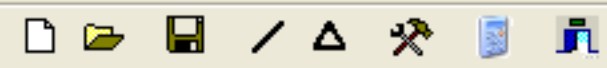
WAVE LENGTH = 21.187 (m)

TOTAL PULSE = 47

Add height m

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No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

Ground

Free space

Perfect

Real

18.080

18.120

21.050

21.200

24.900

24.940

28.200

Setup

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TOTAL PULSE = 47

Add height m

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Free space

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18.120

21.050

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28.200

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Free space

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18.080

18.120

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24.940

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Freq MHz

Ground

Free space

Perfect

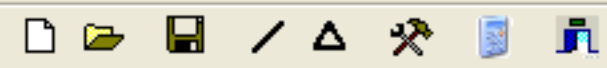
Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

Ground

Free space

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14.150

18.080

18.120

21.050

21.200

24.900

24.940

28.200

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Freq MHz

Ground

Free space

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Freq MHz

Ground

Free space

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Freq MHz

Ground

Free space

Perfect

Real

Setup

- 14.150
- 18.080
- 18.120
- 21.050
- 21.200
- 24.900
- 24.940
- 28.200

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

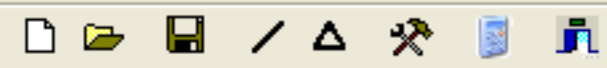
Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

Ground

Free space

Perfect

Real

Setup

- 14.150
- 18.080
- 18.120
- 21.050
- 21.200
- 24.900
- 24.940
- 28.200

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Add height m

Material

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Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Setup

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

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Freq MHz

Ground

Free space

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Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
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Freq MHz

Ground

Free space

Perfect

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Freq MHz

Ground

Free space

Perfect

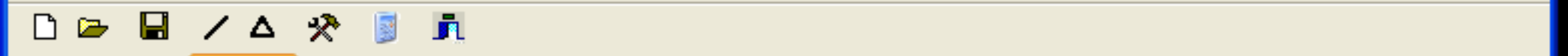
Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

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Freq MHz

Ground

Free space

Perfect

Real

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18.080

18.120

21.050

21.200

24.900

24.940

28.200

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Freq MHz

- 14.150
- 18.080
- 18.120
- 21.050
- 21.200
- 24.900
- 24.940
- 28.200

Ground

- Free space
- Perfect
- Real

Setup

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit



Freq MHz

Ground

Free space

Perfect

Real

- 14.150
- 18.080
- 18.120
- 21.050
- 21.200
- 24.900
- 24.940
- 28.200

Setup

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

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Real

WAVE LENGTH = 21.187 (m)
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Add height m

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Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

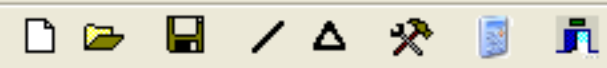
Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

Ground

Free space

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Add height m

Material

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Freq MHz

Ground

Free space

Perfect

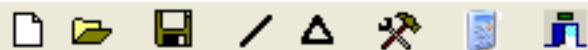
Real

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 TOTAL PULSE = 47

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Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

- 14.150
- 18.080
- 18.120
- 21.050
- 21.200
- 24.900
- 24.940
- 28.200

Ground

Free space

Perfect

Real

Setup

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

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Freq MHz

Ground

Free space

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Freq MHz

Ground

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Freq MHz

Ground

Free space

Perfect

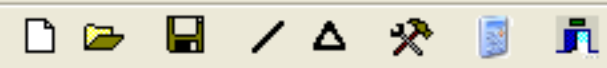
Real

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Material

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Free space

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18.080

18.120

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21.200

24.900

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28.200

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Freq MHz

Ground

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Freq MHz

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Free space

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Freq MHz

Ground

Free space

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Free space

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14.150

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18.120

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24.900

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28.200

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Add height m

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No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

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Real

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Material

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Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

- Ground
- Free space
- Perfect
- Real

queste, invece, sono le tre opzioni disponibili relative al tipo di suolo rispetto al quale il software calcolerà il modello.

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)

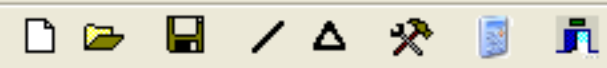
- Ground
- Free space
 - Perfect
 - Real

L'opzione Free space consente di calcolare il modello in spazio libero, ossia come se intorno all'antenna, in ogni direzione, e sino all'infinito, non si trovasse alcun altro oggetto. Questa opzione è utile quando si vuole determinare il guadagno di un'antenna senza tenere conto del contributo dovuto alla riflessione sul suolo.

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

- Ground
- Free space
 - Perfect
 - Real

L'opzione Perfect consente il calcolo del modello tenendo conto del suolo, considerato come perfetto conduttore.

Add height

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

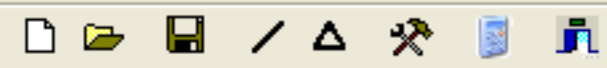
Real

Add height m

Material

L'opzione Real consente il calcolo del modello tenendo conto del suolo reale, con le proprie caratteristiche elettriche. Queste ultime si definiscono in apposita finestra in cui si entra facendo click sul pulsante "Ground setup"

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.150 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

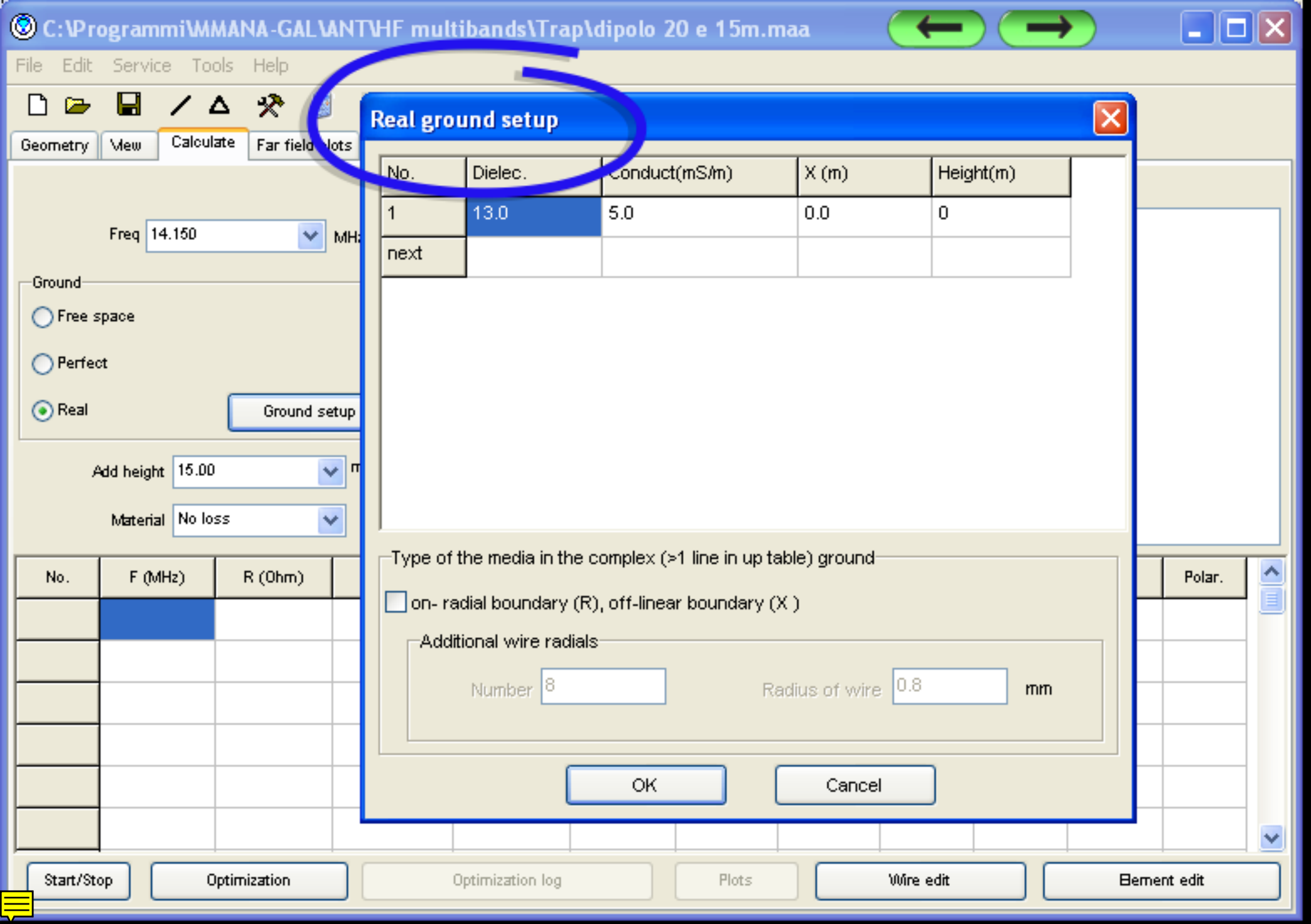
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

8

Radius of wire

0.8

mm

OK

Cancel

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

In questa tabella vanno inserite le caratteristiche elettriche, ed eventualmente geometriche, del suolo rispetto al quale il software calcolerà il modello della nostra antenna. In particolare, ci viene chiesto il valore della costante dielettrica e quello della conduttività (in milliSiemens/metro) del terreno considerato. Tali valori sono indicati per alcuni tipi di terreno ad esempio sui vari numeri dell'ARRL Antenna Handbook. Anche l'help on line del software li riporta tabellati. I valori sono riportati anche qui di seguito per semplicità:

Ground	Dielectric constant	Conductivity (mS/m)
Sea water	81	4000
Fresh water	80	1 - 10
Wet ground	5 - 15	1 - 10
Dry field, forest	13	5
Sandy field	12	2
Suburb, industrial	5	1
Arid field	2 - 6	0.1

OK

Cancel

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Questi, invece, sono dati geometrici che è necessario indicare solo se si vogliono considerare configurazioni più complesse di un suolo piano indefinito. Vediamo quali possono essere questi casi particolari.

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Antenna situata a distanza X da una brusca variazione H di quota.

OK Cancel

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq 14.150 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1) (see in up table) ground

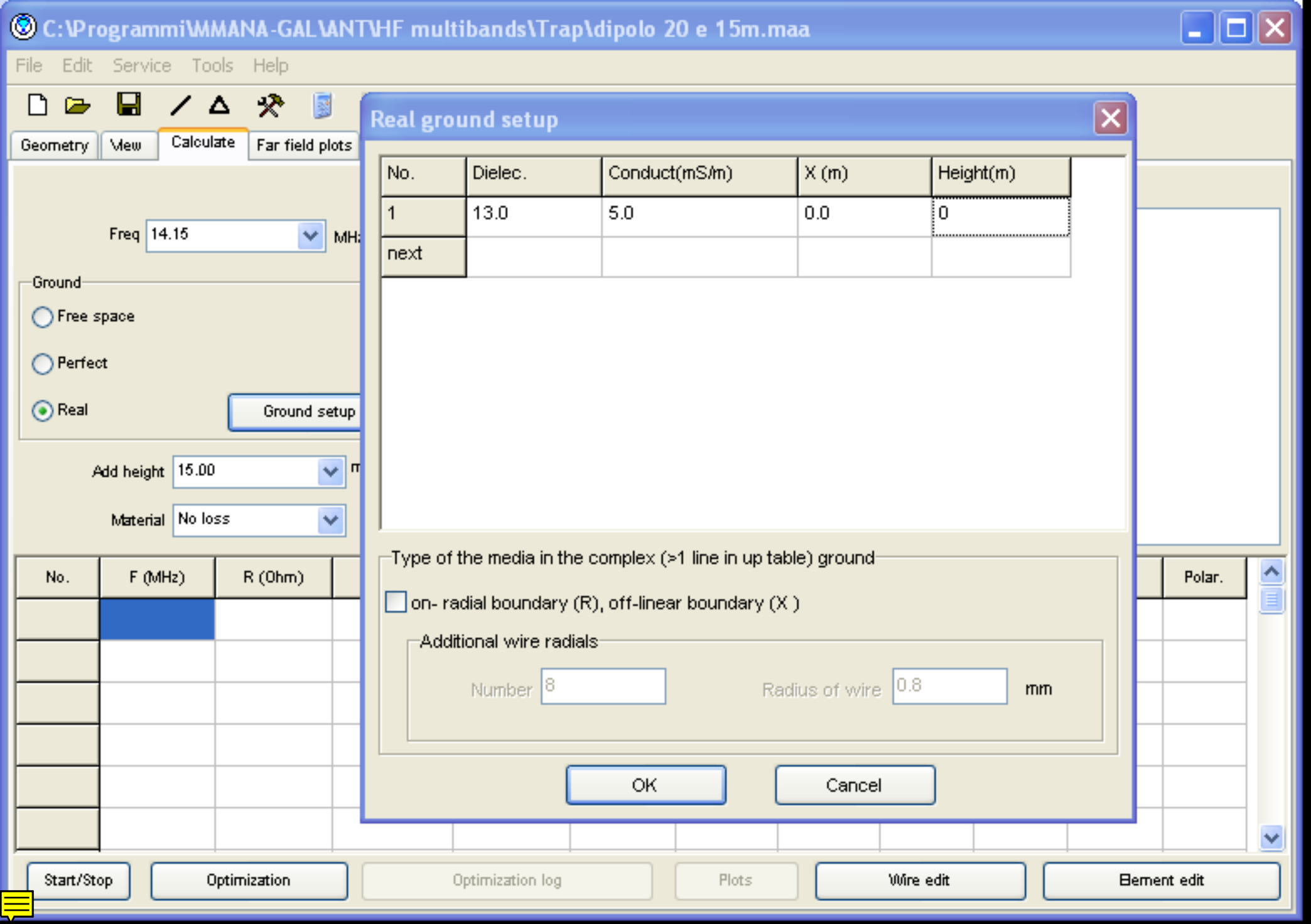
on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8 mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

- Ground
- Free space
- Perfect
- Real

Ground setup

Add height 15.00 m

Material No loss

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

No.	F (MHz)	R (Ohm)

Polar.

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real Ground setup

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

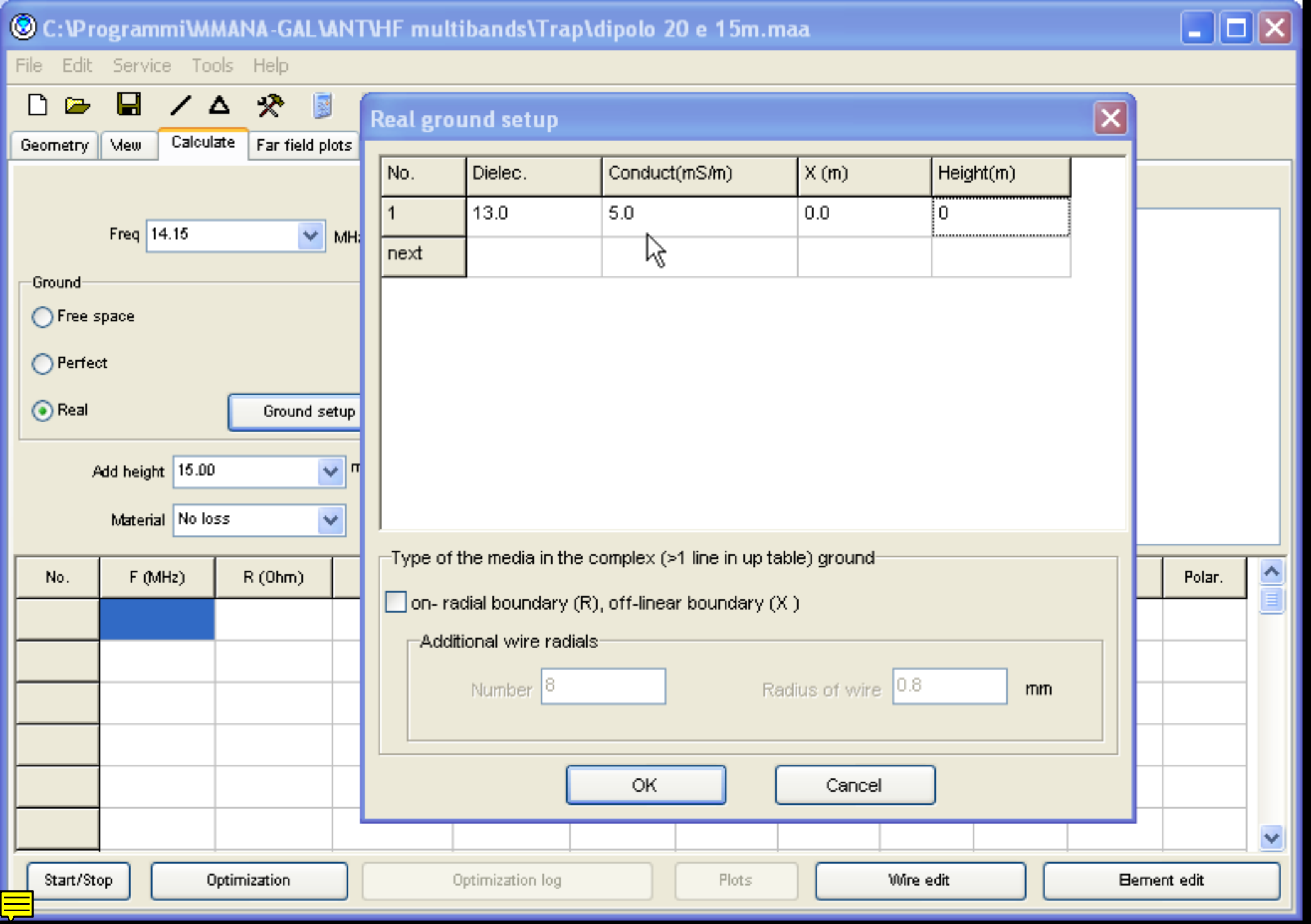
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Freq 14.15 MHz

- Free space
- Perfect
- Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

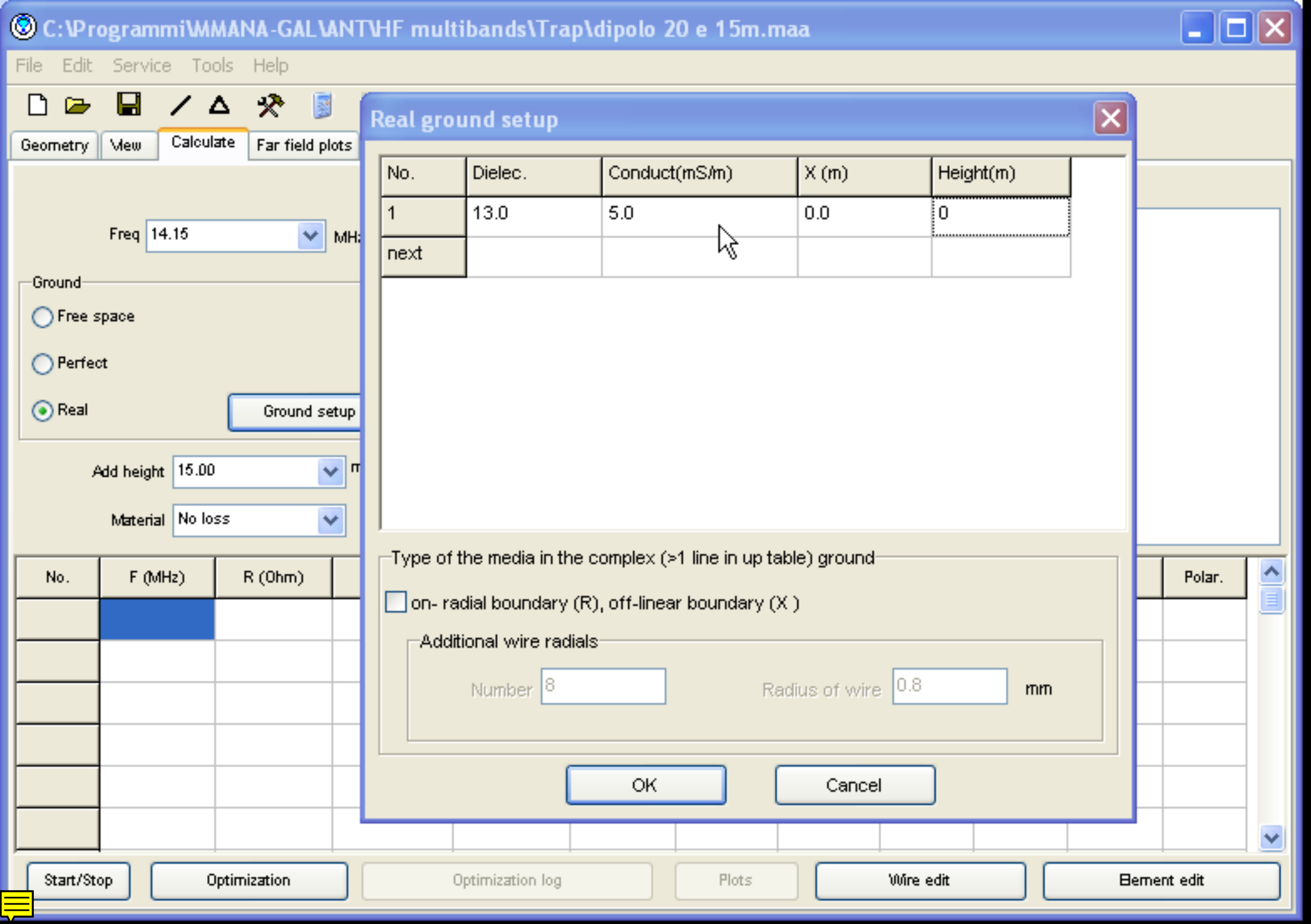
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

- Ground
- Free space
 - Perfect
 - Real

Ground setup

Add height 15.00 m

Material No loss

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel

No.	F (MHz)	R (Ohm)

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

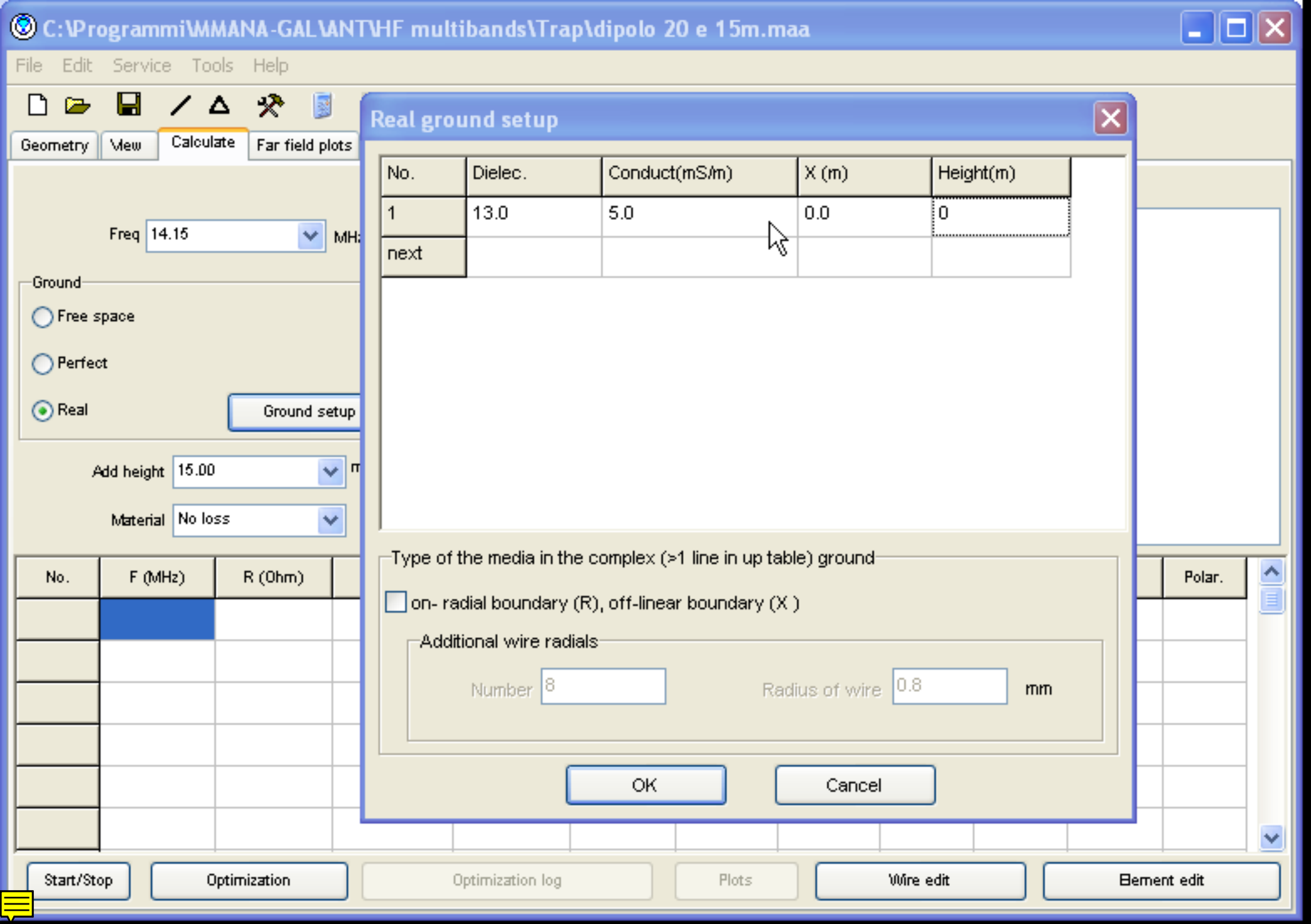
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Freq 14.15 MHz

- Free space
- Perfect
- Real

Ground setup

Add height 15.00 m

Material No loss

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

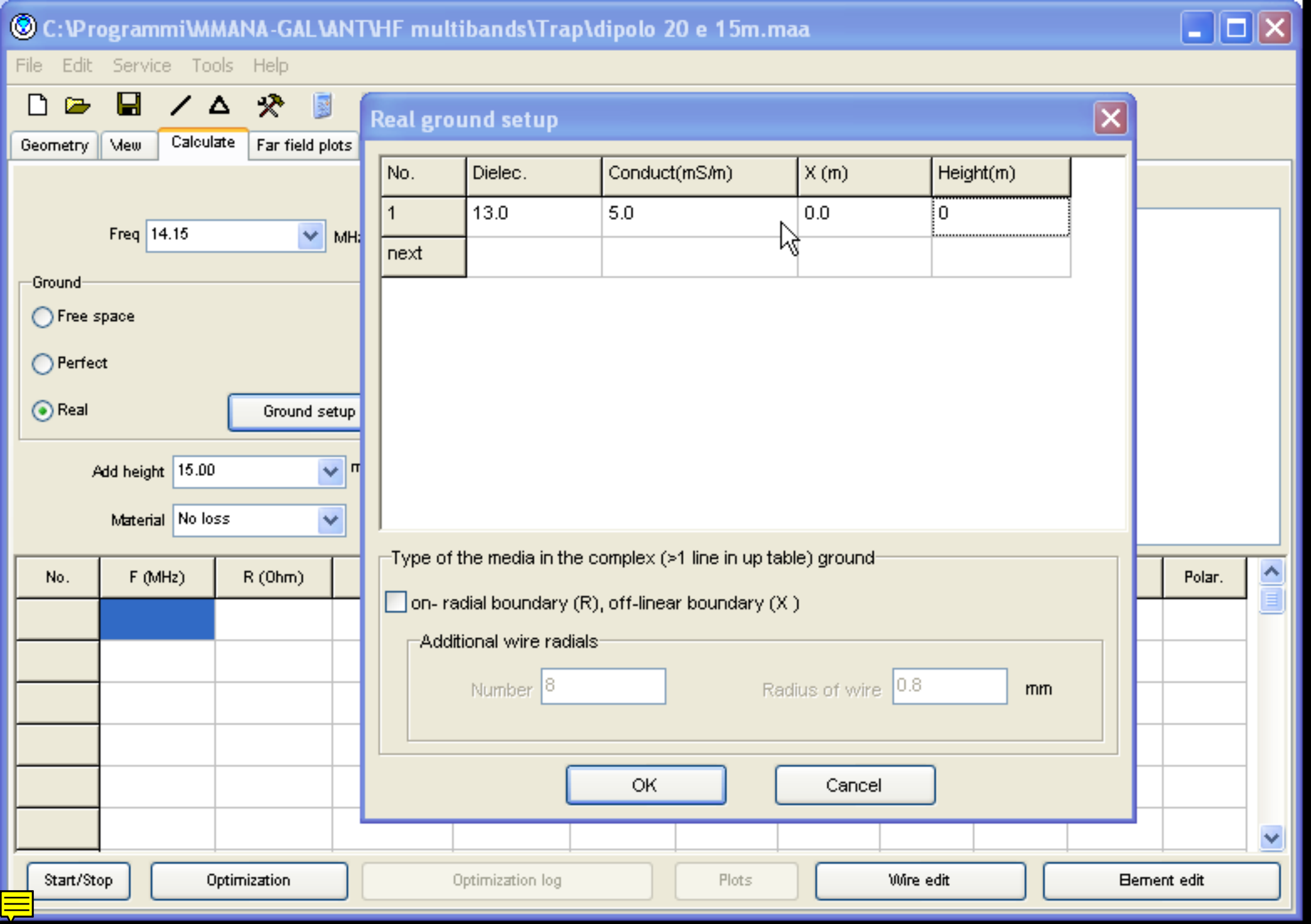
Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

8

Radius of wire

0.8

mm

OK

Cancel

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

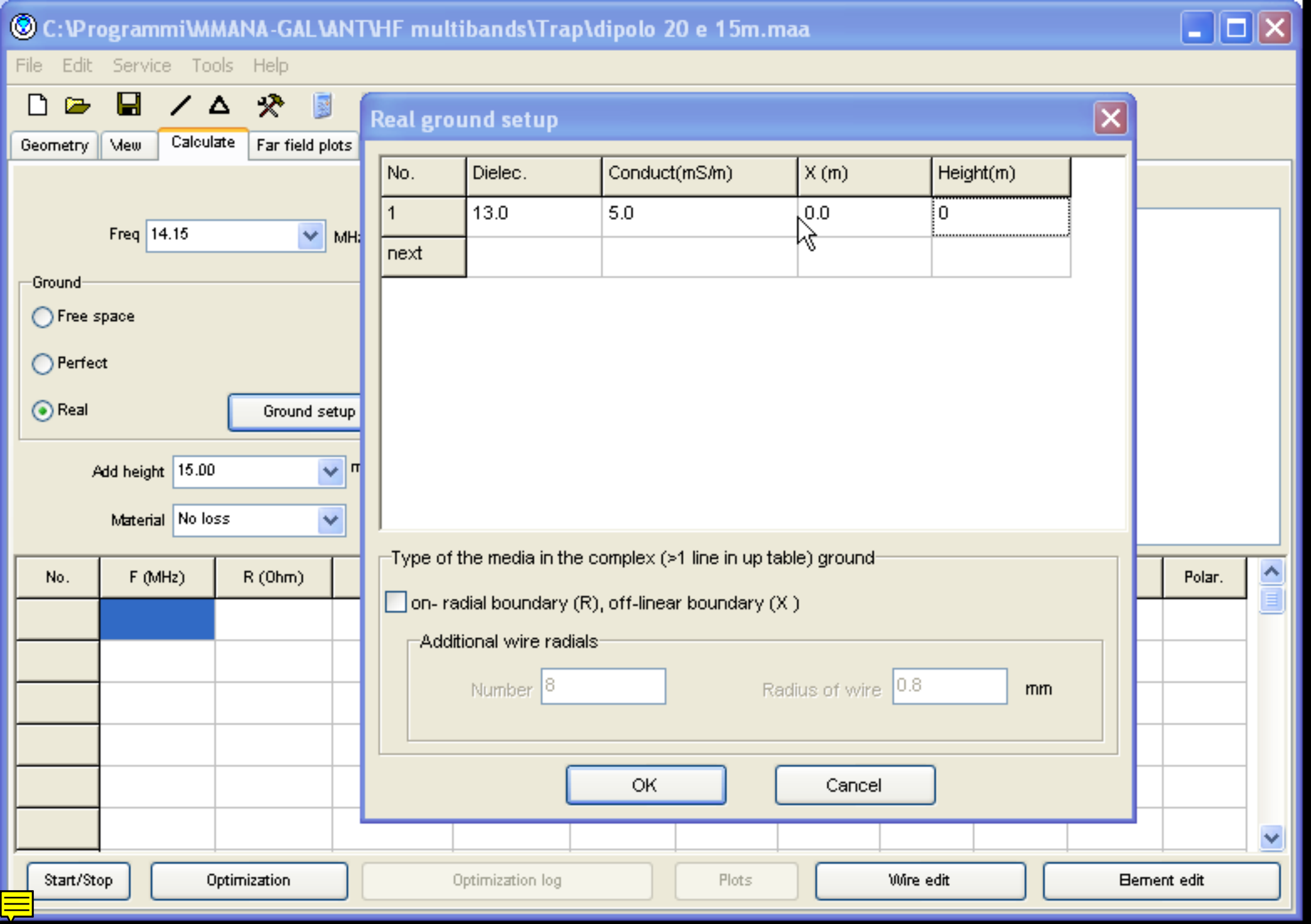
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real Ground setup

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	<input type="text" value="0.0"/>	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

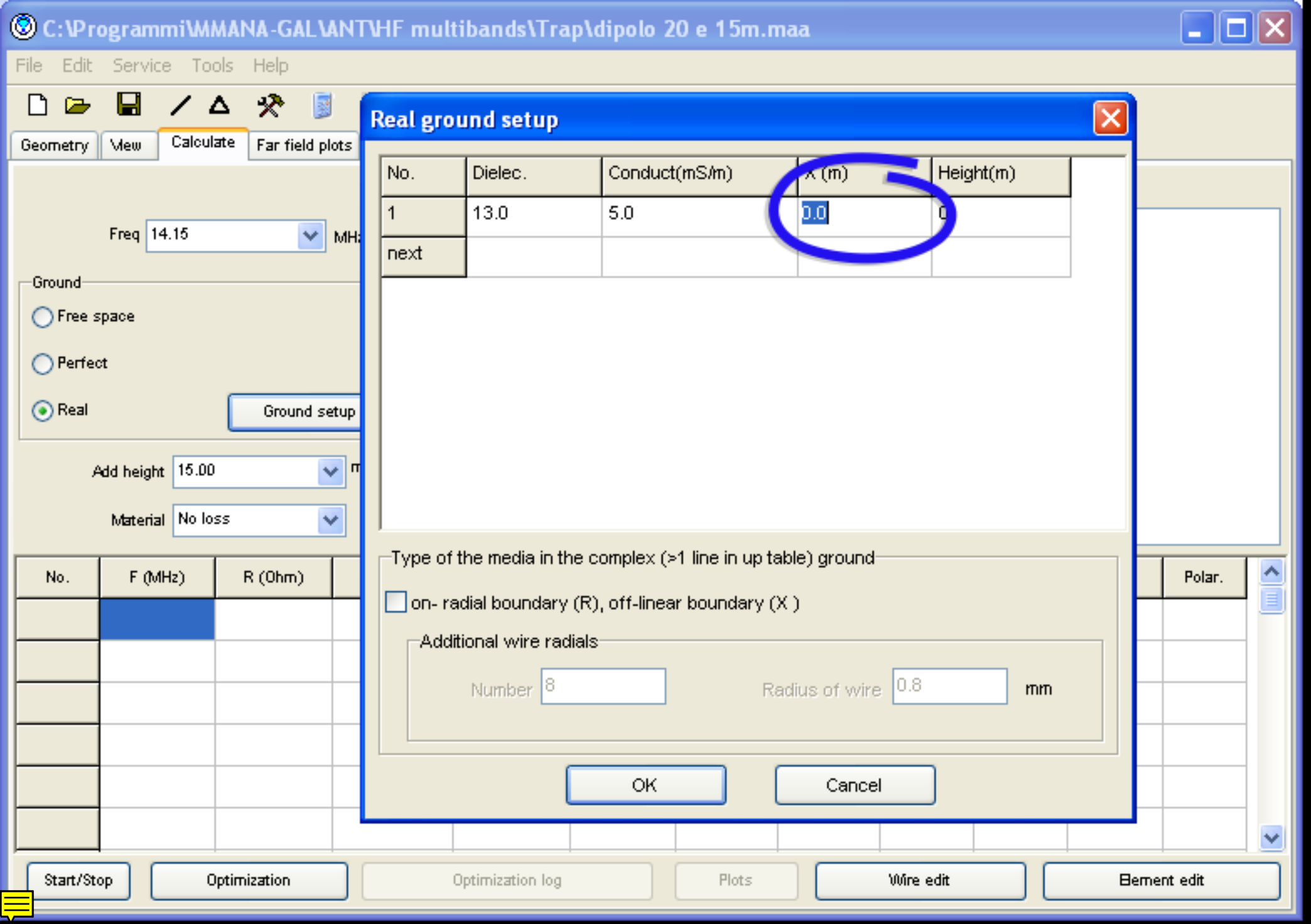
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	<input type="text" value="0.0"/>	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space

Perfect

Real

Ground setup

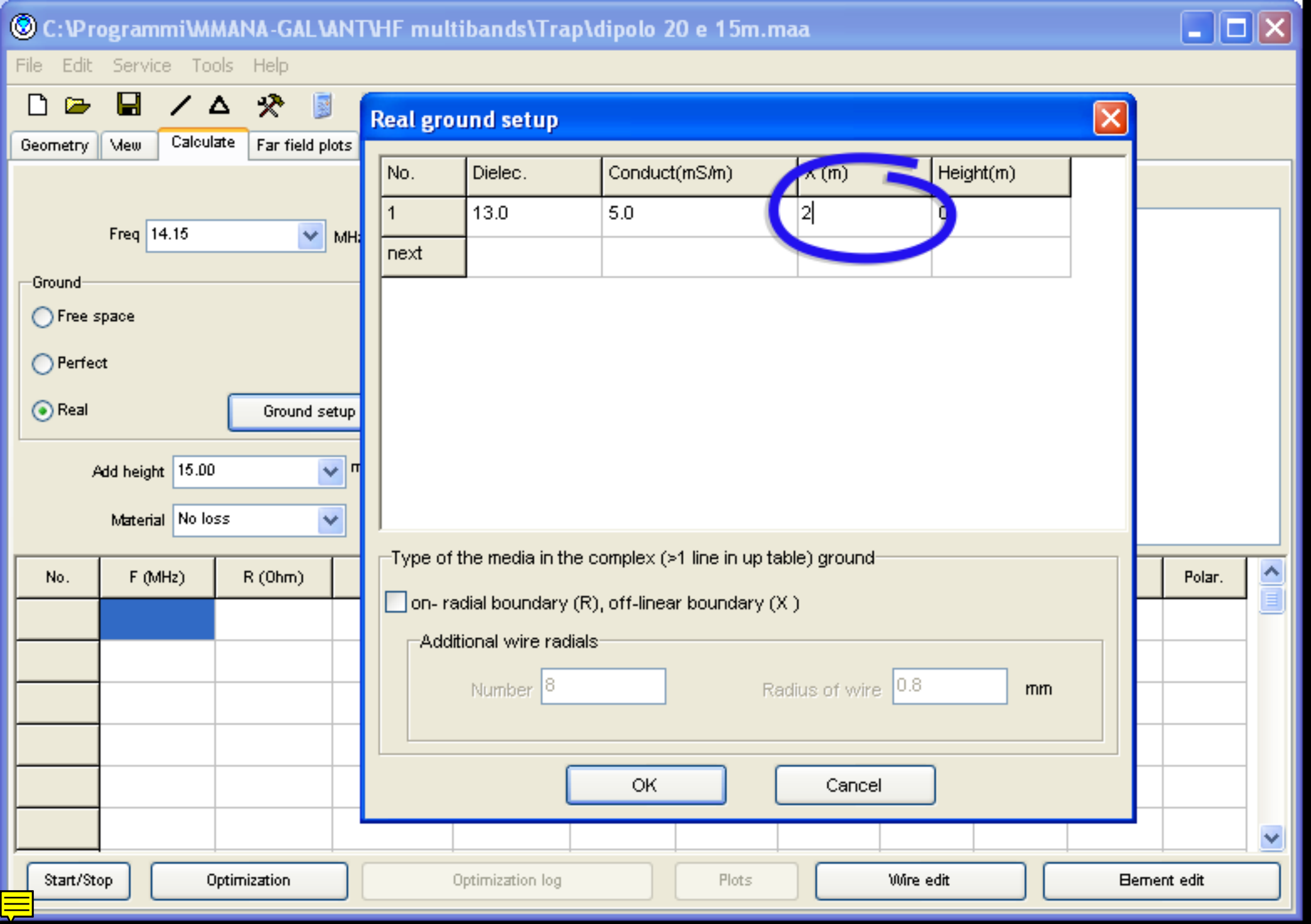
Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Polar.

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	2	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground

- Free space
- Perfect
- Real

Ground setup

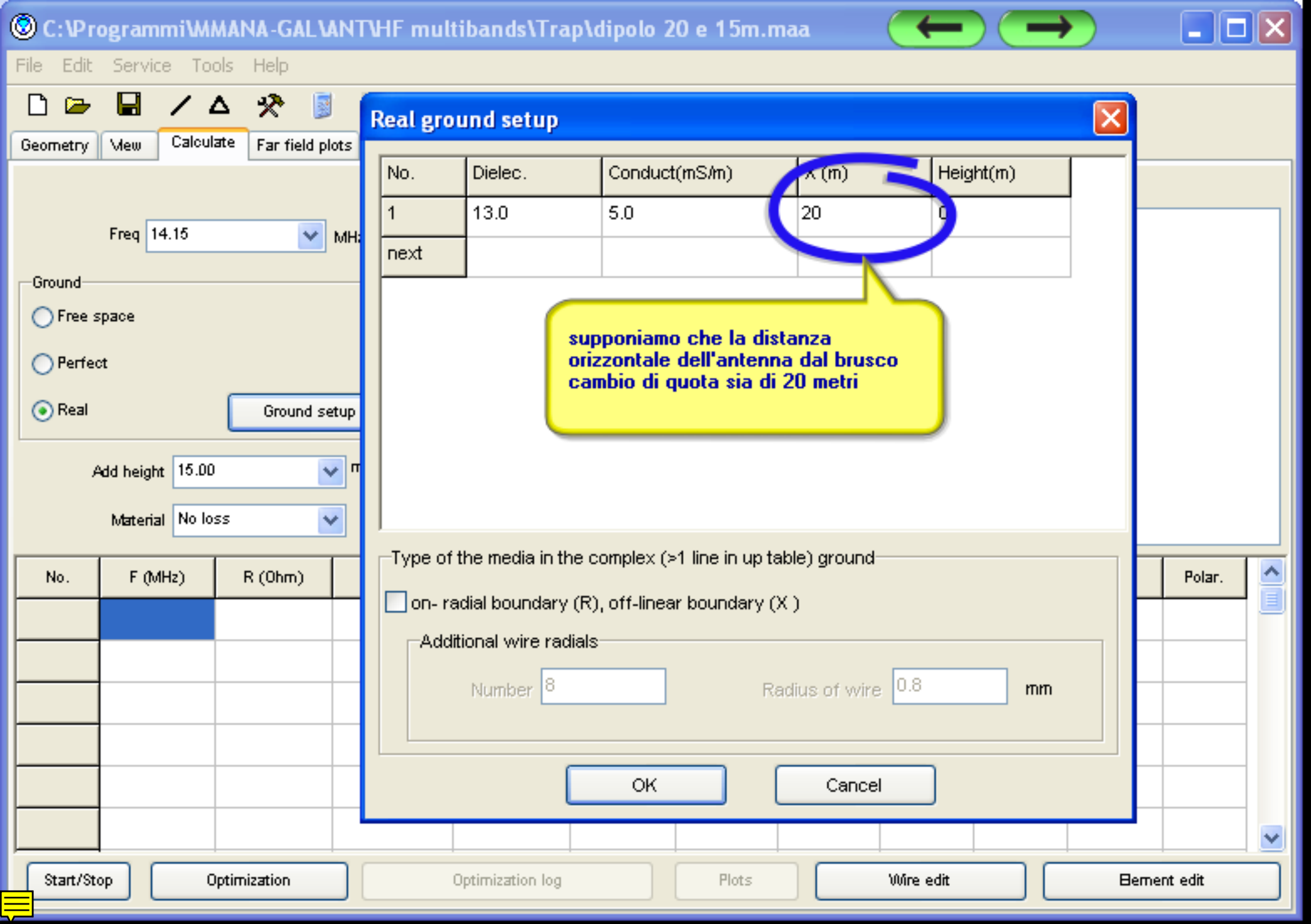
Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Polar.

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20	0
next				

supponiamo che la distanza orizzontale dell'antenna dal brusco cambio di quota sia di 20 metri

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

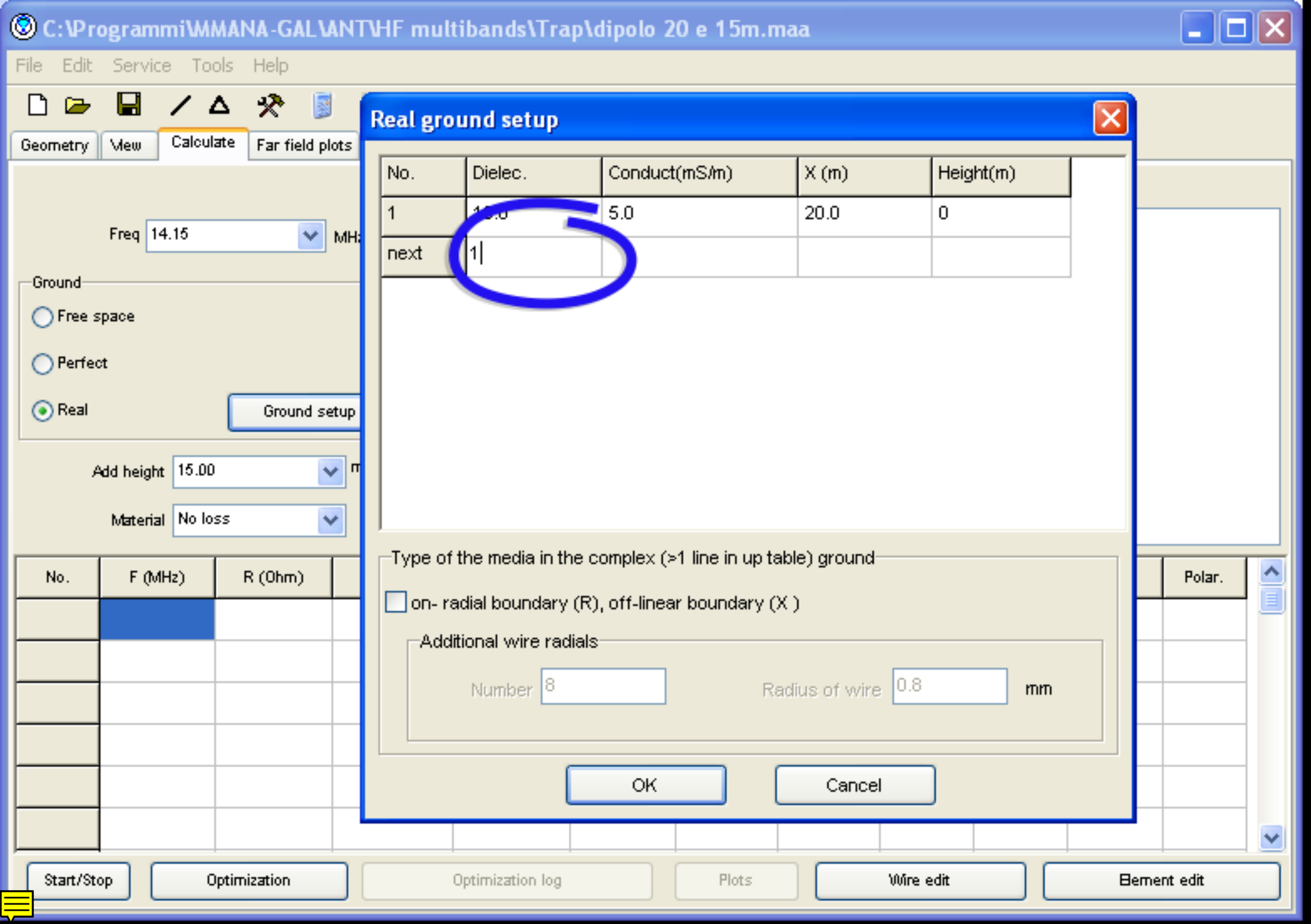
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	10.0	5.0	20.0	0
next	1			

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

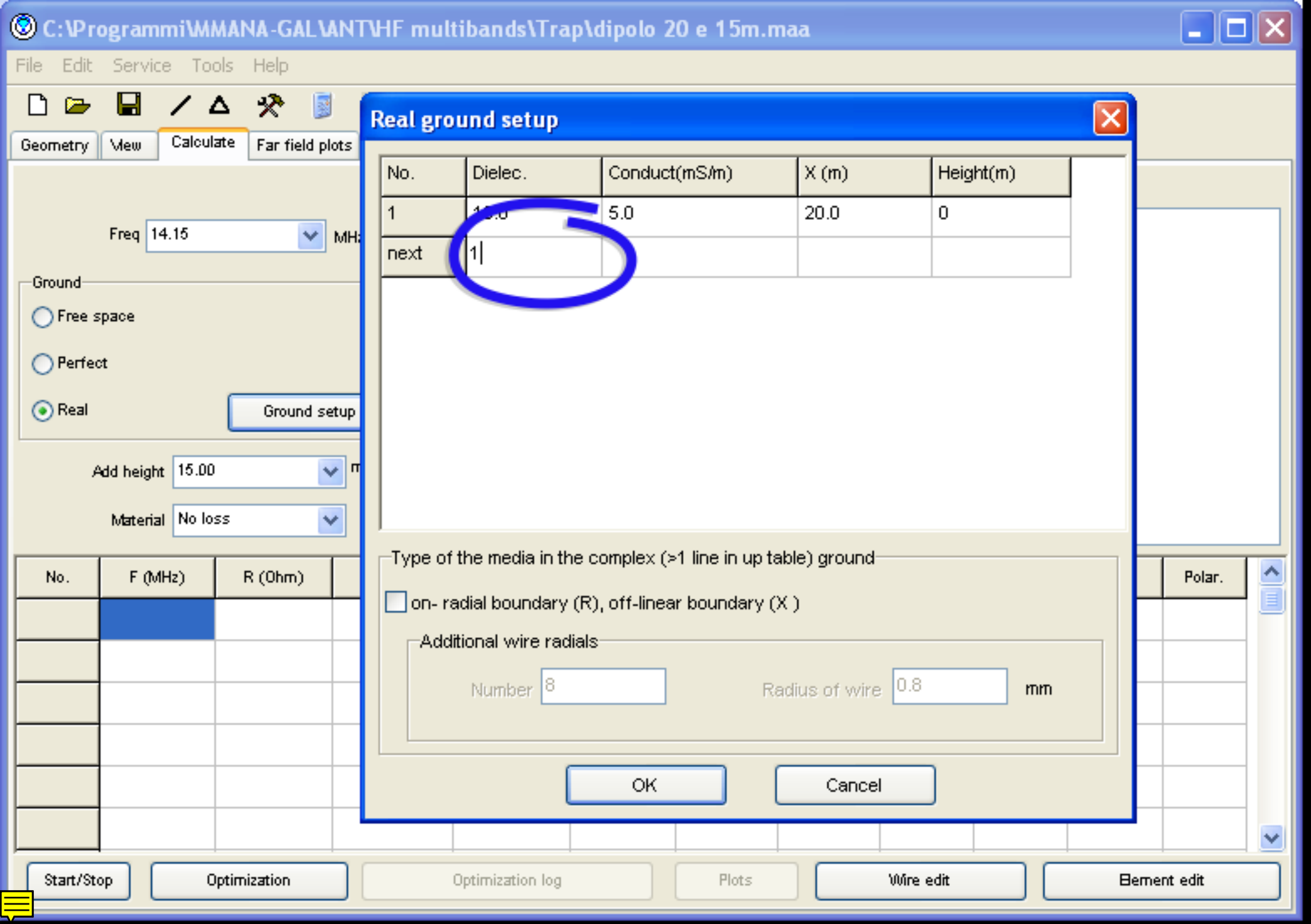
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	10.0	5.0	20.0	0
next	1			

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

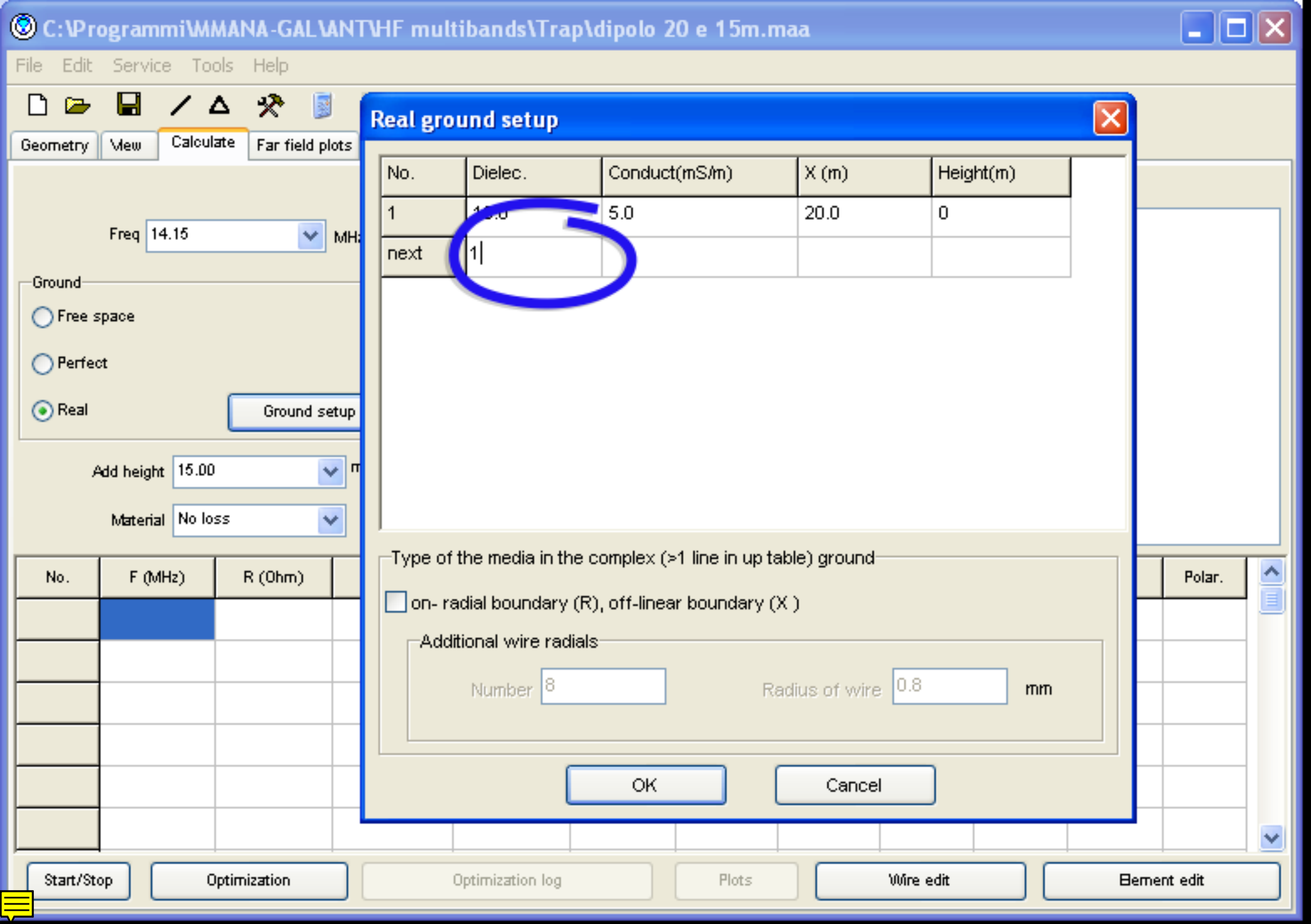
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	10.0	5.0	20.0	0
next	1			

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

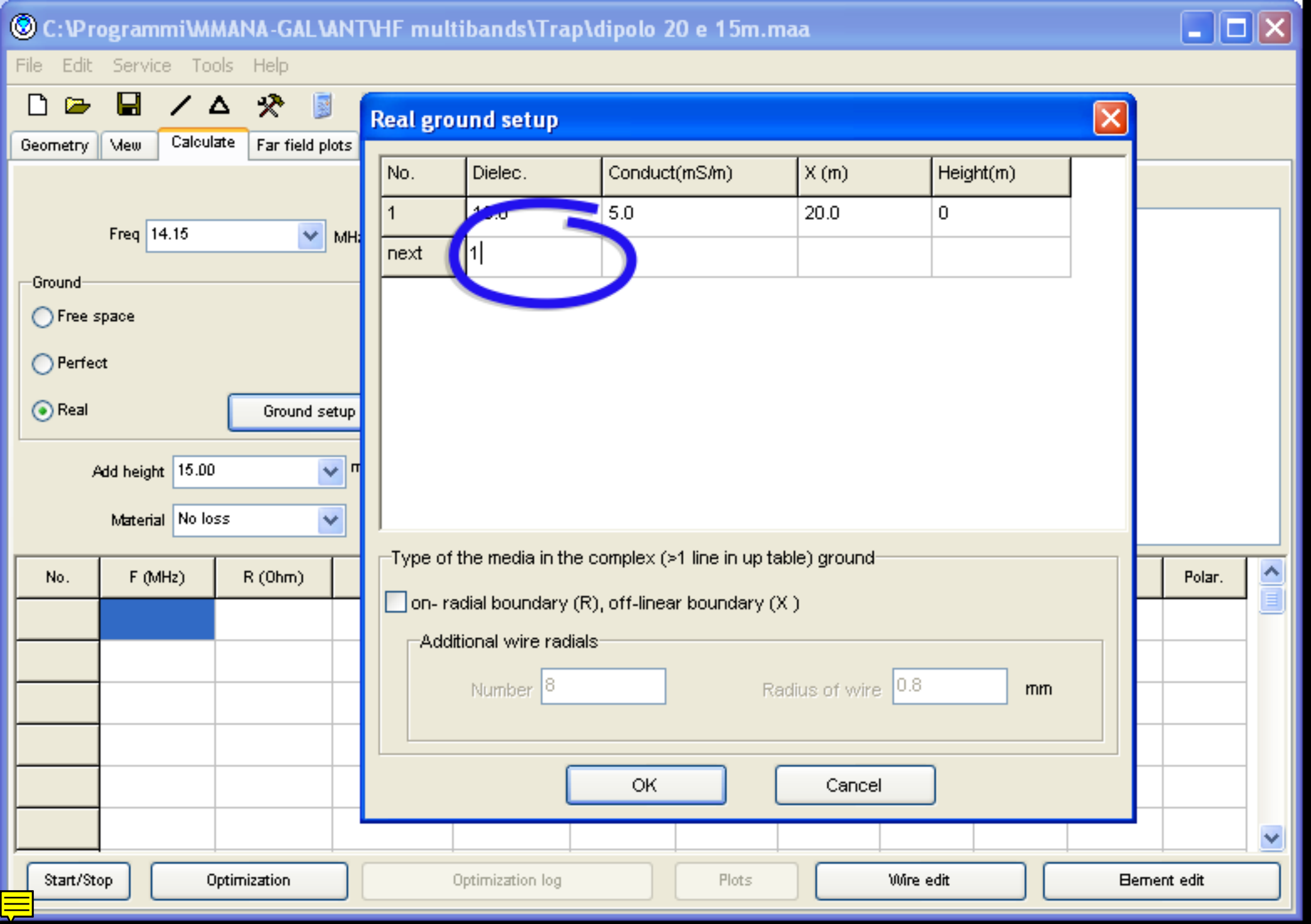
Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Polar.

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	10.0	5.0	20.0	0
next	1			

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

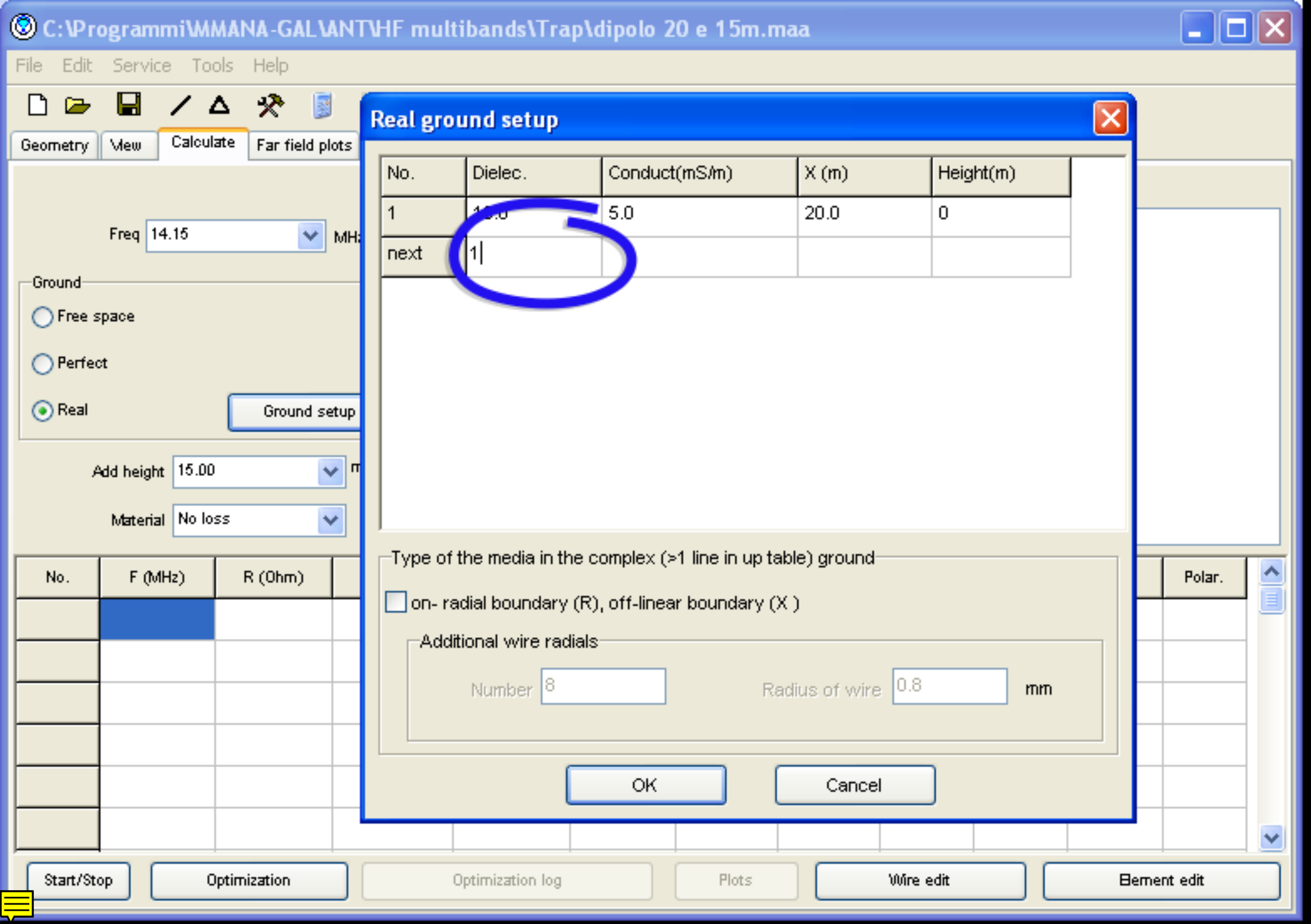
Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Polar.

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	10.0	5.0	20.0	0
next	1			

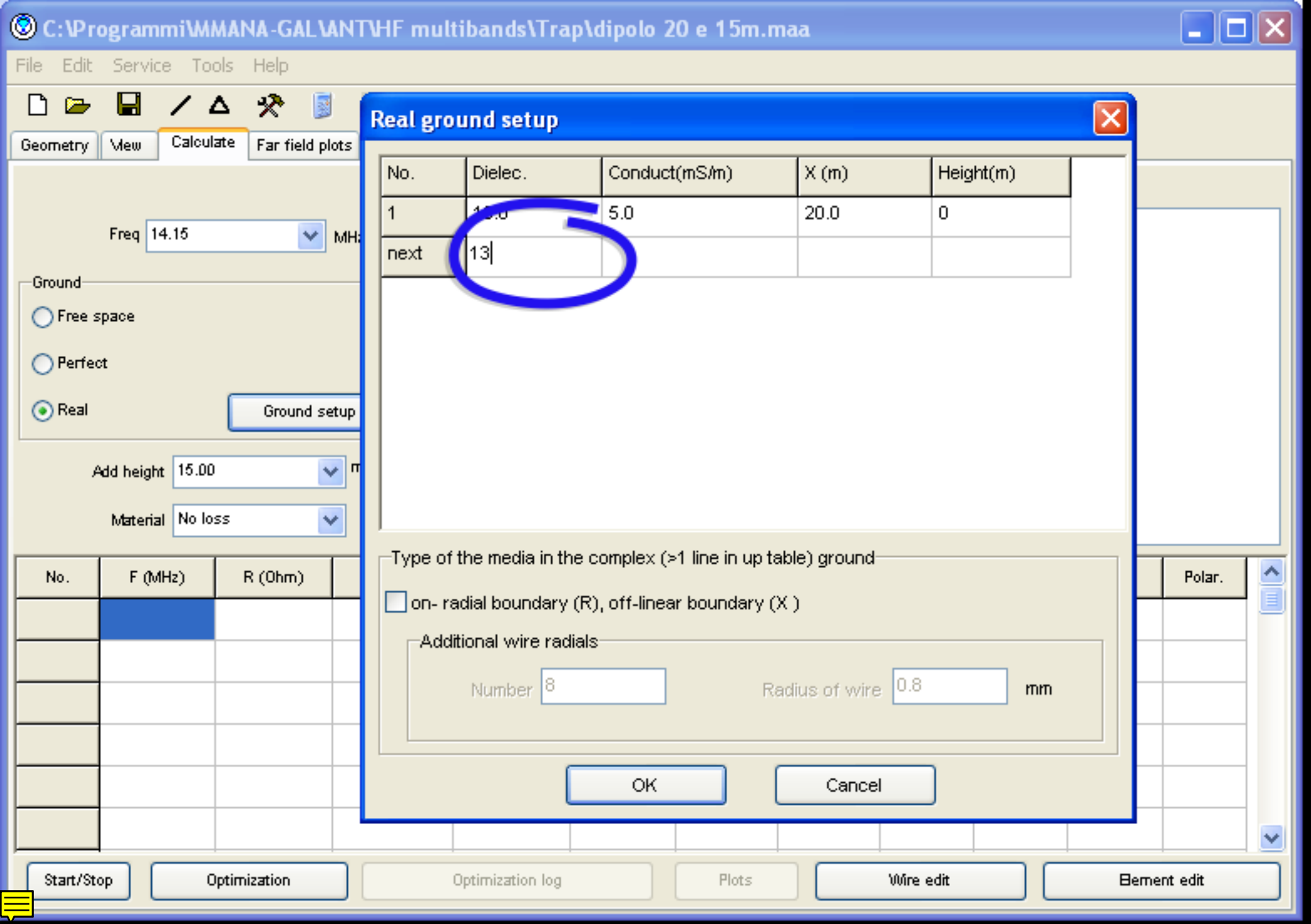
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
next	13			

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	0.	0.0	0.0
next				

supponiamo che le caratteristiche elettriche del terreno sottostante siano uguali a quelle del terreno sovrastante

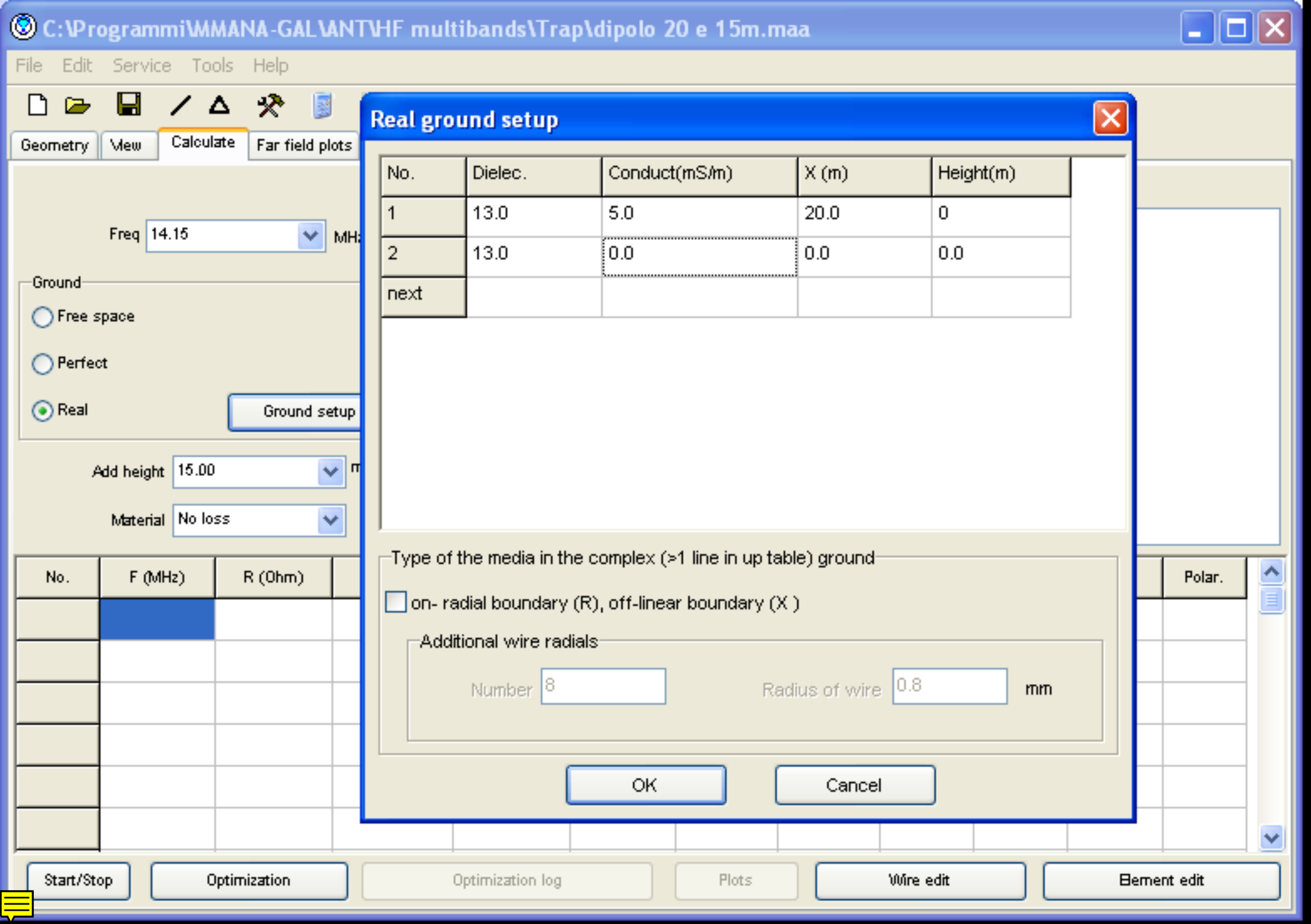
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Freq 14.15 MHz

- Free space
- Perfect
- Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	0.0	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

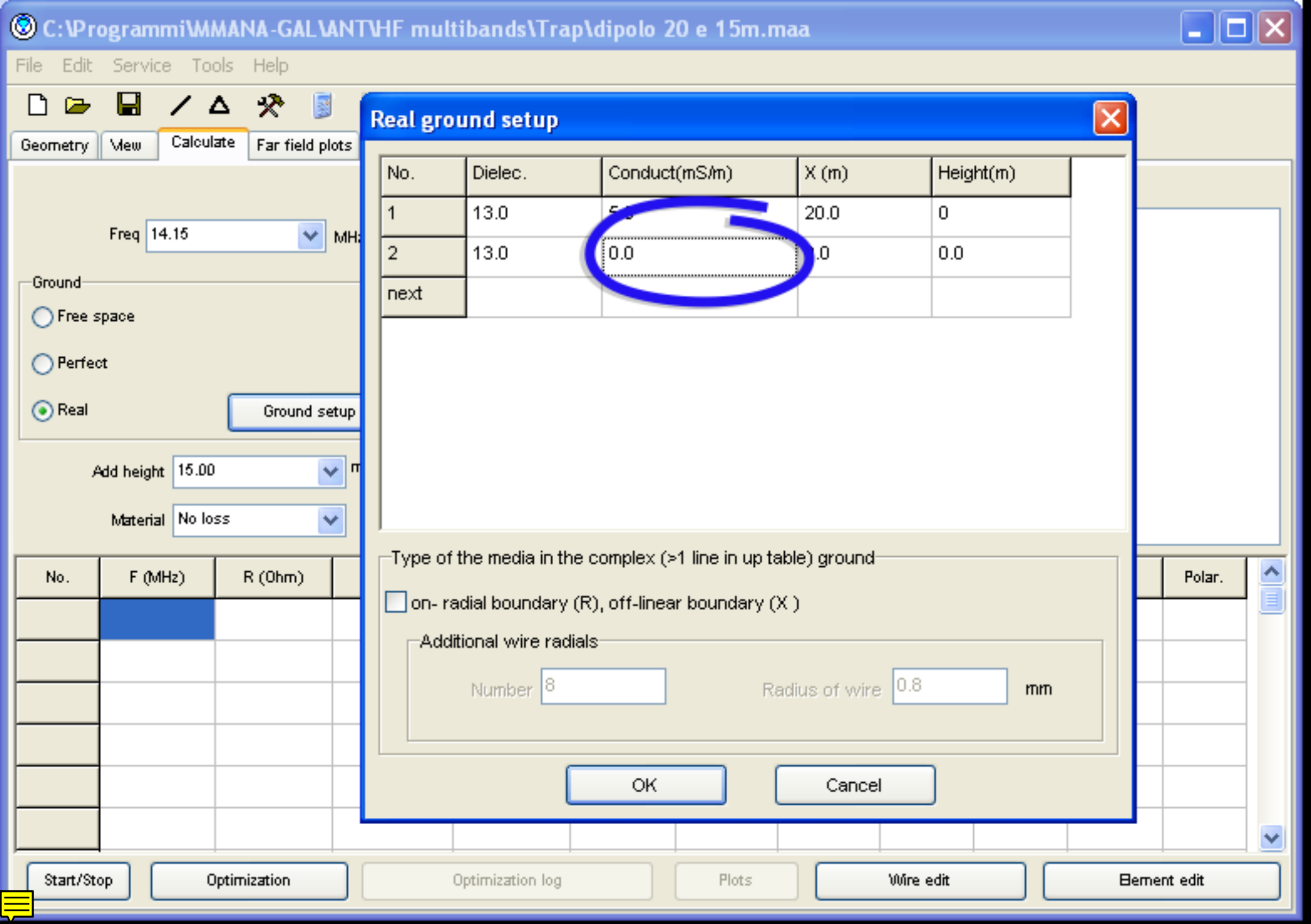
Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	0.0	.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

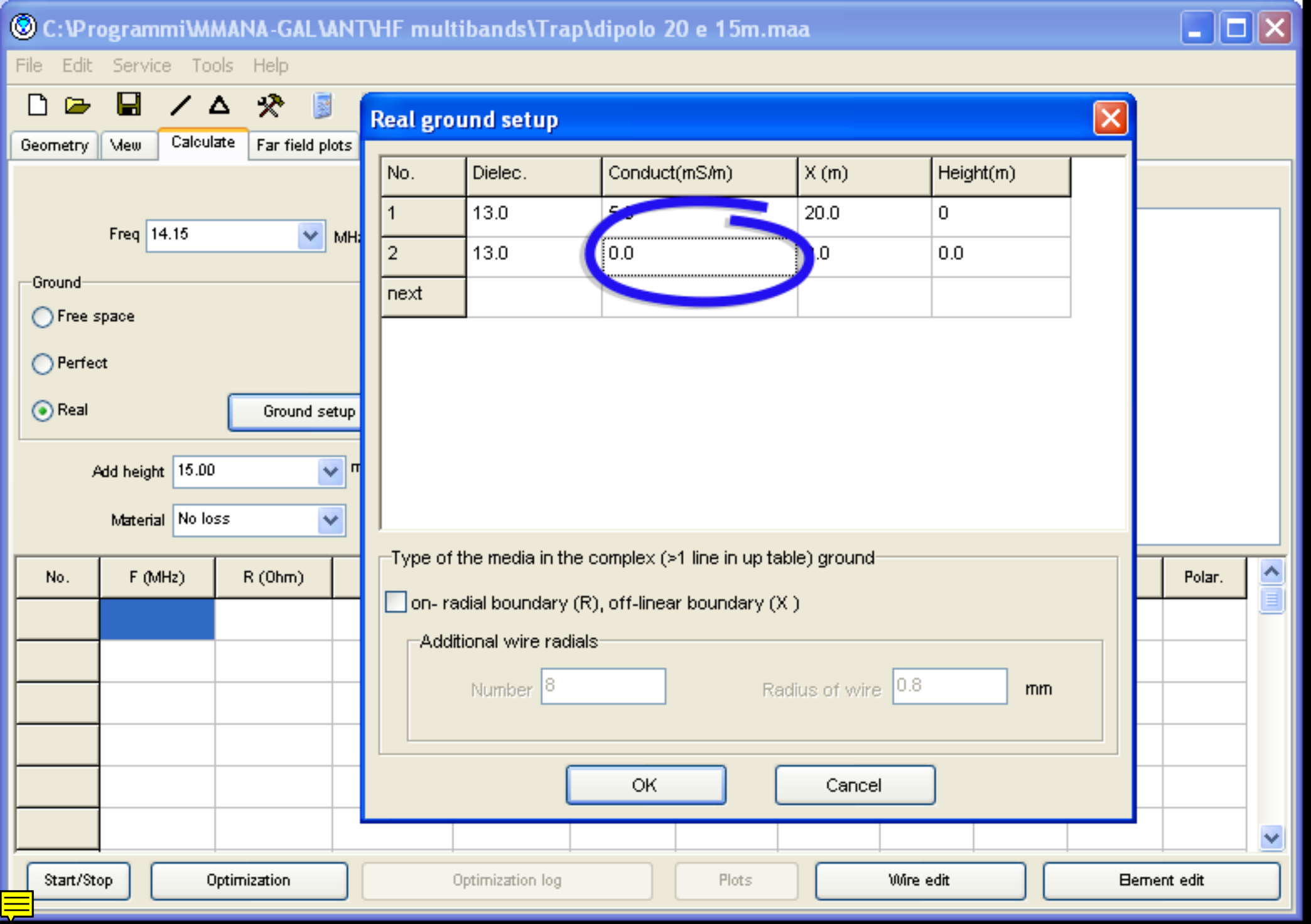
Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	0.0	.0	0.0
next				

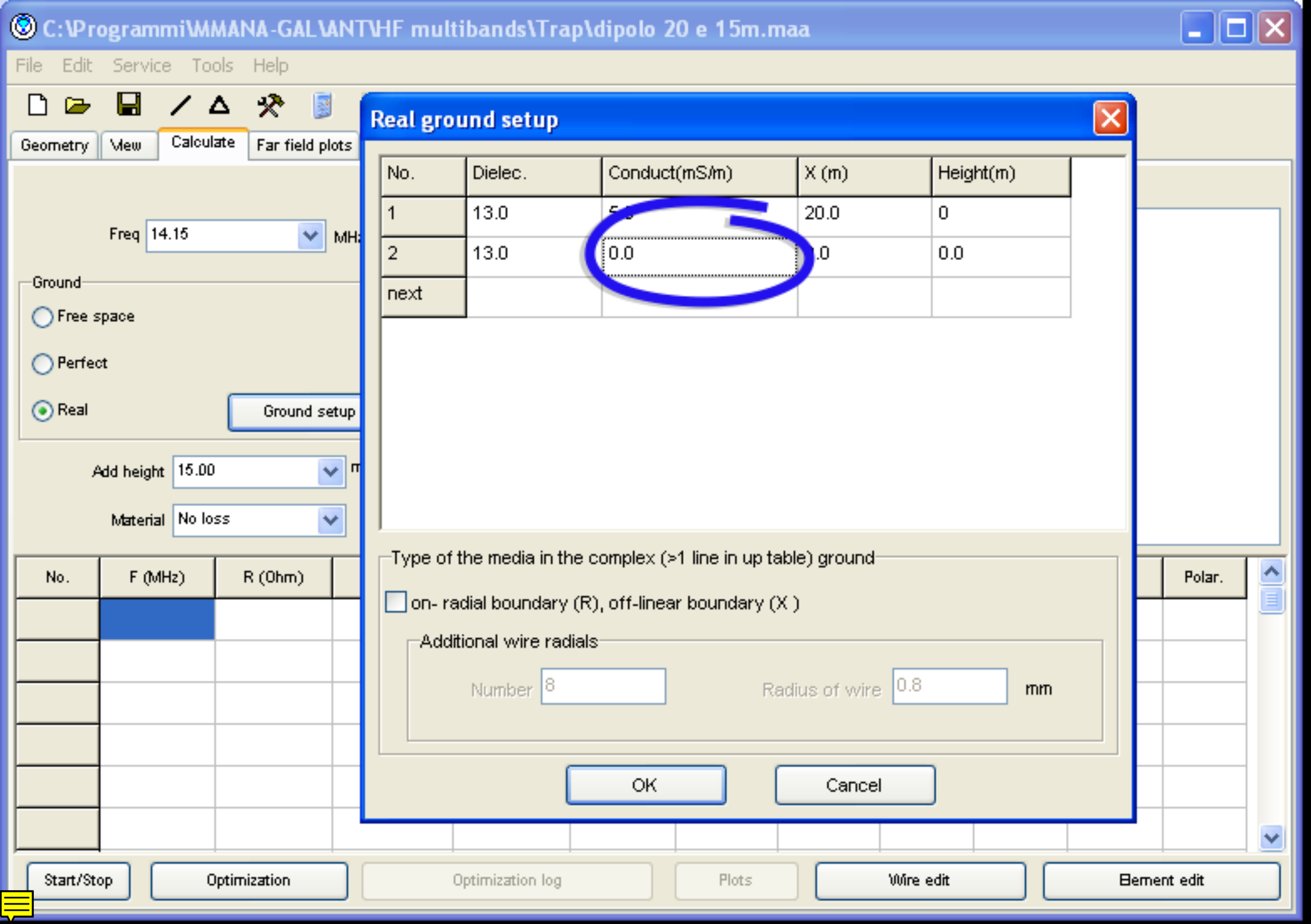
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	0.0	.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8

mm

OK

Cancel

Start/Stop

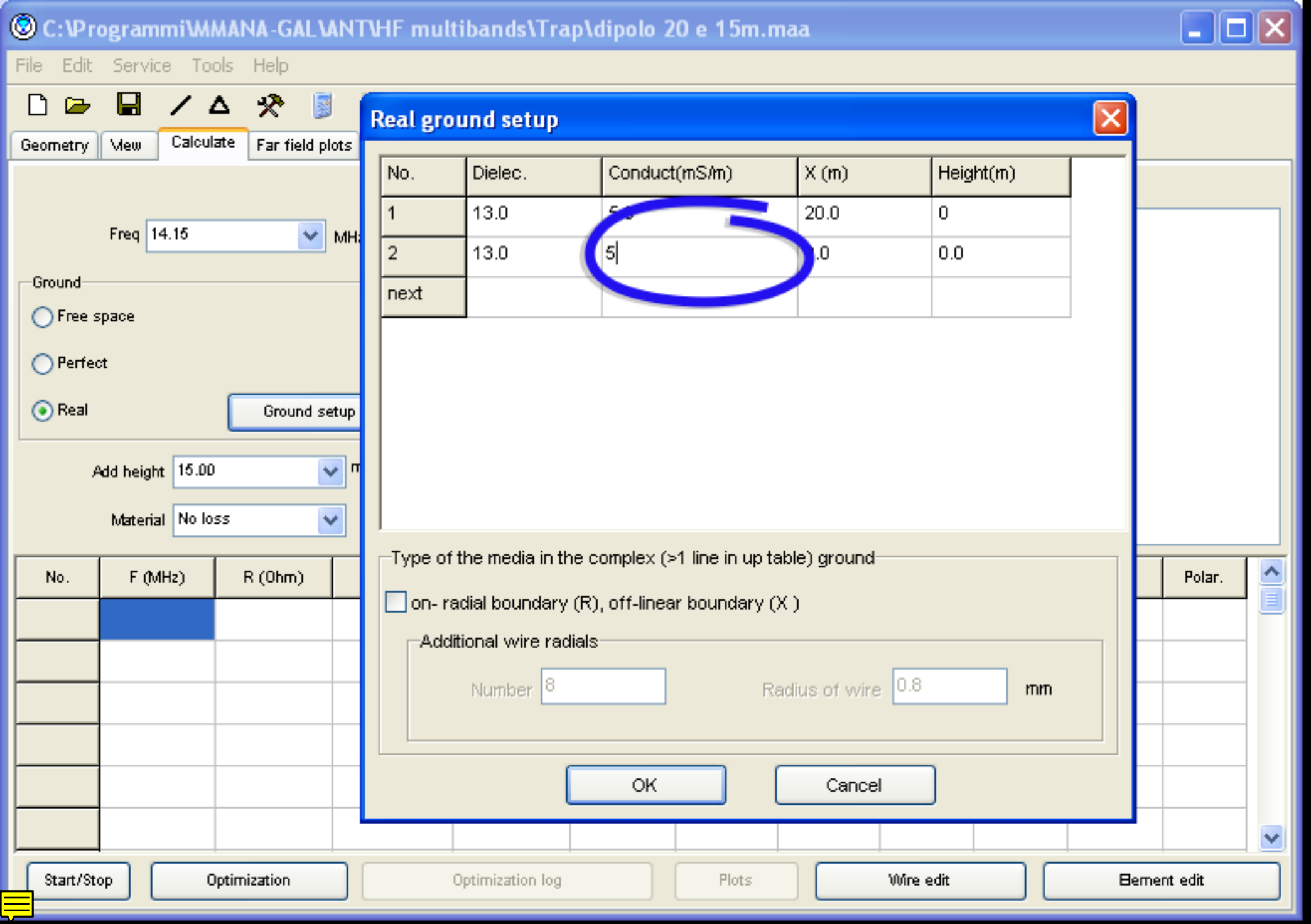
Optimization

Optimization log

Plots

Wire edit

Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	.0	0.0
next				

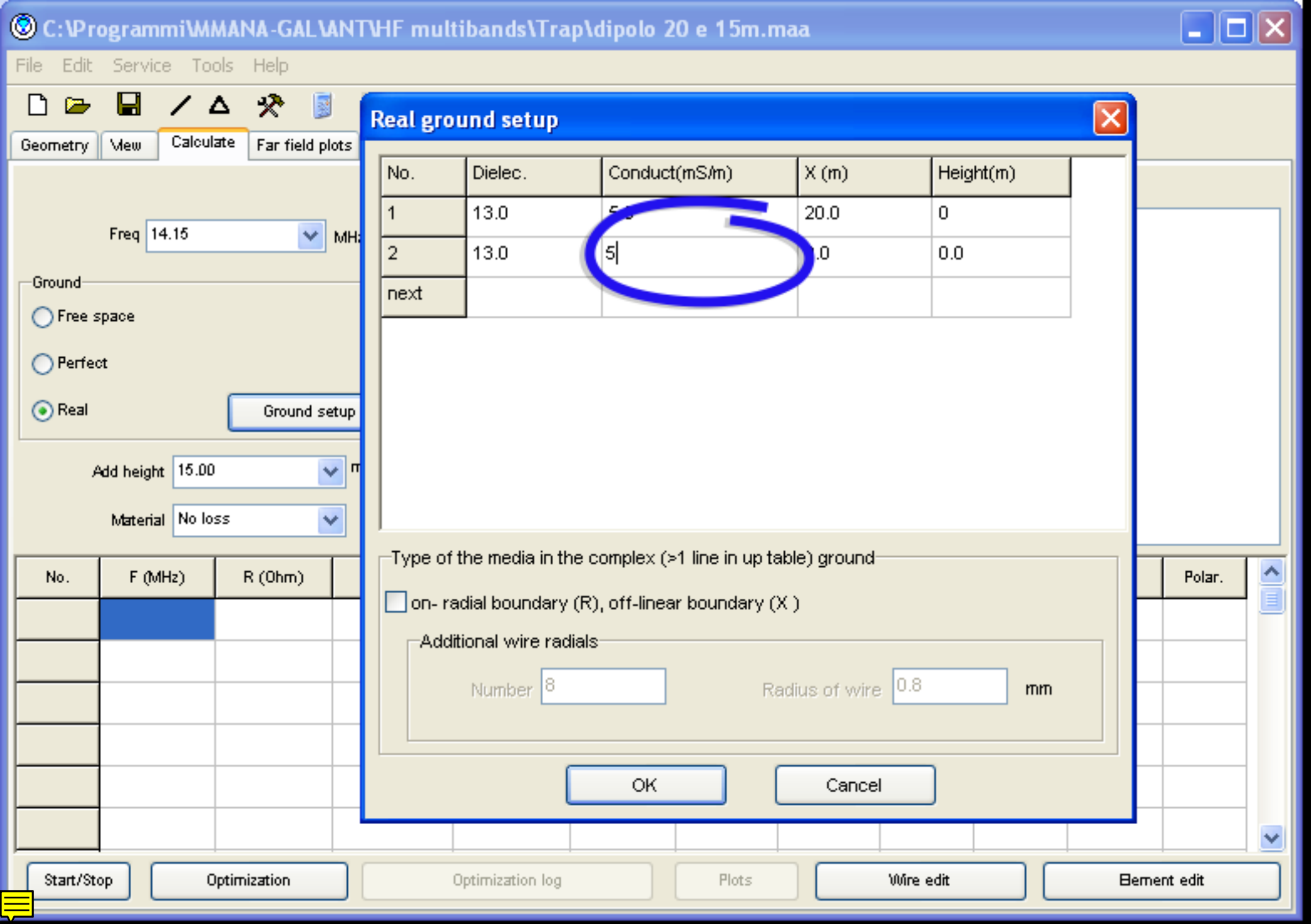
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	.0	0.0
next				

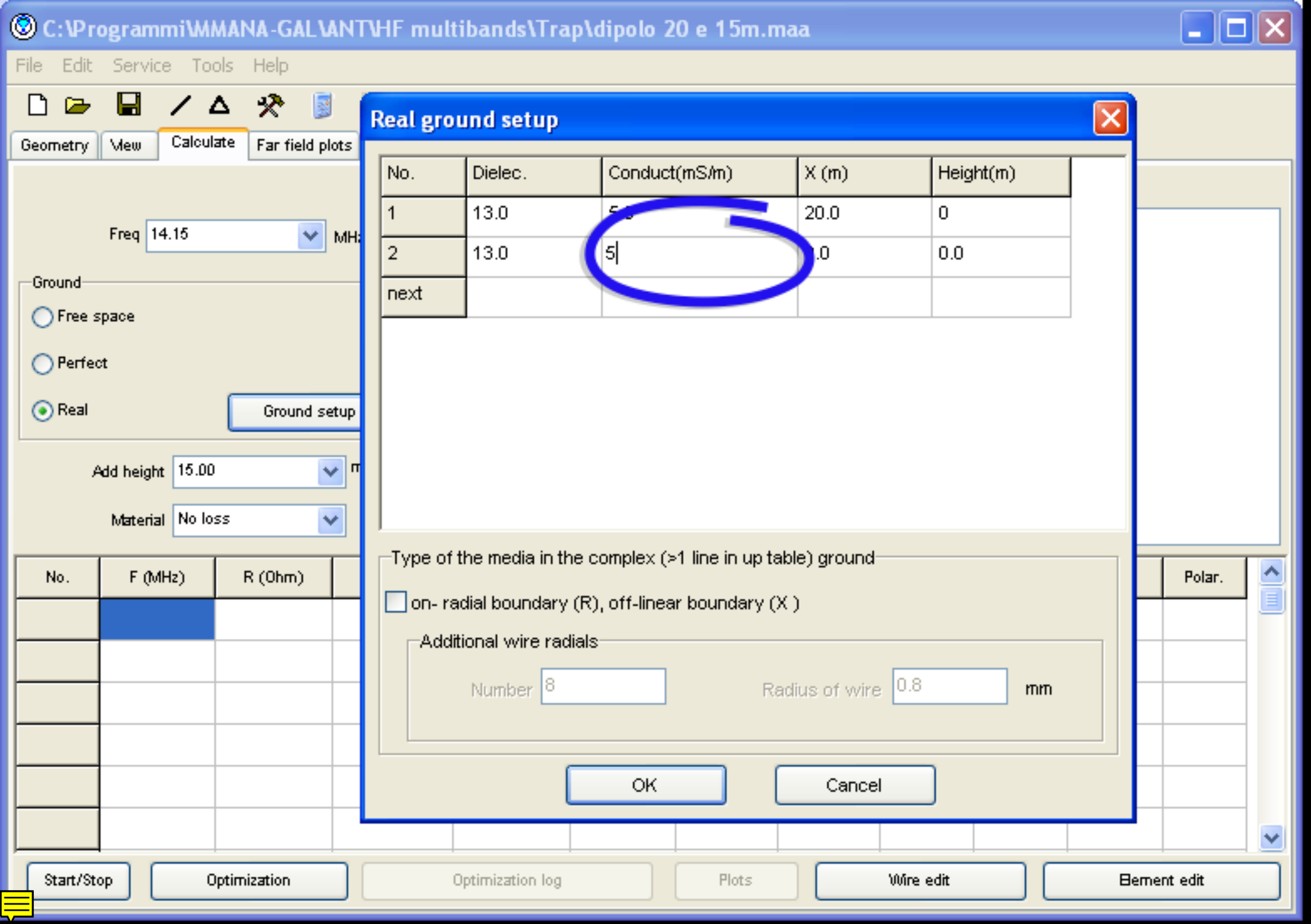
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	0.0	0.0
next				

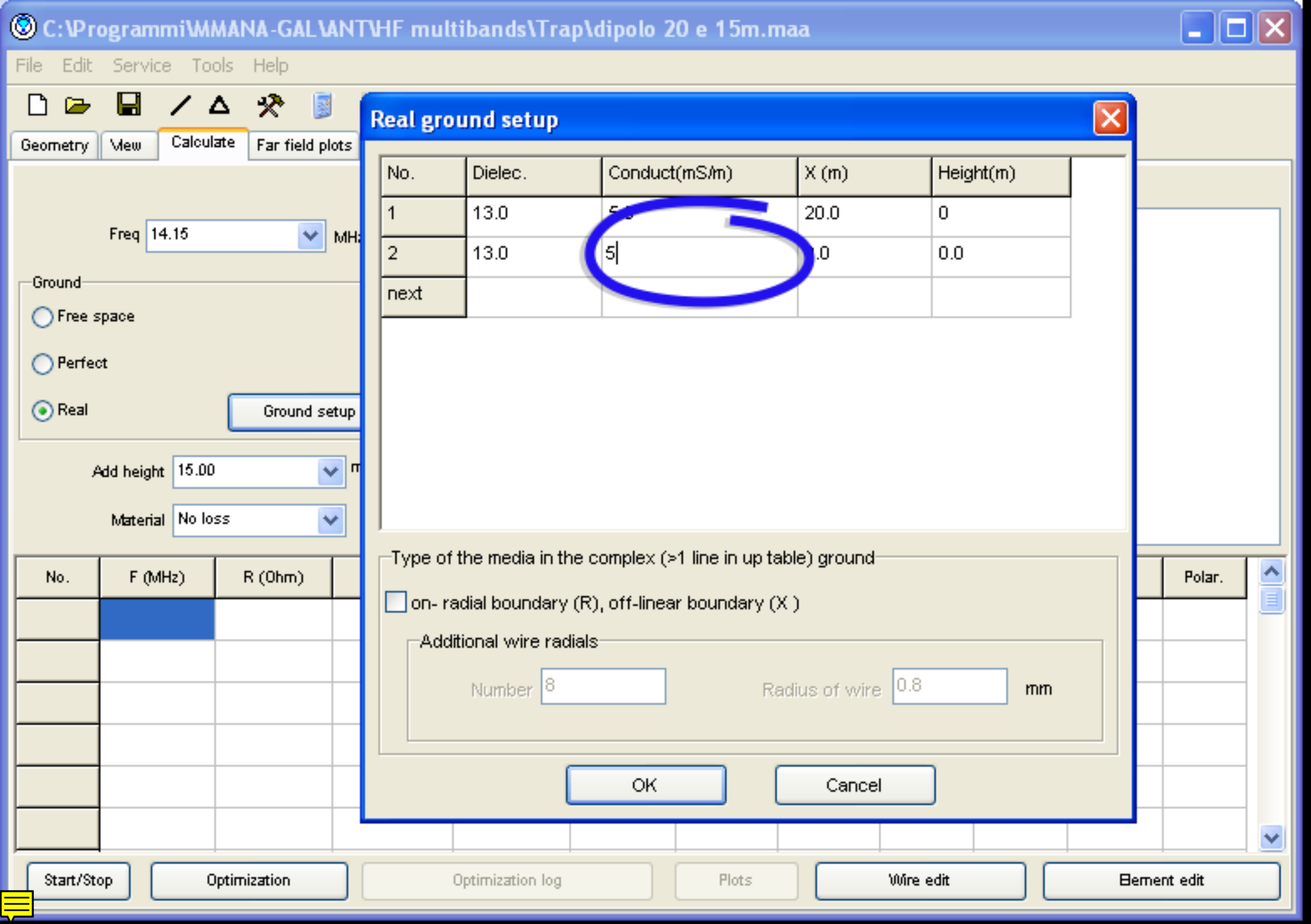
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	.0	0.0
next				

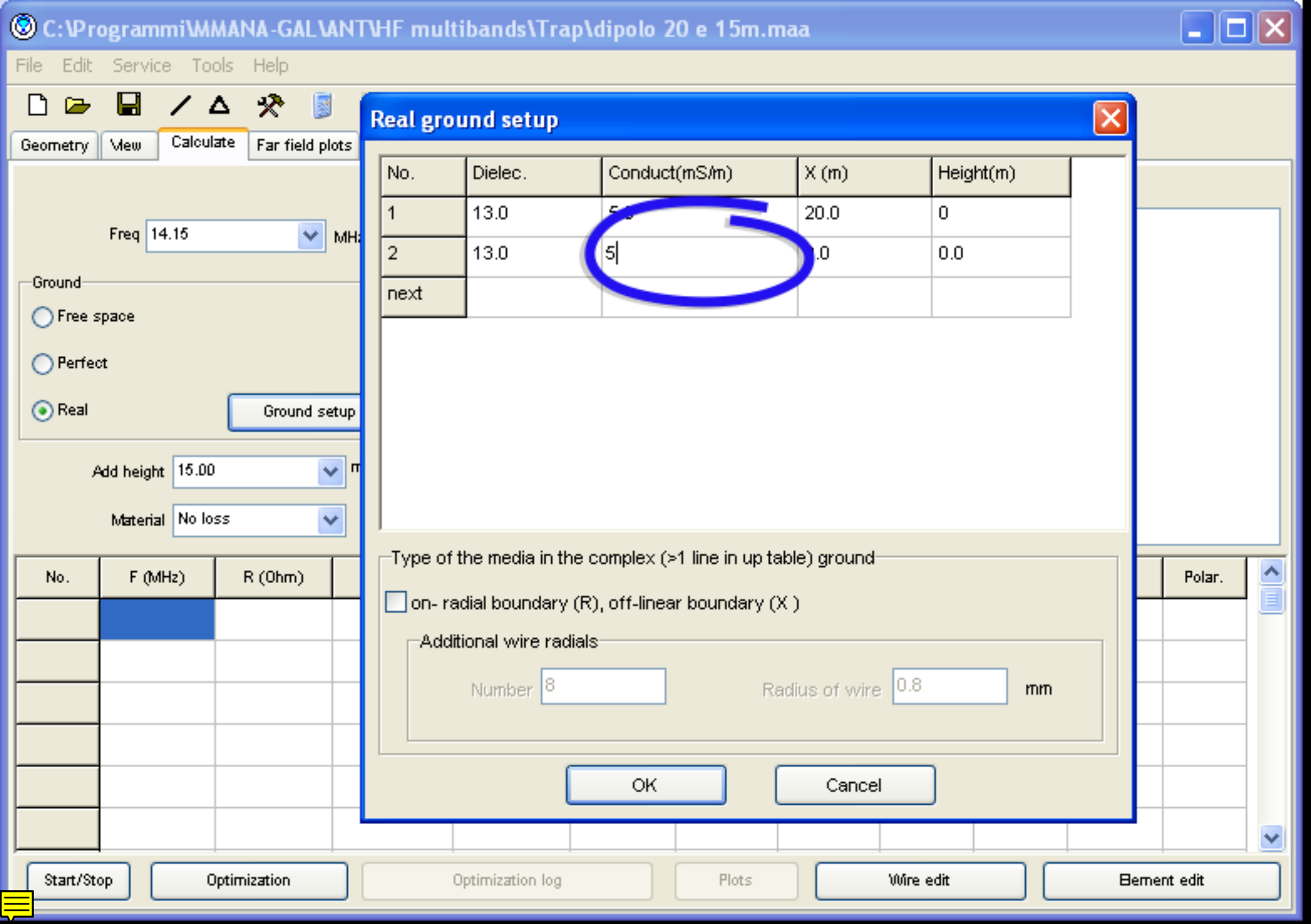
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

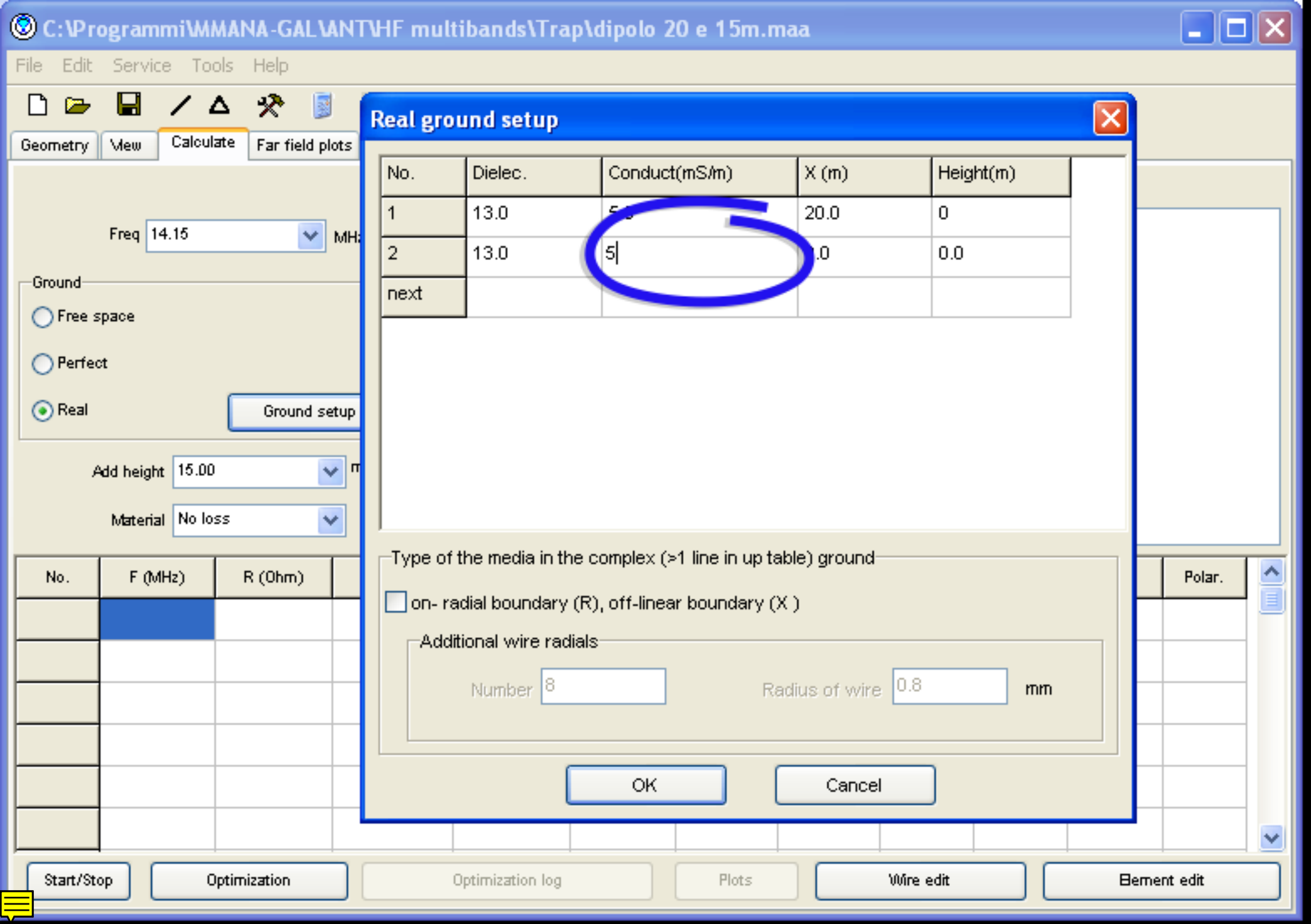
Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	0.0	0.0
next				

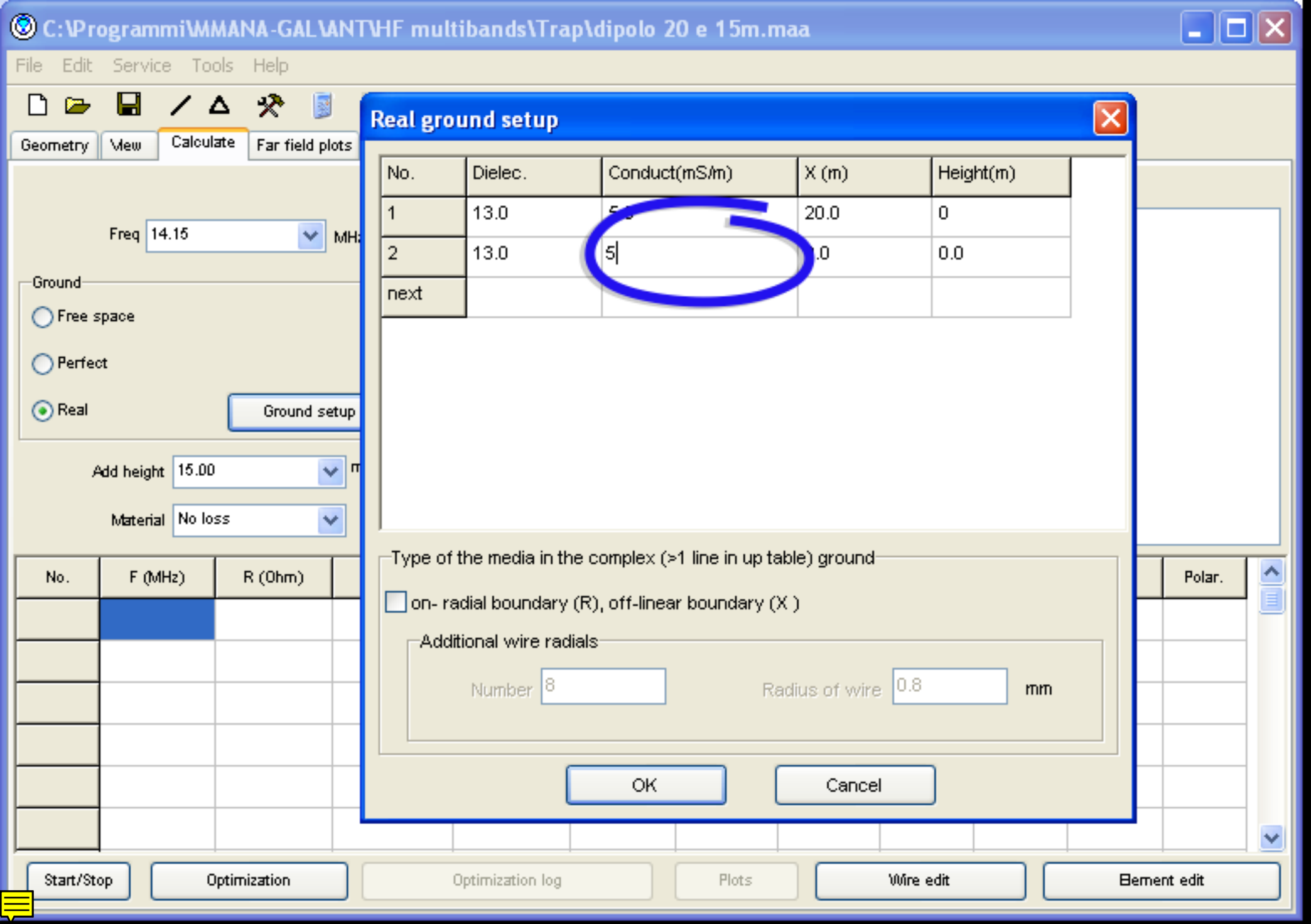
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5	20.0	0
2	13.0	5	.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	5.0	20.0	0.0
next				



supponiamo che le caratteristiche elettriche del terreno sottostante siano uguali a quelle del terreno sovrastante

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

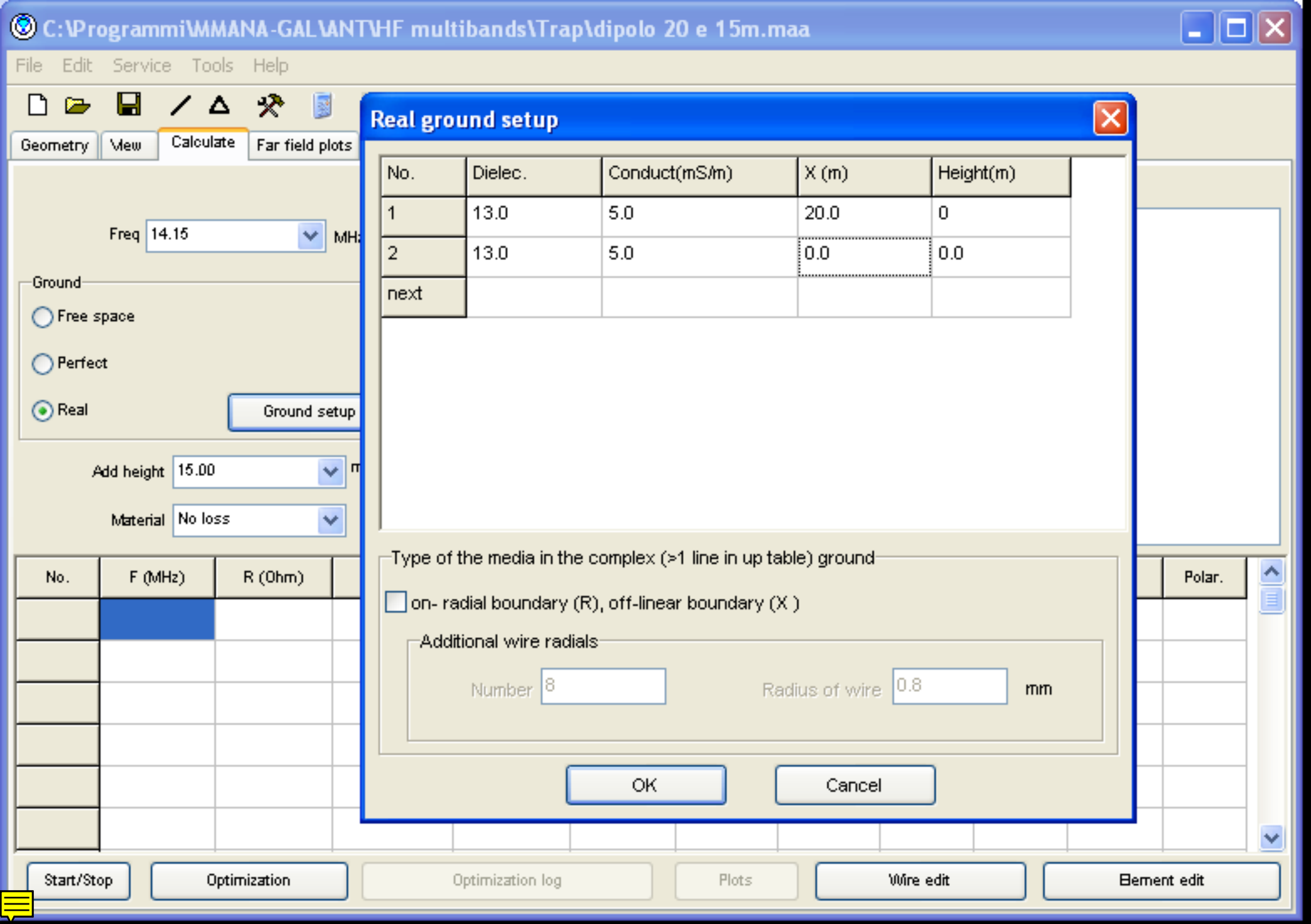
Additional wire radials

Number

Radius of wire mm

OK

Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	5.0	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

Start/Stop

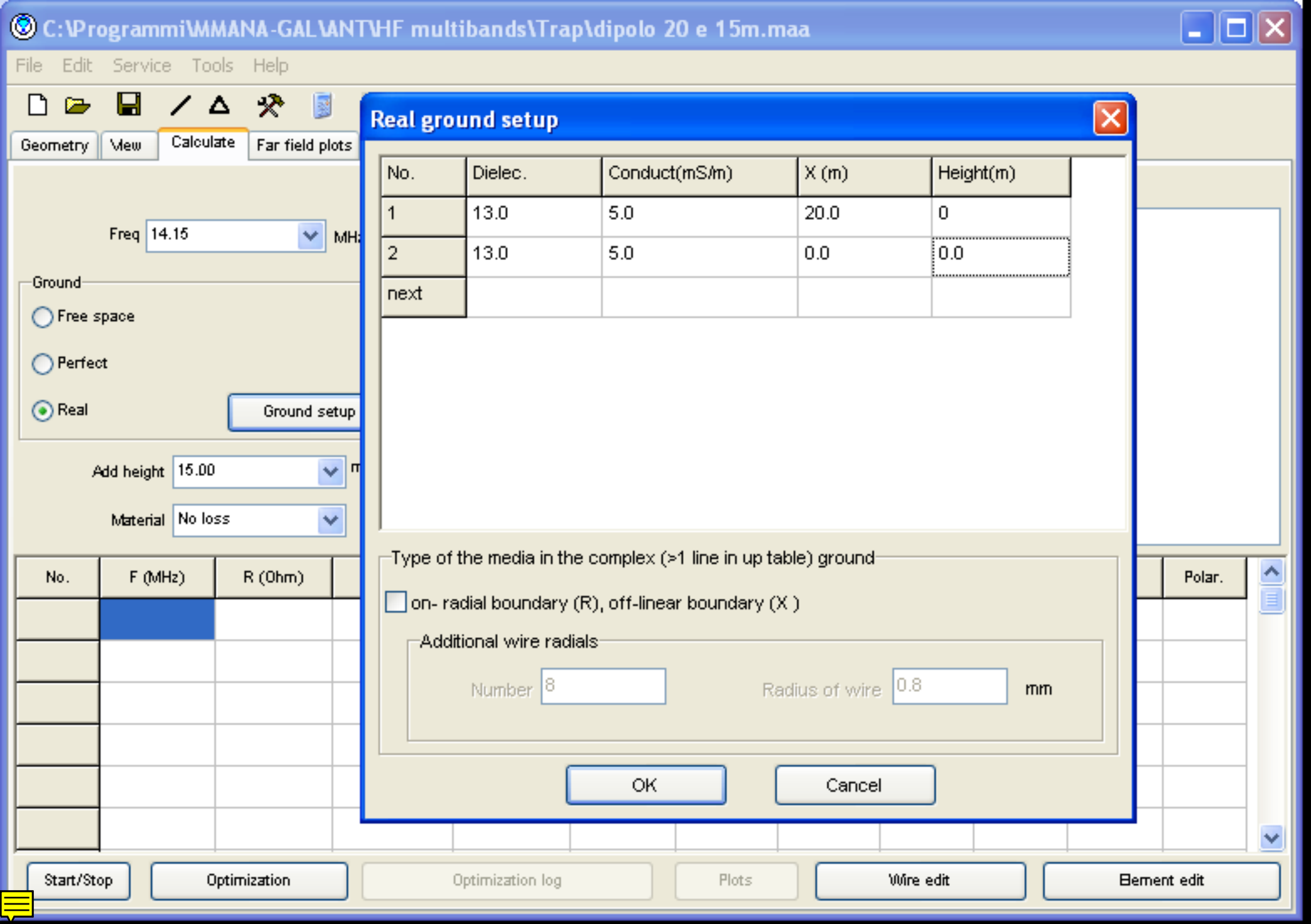
Optimization

Optimization log

Plots

Wire edit

Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0
2	13.0	5.0	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

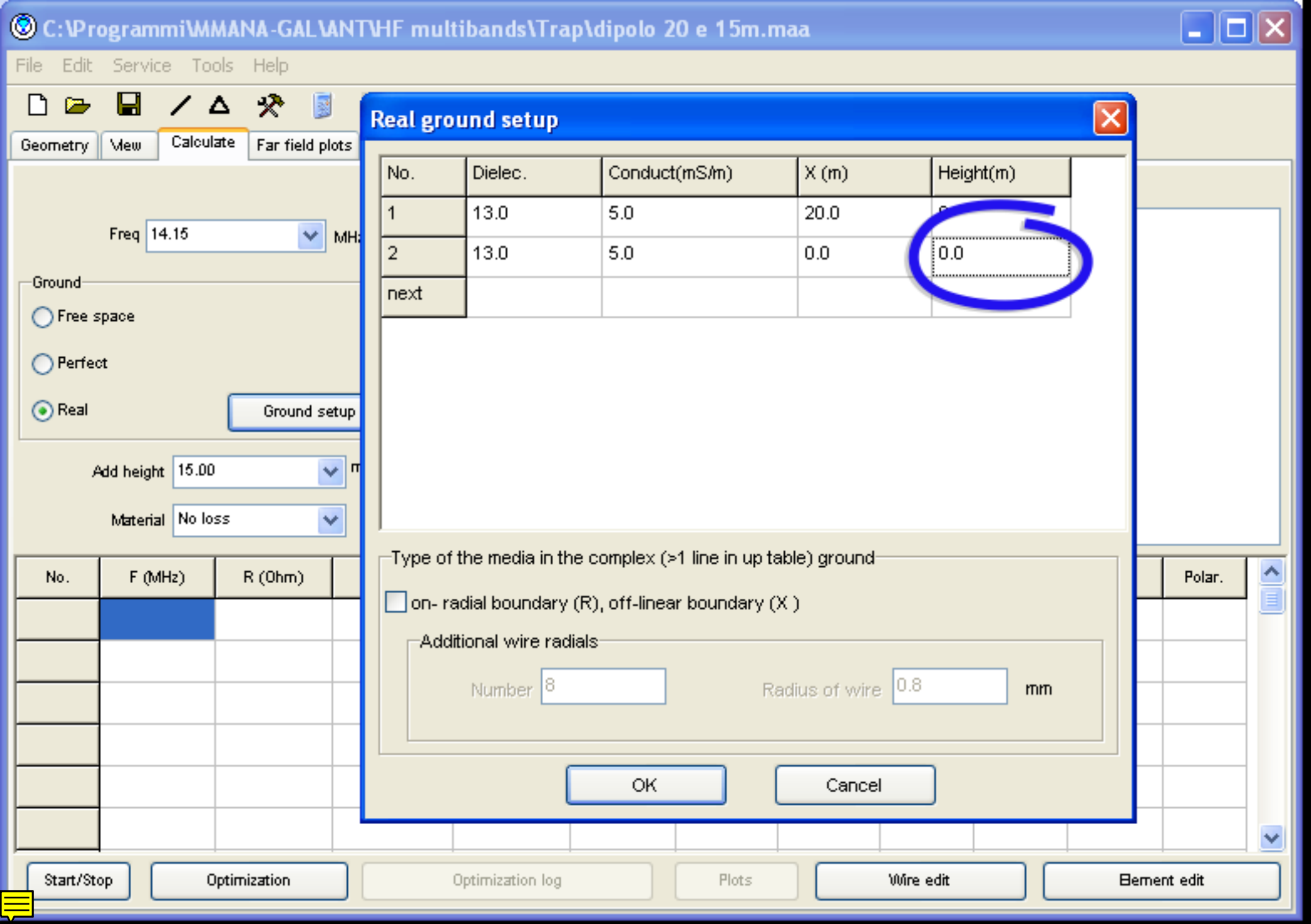
Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Polar.

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

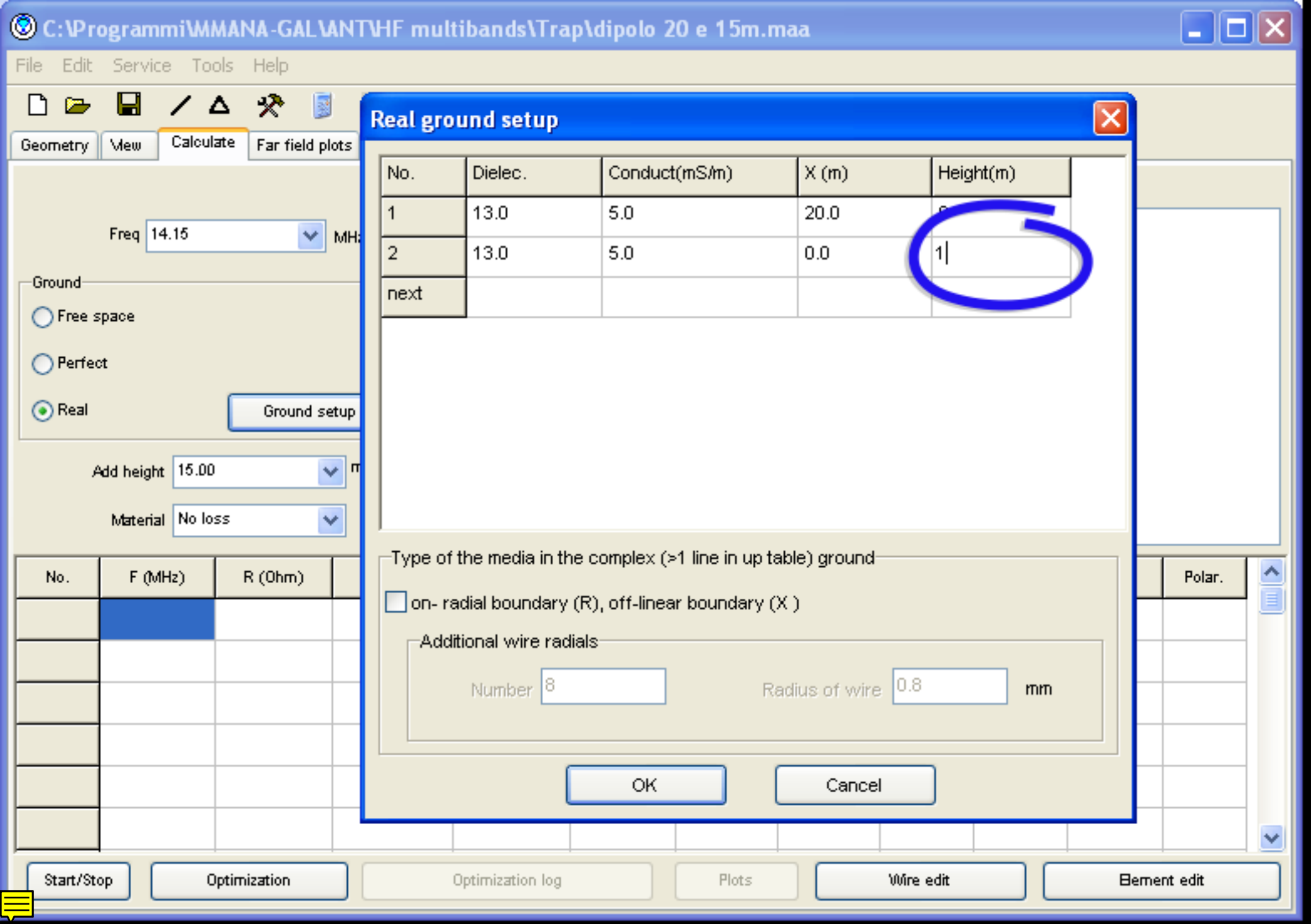
No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	0.0
2	13.0	5.0	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground
 on- radial boundary (R), off-linear boundary (X)
Additional wire radials
Number 8 Radius of wire 0.8 mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	8
2	13.0	5.0	0.0	1
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

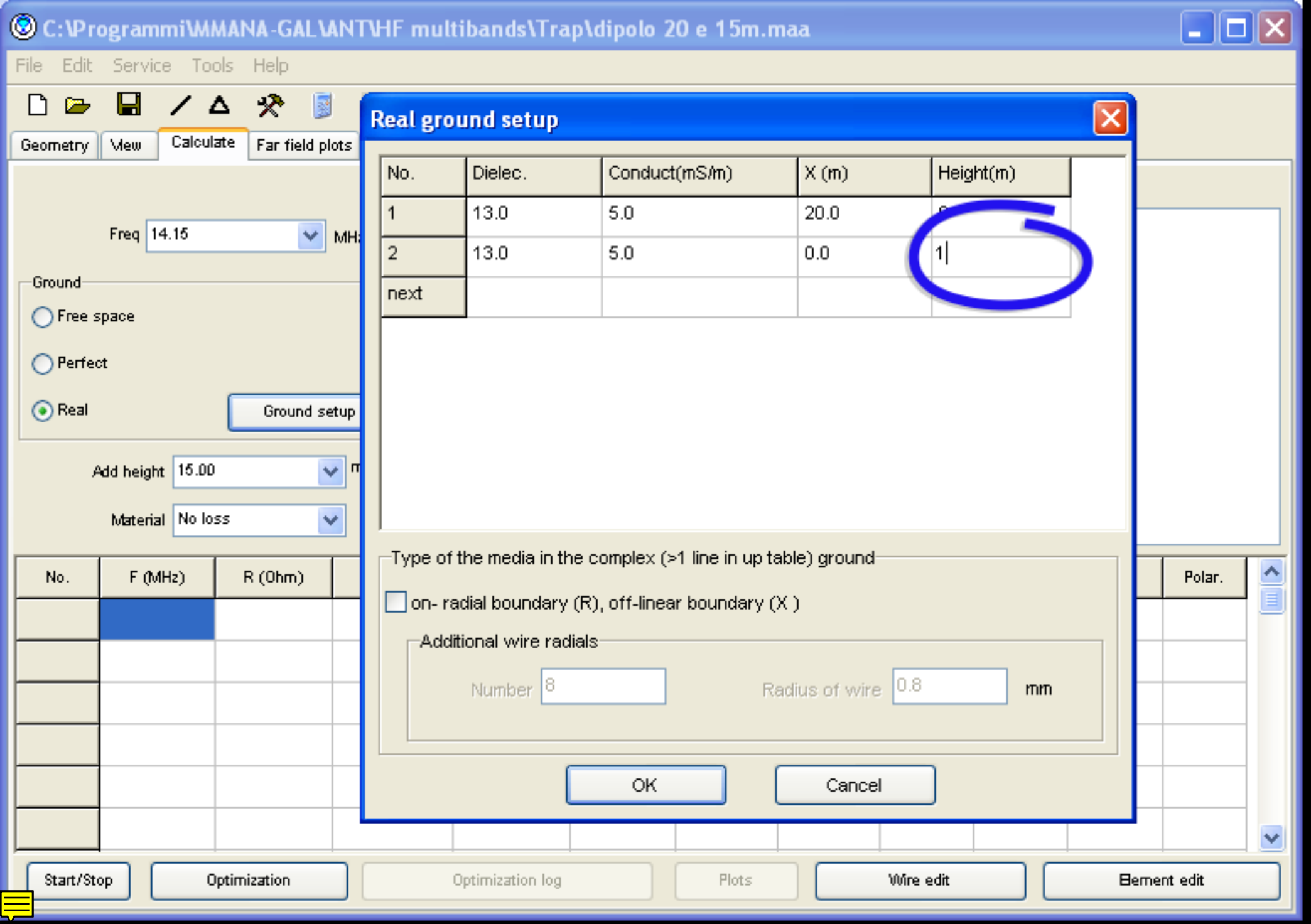
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	8
2	13.0	5.0	0.0	1
next				

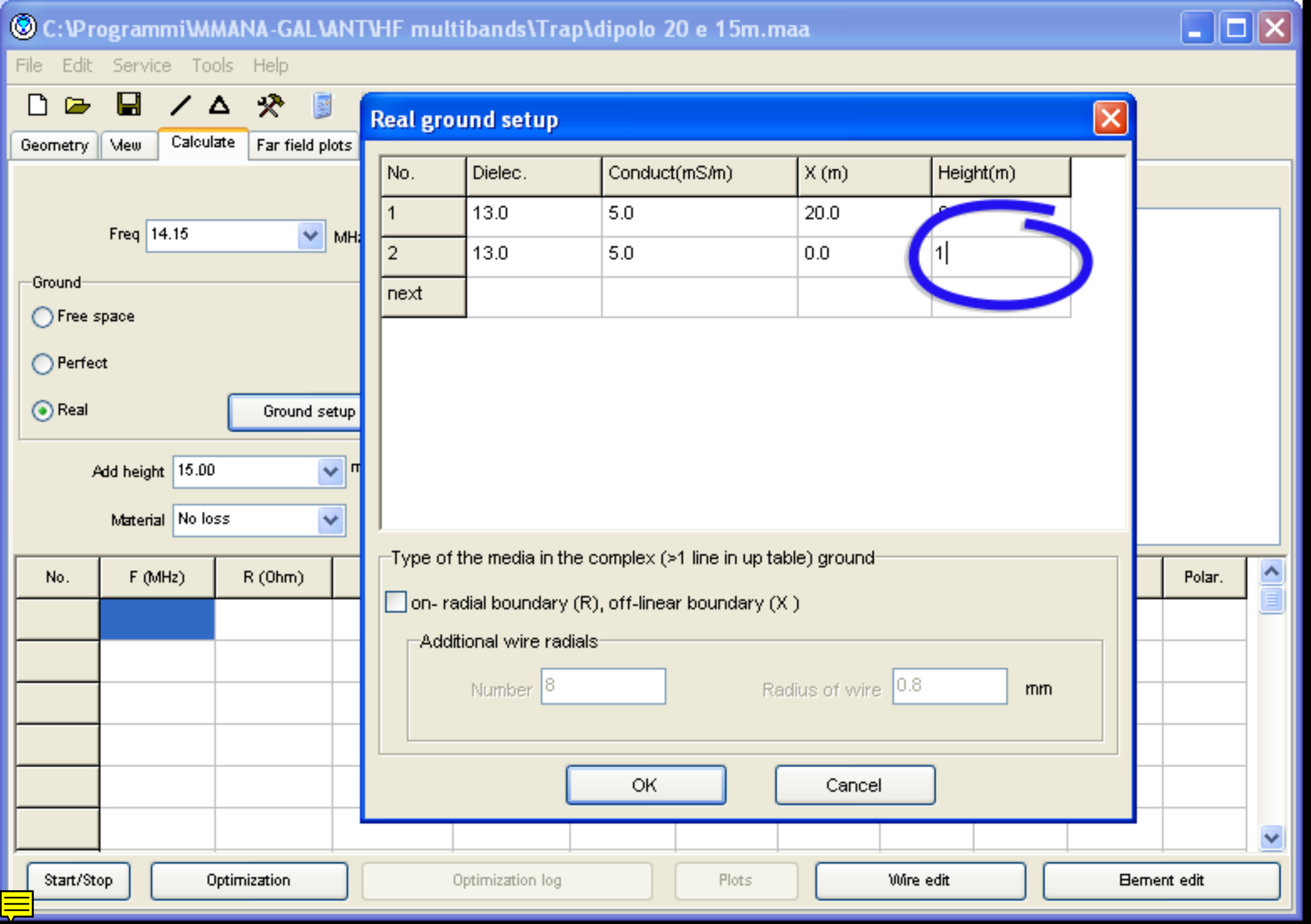
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	8
2	13.0	5.0	0.0	1
next				

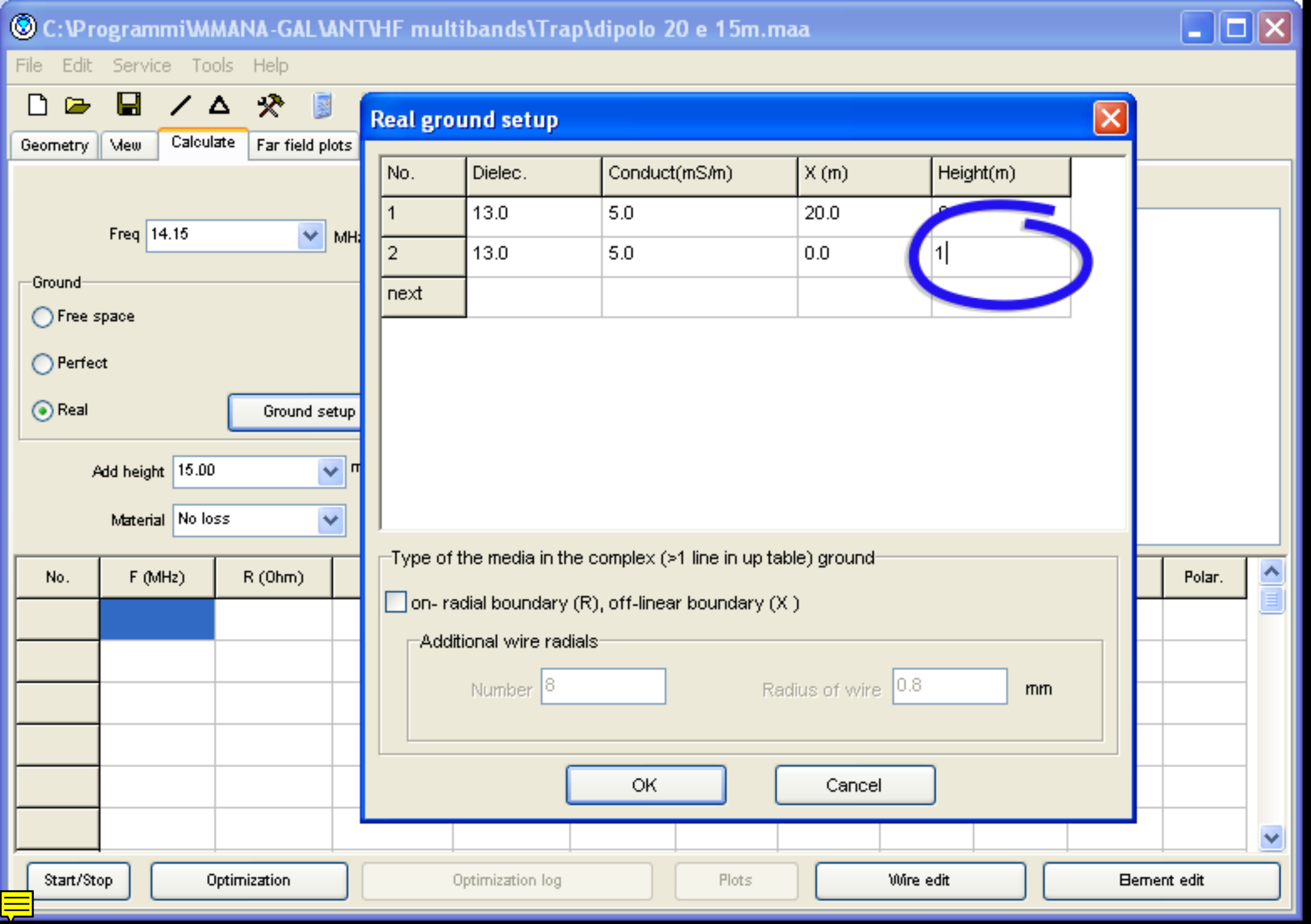
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	8
2	13.0	5.0	0.0	1
next				

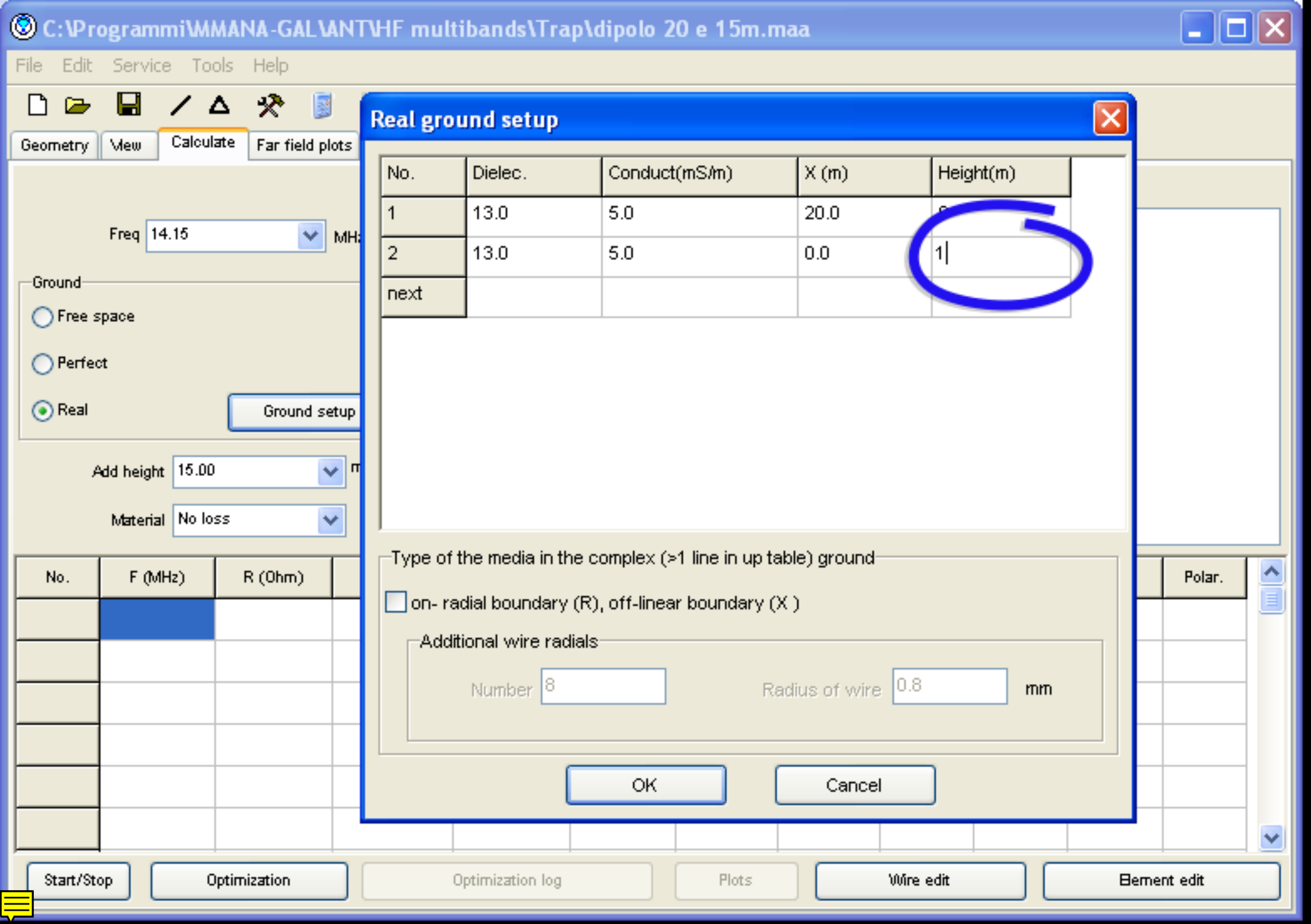
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	8
2	13.0	5.0	0.0	1
next				

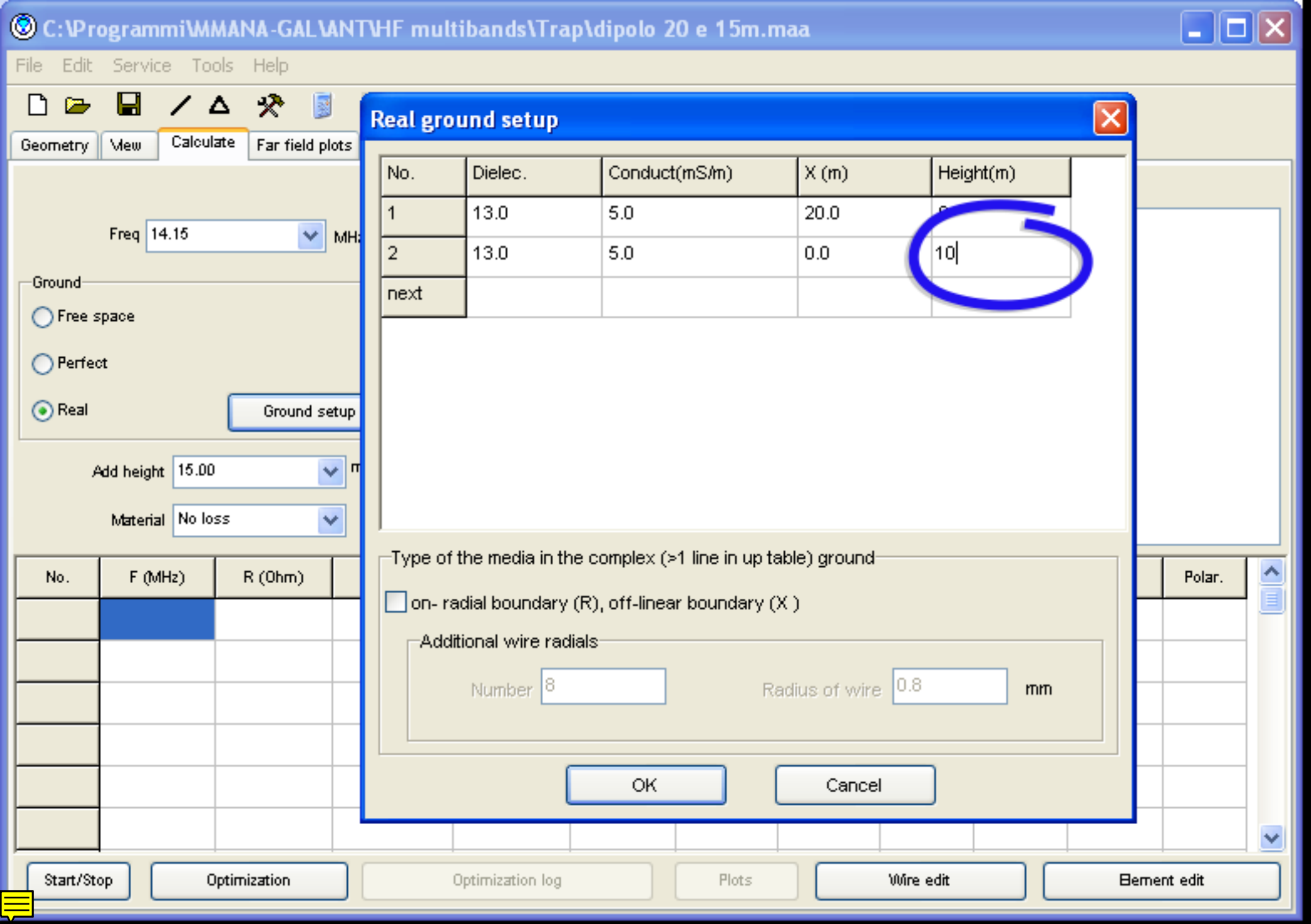
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	10
2	13.0	5.0	0.0	10
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

Radius of wire mm

OK

Cancel

Freq MHz

- Ground
- Free space
 - Perfect
 - Real

Ground setup

Add height m

Material

No.	F (MHz)	R (Ohm)

Start/Stop

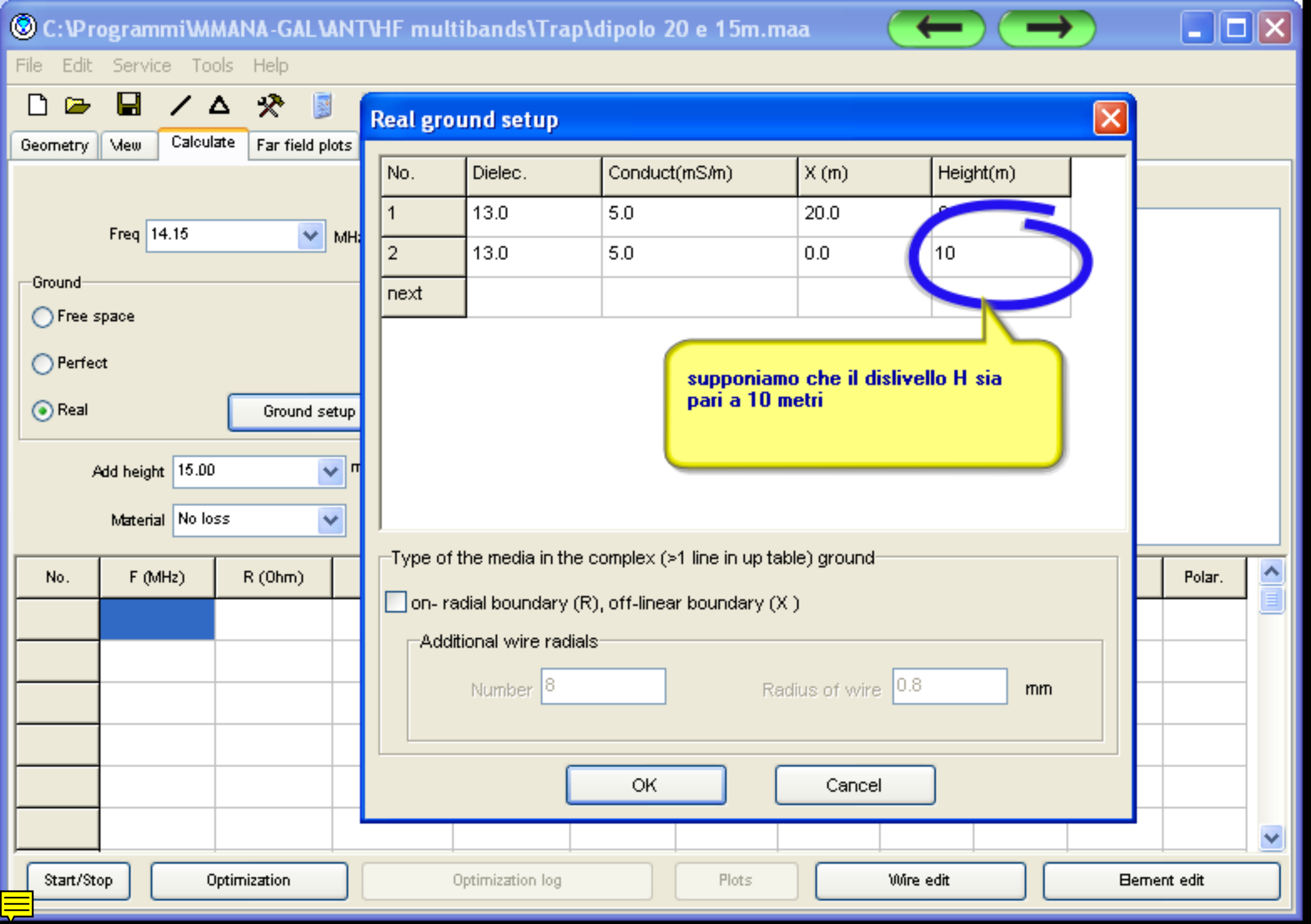
Optimization

Optimization log

Plots

Wire edit

Element edit



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	20.0	10
2	13.0	5.0	0.0	10
next				

supponiamo che il dislivello H sia pari a 10 metri

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0

next

Altro caso particolare:
Antenna situata sulla
sommità di una struttura
assimilata ad un cilindro
di raggio R e altezza H

Type

or

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq 14.150 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0

next

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8 mm

OK Cancel

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

No.	F (MHz)	R (Ohm)

Polar.

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

No.	F (MHz)	R (Ohm)

Polar.

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

No.	F (MHz)	R (Ohm)

Polar.

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Geometry View **Calculate** Far field plots

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off- linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

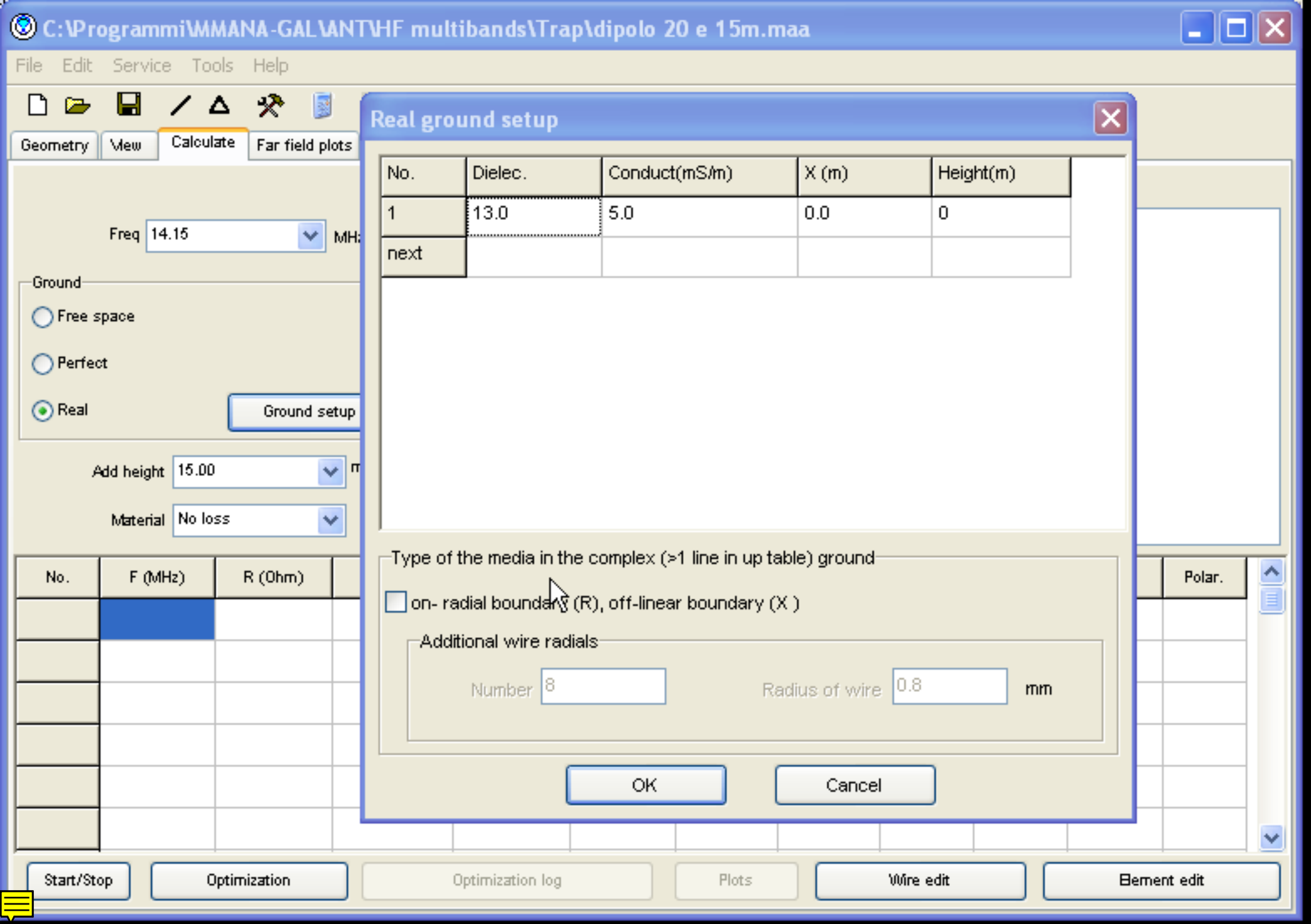
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (F) off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8

Radius of wire 0.8

mm

OK

Cancel

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

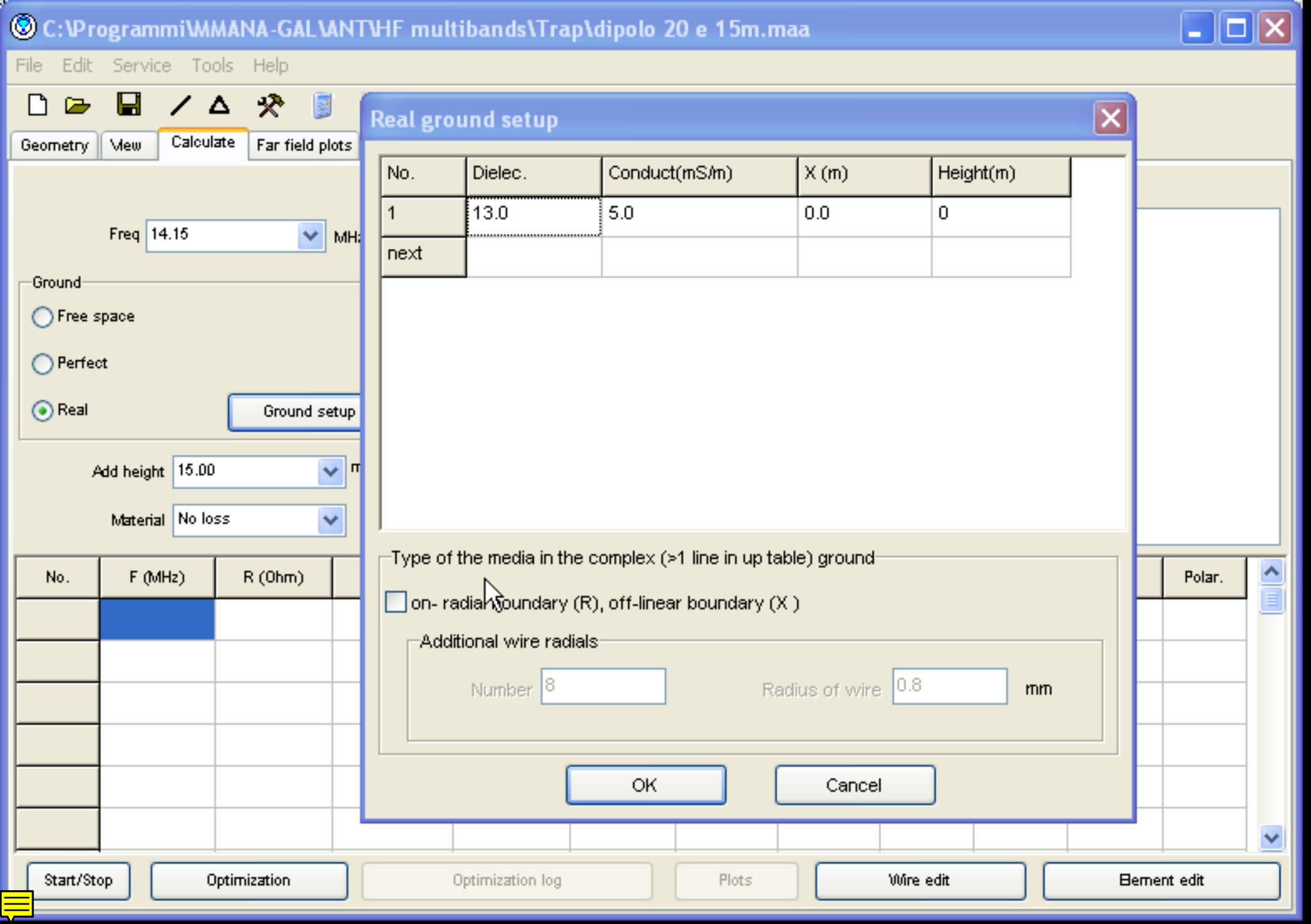
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

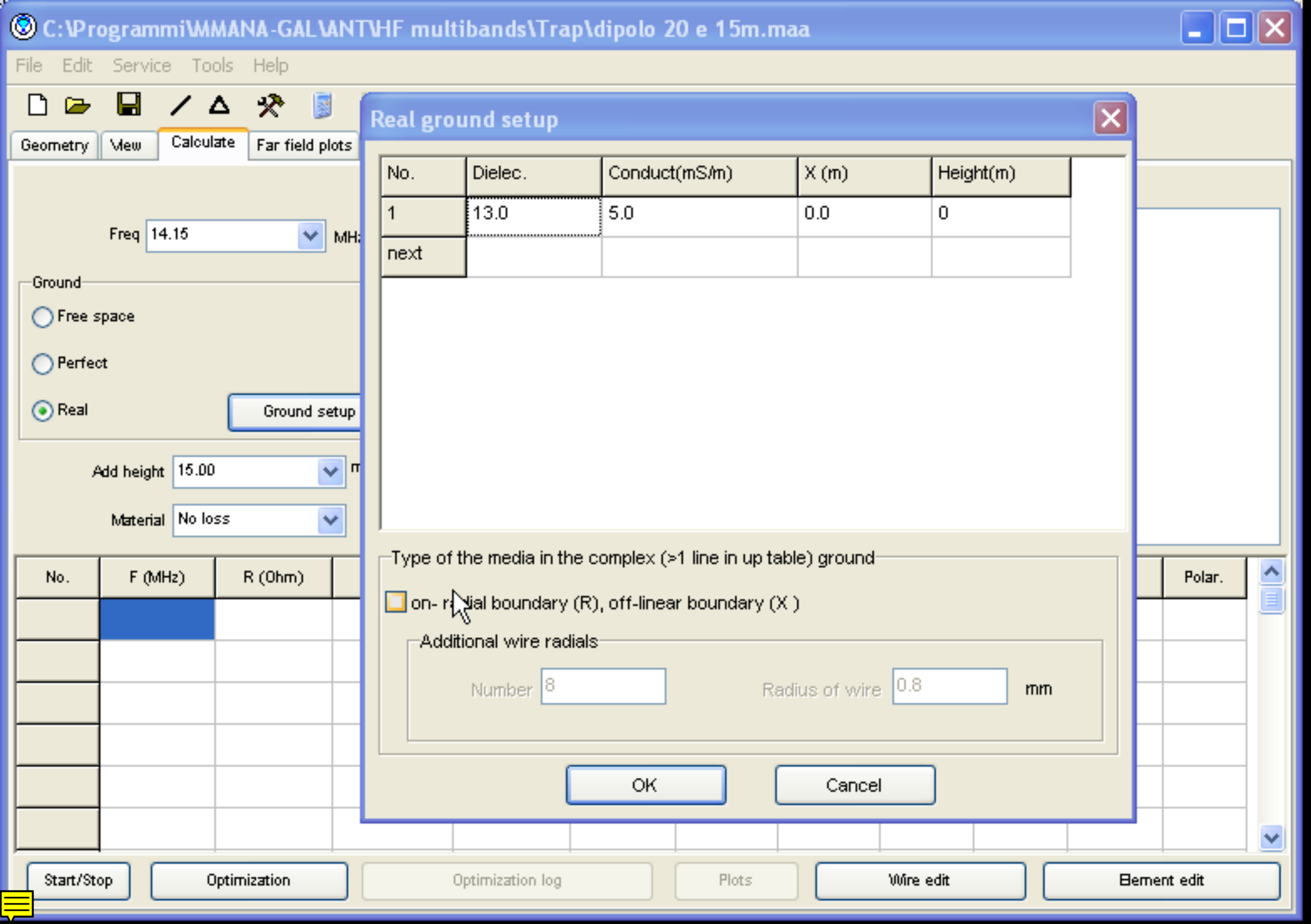
No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on-radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on-radial boundary (R), off-linear boundary (X)

Additional wire radials

Number

8

Radius of wire

0.8

mm

OK

Cancel

Start/Stop

Optimization

Optimization log

Plots

Wire edit

Element edit

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on-radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

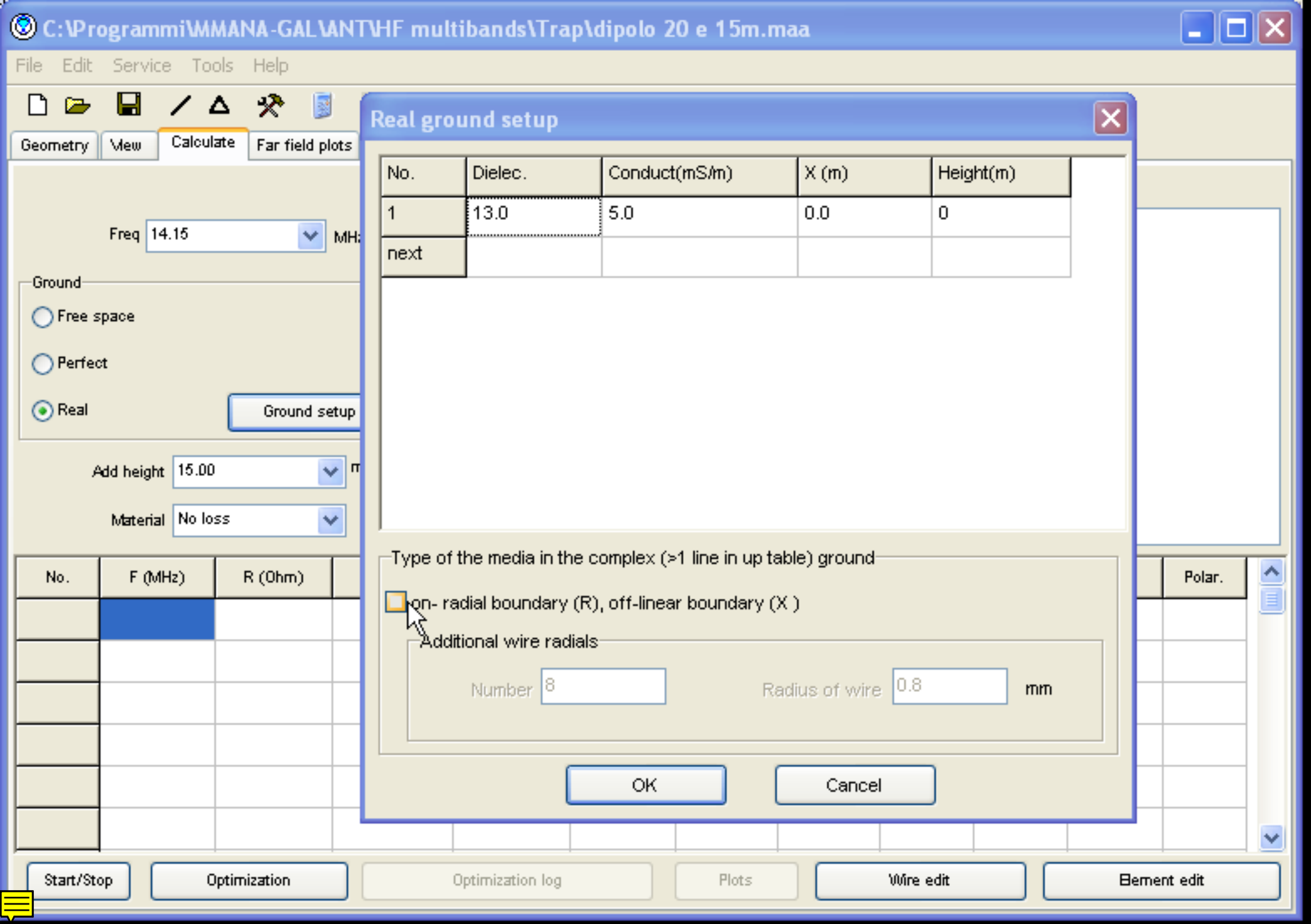
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Geometry View **Calculate** Far field plots

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8 Radius of wire 0.8 mm

OK Cancel

No.	F (MHz)	R (Ohm)

Polar.

Geometry View **Calculate** Far field plots

Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8 Radius of wire 0.8 mm

OK Cancel

No.	F (MHz)	R (Ohm)

Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	X (m)	Height(m)
1	13.0	5.0	0.0	0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

Freq 14.15 MHz

- Free space
- Perfect
- Real

Ground

Add height 15.00

Material No loss

Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5.0	0.0	0
next				

per indicare al software che vogliamo considerare il caso del cilindro di raggio R, dobbiamo spuntare questa opzione.

Type of the media in the complex (>1 line in up table) ground

- on-radial boundary (R), off-linear boundary (X)

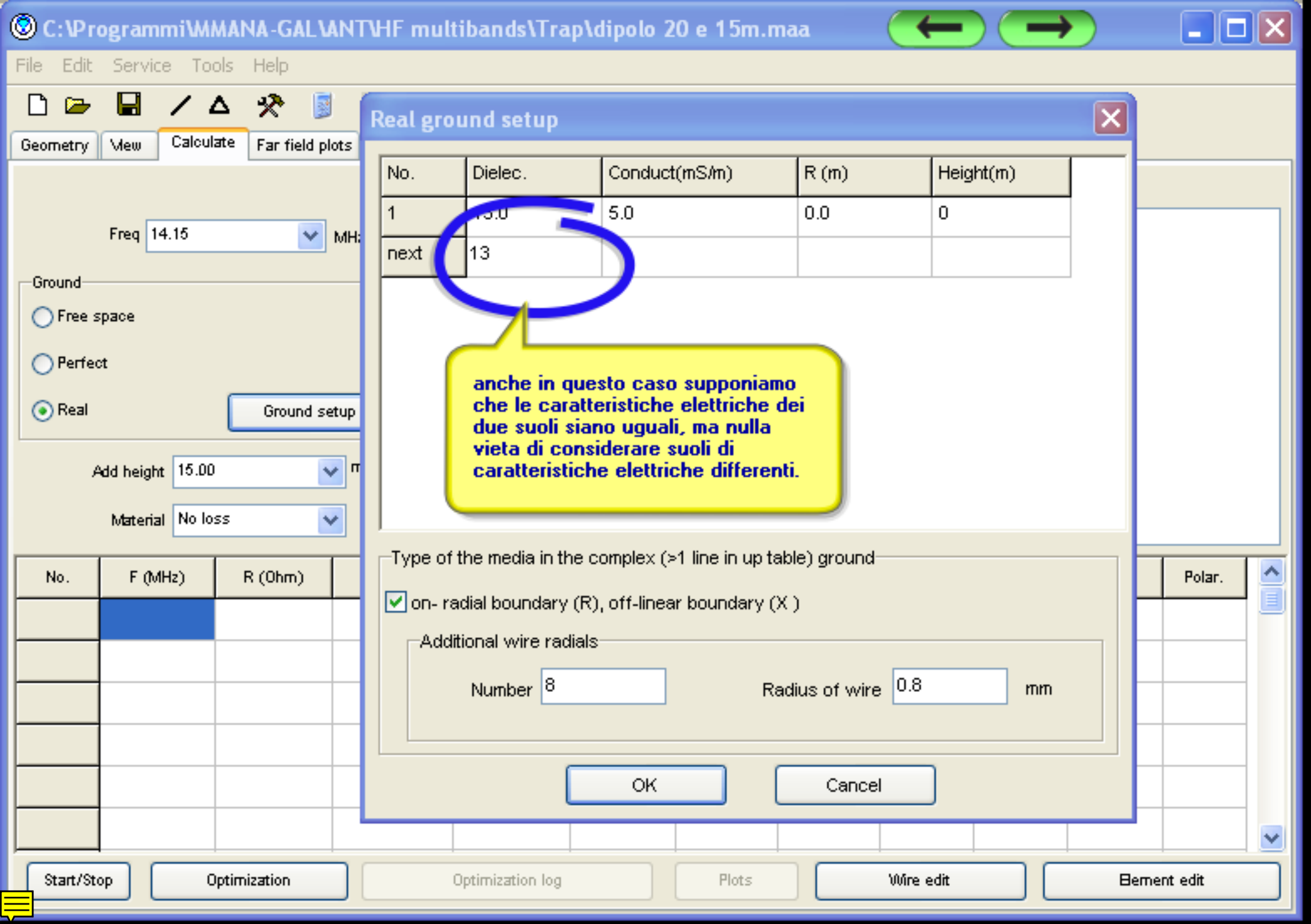
Additional wire radials

Number 8

Radius of wire 0.8 mm

OK

Cancel



Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5.0	0.0	0
next	13			

anche in questo caso supponiamo che le caratteristiche elettriche dei due suoli siano uguali, ma nulla vieta di considerare suoli di caratteristiche elettriche differenti.

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK Cancel

File Edit Service Tools Help

Geometry View Calculate Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Start/Stop Optimization Optimization log Plots Wire edit Element edit

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5	0.0	0
2	13.0	5	0.0	0.0
next				

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK

Cancel

File Edit Service Tools Help

Geometry View **Calculate** Far field plots

Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5.0	0.0	0
2	13.0	5.0	0.0	10.0
next				

supponiamo che l'altezza H del cilindro sia pari a 10 metri

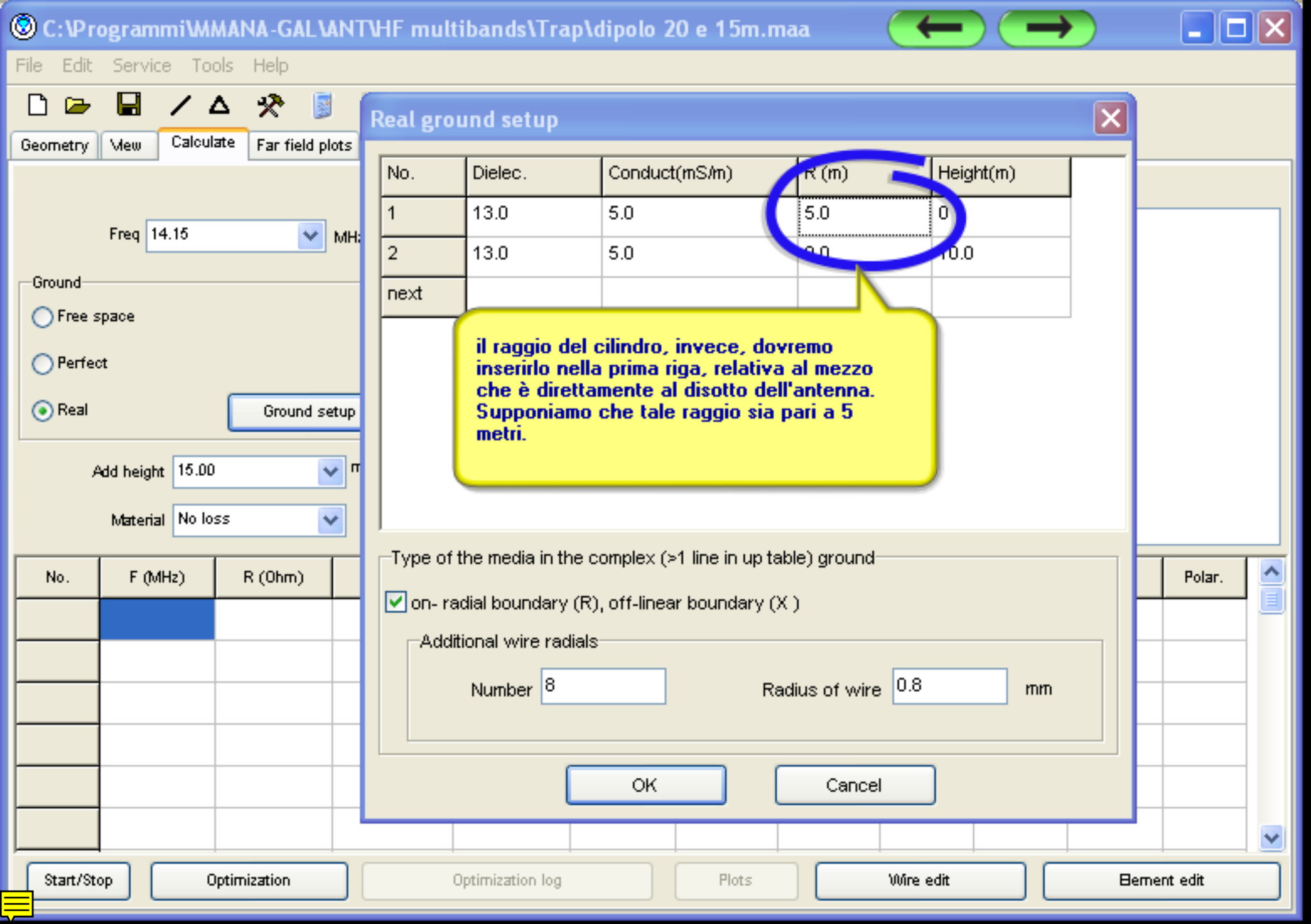
Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8 Radius of wire 0.8 mm

OK Cancel



Freq 14.15 MHz

Ground
 Free space
 Perfect
 Real
Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)

Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5.0	5.0	0
2	13.0	5.0	0.0	10.0
next				

il raggio del cilindro, invece, dovremo inserirlo nella prima riga, relativa al mezzo che è direttamente al disotto dell'antenna. Supponiamo che tale raggio sia pari a 5 metri.

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number 8 Radius of wire 0.8 mm

OK Cancel

Real ground setup

No.	Dielec.	Conduct(mS/m)	R (m)	Height(m)
1	13.0	5.0	5.0	0
2	13.0	5.0	0.0	10.0
next				

qui, invece, potremo inserire eventuali radiali integrativi di terra, precisandone il numero e il raggio.

Type of the media in the complex (>1 line in up table) ground

on- radial boundary (R), off-linear boundary (X)

Additional wire radials

Number Radius of wire mm

OK

Cancel



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material no loss

qui specificheremo l'altezza dell'antenna rispetto al suolo ad essa direttamente sottostante

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR	Gain	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

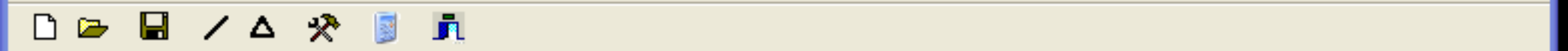
Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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Real

Ground setup

Add height 15.00 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

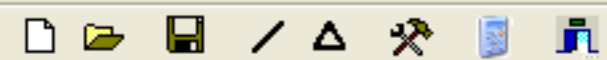
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

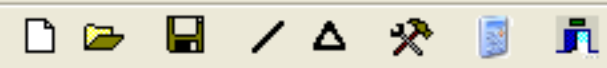
10

12

15

16

No.	F (MHz)	Z (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 0
- 3
- 5
- 7
- 10
- 12
- 15
- 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.
	15									



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 0
- 3
- 5
- 7
- 10
- 12
- 15
- 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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- 0
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Freq 14.15 MHz

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TOTAL PULSE = 47

Ground

Free space

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Real

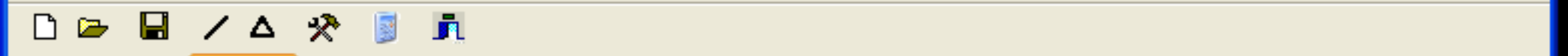
Ground setup

Add height 15.00 m

Material

- 0
- 3
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- 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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Ground setup

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Ground

Free space

Perfect

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Ground setup

Add height 15.00 m

- Material
- 0
 - 3
 - 5
 - 7
 - 10
 - 12
 - 15
 - 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.
	14.15									



Freq 14.15 MHz

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Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

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Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
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Ground

Free space

Perfect

Real

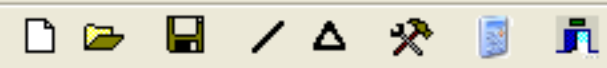
Ground setup

Add height 15.00 m

Material

- 0
- 3
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- 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

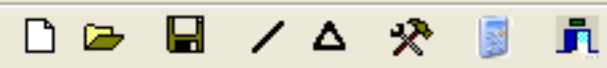
Ground setup

Add height 15.00 m

Material

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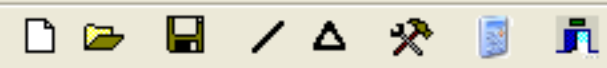
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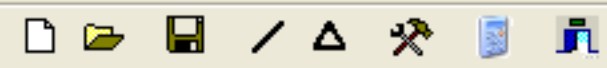
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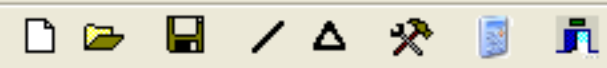
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Add height 15.00 m

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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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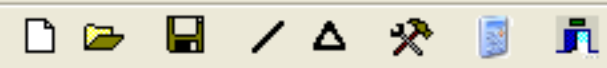
Ground setup

Add height 15.00 m

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- 0
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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.
	15									



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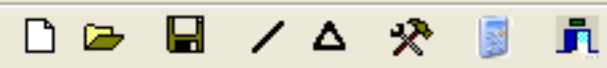
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Add height 15.00 m

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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.
	15									



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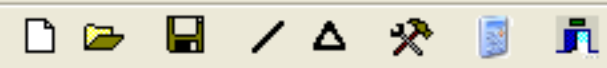
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Add height 15.00 m

Material

- 0
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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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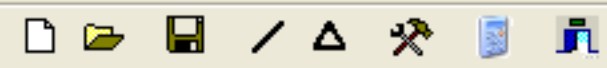
Ground setup

Add height 15.00 m

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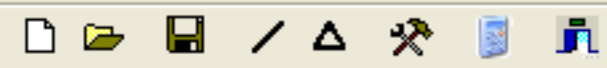
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Add height 15.00 m

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- 0
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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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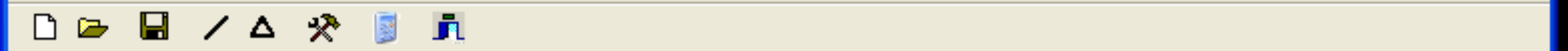
Ground setup

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- 0
- 3
- 5
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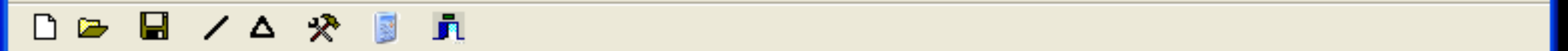
Ground setup

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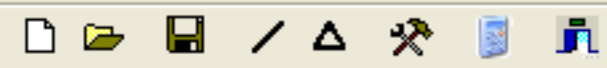
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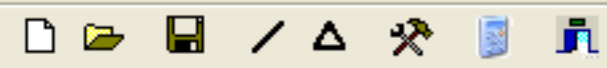
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Perfect

Real

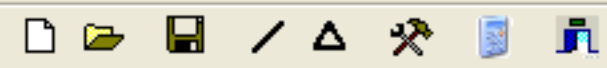
Ground setup

Add height 15.00 m

Material

- 0
- 3
- 5
- 7
- 10
- 12
- 15
- 16

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 0
- 3
- 5
- 7
- 10
- 12
- 15
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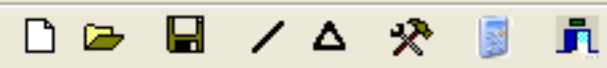
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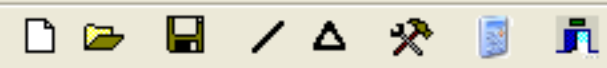
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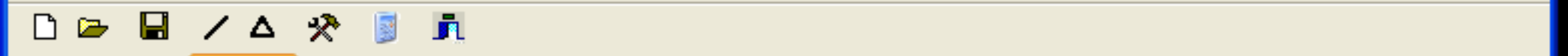
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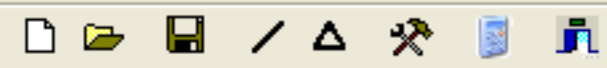
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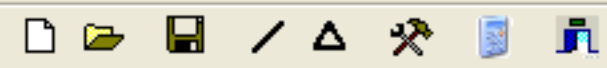
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Ground

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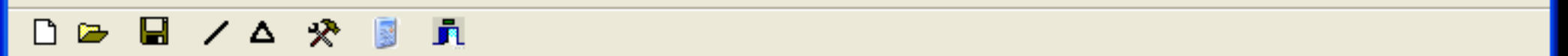
Ground setup

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- 0
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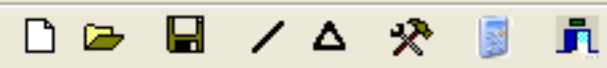
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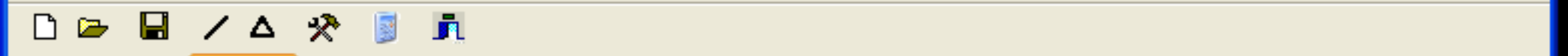
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	12									
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	16									



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Material

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- 16
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Ground

Free space

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Ground setup

Add height 15.00 m

Material

- 12
- 15
- 16
- 17
- 18
- 19
- 20
- 21

No.	F (MHz)	Z (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 12
- 15
- 16
- 17
- 18
- 19
- 20
- 21

No.	F (MHz)	Z (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22

No.	F (MHz)	R (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

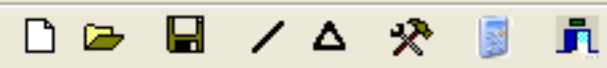
Real

Ground setup

Add height 15.00 m

- Material
- 16
 - 17
 - 18
 - 19
 - 20
 - 21
 - 22
 - 23

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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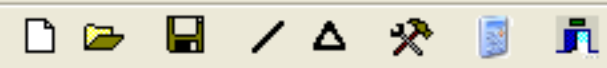
Ground setup

Add height 15.00 m

Material

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

No.	F (MHz)	Z (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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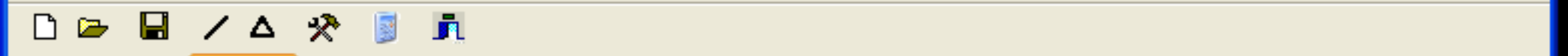
Ground setup

Add height 15.00 m

Material

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

No.	F (MHz)	Z (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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Ground setup

Add height 15.00 m

Material

- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 28

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 20
- 21
- 22
- 23
- 24
- 25
- 28
- 30

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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Ground

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Ground setup

Add height 15.00 m

Material

- 22
- 23
- 24
- 25
- 28
- 30
- 35
- 40

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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Ground setup

Add height 15.00 m

Material

- 23
- 24
- 25
- 28
- 30
- 35
- 40
- 45

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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Ground

Free space

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Ground setup

Add height 15.00 m

Material

- 24
- 25
- 28
- 30
- 35
- 40
- 45
- 50

No.	F (MH)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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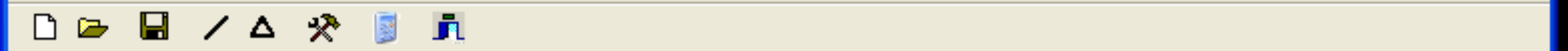
Ground setup

Add height 15.00 m

Material

- 24
- 25
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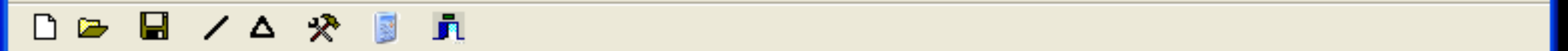
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Material

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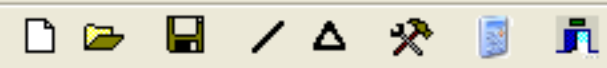
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Add height 15.00 m

Material

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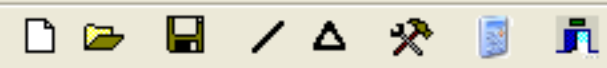
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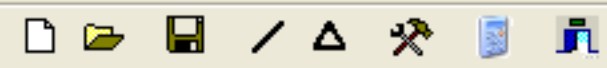
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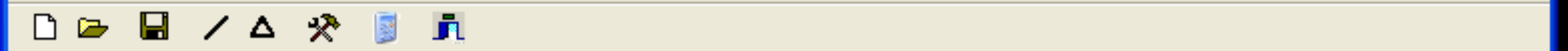
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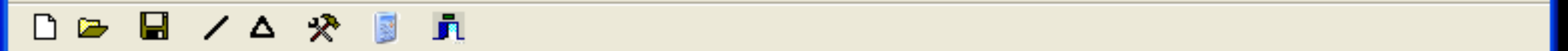
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- 45
- 50

No.	F (MH)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 15.00 m

Material

- 24
- 25
- 28
- 30
- 35
- 40
- 45
- 50

No.	F (MH)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

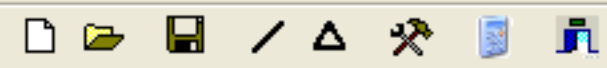
Ground setup

Add height 15.00 m

Material

- 24
- 25
- 28
- 30
- 35
- 40
- 45
- 50

No.	F (MH)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

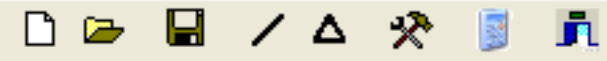
Real

Ground setup

Add height 30 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

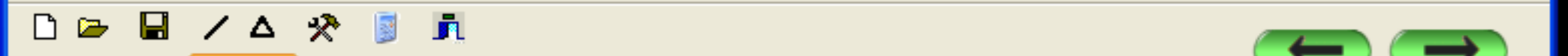
Perfect

Real

Add height m

Material

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 20 m

Material No loss

qui, infine, indicheremo di che materiale sono costituiti gli elementi della nostra antenna

No.	F (MHz)	R (Ohm)	jX (Ohm)	B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material No loss

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Freq MHz

Ground

Free space

Perfect

Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

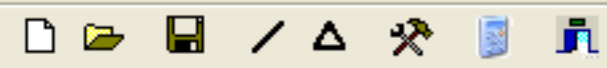
Ground setup

Add height 30 m

Material

- No loss
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

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Real

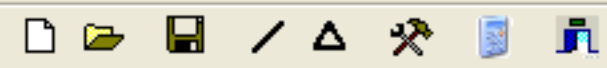
Ground setup

Add height 30 m

Material

- No loss
- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
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Ground

Free space

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Ground setup

Add height 30 m

Material

- No loss
- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

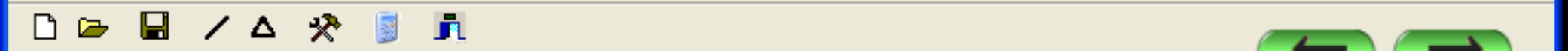
Ground setup

Add height 30 m

Material

- No loss
- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material

No loss

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

sono possibili varie scelte:
No loss : conduttore perfetto senza perdite;
Cu wire : filo in rame;
Cu pipe : tubo in rame;
Al wire : filo in alluminio;
Al pipe : tubo in alluminio;
Fe wire : filo in ferro;
Fe pipe : tubo in ferro;
User wire : filo di materiale definito dall'utente;
User pipe : tubo di materiale definito dall'utente

No.	F (MHz)	Ground	Add H.	Polar.



Freq 14.15 MHz

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material User pipe

Material

Resistivity

0 e-8 Ohm * m

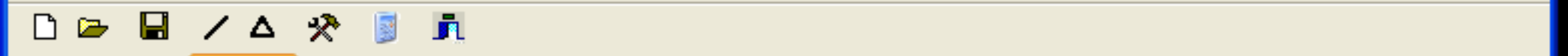
Permeability

0

OK Cancel

qualora si scegliesse il materiale definito dall'utente, si aprirà una ulteriore finestra in cui inseriremo le caratteristiche elettriche del materiale utilizzato

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material

- No loss
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- Cu wire
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- Al pipe
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- Fe pipe
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Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

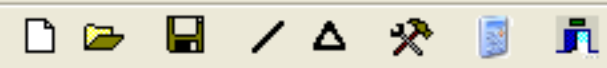
Ground setup

Add height 30 m

Material

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

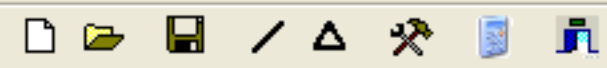
Ground setup

Add height 30 m

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- Al pipe
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Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

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Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

- Free space
- Perfect
- Real

Ground setup

Add height 30 m

Material No loss

- No loss
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- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

Start/Stop

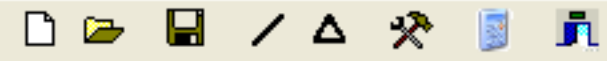
Optimization

Optimization log

Plots

Wire edit

Element edit



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

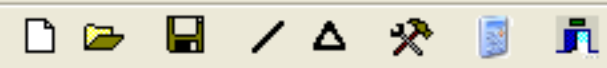
Ground setup

Add height 30 m

Material

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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Ground

Free space

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Real

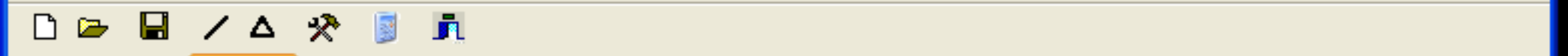
Ground setup

Add height 30 m

Material No loss

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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Free space

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Real

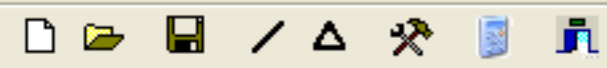
Ground setup

Add height 30 m

Material

- No loss
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- Cu pipe
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- Al pipe
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- Fe pipe
- User wire

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Geometry View **Calculate** Far field plots

Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material

- No loss
- No loss
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- Al pipe
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- Fe pipe
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Real

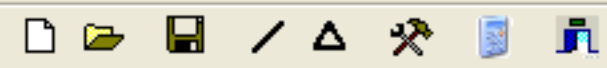
Ground setup

Add height 30 m

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- Al pipe
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Ground

Free space

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Real

Ground setup

Add height 30 m

Material

- No loss
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- Al pipe
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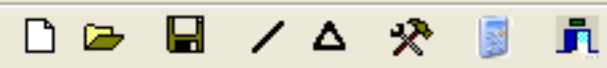
Ground setup

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- Al pipe
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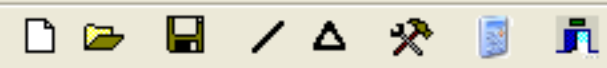
Ground setup

Add height 30 m

Material No loss

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- Cu pipe**
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- Al pipe
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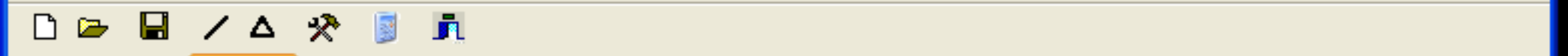
Ground setup

Add height 30 m

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- Cu pipe**
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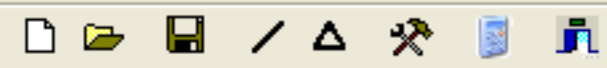
Ground setup

Add height 30 m

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Ground

Free space

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Real

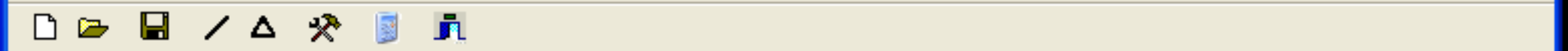
Ground setup

Add height 30 m

Material No loss

- No loss
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- Al pipe
- Fe wire
- Fe pipe
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No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

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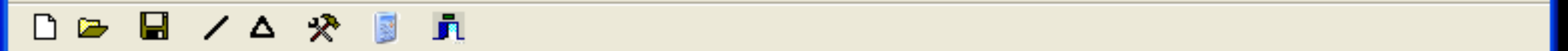
Ground setup

Add height 30 m

Material No loss

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
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- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



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Ground setup

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Ground setup

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Ground setup

Add height 30 m

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Freq 14.15 MHz

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TOTAL PULSE = 47

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Ground setup

Add height 30 m

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Real

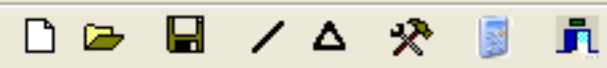
Ground setup

Add height 30 m

Material No loss

- No loss
- Cu wire
- Cu pipe
- Al wire
- Al pipe
- Fe wire
- Fe pipe
- User wire

No.	F (MHz)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

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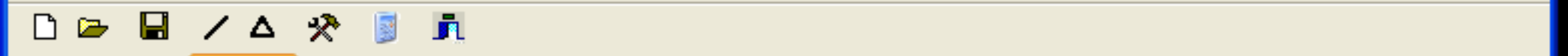
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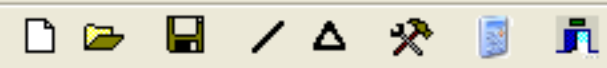
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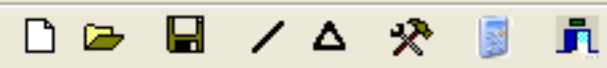
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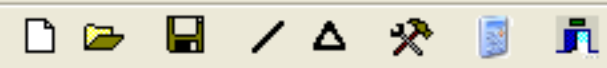
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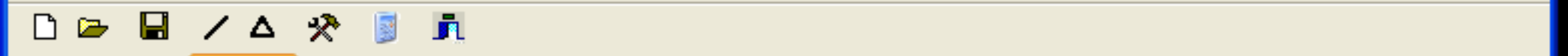
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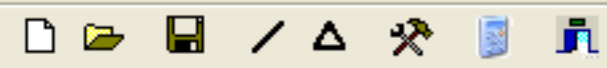
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Freq MHz

Ground

Free space

Perfect

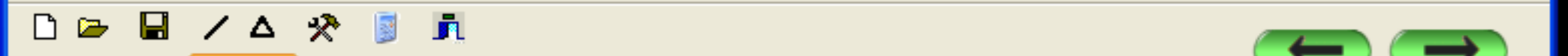
Real

Add height m

Material

WAVE LENGTH = 21.187 (m)
 TOTAL PULSE = 47

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.



Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

Ground

Free space

Perfect

Real

Ground setup

Add height 30 m

Material wire

No.	F (MHz)	R (Ohm)	jX (Ohm)	SWR 50	Gh dBd	Ga dBi	F/B dB	Elev.	Ground	Add H.	Polar.

facendo click su questo pulsante, faremo finalmente partire il calcolo del modello della nostra antenna.

Freq 14.15 MHz

WAVE LENGTH = 21.187 (m)
TOTAL PULSE = 47

- Free space
- Perfect
- Real

Ground s...

Add height 30

Material wire

Nei prossimi tutorials prenderemo in considerazione le finestre a cui si accede facendo click sui pulsanti indicati sotto.

autore reperibile su www.hamradioweb.org/forums

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Per non perdere alcuno di questi tutorials , registrati alla community hamradioweb.org, facendo click su questo pulsante.

