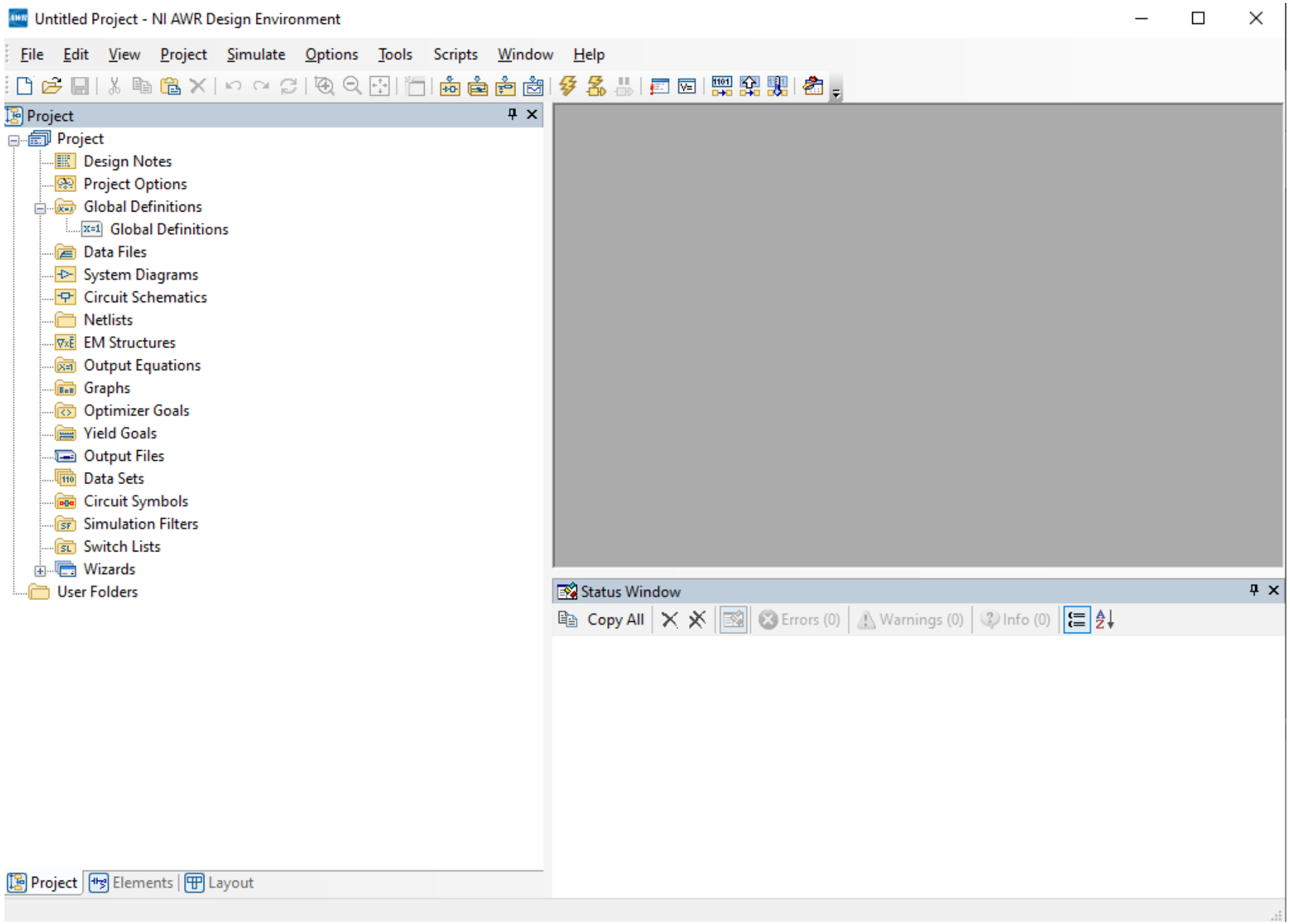
Introdução
NI AWR Design Environment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Simulation Filters
Switch Lists
Wizards
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Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)
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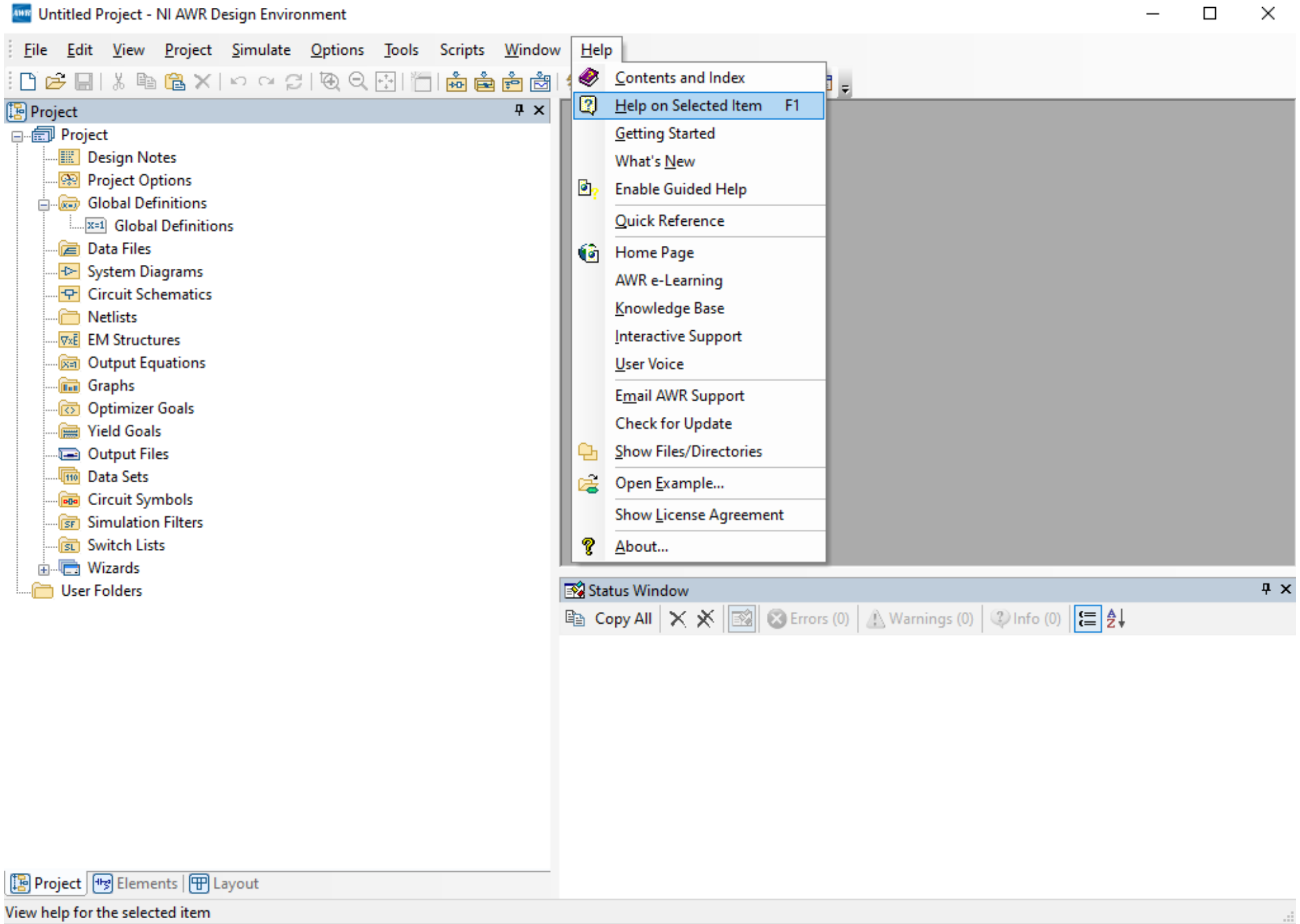
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Warnings (0)
Info (0)
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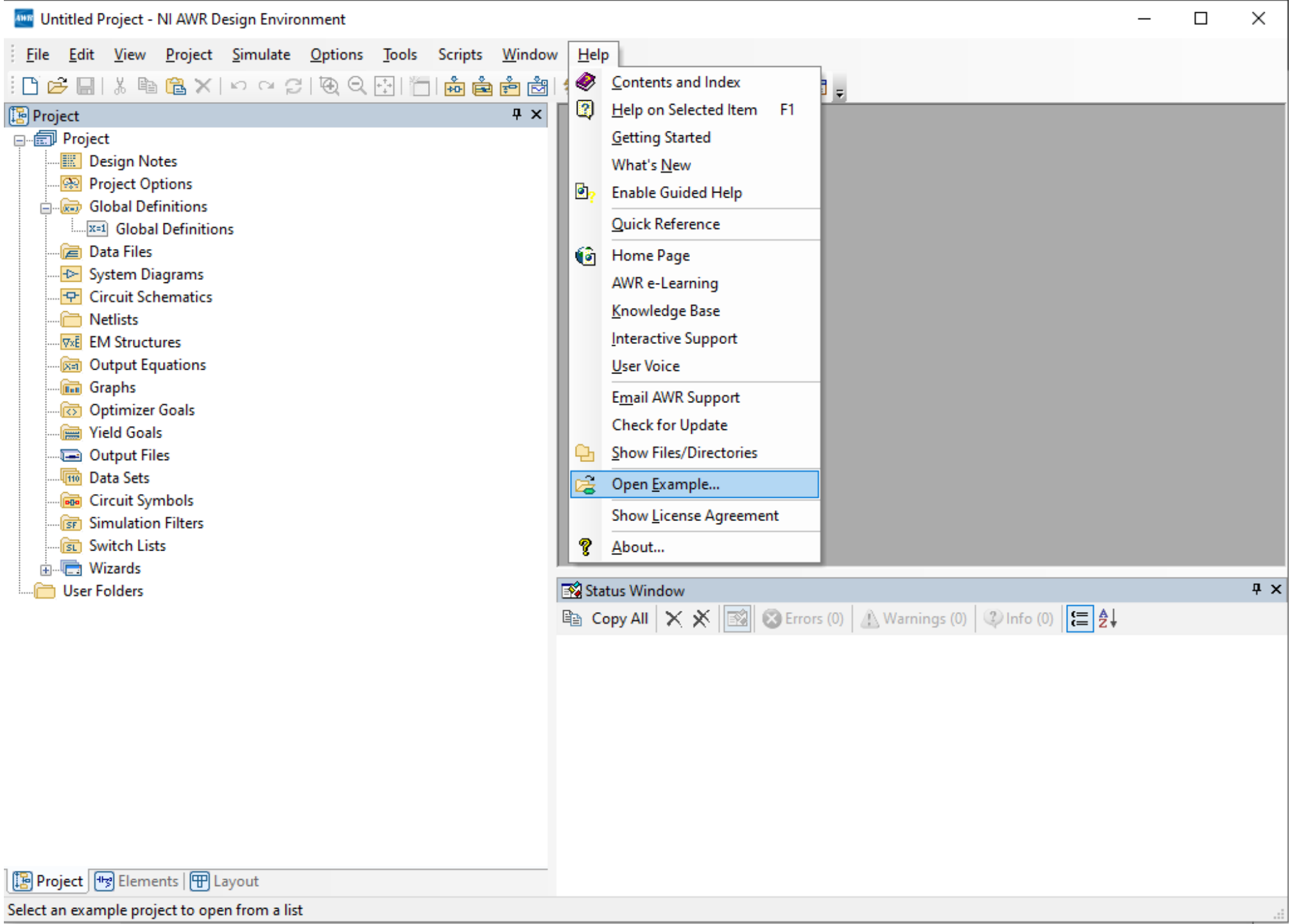
View help for the selected item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Warnings (0)
Info (0)
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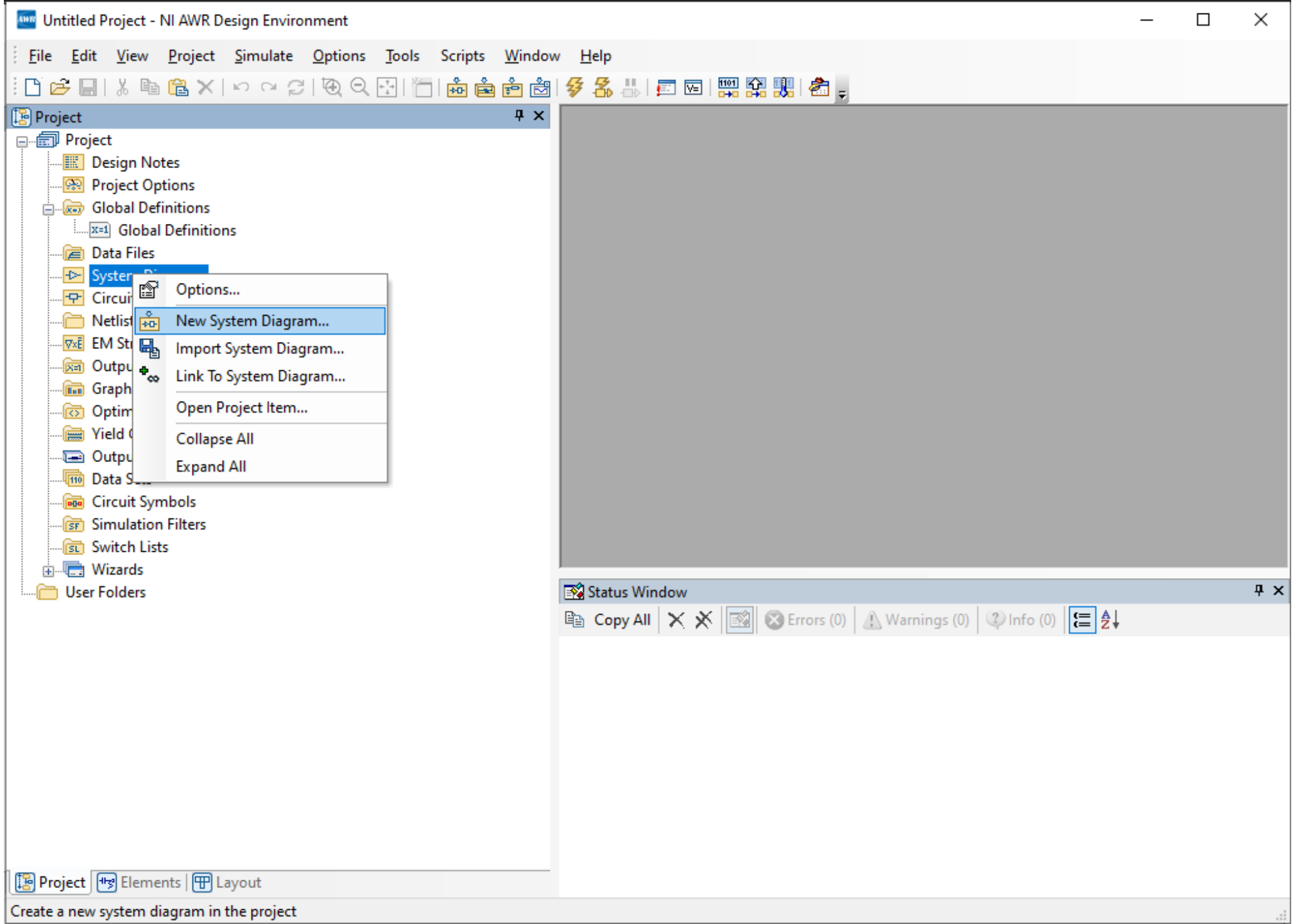
Layout
Select an example project to open from a list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Import System Diagram...
Link To System Diagram...
Open Project Item...
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Expand All
Circuit Symbols
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Warnings (0)
Info (0)
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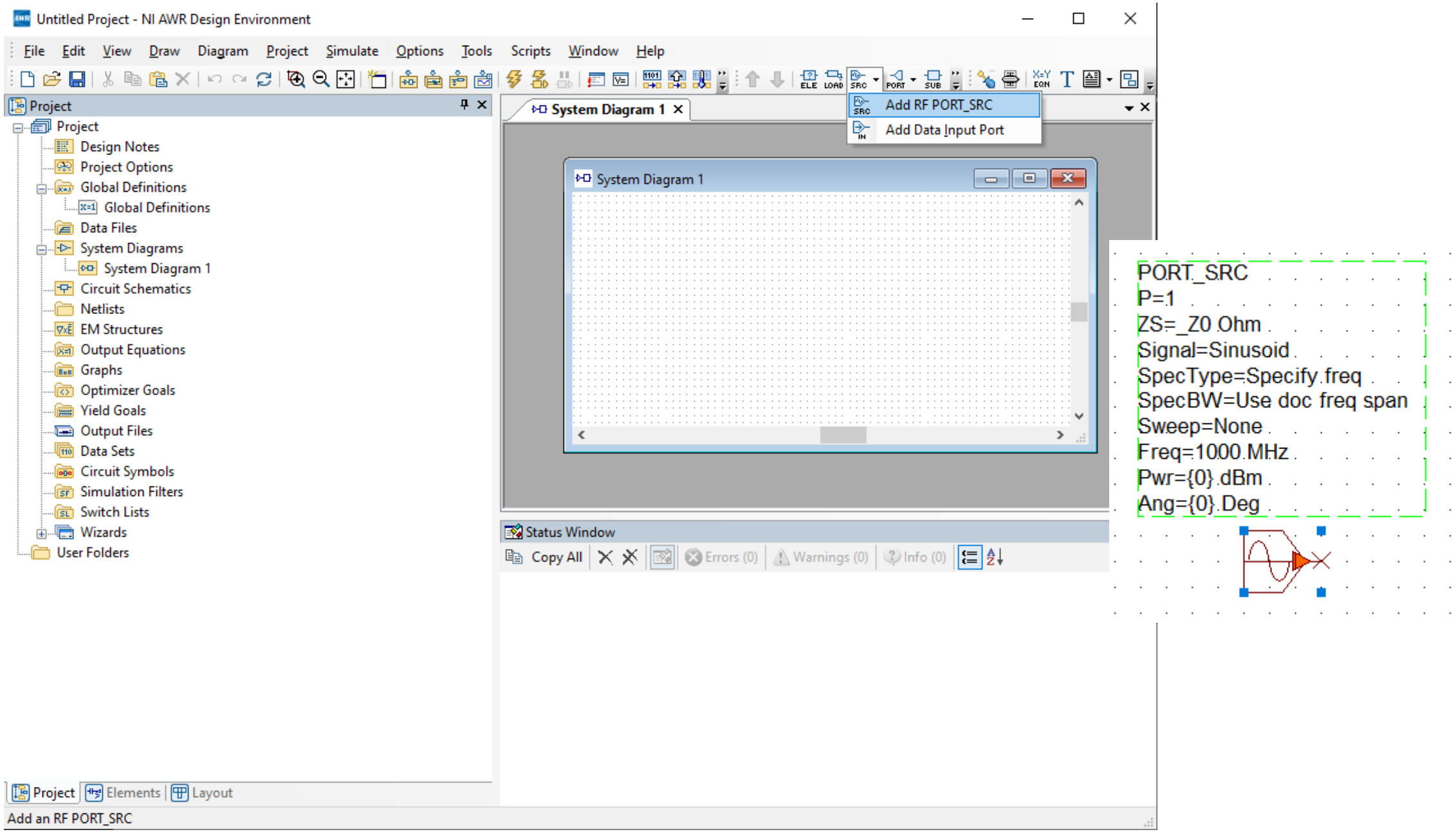
Layout
Create a new system diagram in the project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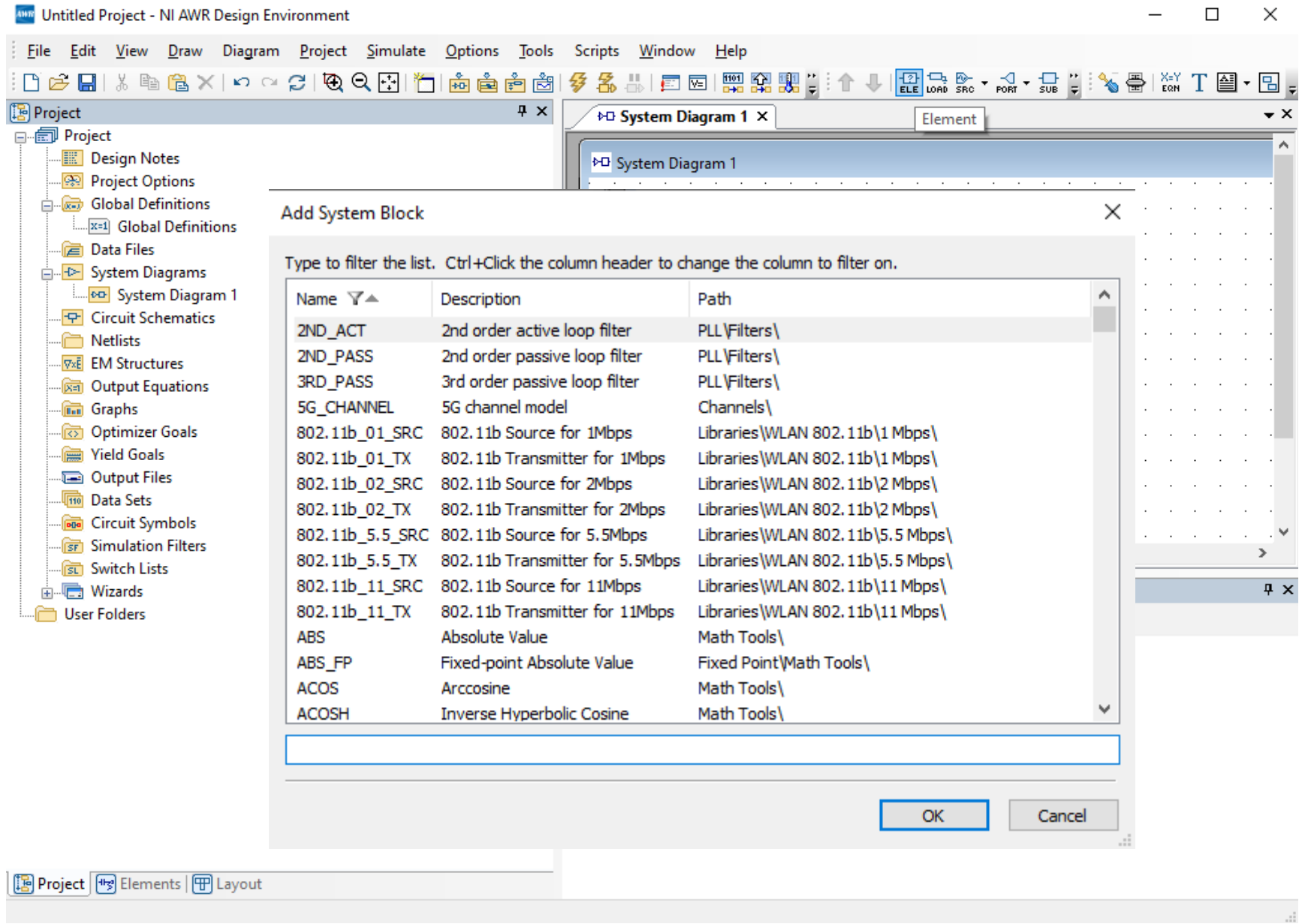
System Diagram 1
Add RF PORT_SRC
Add Data Input Port
System Diagram 1
Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)
PORT_SRC
P=1
ZS=_Z0 Ohm
Signal=Sinusoid
SpecType=Specify freq
SpecBW=Use doc freq span
Sweep=None
Freq=1000 MHz
Pwr={0} dBm
Ang={0} Deg
Project
Elements
Layout
Add an RF PORT_SRC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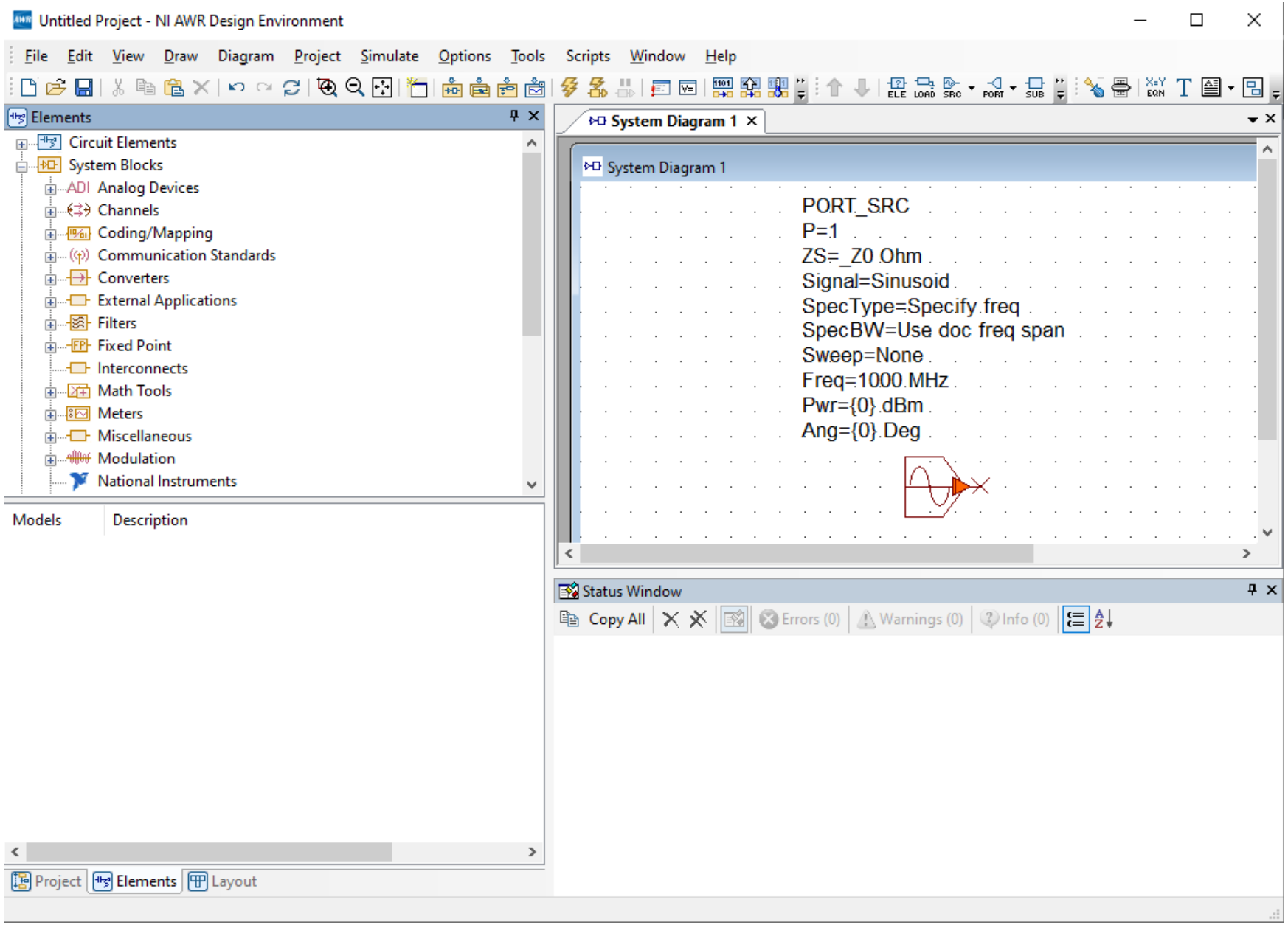
System Diagram 1
Element
System Diagram 1
Add System Block
Type to filter the list. Ctrl+Click the column header to change the column to filter on.
Name
Description
Path
2ND_ACT 2nd order active loop filter PLL\Filters\
2ND_PASS 2nd order passive loop filter PLL\Filters\
3RD_PASS 3rd order passive loop filter PLL\Filters\
5G_CHANNEL 5G channel model Channels\
802.11b_01_SRC 802.11b Source for 1Mbps Libraries\WLAN 802.11b\1 Mbps\
802.11b_01_TX 802.11b Transmitter for 1Mbps Libraries\WLAN 802.11b\1 Mbps\
802.11b_02_SRC 802.11b Source for 2Mbps Libraries\WLAN 802.11b\2 Mbps\
802.11b_02_TX 802.11b Transmitter for 2Mbps Libraries\WLAN 802.11b\2 Mbps\
802.11b_5.5_SRC 802.11b Source for 5.5Mbps Libraries\WLAN 802.11b\5.5 Mbps\
802.11b_5.5_TX 802.11b Transmitter for 5.5Mbps Libraries\WLAN 802.11b\5.5 Mbps\
802.11b_11_SRC 802.11b Source for 11Mbps Libraries\WLAN 802.11b\11 Mbps\
802.11b_11_TX 802.11b Transmitter for 11Mbps Libraries\WLAN 802.11b\11 Mbps\
ABS Absolute Value Math Tools\
ABS_FP Fixed-point Absolute Value Fixed Point\Math Tools\
ACOS Arccosine Math Tools\
ACOSH Inverse Hyperbolic Cosine Math Tools\
OK
Cancel
Project
Elements
Layout


Untitled Project - NI AWR Design Environment
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Elements
Circuit Elements
System Blocks
Analog Devices
Channels
Coding/Mapping
Communication Standards
Converters
External Applications
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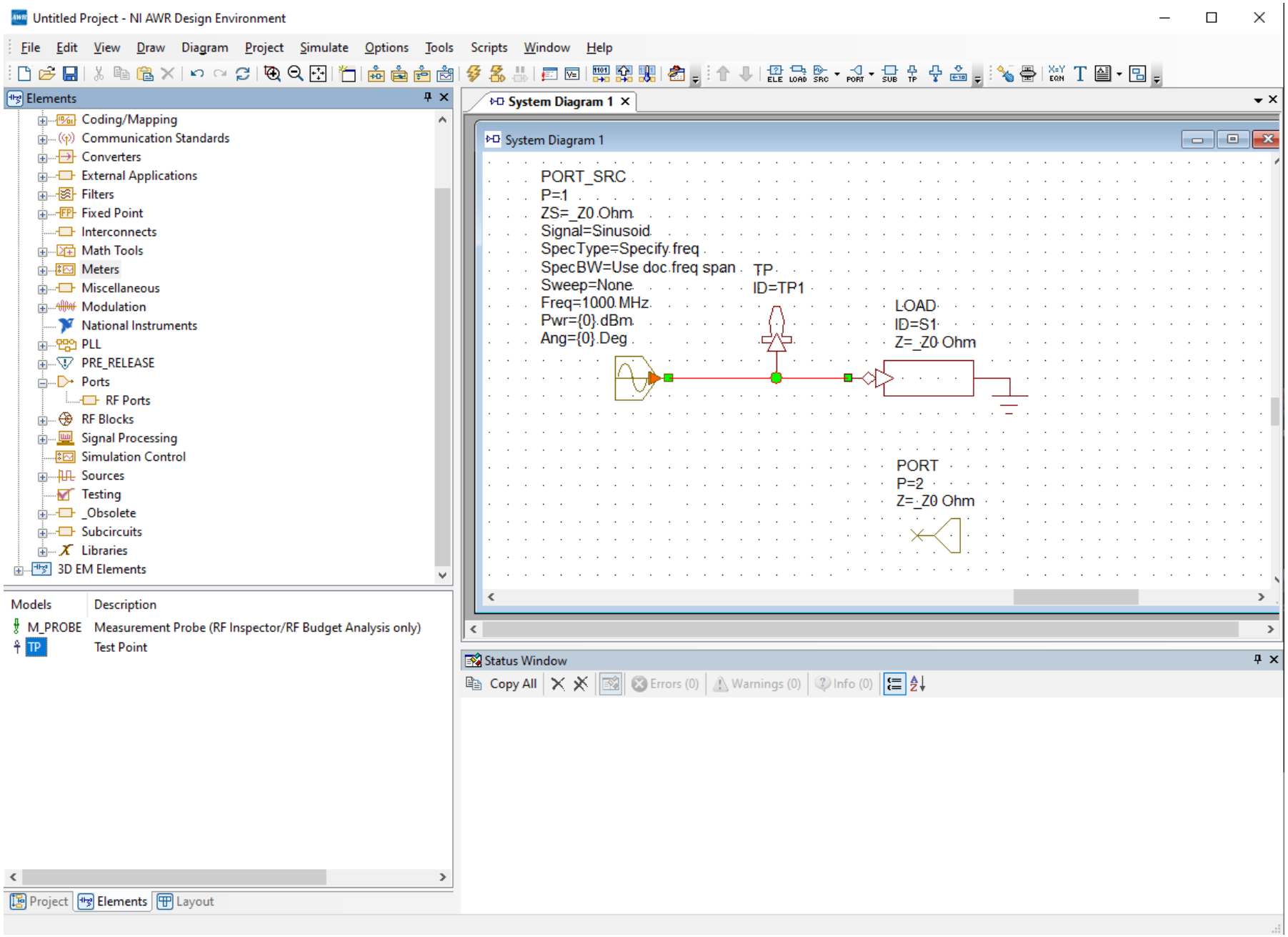
Fixed Point
Interconnects
Math Tools
Meters
Miscellaneous
Modulation
National Instruments
Models
Description
Project
Elements
Layout
System Diagram 1
System Diagram 1
PORT_SRC
P=1
ZS=_Z0 Ohm
Signal=Sinusoid
SpecType=Specify freq
SpecBW=Use doc freq span
Sweep=None
Freq=1000 MHz
Pwr={0} dBm
Ang={0} Deg
Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)


Untitled Project - NI AWR Design Environment
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Communication Standards
Converters
External Applications
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Fixed Point
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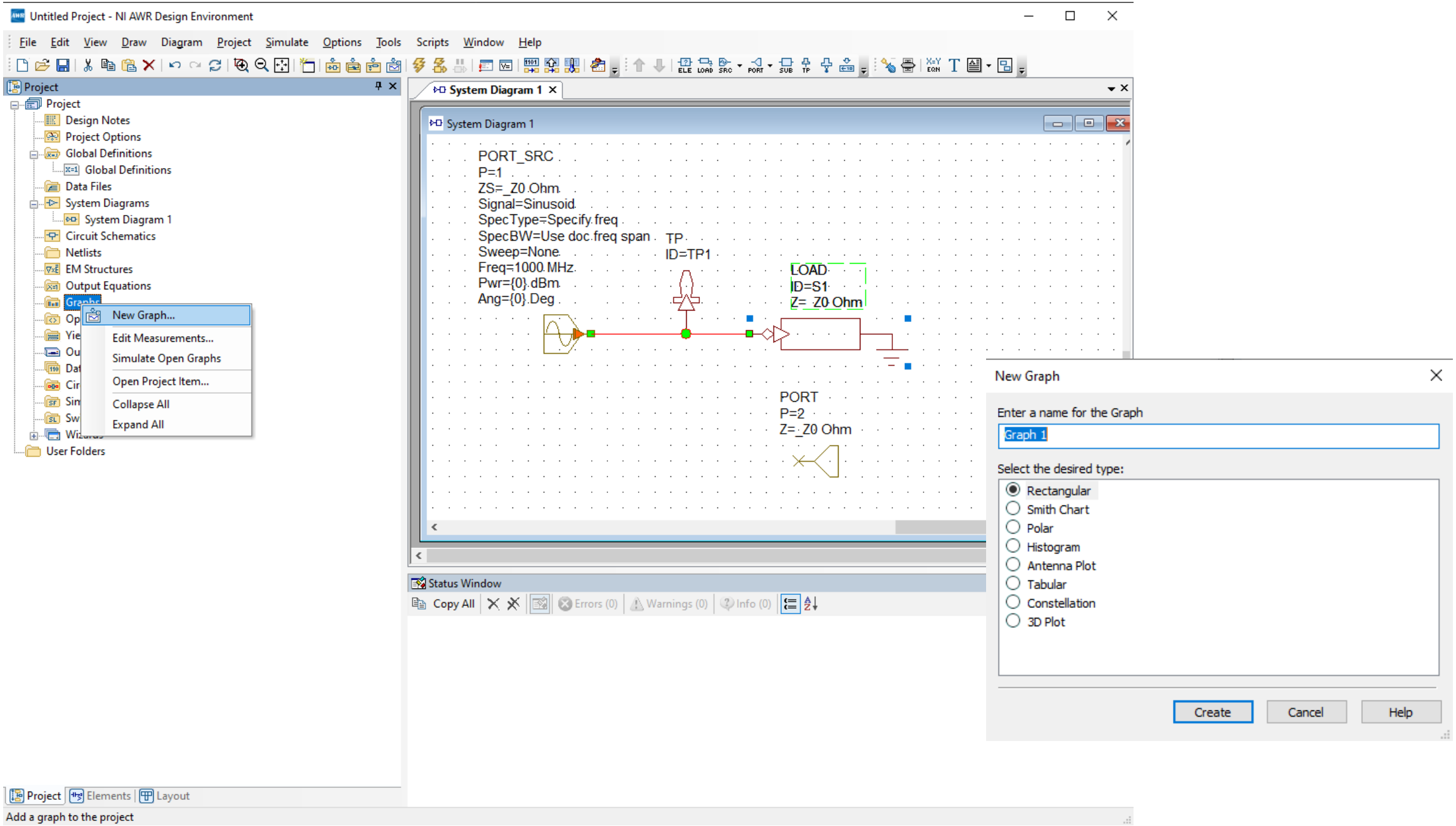
Miscellaneous
Modulation
National Instruments
PLL
PRE_RELEASE
Ports
RF Ports
RF Blocks
Signal Processing
Simulation Control
Sources
Testing
_Obsolete
Subcircuits
Libraries
3D EM Elements
Models
Description
M_PROBE
Measurement Probe (RF Inspector/RF Budget Analysis only)
TP
Test Point
Project
Elements
Layout
System Diagram 1
PORT_SRC
P=1
ZS=_Z0 Ohm
Signal=Sinusoid
SpecType=Specify freq
SpecBW=Use doc freq span
Sweep=None
Freq=1000 MHz
Pwr={0} dBm
Ang={0} Deg
TP
ID=TP1
LOAD
ID=S1
Z=_Z0 Ohm
PORT
P=2
Z=_Z0 Ohm
Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)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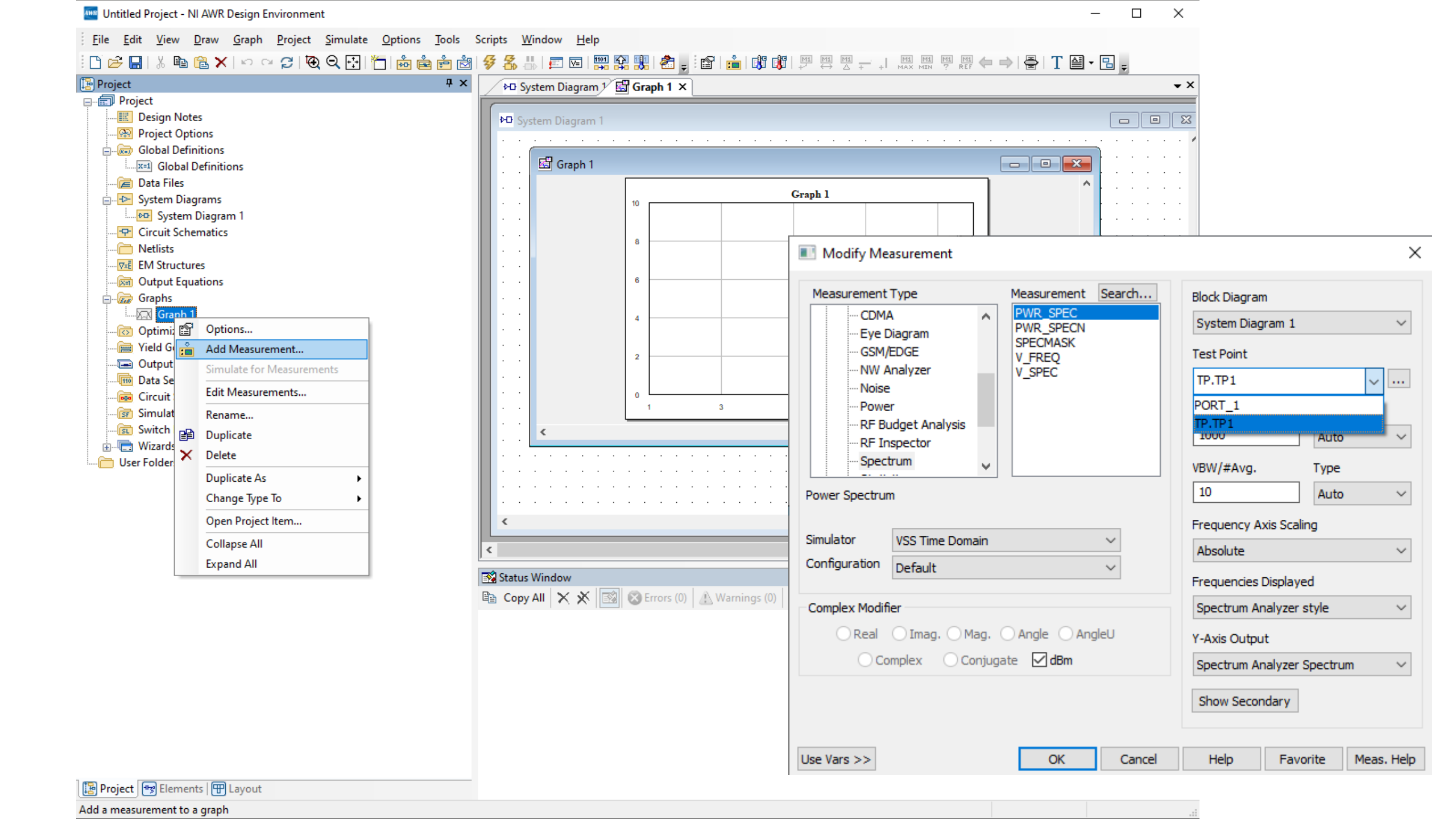
Edit Measurements...
Simulate Open Graphs
Open Project Item...
Collapse All
Expand All
User Folders
System Diagram 1
System Diagram 1
PORT_SRC
P=1
ZS=_Z0 Ohm
Signal=Sinusoid
SpecType=Specify freq
SpecBW=Use doc freq span
Sweep=None
Freq=1000 MHz
Pwr={0} dBm
Ang={0} Deg
TP
ID=TP1
LOAD
ID=S1
Z=_Z0 Ohm
PORT
P=2
Z=_Z0 Ohm
Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)
Project
Elements
Layout
Add a graph to the project
New Graph
Enter a name for the Graph
Graph 1
Select the desired type:
Rectangular
Smith Chart
Polar
Histogram
Antenna Plot
Tabular
Constellation
3D Plot
Create
Cancel
Help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Simulate for Measurements
Edit Measurements...
Rename...
Duplicate
Delete
Duplicate As
Change Type To
Open Project Item...
Collapse All
Expand All
System Diagram 1
Graph 1
Graph 1
Status Window
Copy All
Errors (0)
Warnings (0)
Modify Measurement
Measurement Type
CDMA
Eye Diagram
GSM/EDGE
NW Analyzer
Noise
Power
RF Budget Analysis
RF Inspector
Spectrum
Measurement
Search...
PWR_SPEC
PWR_SPECN
SPECMASK
V_FREQ
V_SPEC
Power Spectrum
Simulator
VSS Time Domain
Configuration
Default
Complex Modifier
Real
Imag.
Mag.
Angle
AngleU
Complex
Conjugate
dBm
Block Diagram
System Diagram 1
Test Point
TP.TP1
PORT_1
TP.TP1
Auto
VBW/#Avg.
10
Type
Auto
Frequency Axis Scaling
Absolute
Frequencies Displayed
Spectrum Analyzer style
Y-Axis Output
Spectrum Analyzer Spectrum
Show Secondary
Use Vars >>
OK
Cancel
Help
Favorite
Meas. Help
Project
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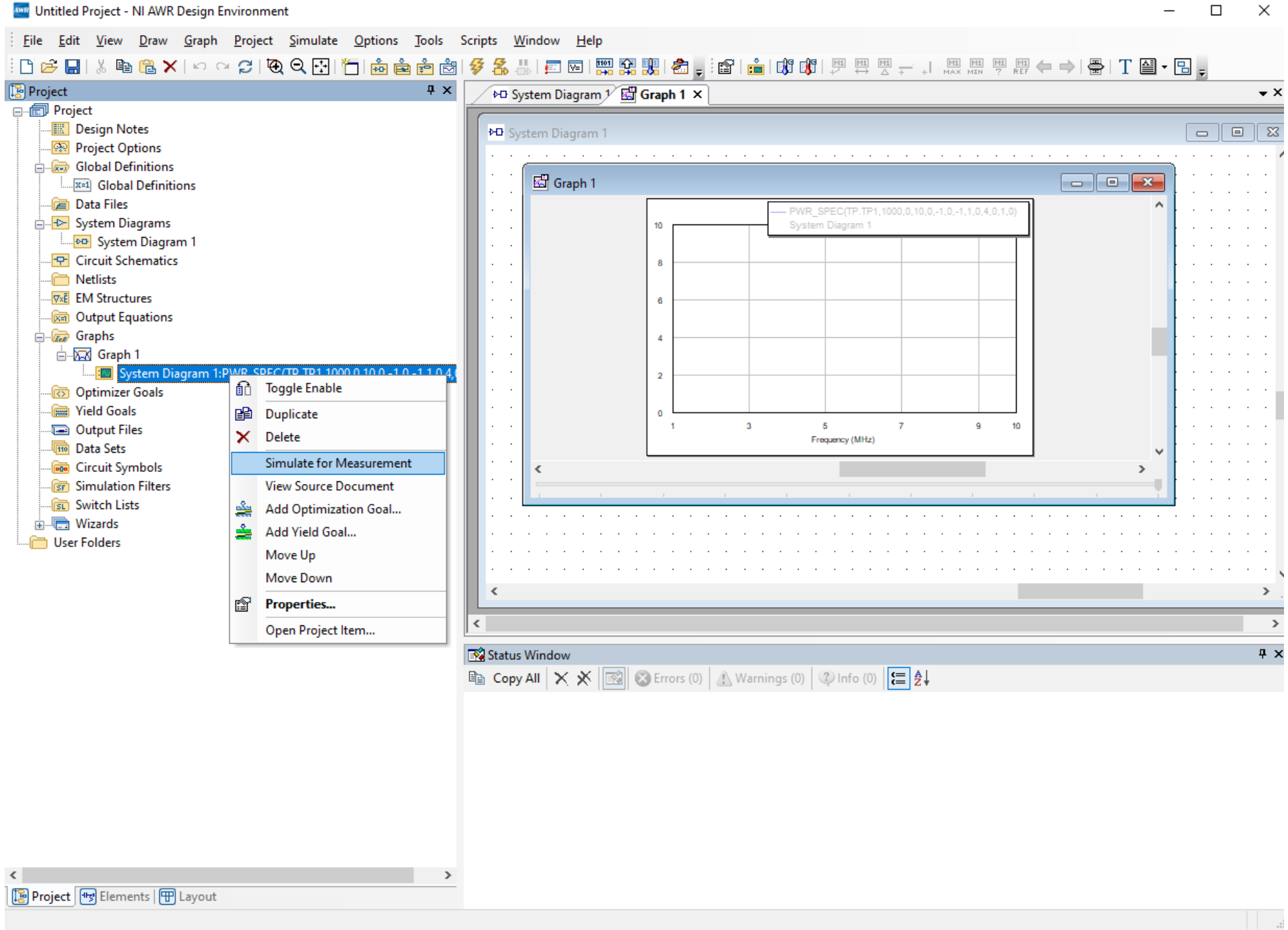
Add a measurement to a graph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Graph 1
System Diagram 1:PWR_SPEC(TP.TP1,1000,0,10,0,-1,0,-1,1,0,4,
Optimizer Goals
Yield Goals
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Switch Lists
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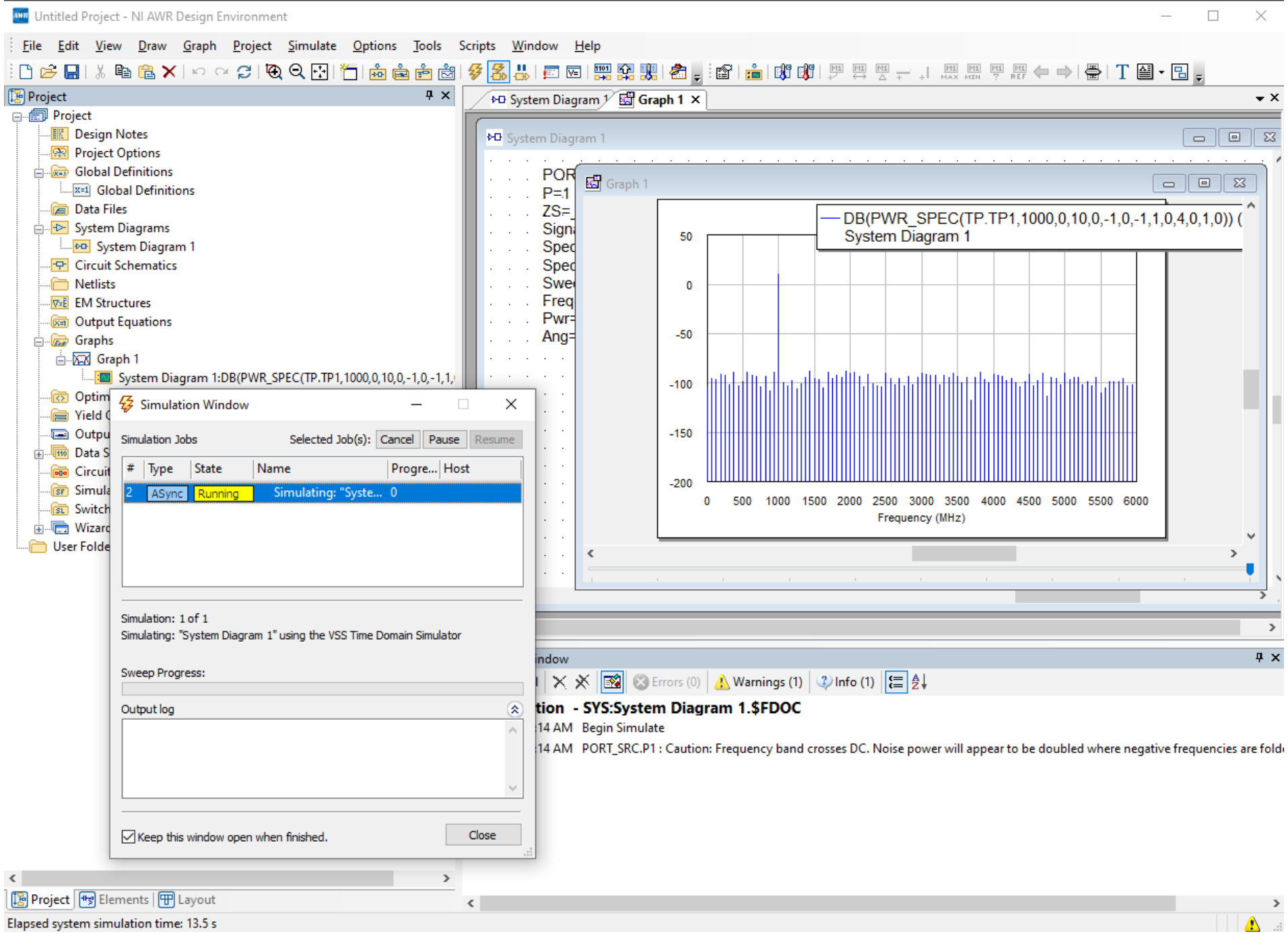
User Folders
Toggle Enable
Duplicate
Delete
Simulate for Measurement
View Source Document
Add Optimization Goal...
Add Yield Goal...
Move Up
Move Down
Properties...
Open Project Item...
System Diagram 1
Graph 1
System Diagram 1
Graph 1
PWR_SPEC(TP.TP1,1000,0,10,0,-1,0,-1,1,0,4,0,1,0)
System Diagram 1
10
8
6
4
2
0
1
3
5
7
9
10
Frequency (MHz)
Status Window
Copy All
Errors (0)
Warnings (0)
Info (0)
Project
Elements
Layout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Graph 1
System Diagram 1:DB(PWR_SPEC(TP.TP1,1000,0,10,0,-1,0,-1,1,
System Diagram 1
Graph 1
DB(PWR_SPEC(TP.TP1,1000,0,10,0,-1,0,-1,1,0,4,0,1,0)) (
System Diagram 1
50
0
-50
-100
-150
-200
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
Frequency (MHz)
Simulation Window
Simulation Jobs
Selected Job(s):
Cancel
Pause
Resume
Type State Name Progre... Host
2 ASync Running Simulating: "Syste... 0
Simulation: 1 of 1
Simulating: "System Diagram 1" using the VSS Time Domain Simulator
Sweep Progress:
Output log
Keep this window open when finished.
Close
Errors (0)
Warnings (1)
Info (1)
tion - SYS:System Diagram 1.$FDOC
14 AM Begin Simulate
14 AM PORT_SRC.P1 : Caution: Frequency band crosses DC. Noise power will appear to be doubled where negative frequencies are fold
Project
Elements
Layout
Elapsed system simulation time: 13.5 s