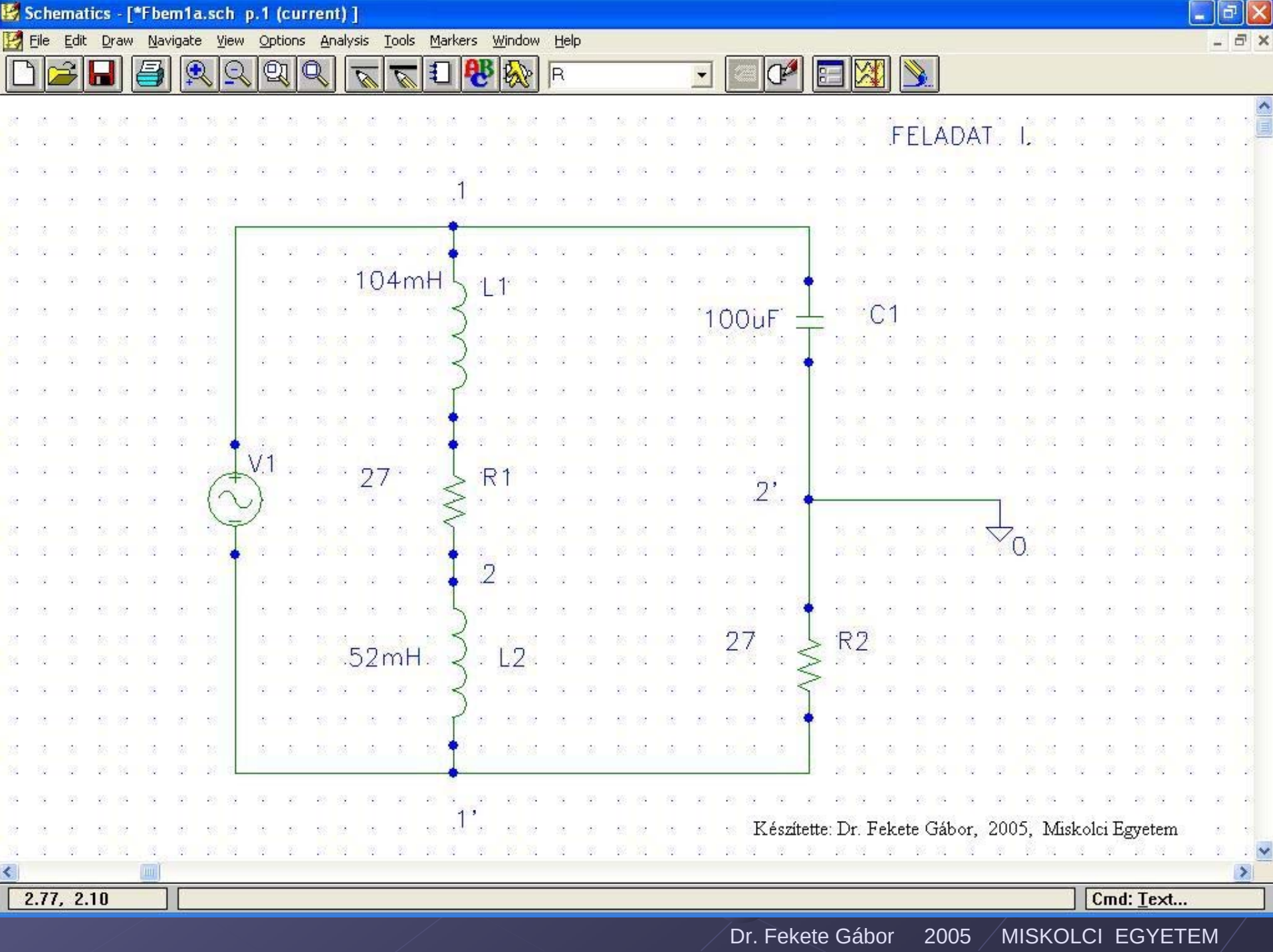
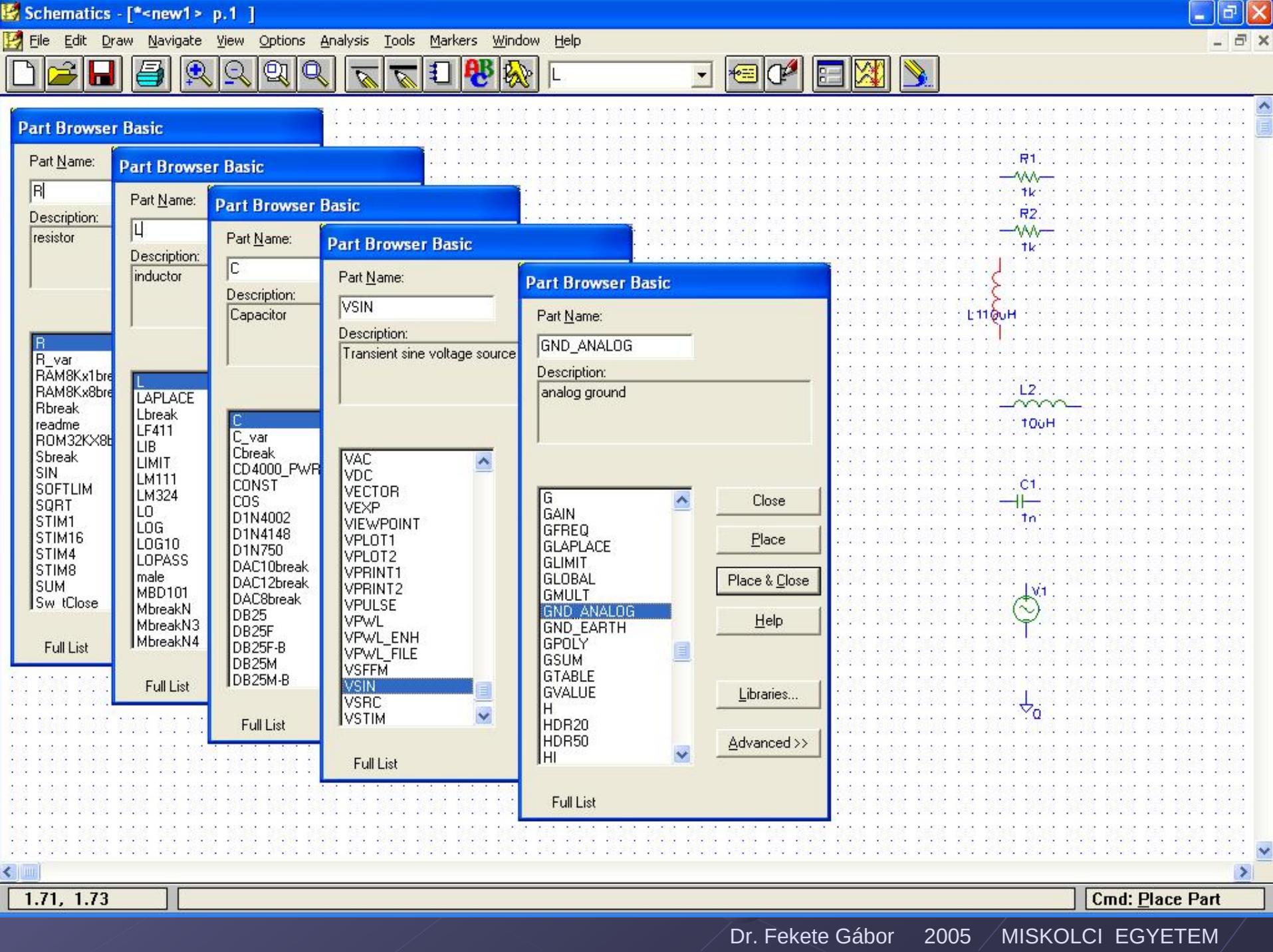
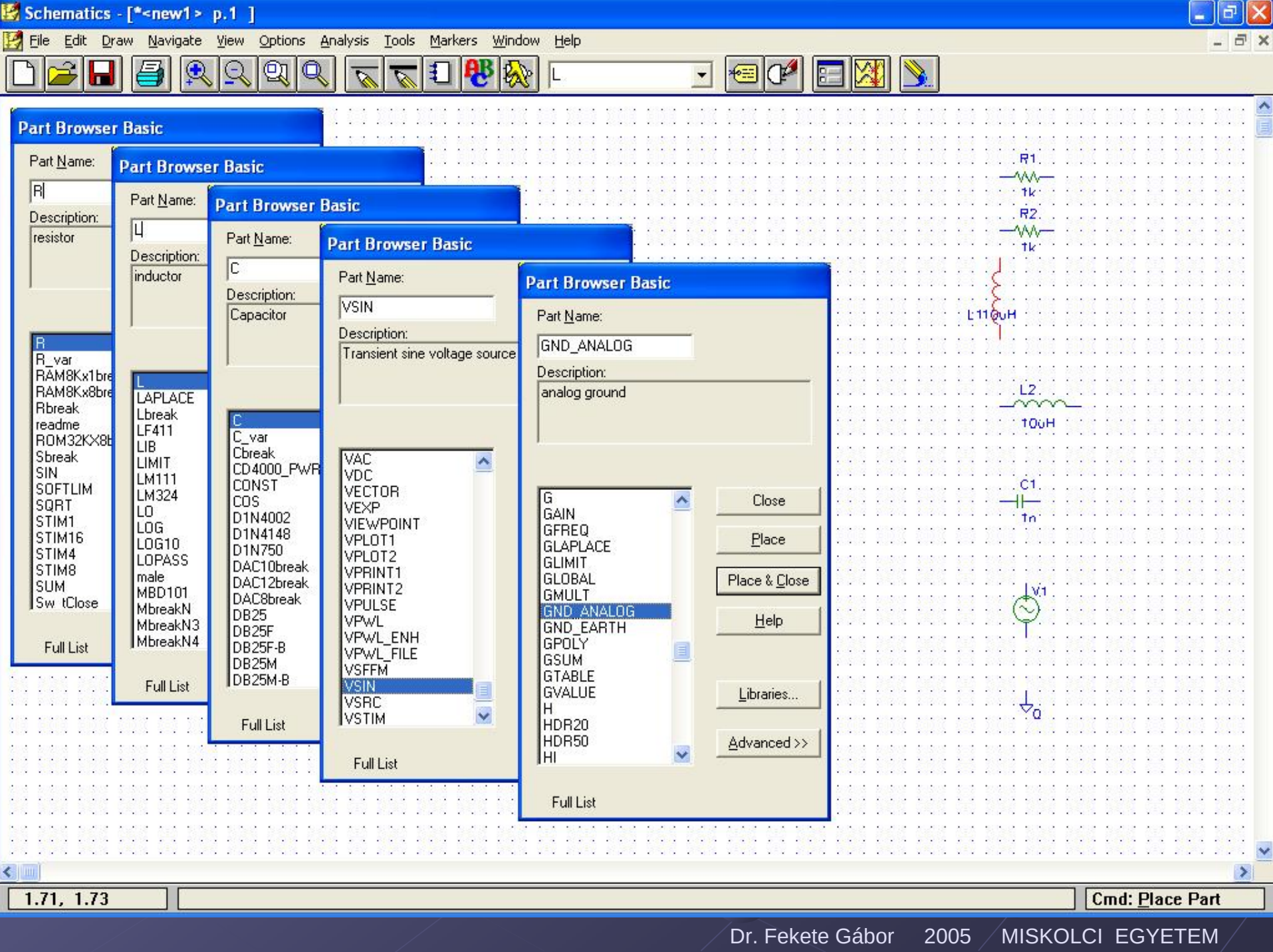


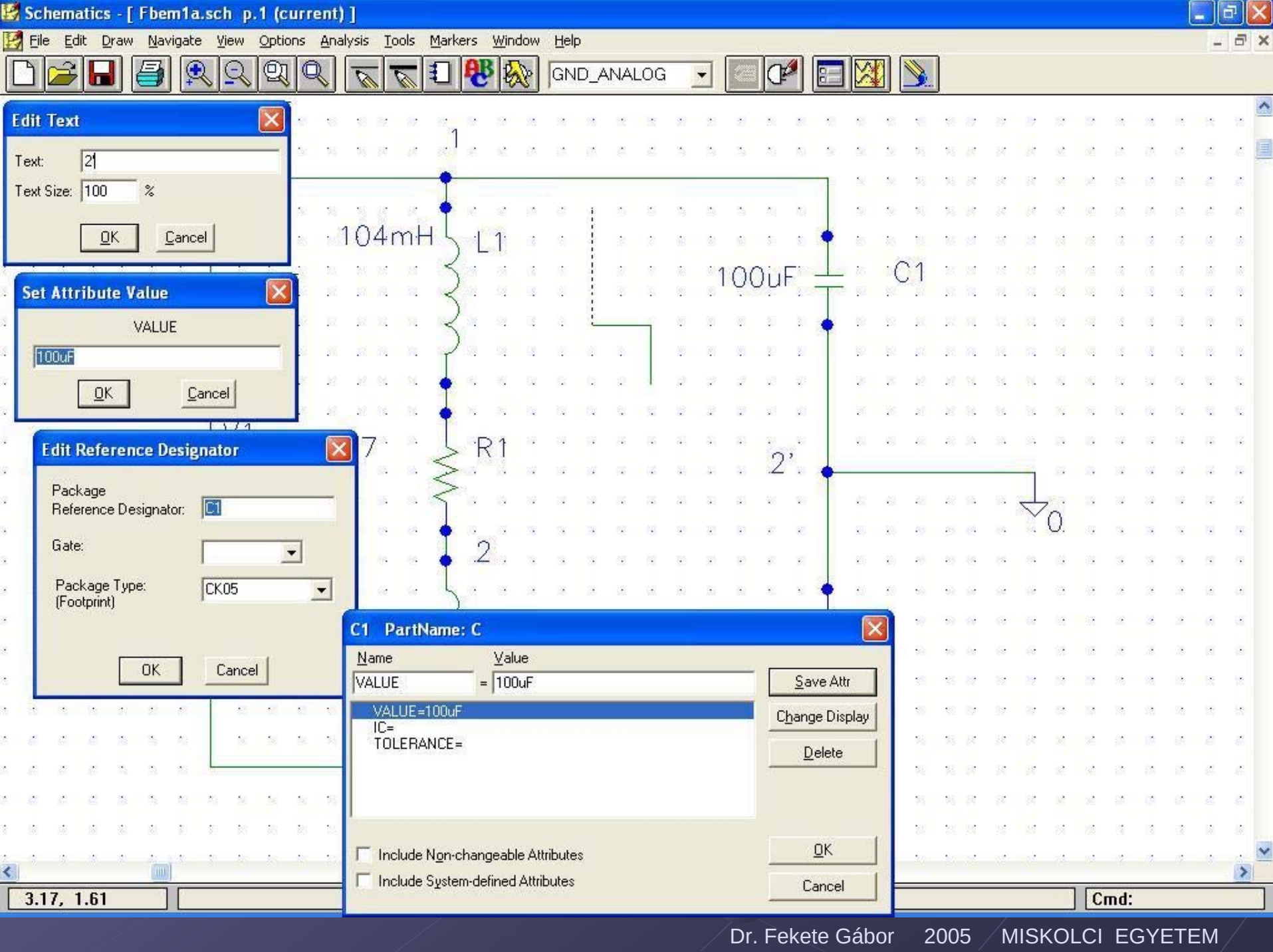
VILLAMOSSÁGTAN

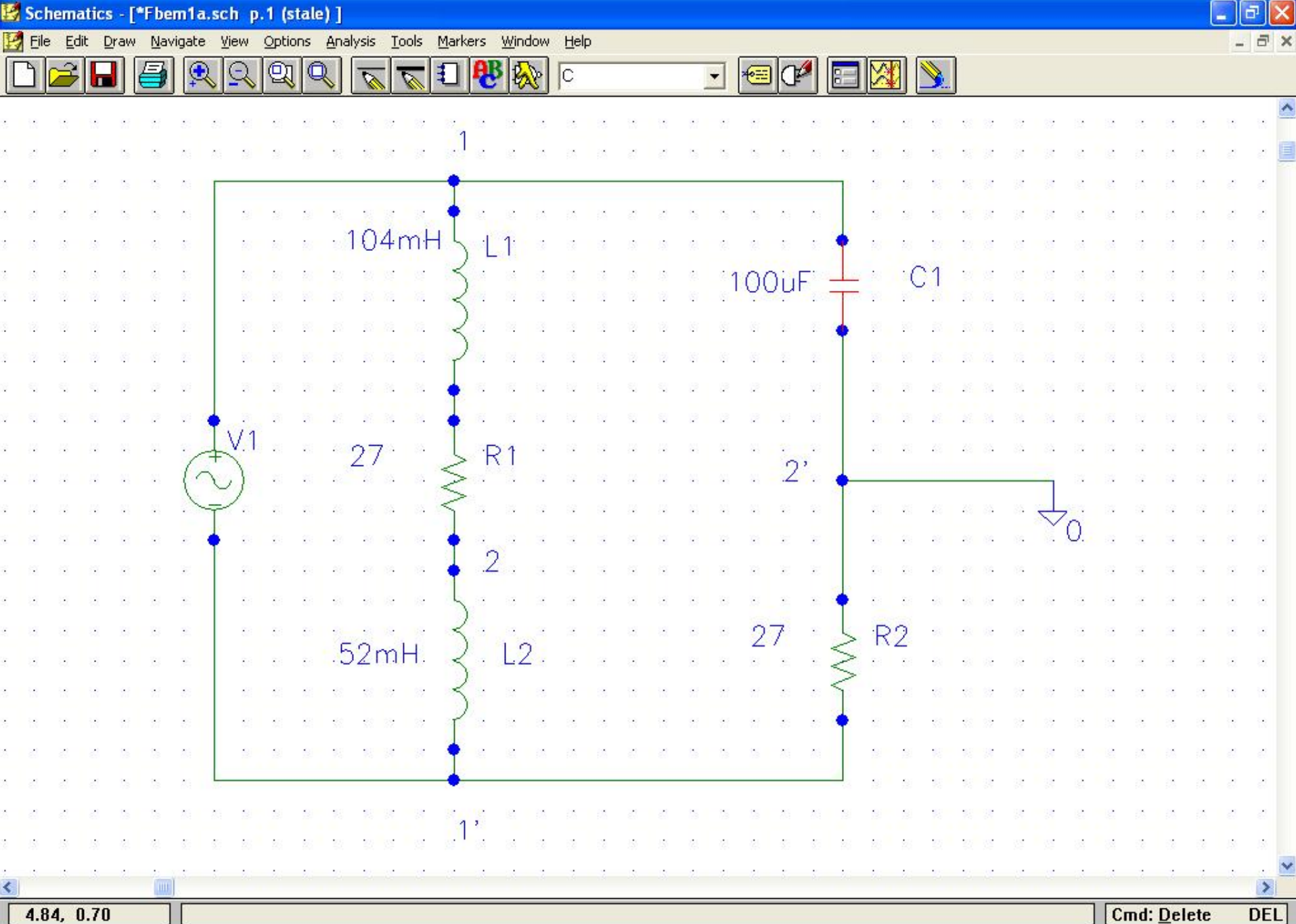
III

LABOR









R1 PartName: R

Name	Value
VALUE	= 27

VALUE=27
TOLERANCE=

Save Attr
Change Display

L1 PartName: L

Name	Value
VALUE	= 104mH

VALUE=104mH
IC=
TOLERANCE=

Save Attr
Change Display
Delete

C1 PartName: C

Name	Value
VALUE	= 100uF

VALUE=100uF
IC=
TOLERANCE=

Save Attr
Change Display
Delete

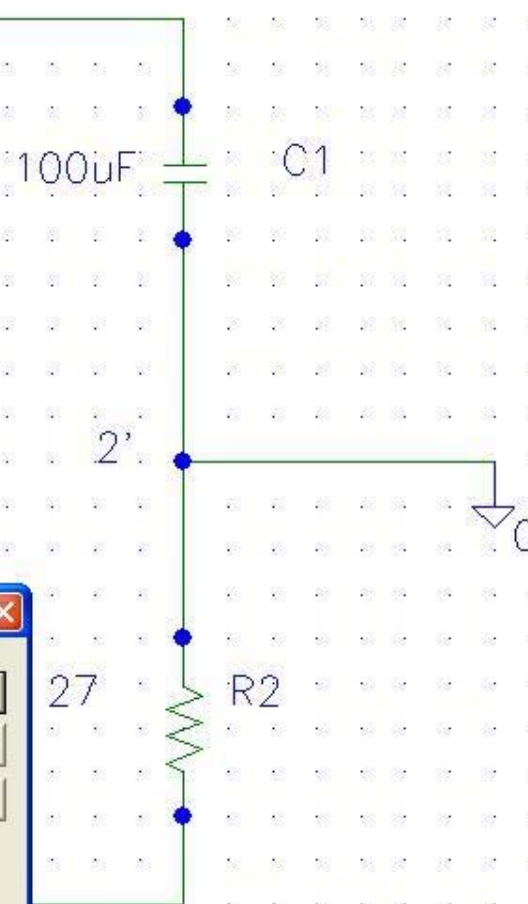
V1 PartName: VSIN

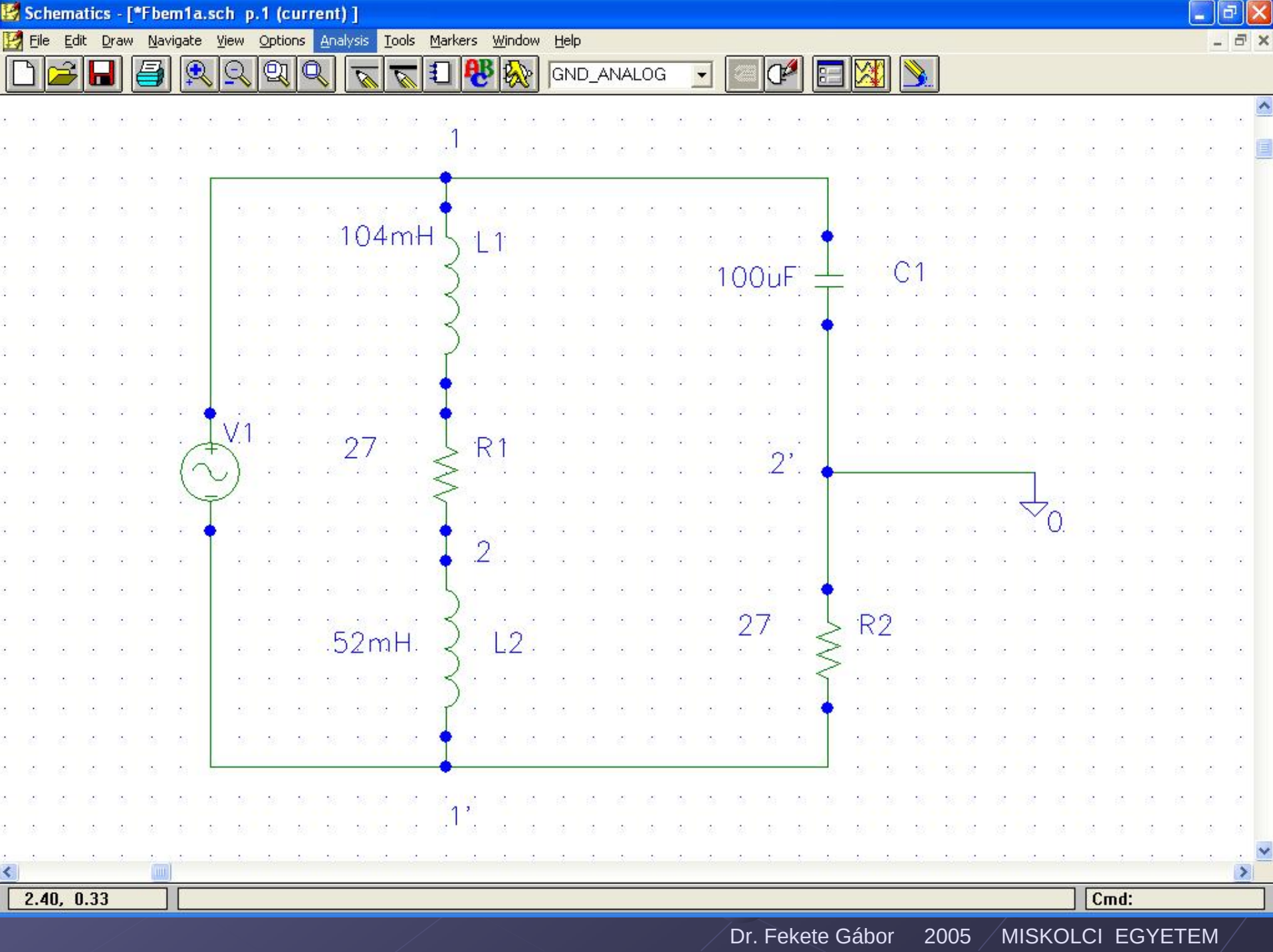
Name	Value
AC	= 1

VOFF=0
VAMPL=100
FREQ=50
DC=
TD=0
DF=0
PHASE=0

Include Non-changeable Attributes
Include System-defined Attributes

Save Attr
Change Display
Delete
OK
Cancel







Analysis Setup

Enabled		Enabled	
☒	AC Sweep...	☐	Options...
☐	Load Bias Point...	☐	Parametric...
☐	Save Bias Point...	☐	Sensitivity...
☐	DC Sweep...	☐	Temperature...
☐	Monte Carlo/Worst Case...	☐	Transfer Function...
☒	Bias Point Detail	☒	Transient...
	Digital Setup...		

Close

AC Sweep and Noise Analysis

AC Sweep Type

☐ Linear
☐ Octave
☒ Decade

Sweep Parameters

Pts/Decade: 10000
 Start Freq.: 1
 End Freq.: 10K

Noise Analysis

☐ Noise Enabled
 Output Voltage:
 I/V:
 Interval:

OK Cancel

Transient

Transient Analysis

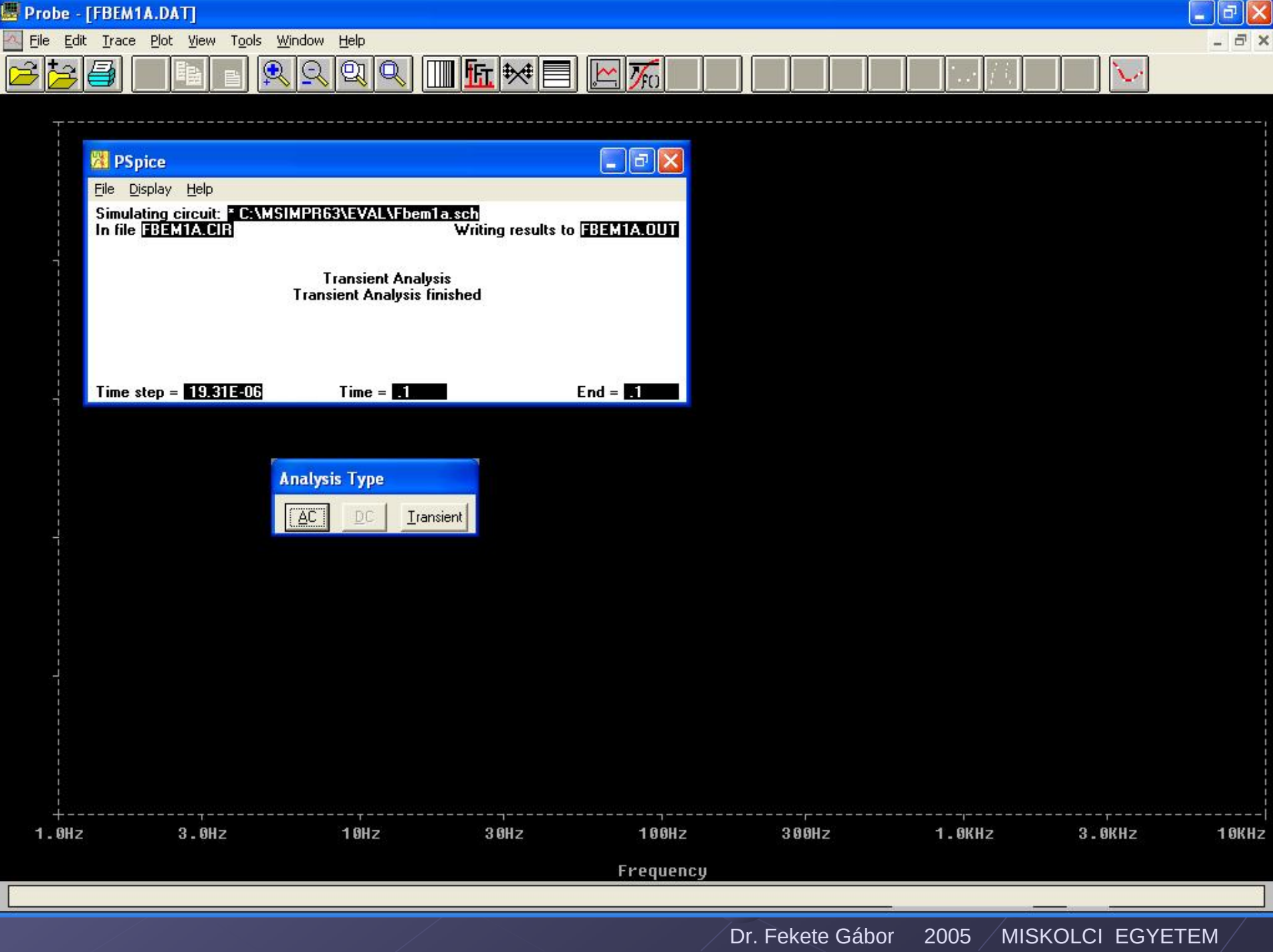
Print Step: 20us
 Final Time: 100ms
 No-Print Delay:
 Step Ceiling: 20us

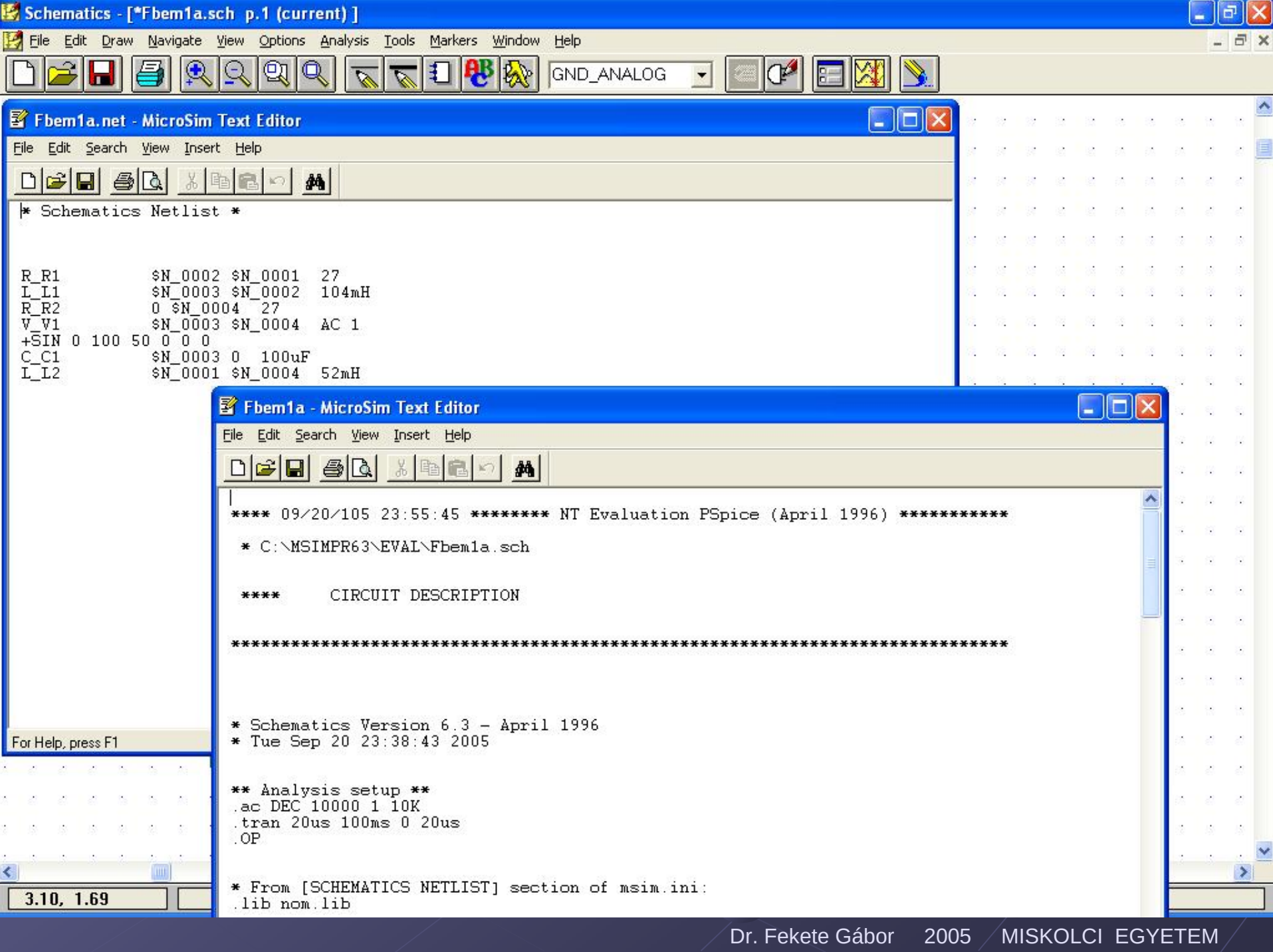
☐ Detailed Bias Pt.
☐ Skip initial transient solution

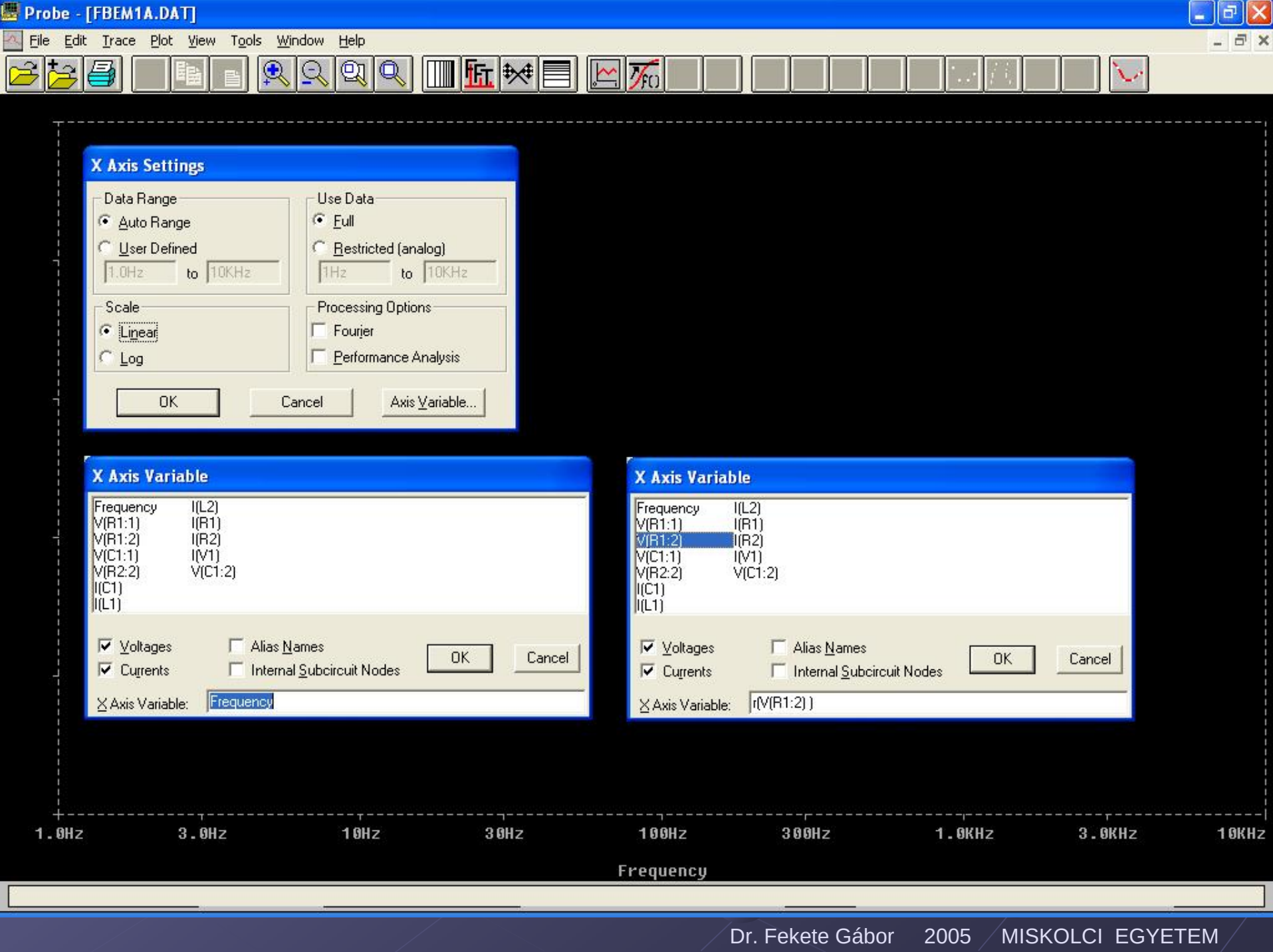
Fourier Analysis

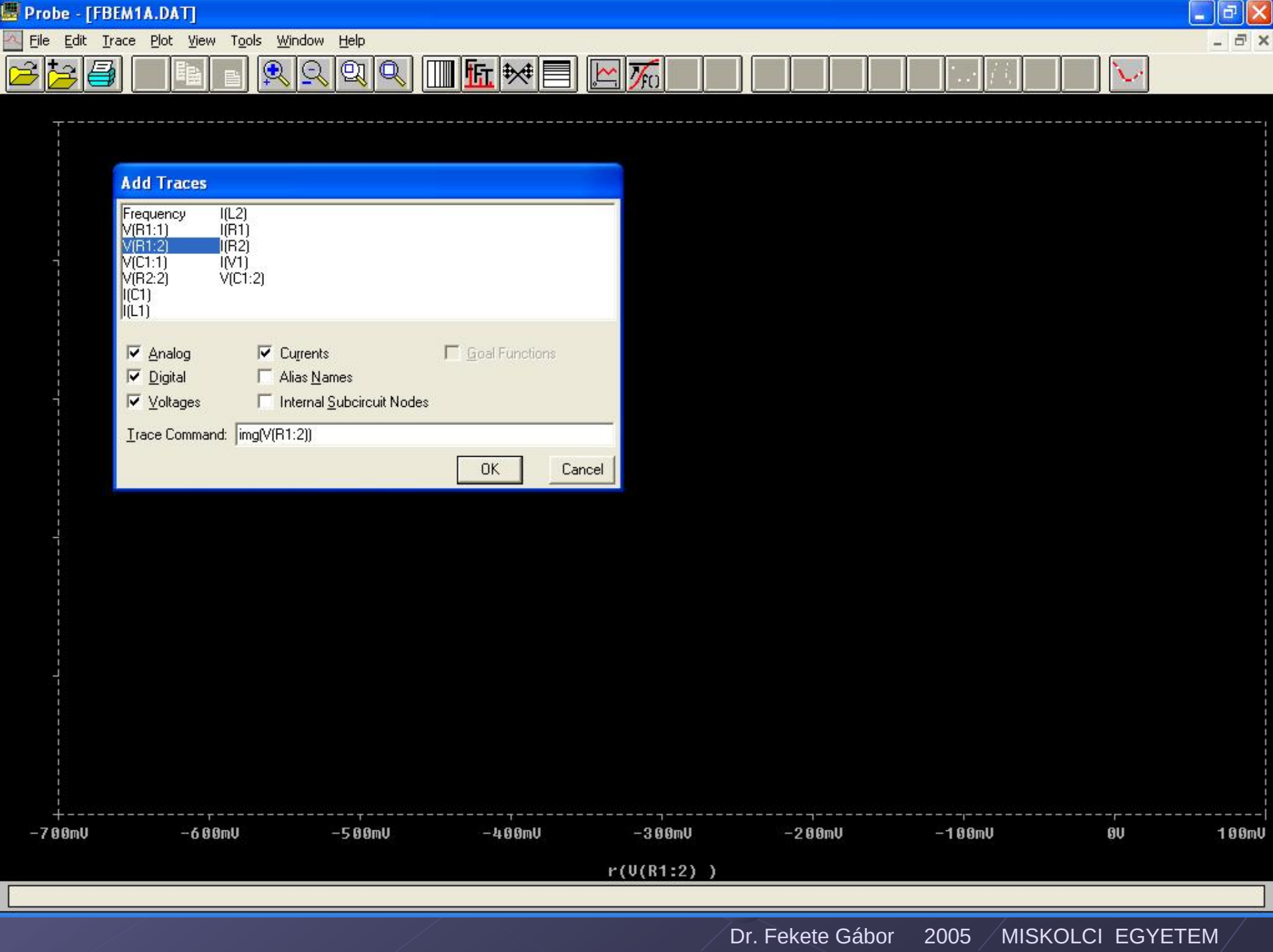
☐ Enable Fourier
 Center Frequency:
 Number of harmonics:
 Output Vars.:

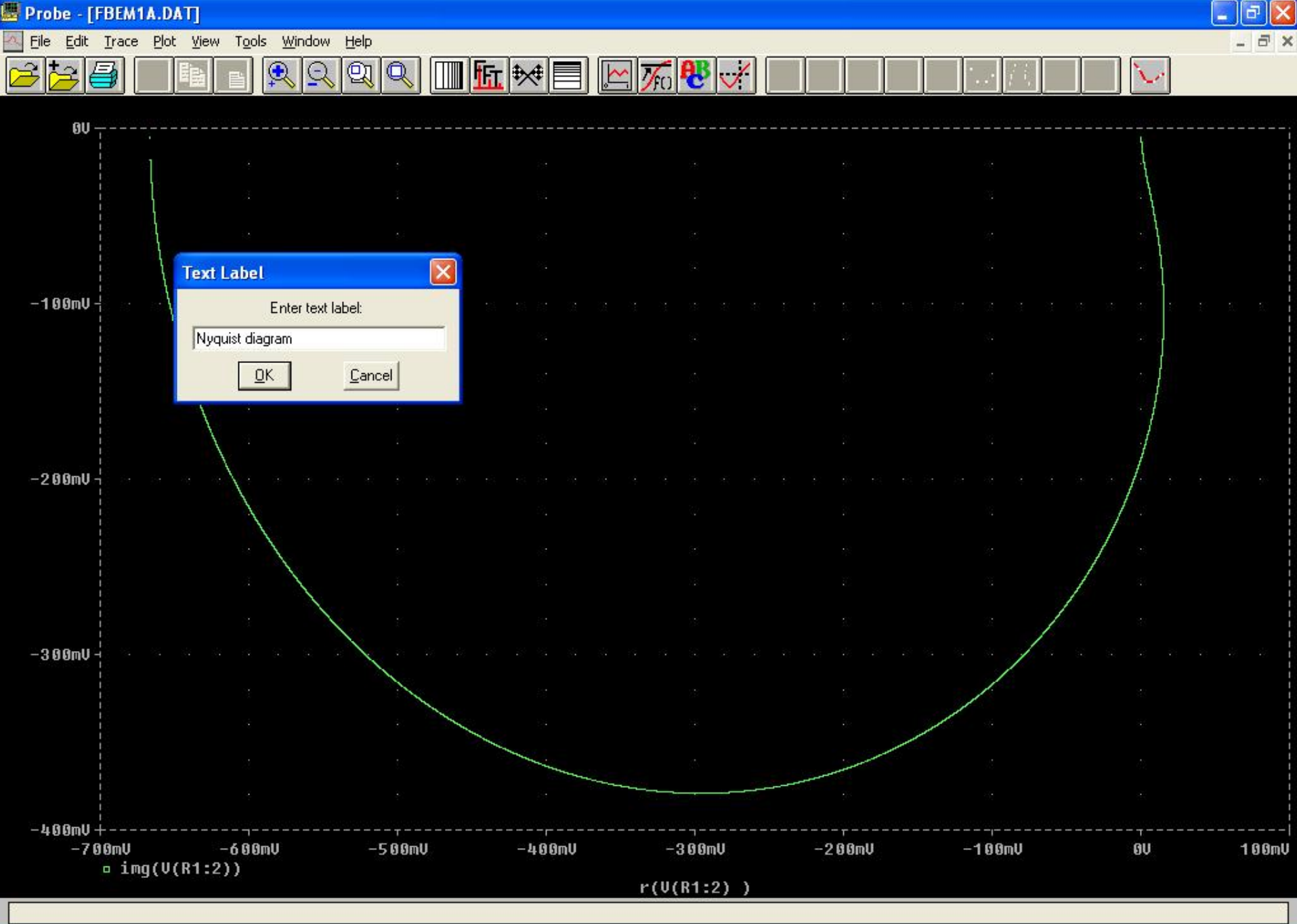
OK Cancel

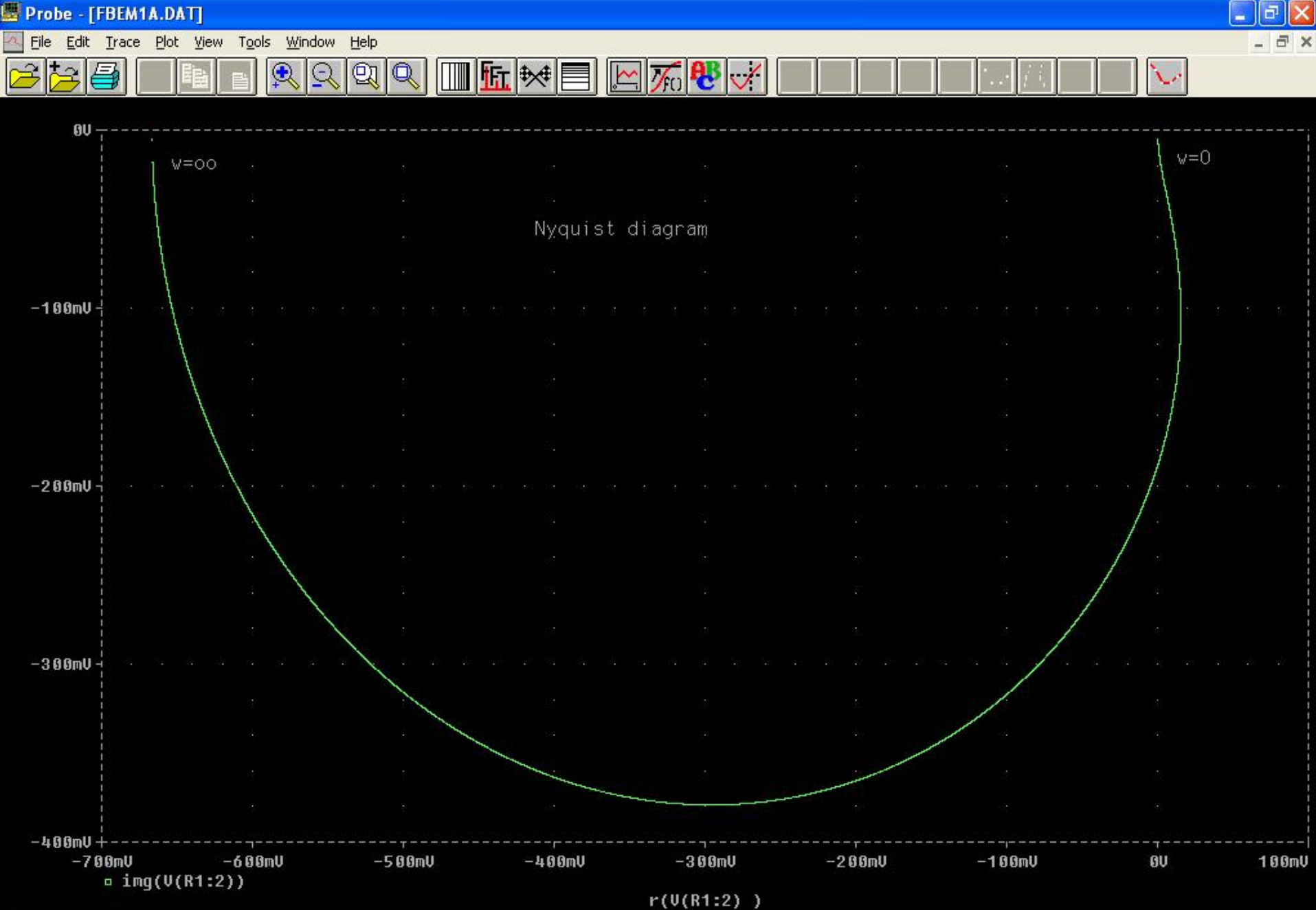


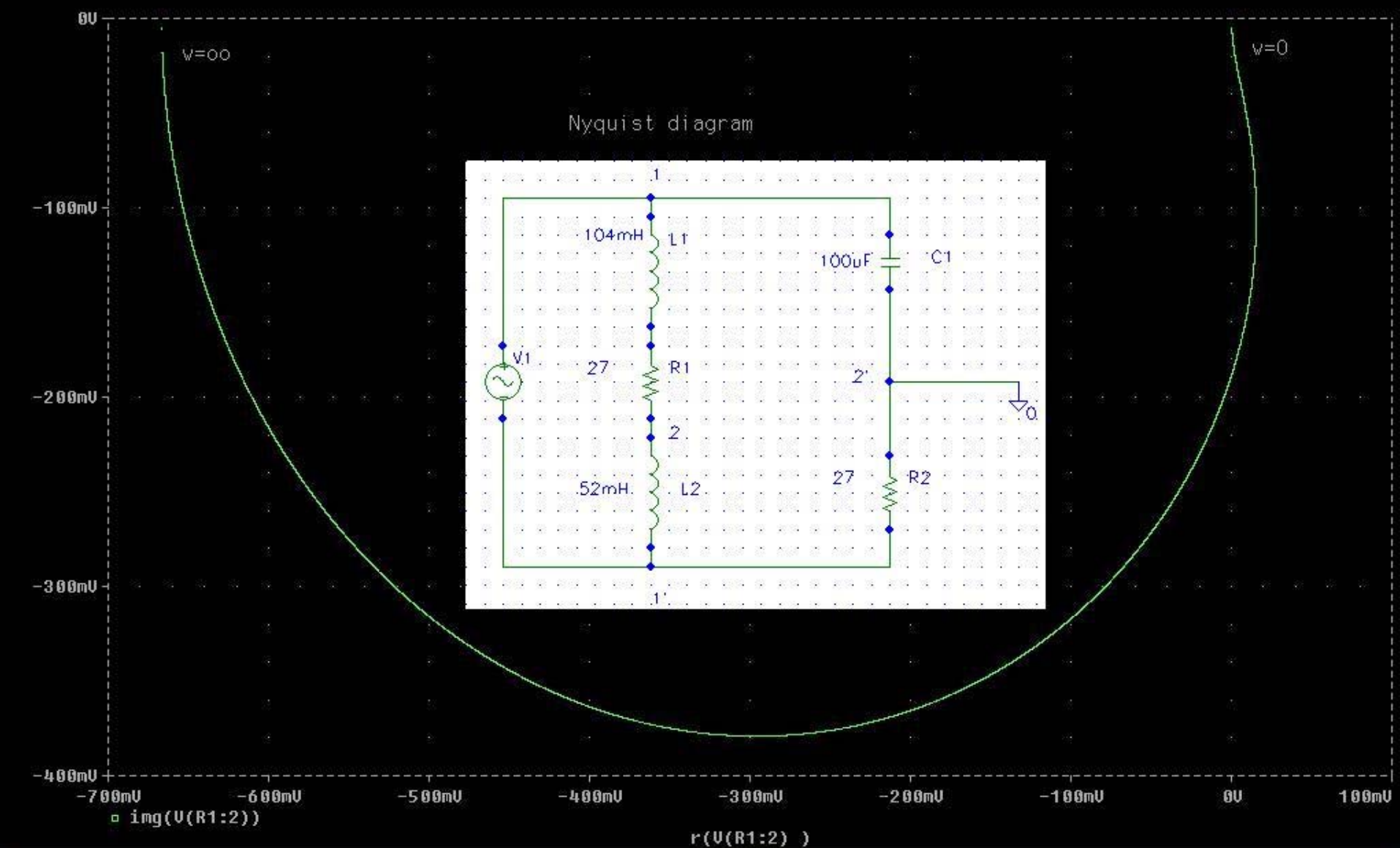


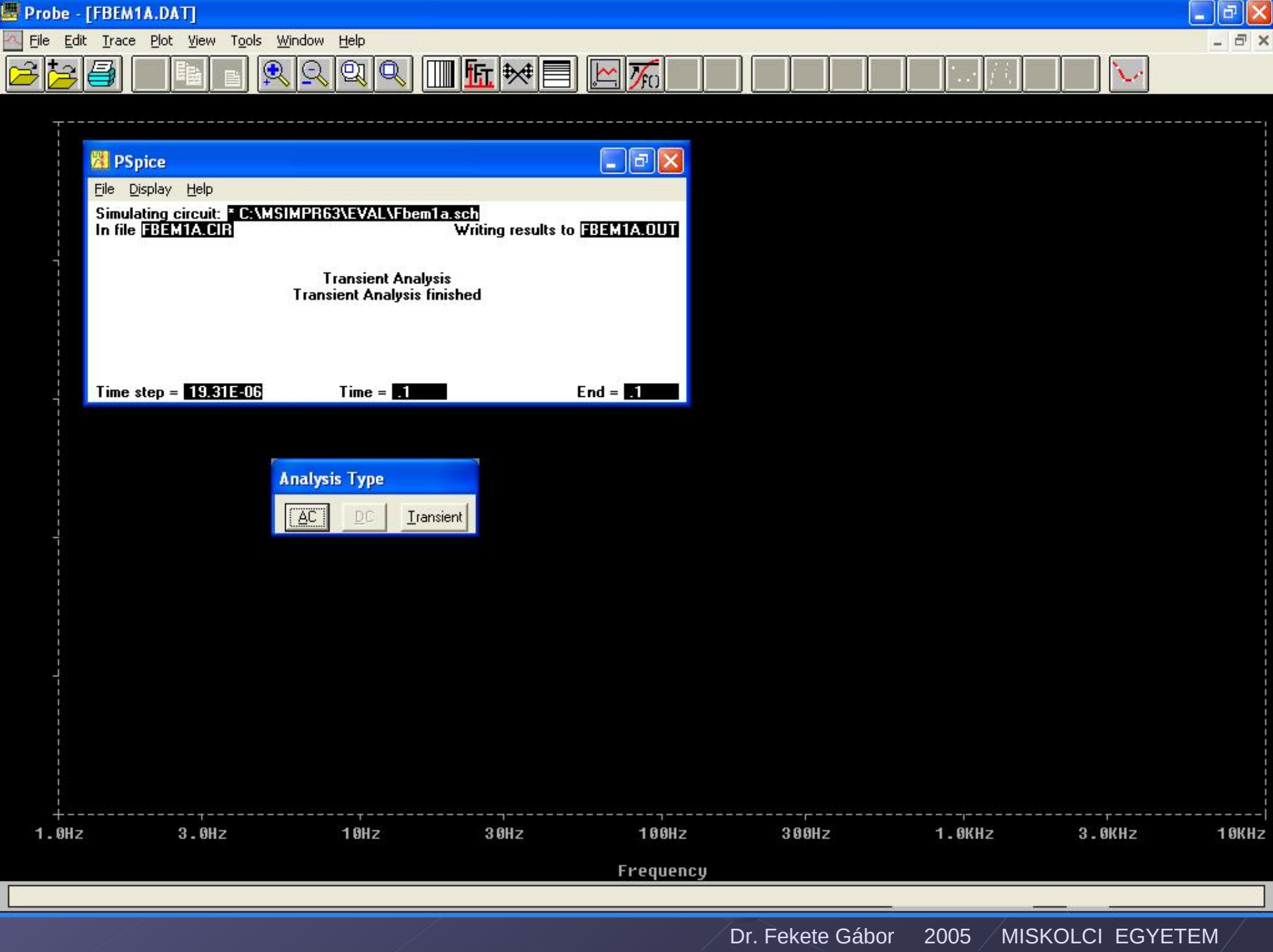


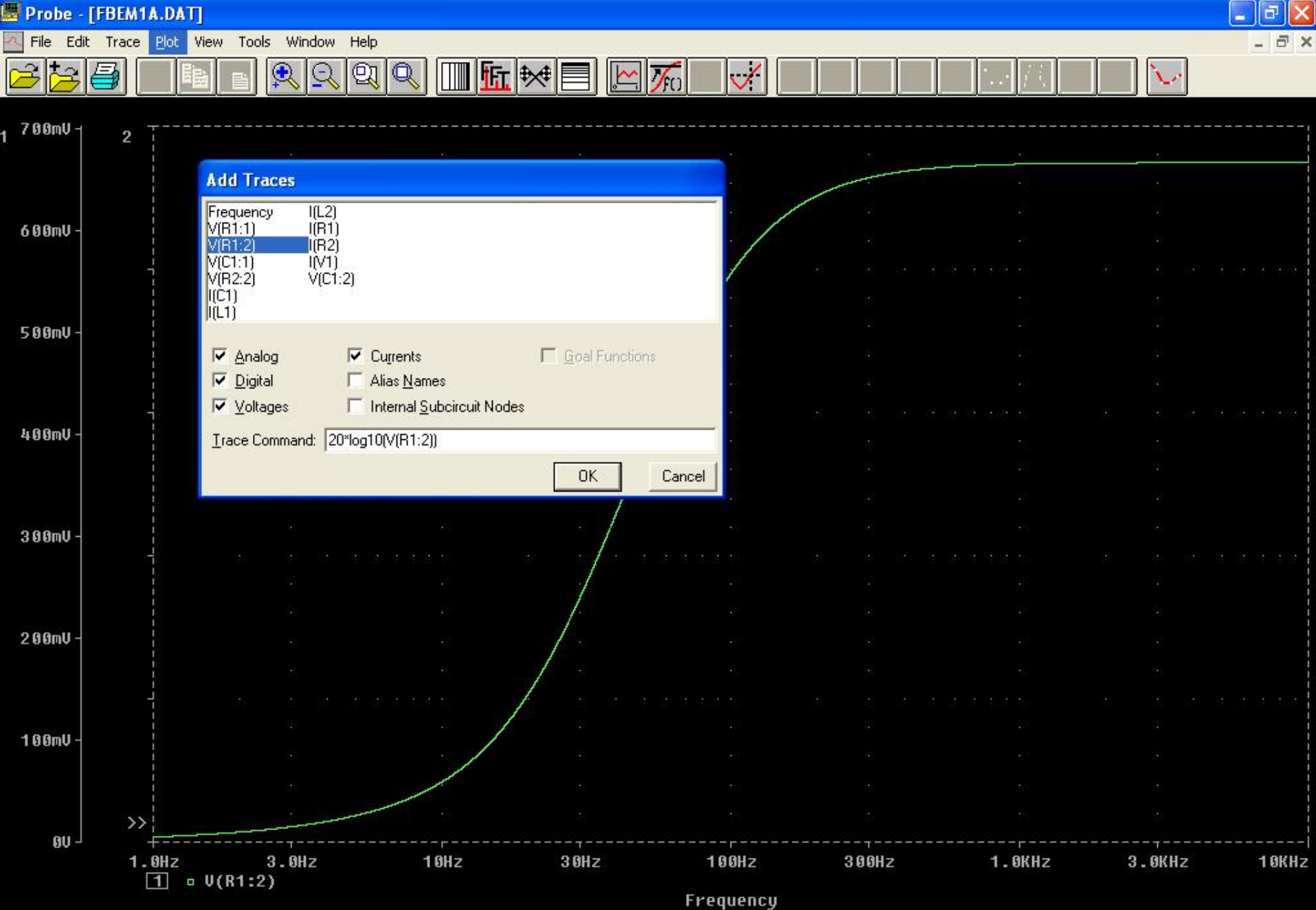


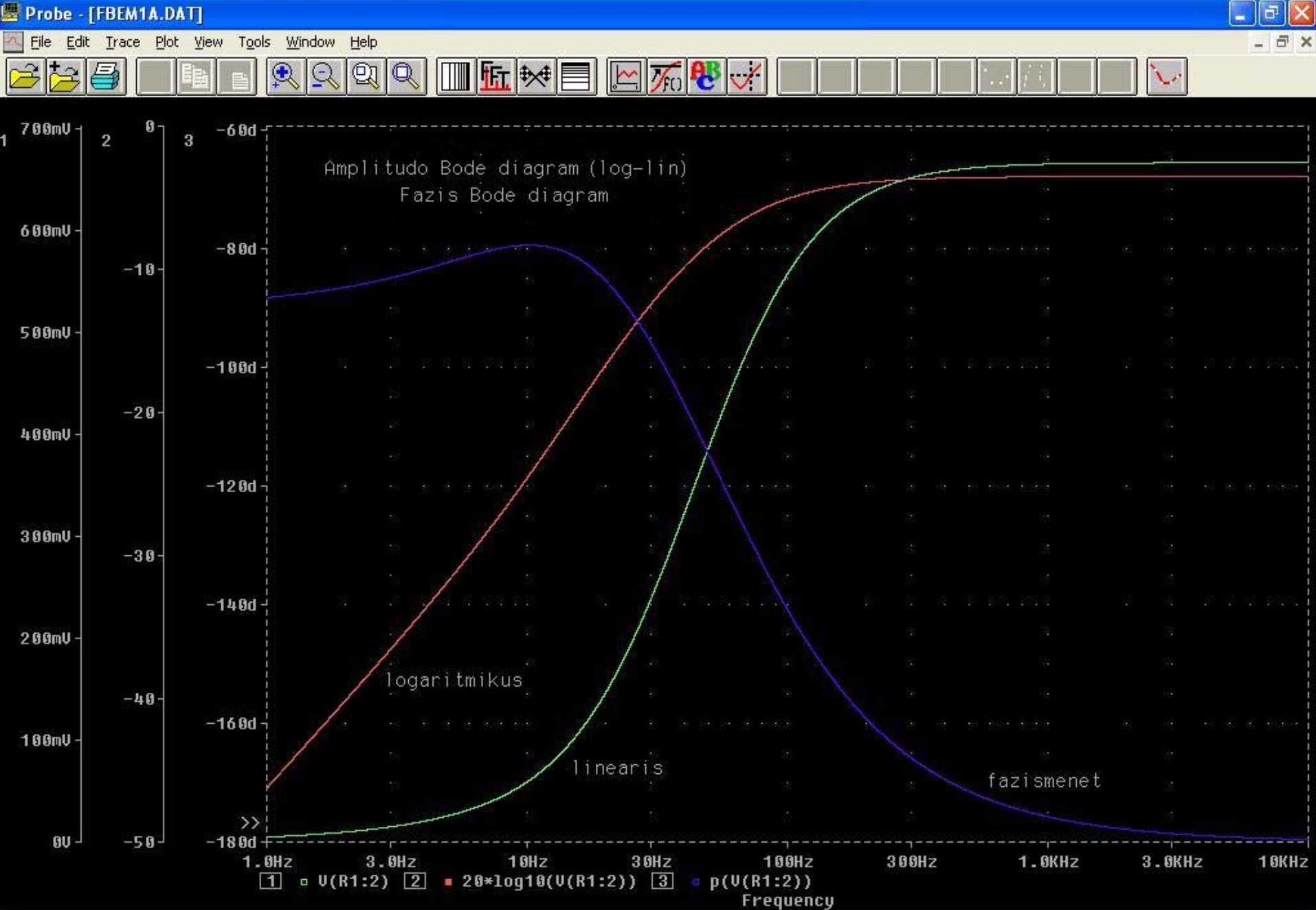













```
clear;clc; format compact; close all; % Minden törlése
```

```
D=4;pt=50;s=0;Y=0;ff=0;  
R=27;L=52e-3;C=100e-6;
```

```
for m=1:pt*D;k=m/pt;  
f=10^(s+k);w=2*pi*f;
```

```
Y(m)=j*w*L/(j^3*w*L+R)-R/(R+1/(j*w*C));
```

```
ff(m)=f;  
end;
```

```
figure;
```

```
subplot(211);plot(Y);title('Nyquist diagram');  
%axis([-0.5 0 -0.15 0.15]);  
grid
```

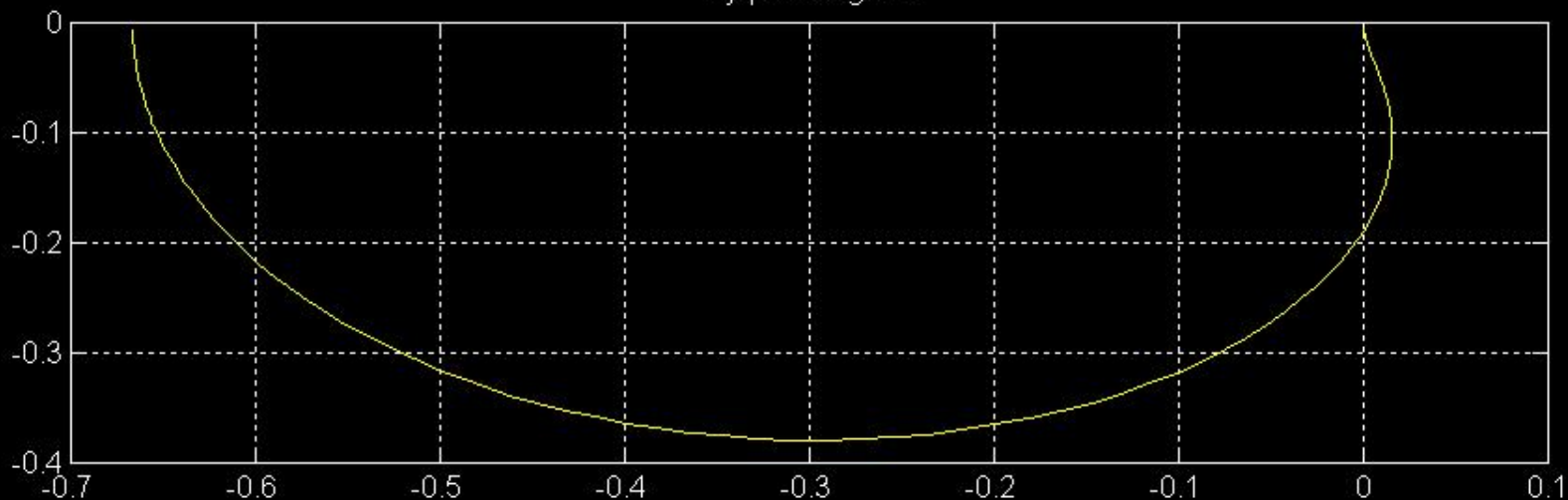
```
subplot(212);Y;semilogx(ff,abs(Y));grid;  
axis([1 10000 0 .8]);  
ylabel('Amplitúdó abs(Y)'),xlabel('frekvencia [1/s]')  
title('Kimeneti jel');
```

```
figure;
```

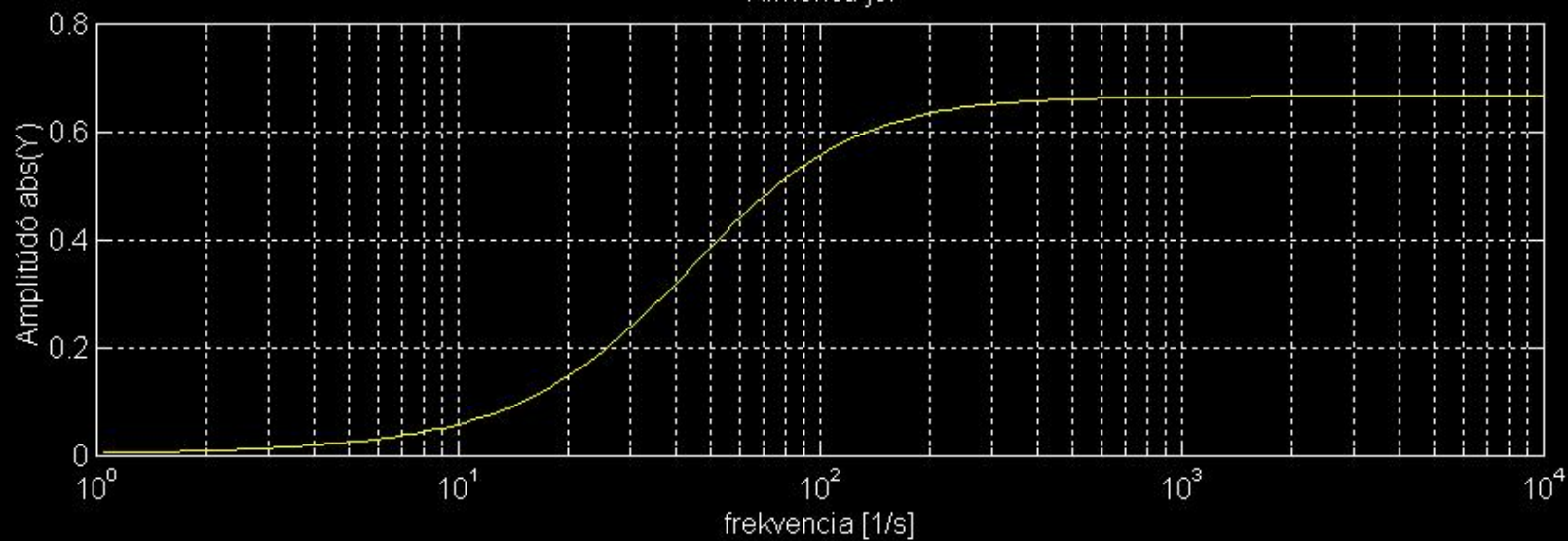
```
subplot(211);Ydb=20*log10(abs(Y));semilogx(ff,Ydb)  
axis([1 10000 -50 0]);ylabel('Amplitúdó [dB]');grid  
title('Amplitúdó Bode diagram')
```

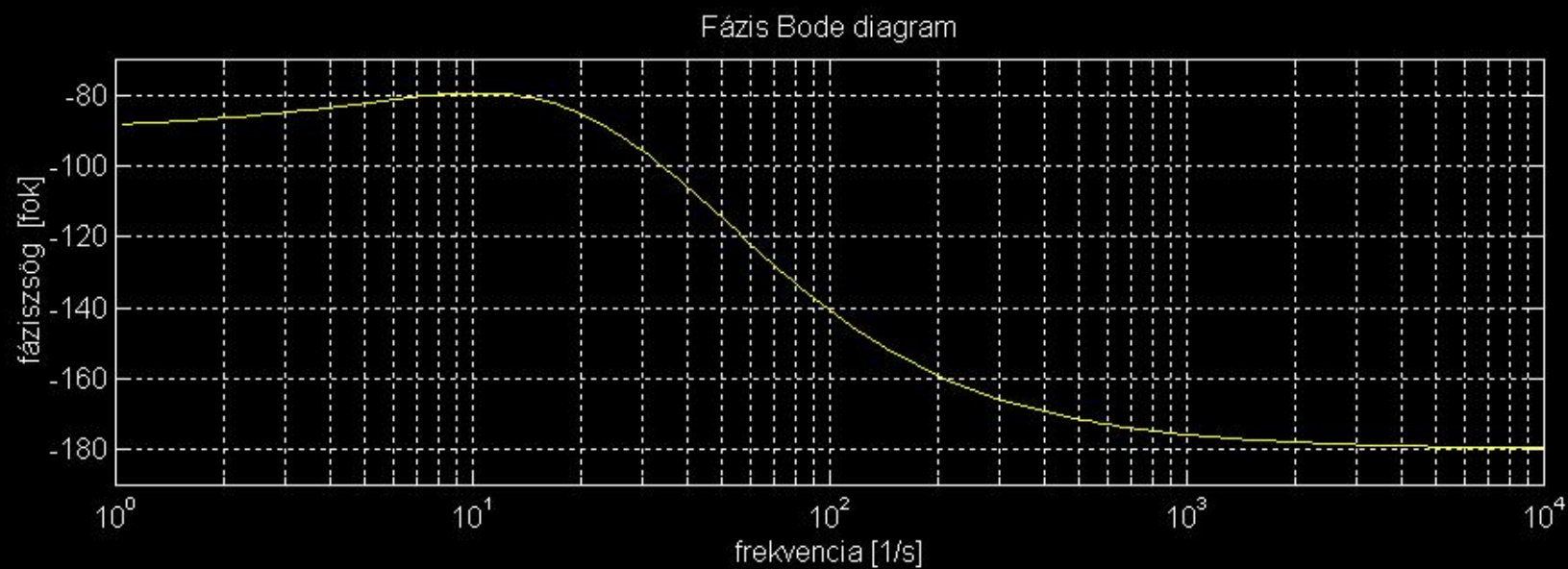
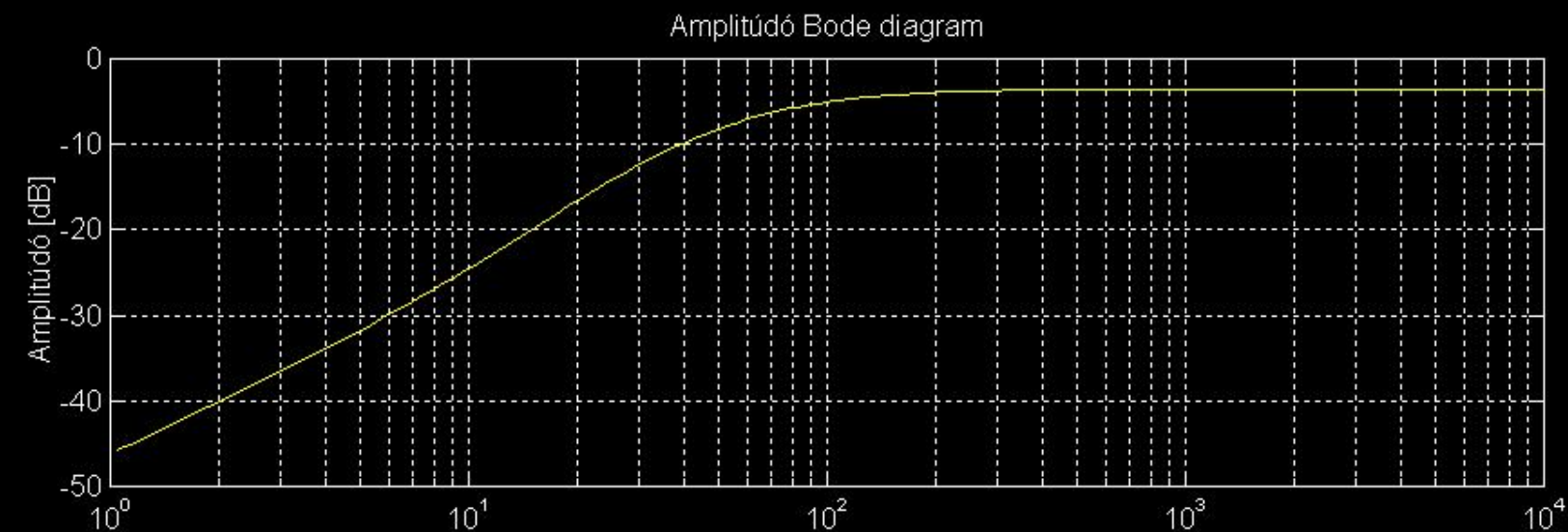
```
subplot(212);fi=180/pi*angle(Y);semilogx(ff,fi)  
axis([1 10000 -190 -70]);grid  
ylabel('fáziszsög [fok]'),xlabel('frekvencia [1/s]')  
title('Fázis Bode diagram')
```

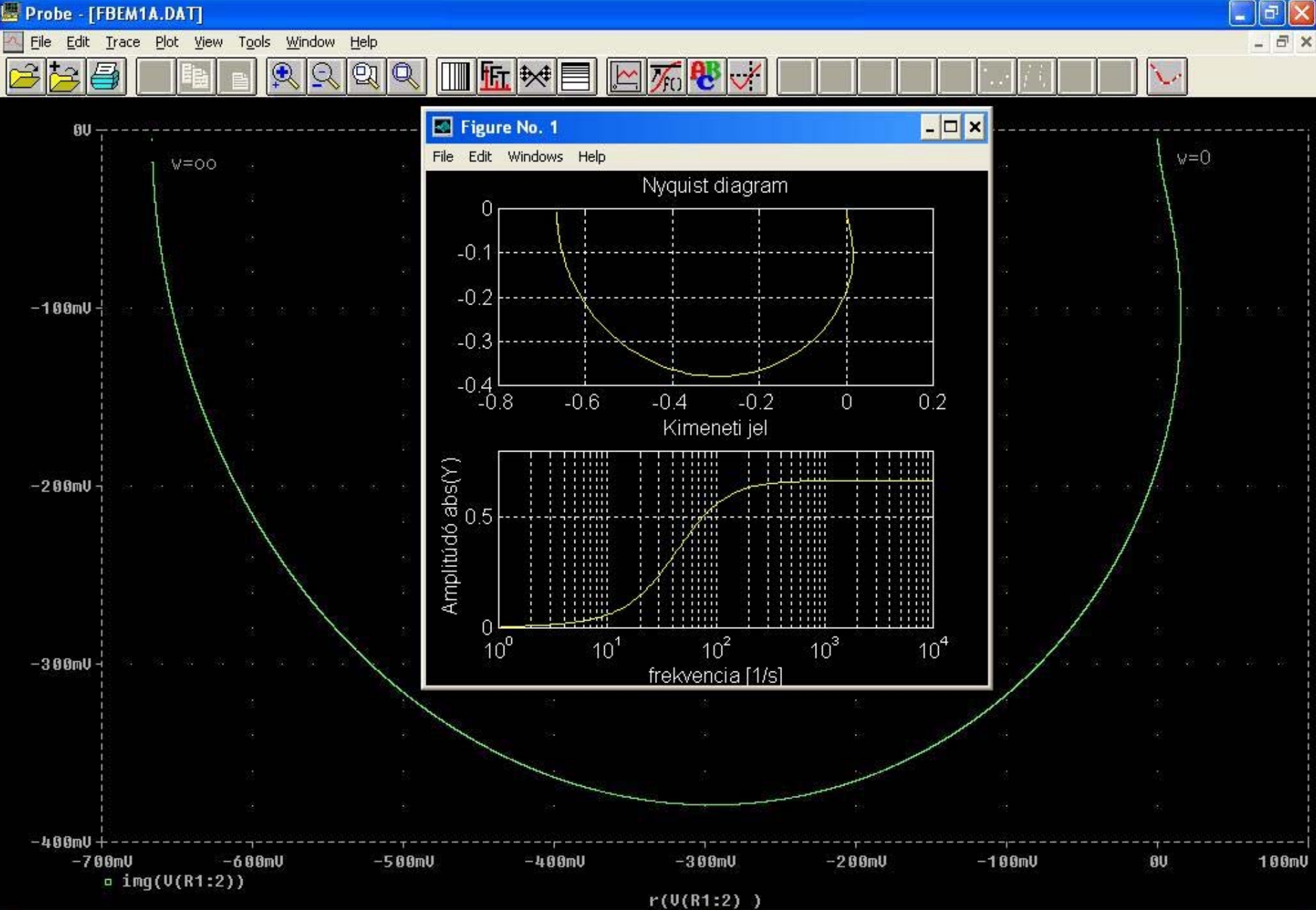
Nyquist diagram



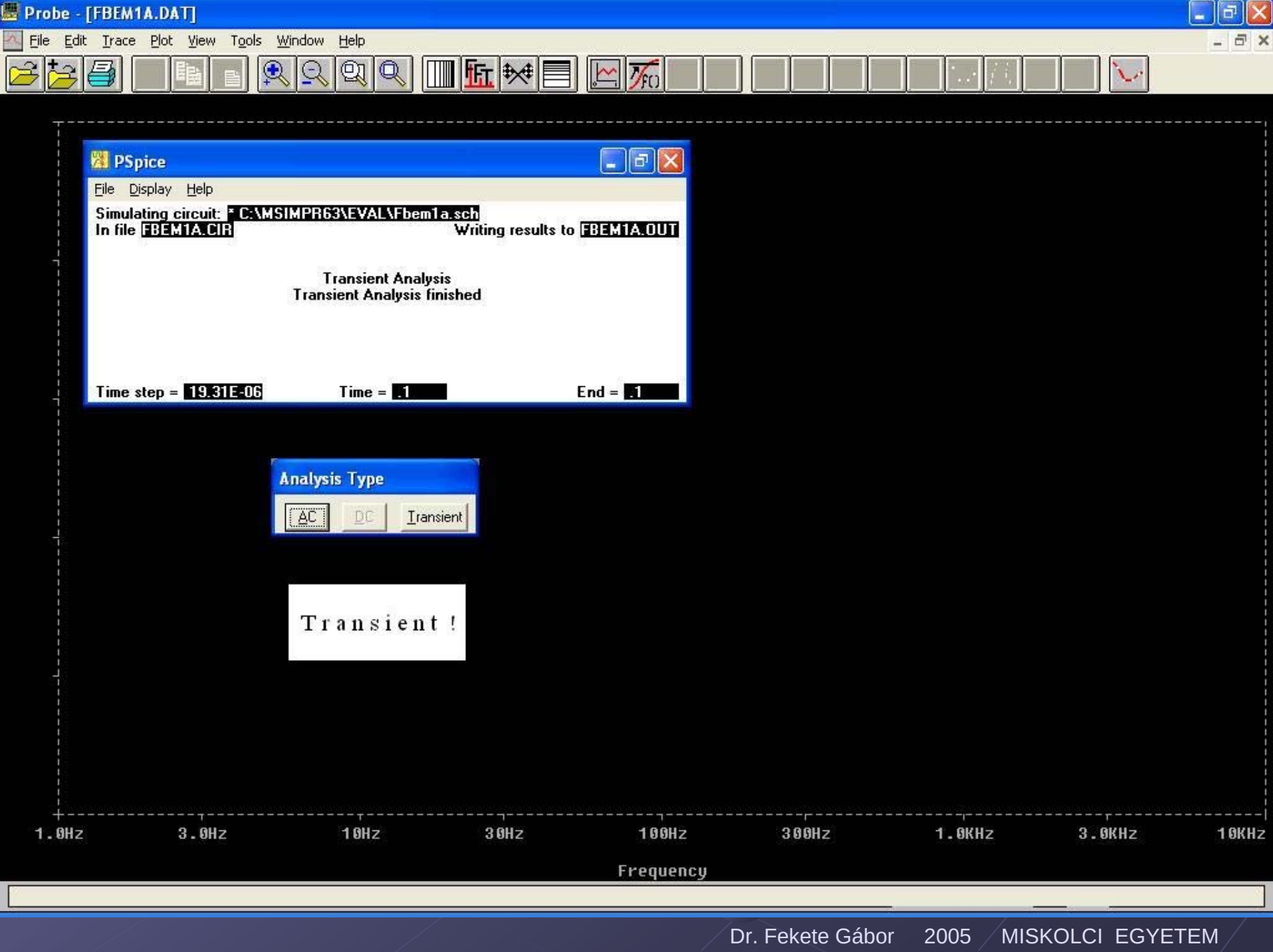
Kimeneti jel

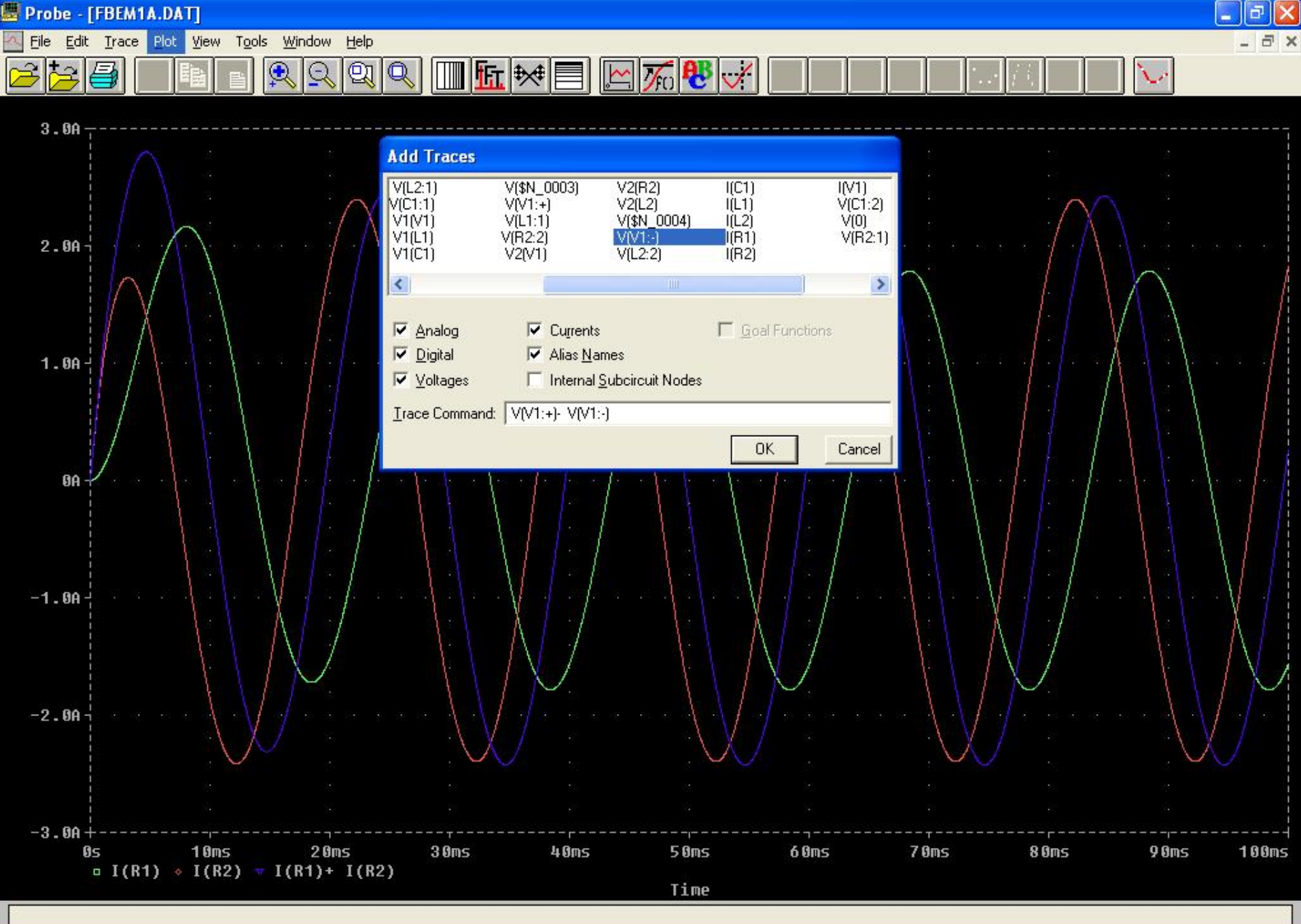


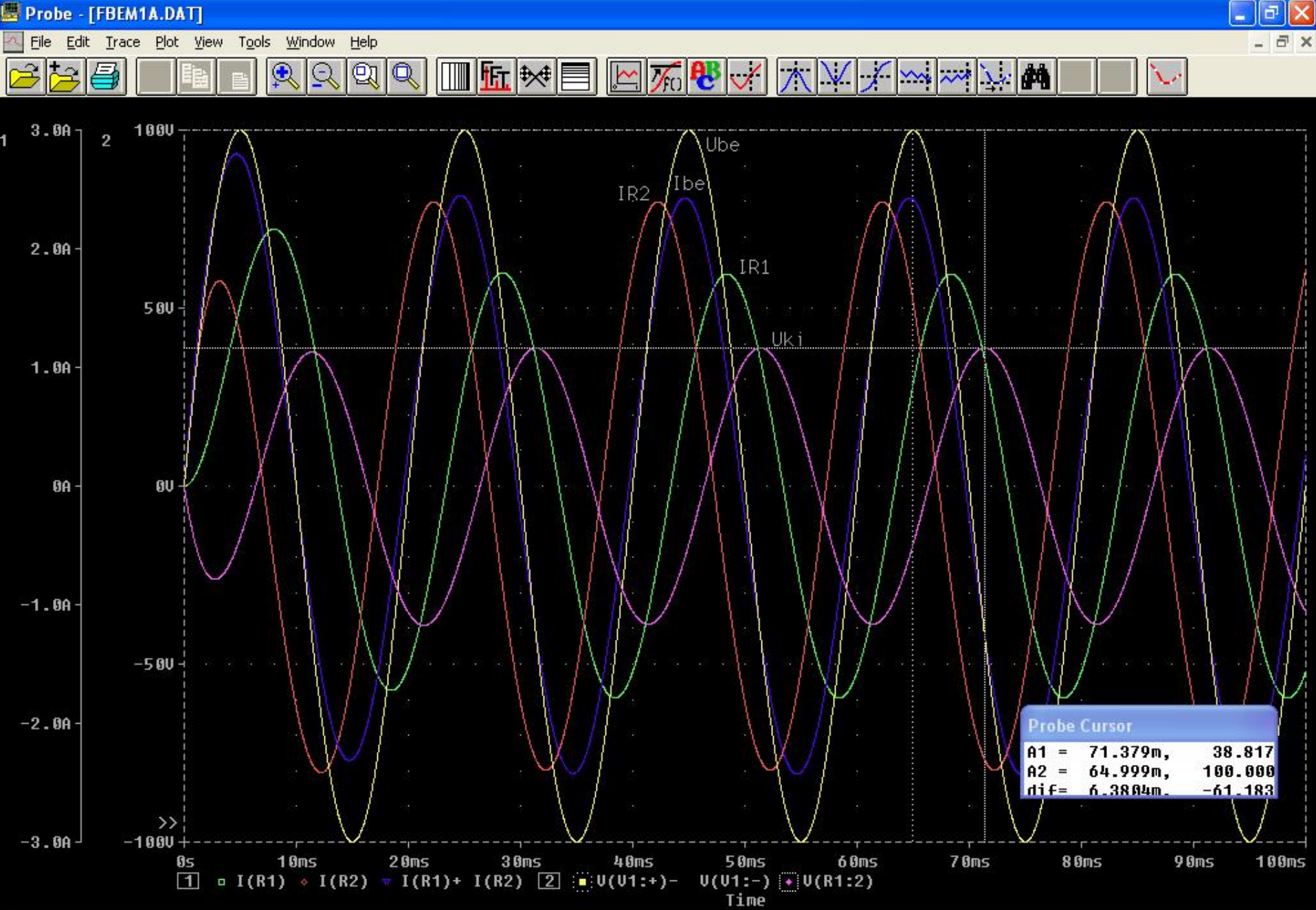


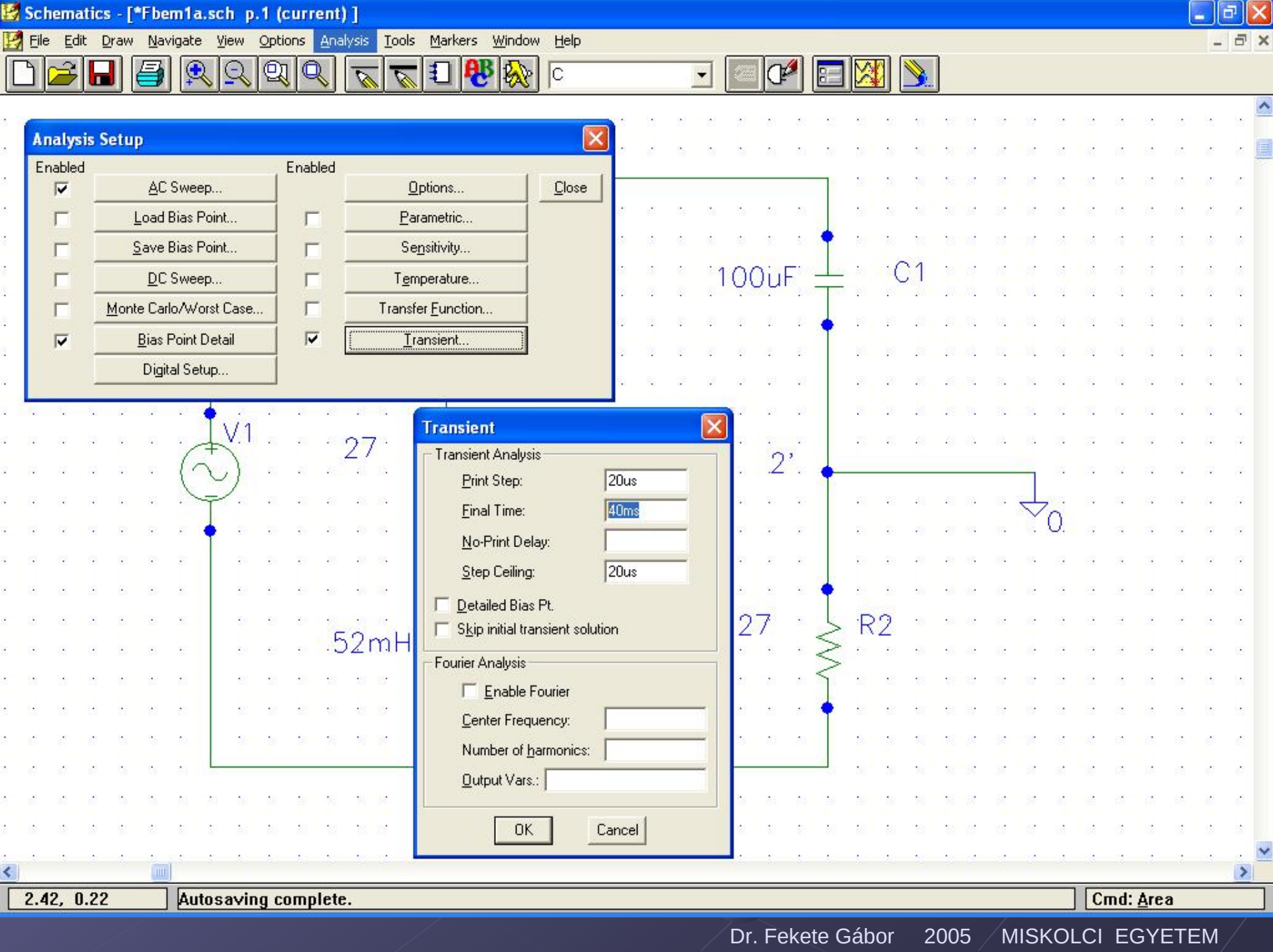




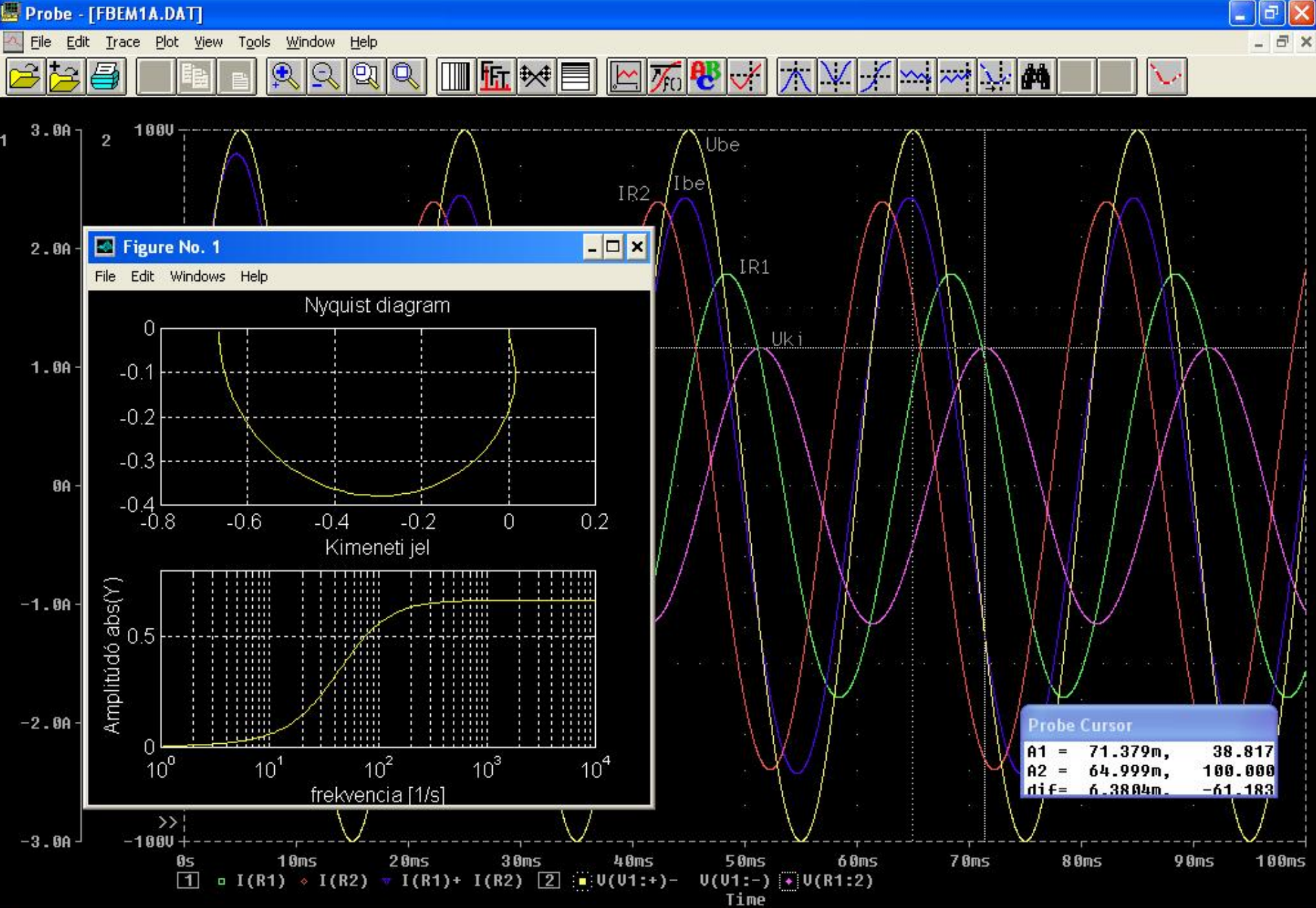


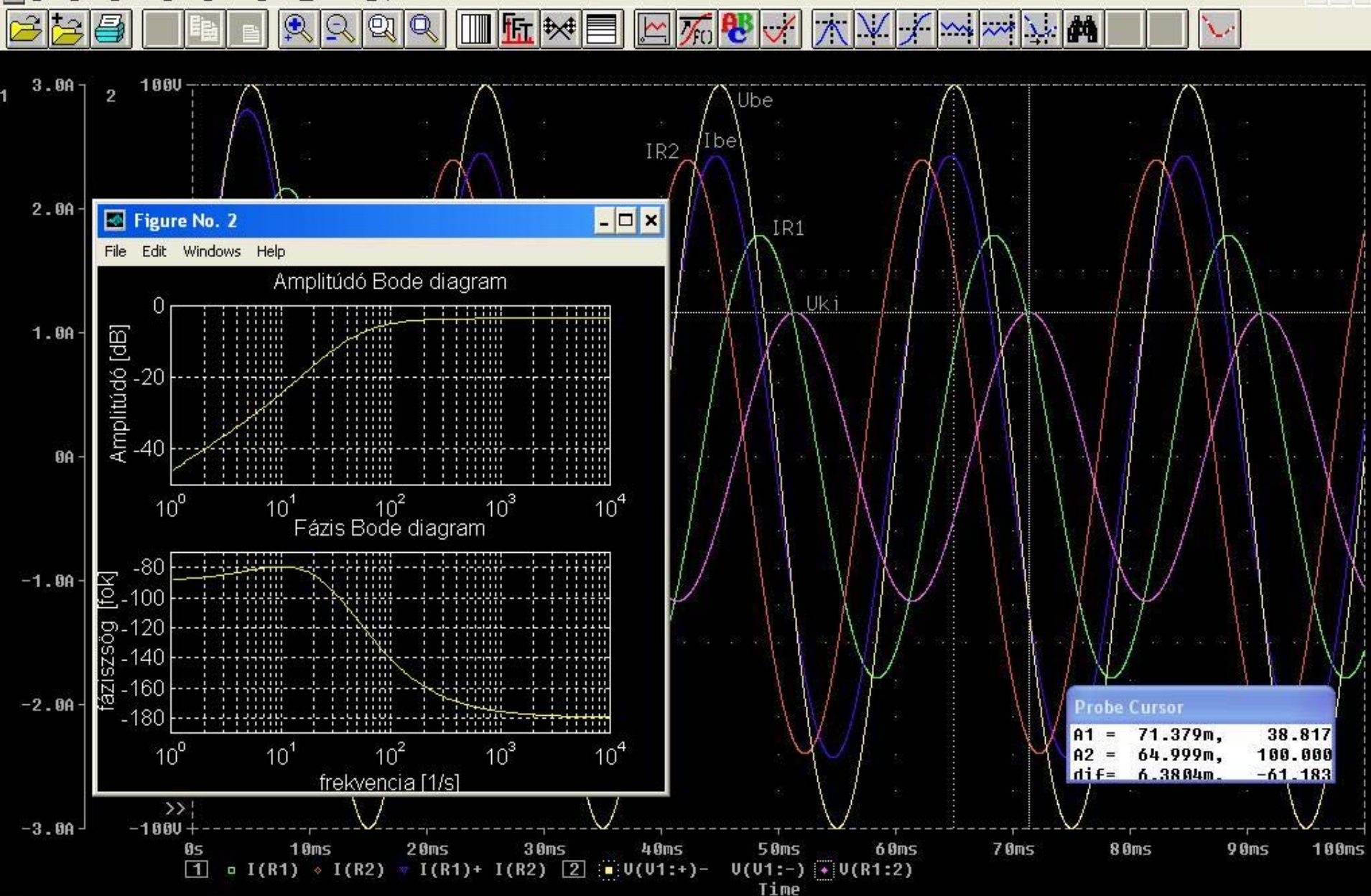


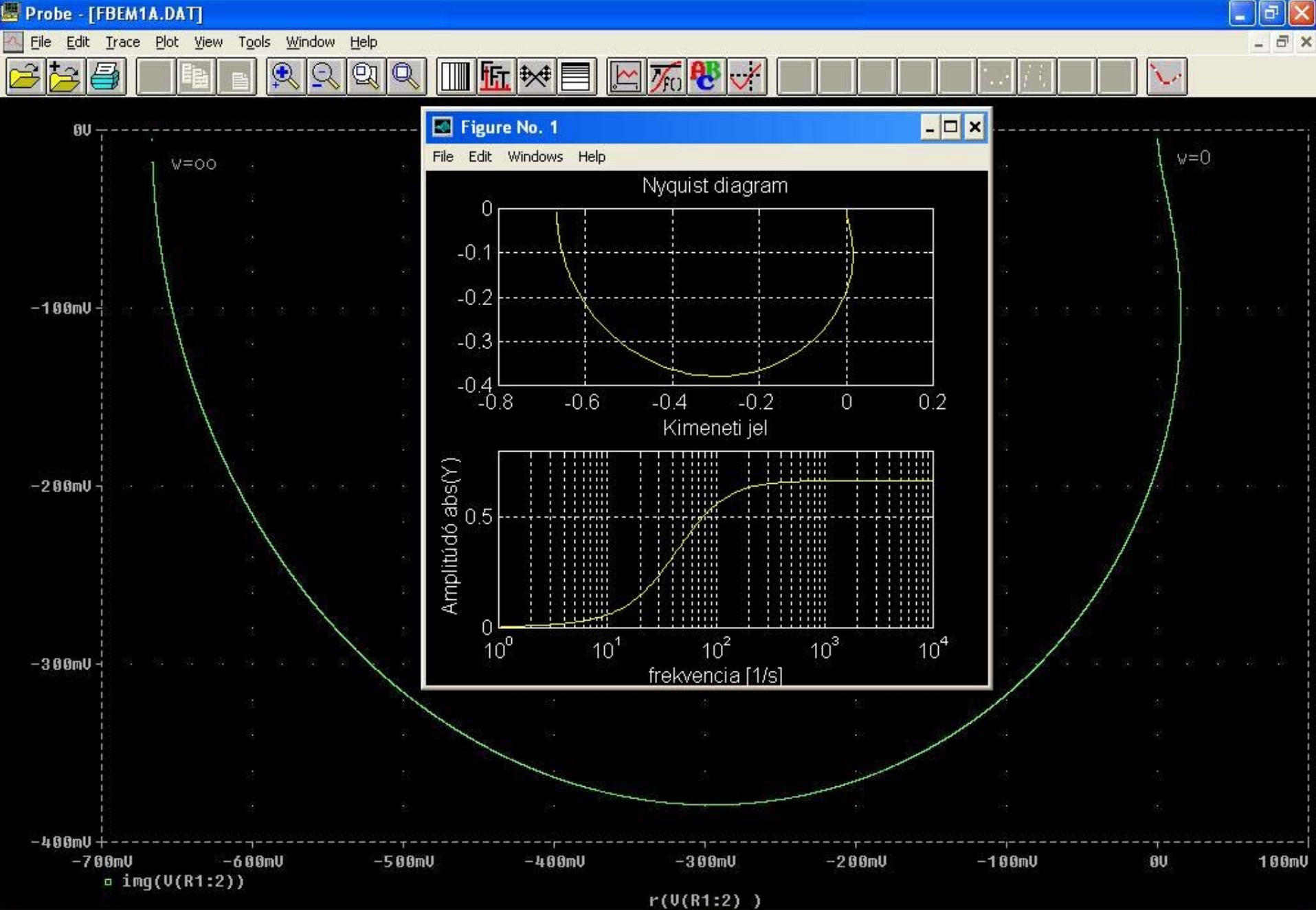


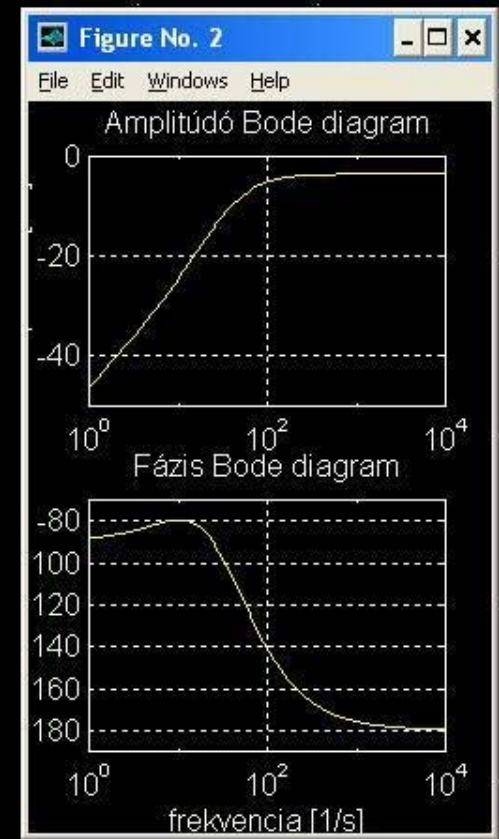












The background is a dark blue gradient with a subtle, isometric grid pattern. The grid consists of small, light blue dots connected by thin, light blue lines, creating a sense of depth and perspective. The word "VÉGE" is centered in the middle of the image in a large, white, sans-serif font.

VÉGE