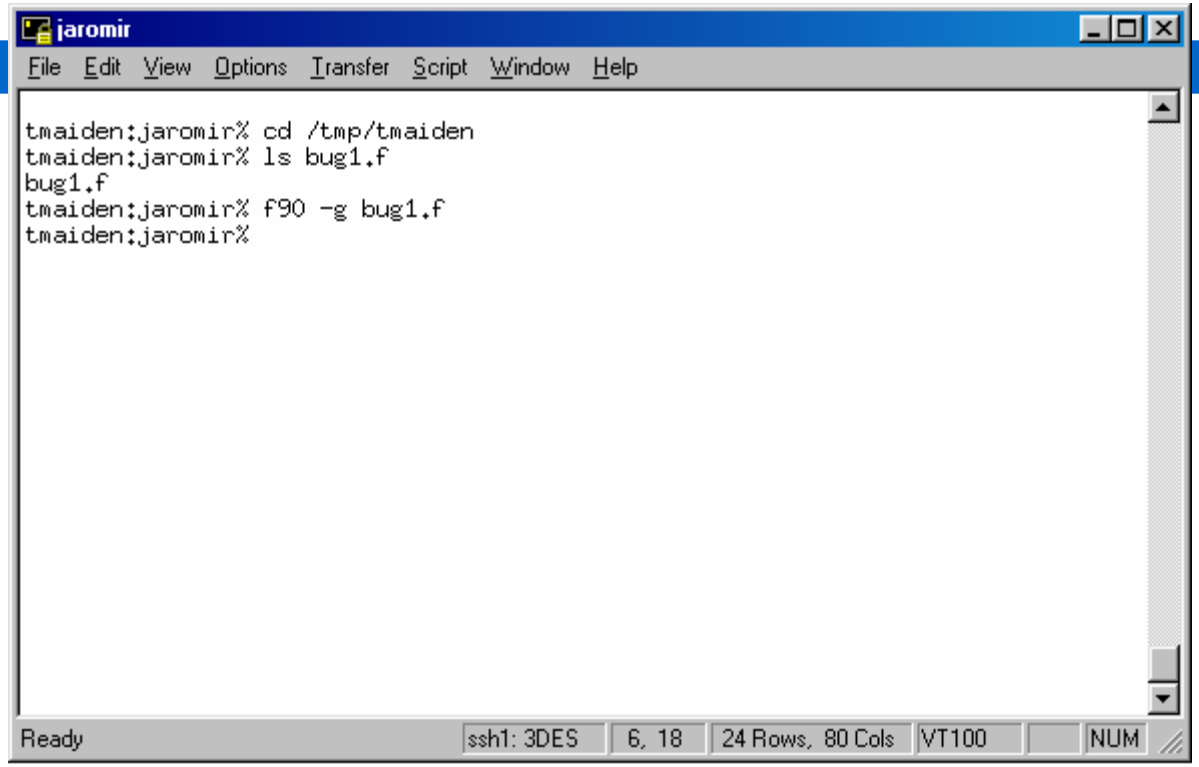
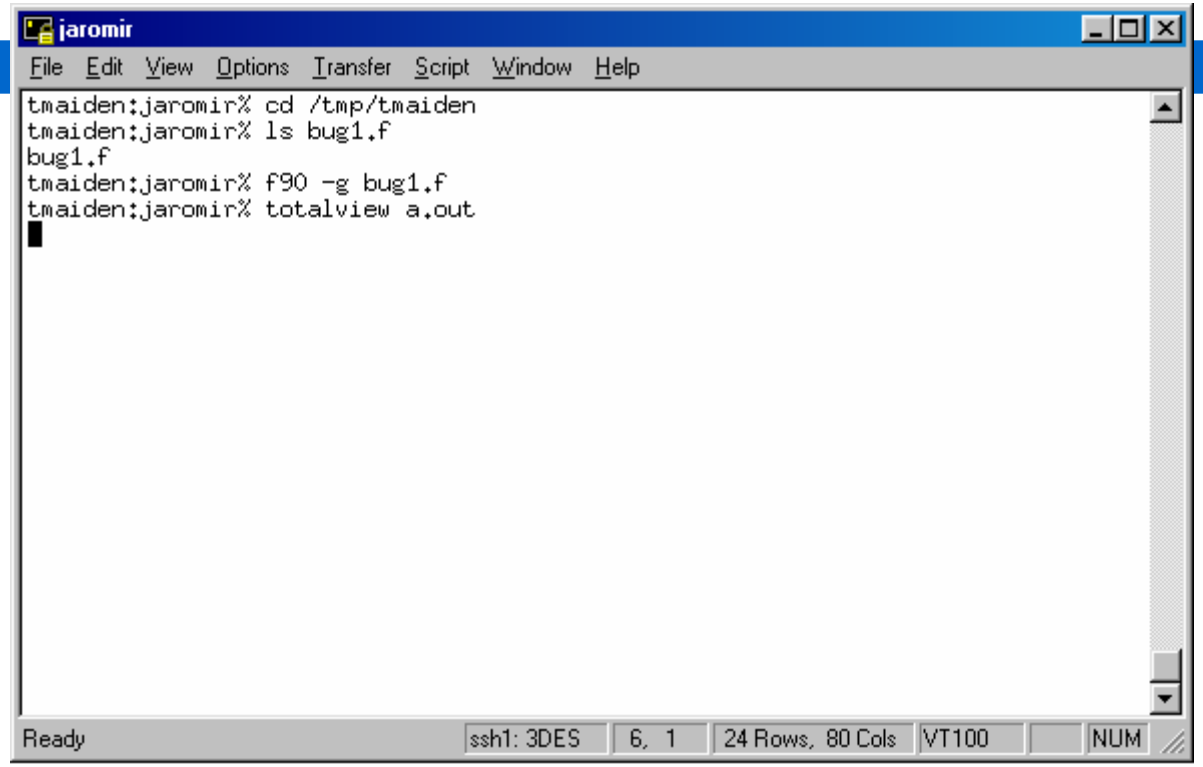
# TotalView Debugger

April 24, 2002

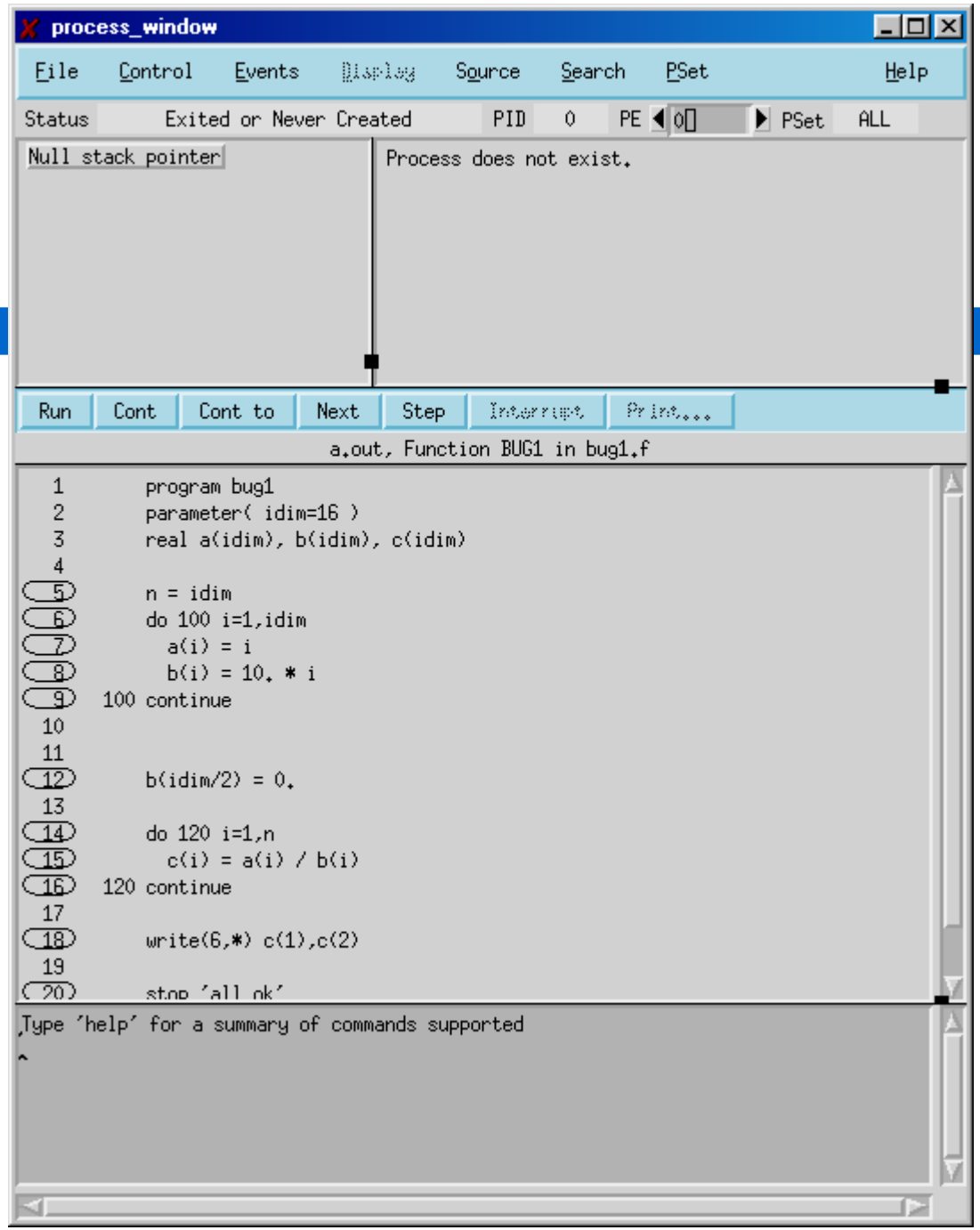
# Compile and Run

- Copy bug1.f from /tmp/training to your /tmp/username directory
- Compile with the –g option


jaromir
File Edit View Options Transfer Script Window Help
tmaiden:jaromir% cd /tmp/tmaiden
tmaiden:jaromir% ls bug1.f
bug1.f
tmaiden:jaromir% f90 -g bug1.f
tmaiden:jaromir%
Ready
ssh1: 3DES
6, 18
24 Rows, 80 Cols
VT100
NUM

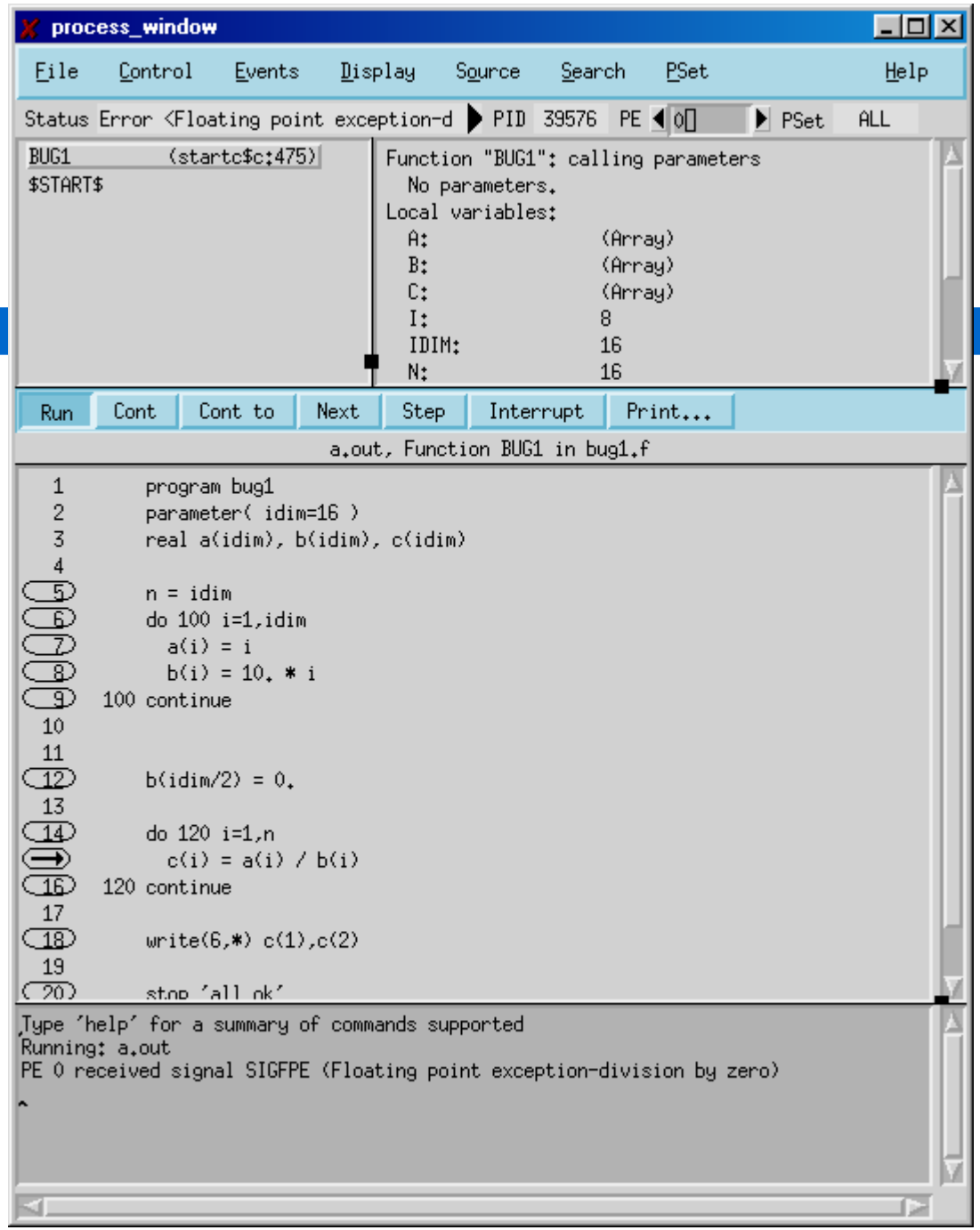



# Run the file with Totalview

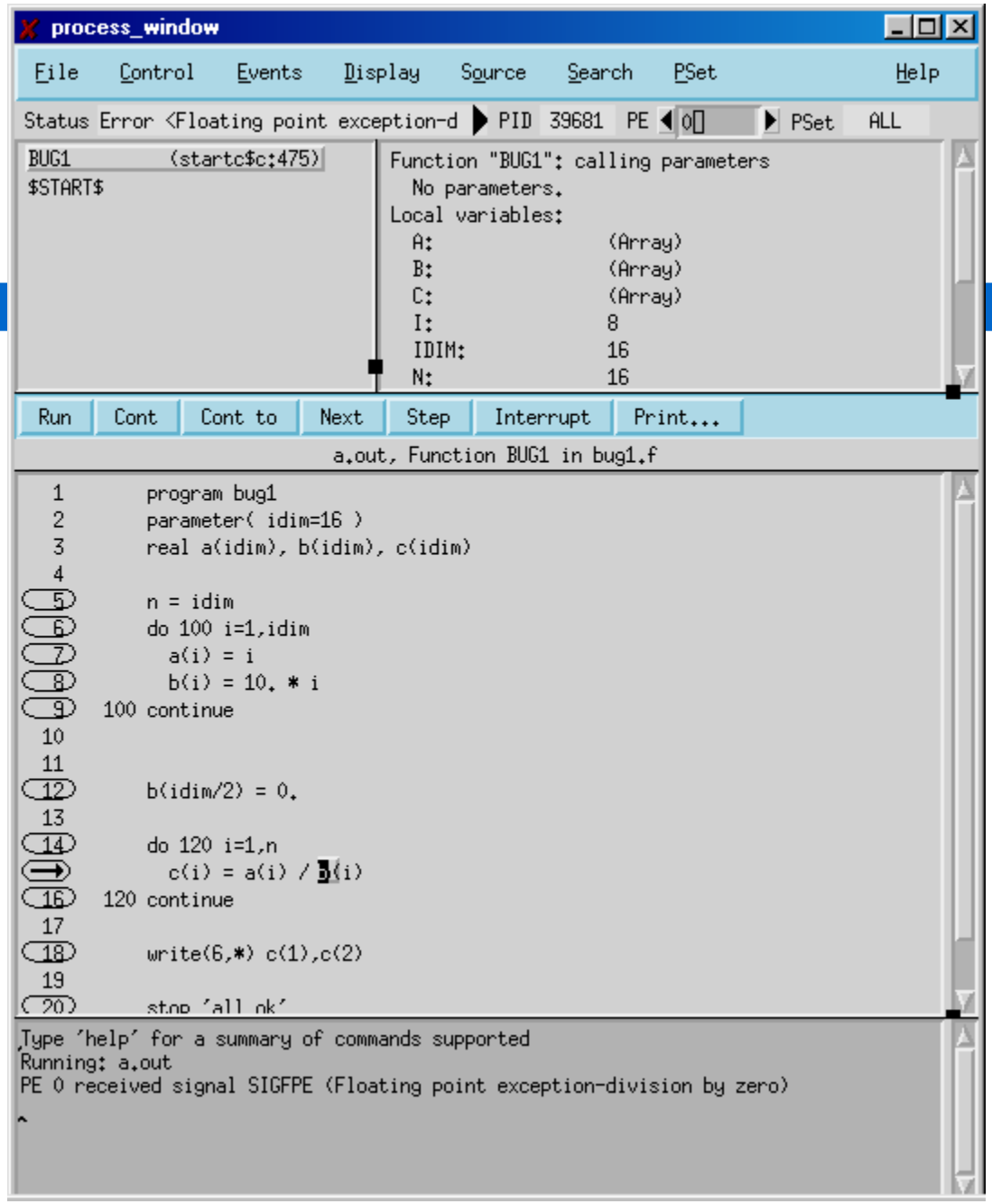



April 24, 2002

# Click Run

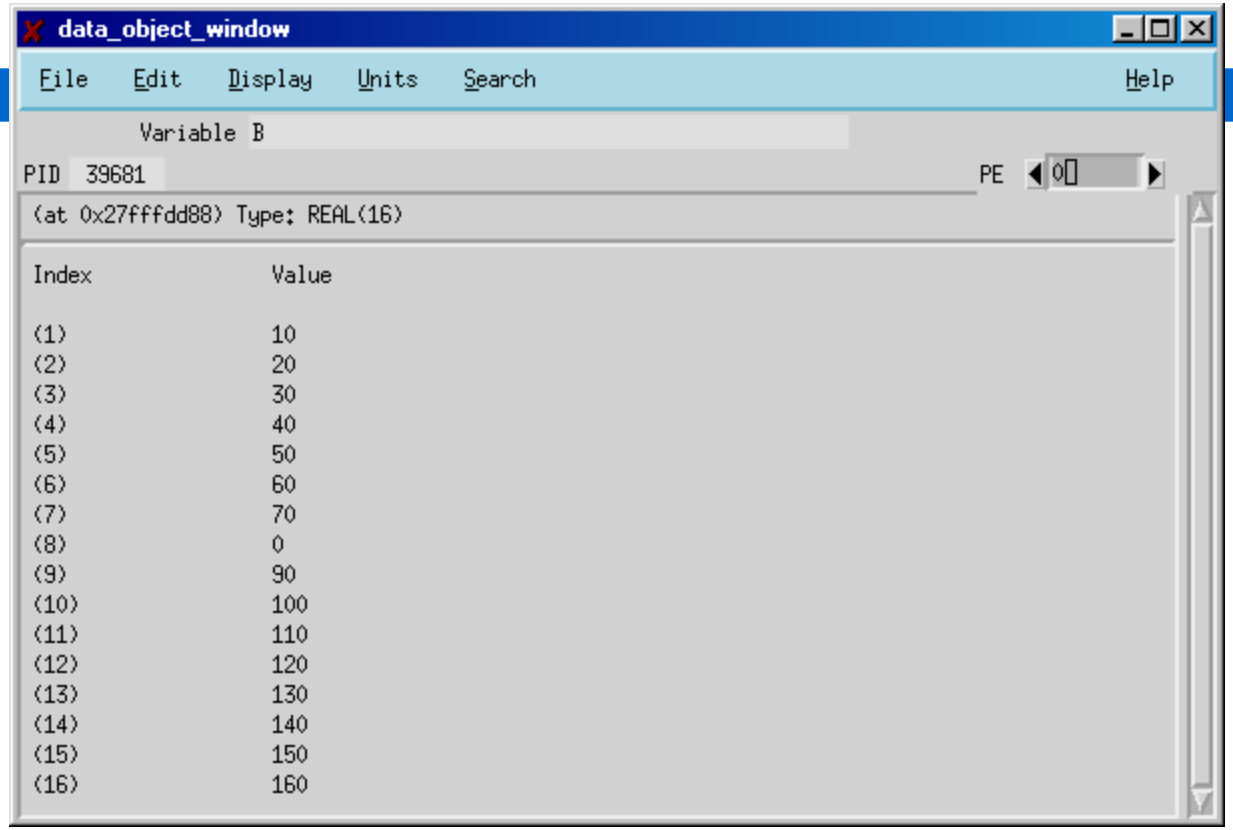


Right click b

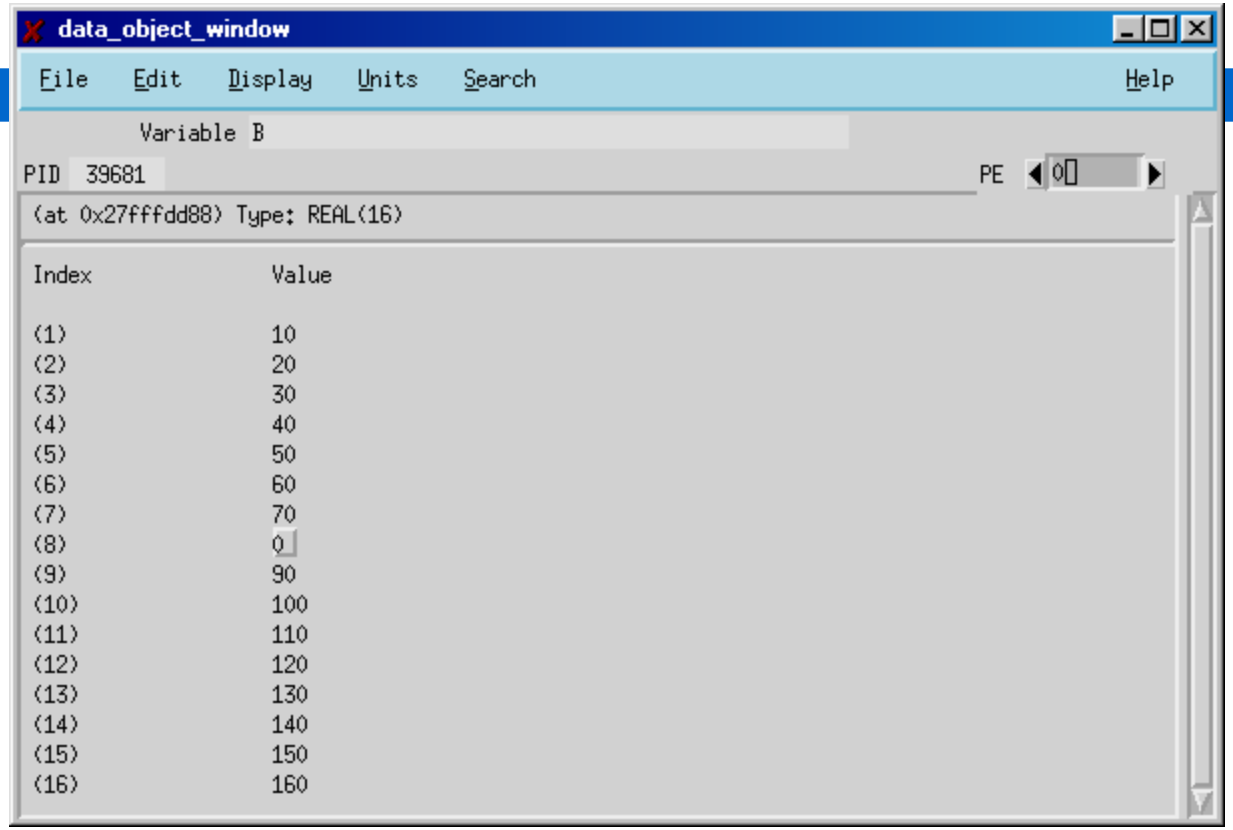


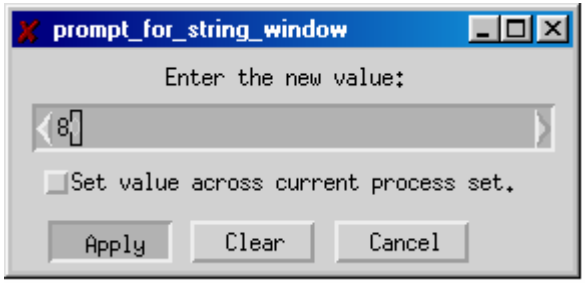

April 24, 2002

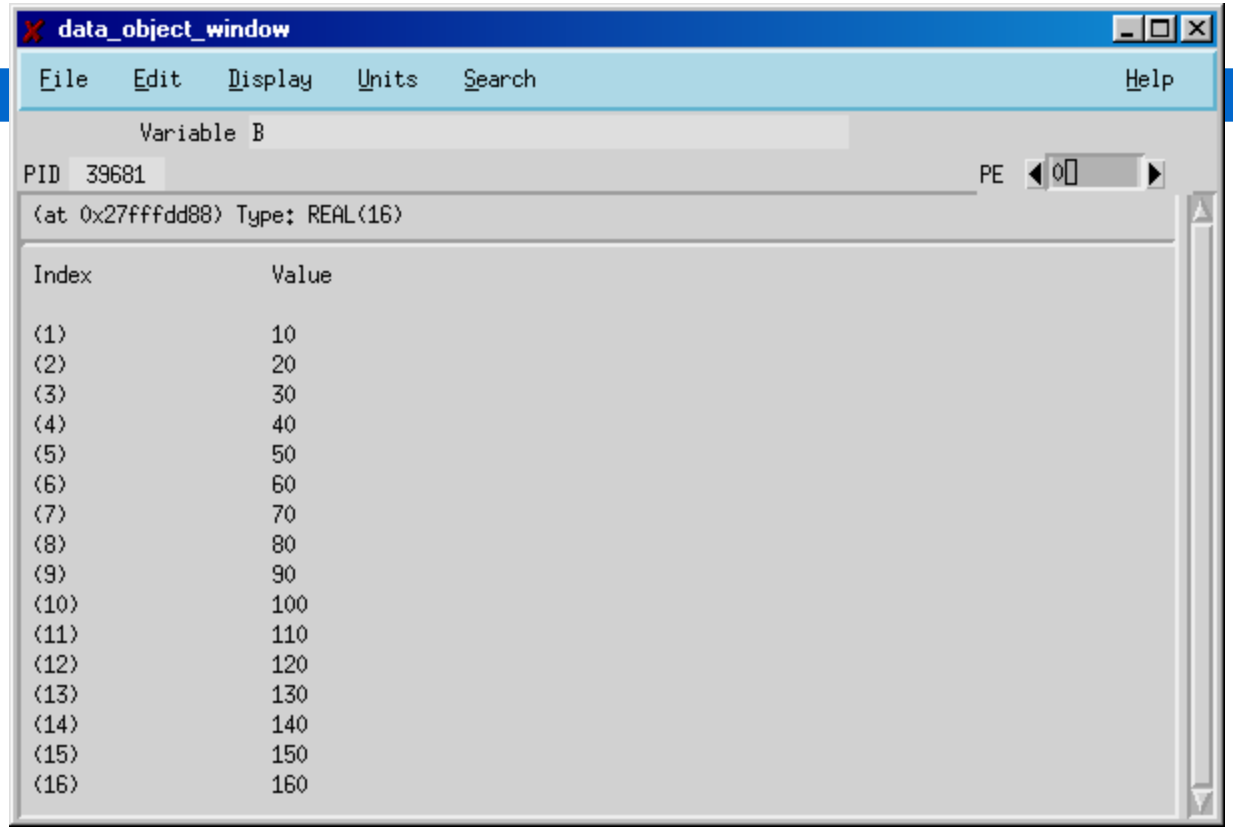
PITTSBURGH SUPERCOMPUTING CENTER

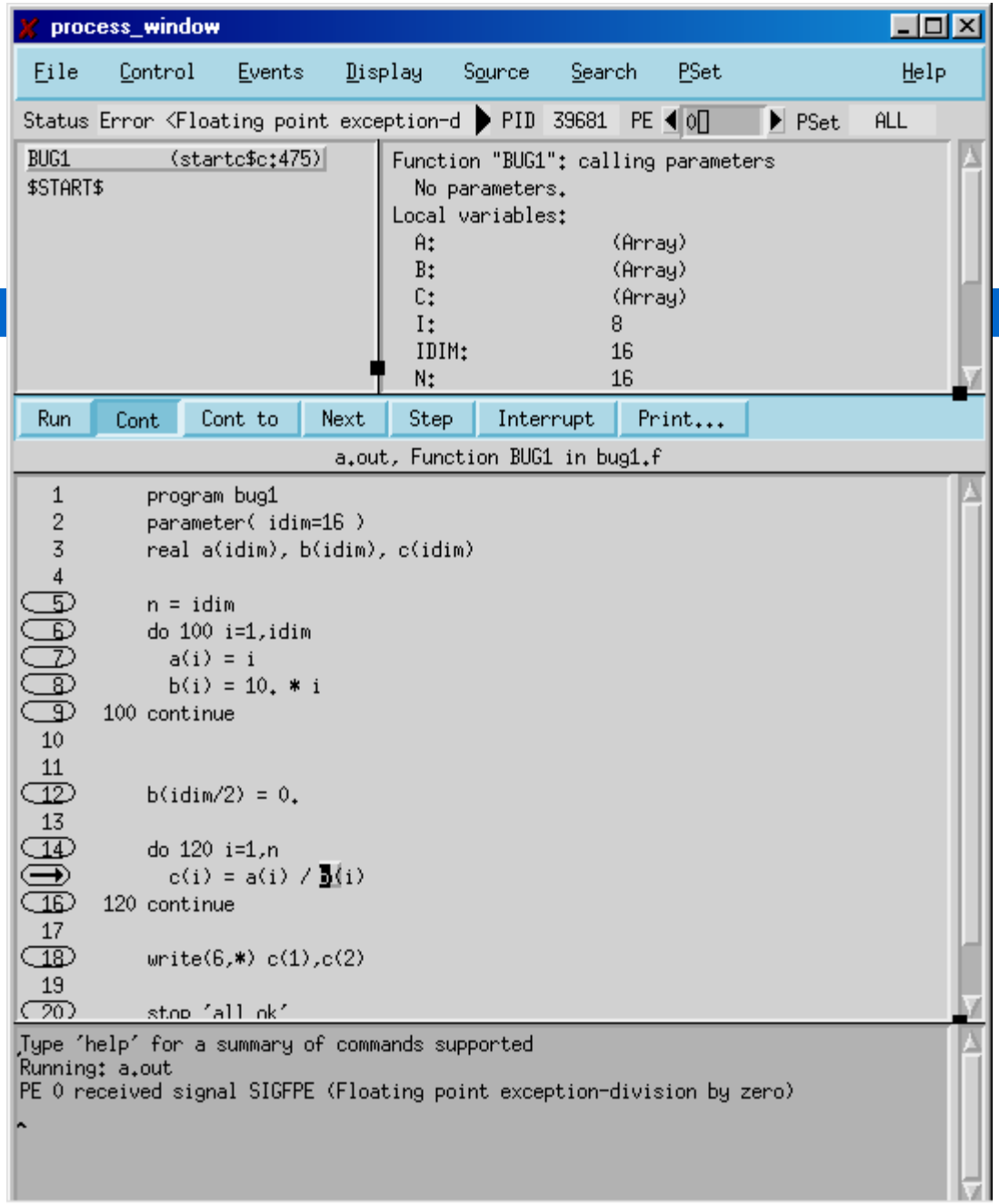


# Select the 0

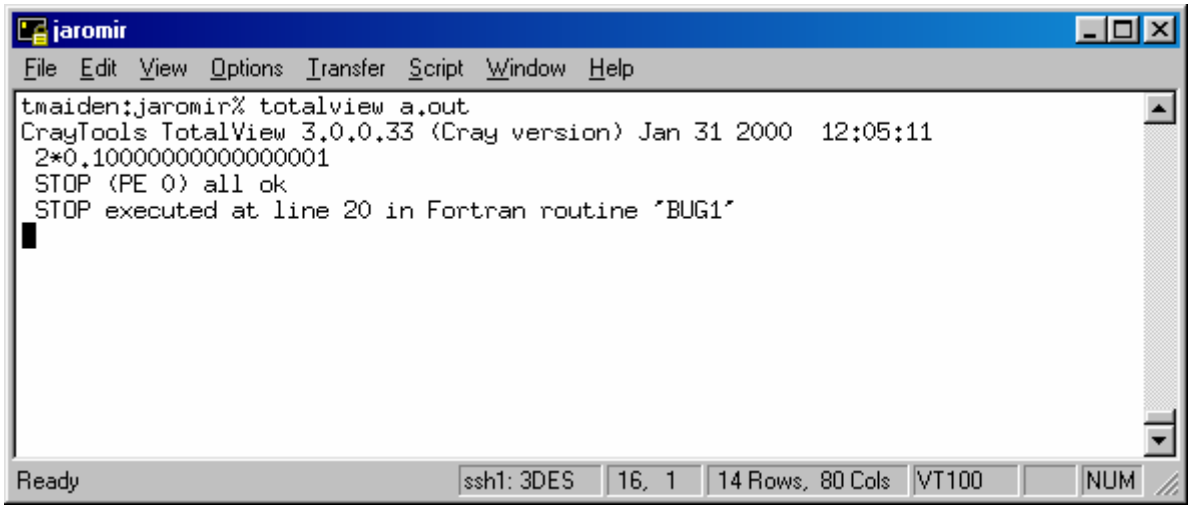



prompt_for_string_window
Enter the new value:
8
Set value across current process set.
Apply
Clear
Cancel

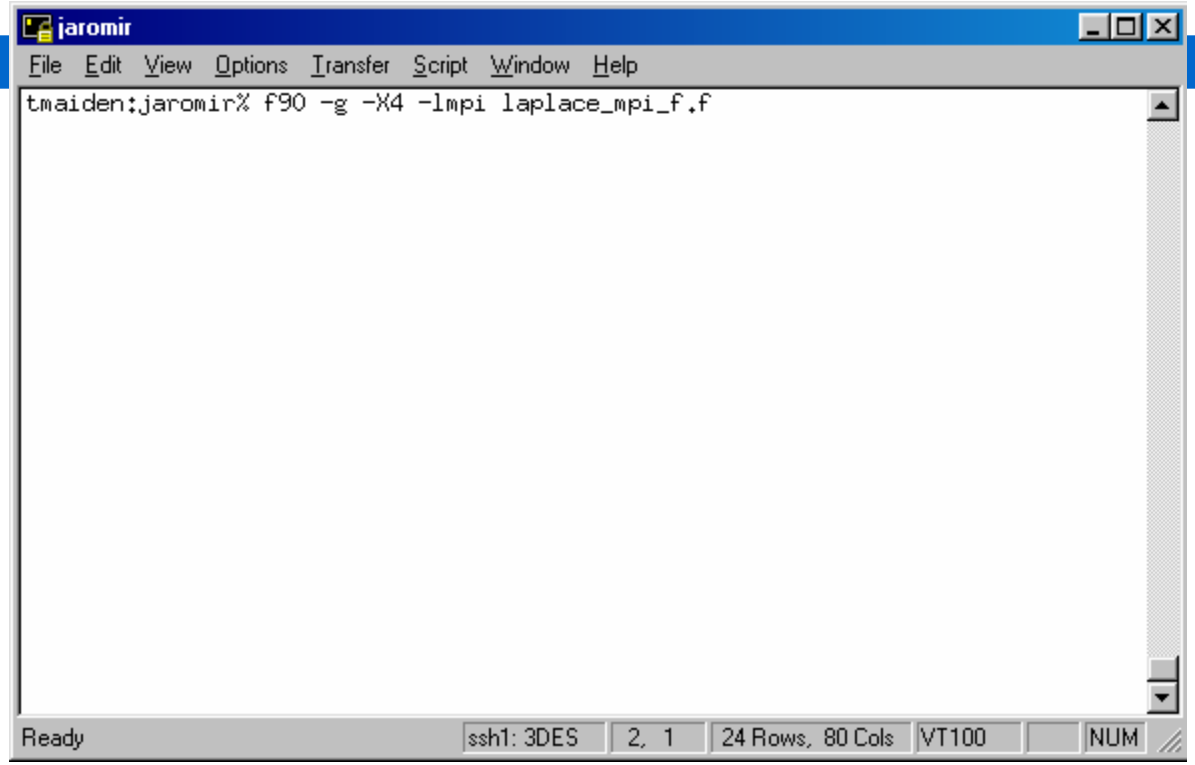




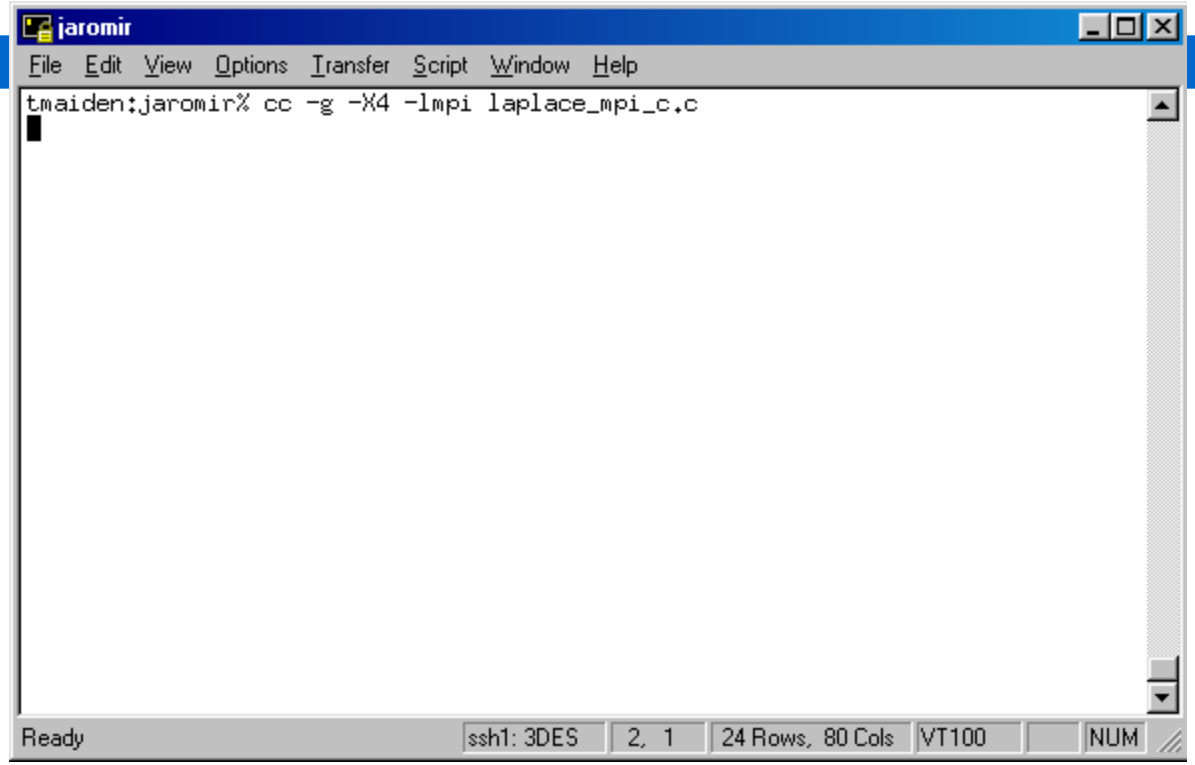

Click Continue

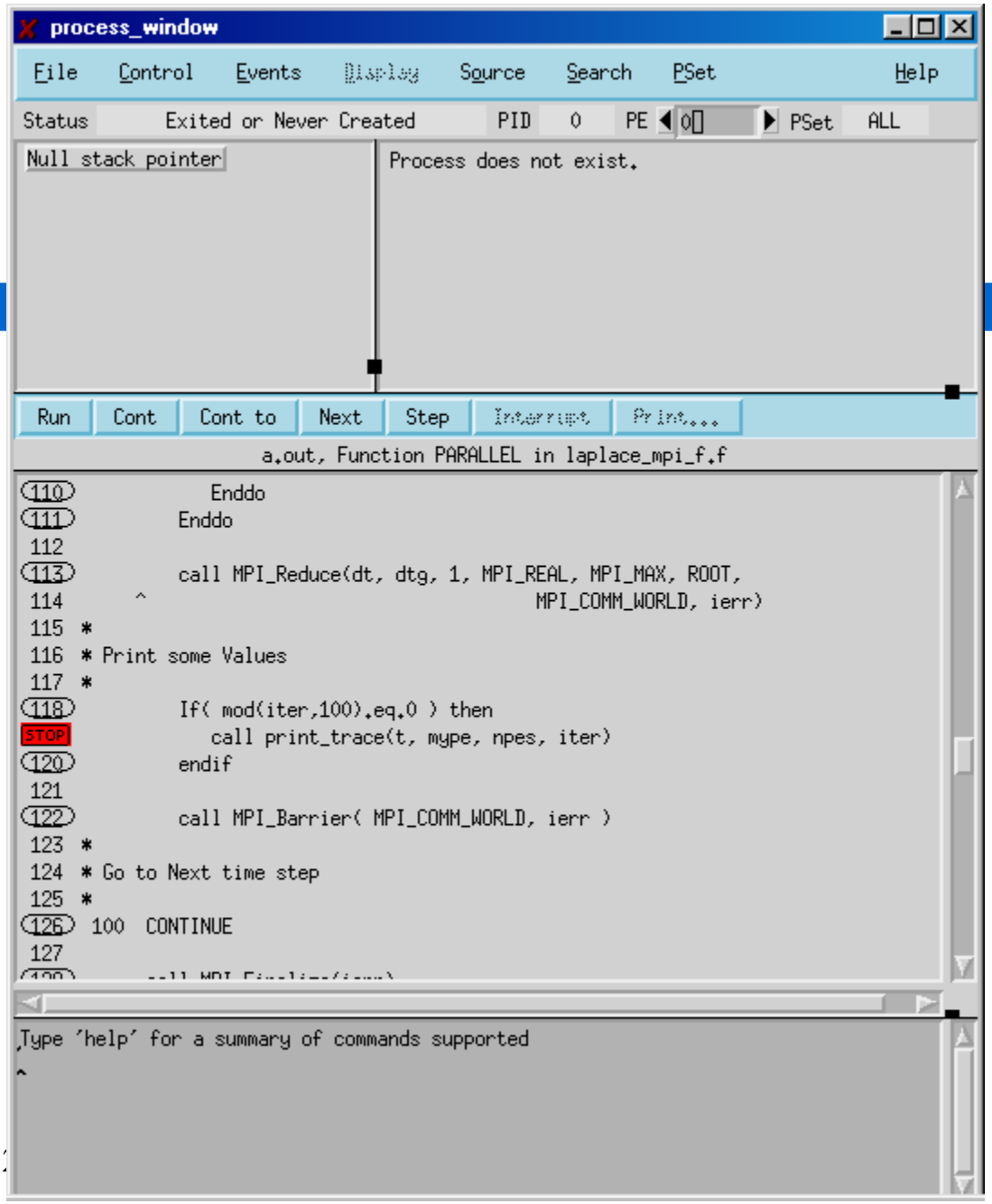

jaromir
File Edit View Options Transfer Script Window Help
tmaiden:jaromir% totalview a.out
CrayTools TotalView 3.0.0.33 (Cray version) Jan 31 2000 12:05:11
2*0.10000000000000001
STOP (PE 0) all ok
STOP executed at line 20 in Fortran routine 'BUG1'
Ready
ssh1: 3DES
16, 1
14 Rows, 80 Cols
VT100
NUM

# Compile the laplace example

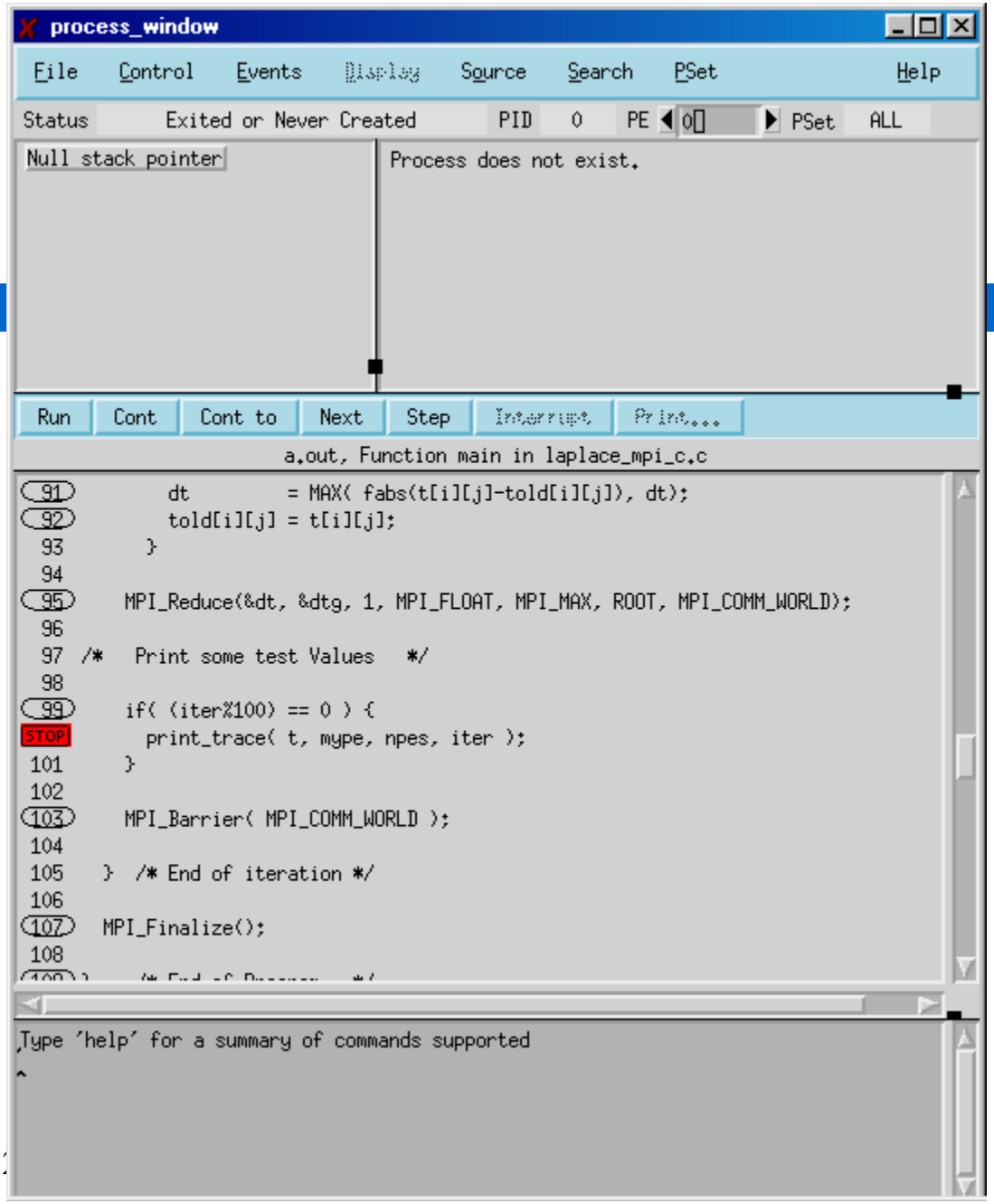


# C version

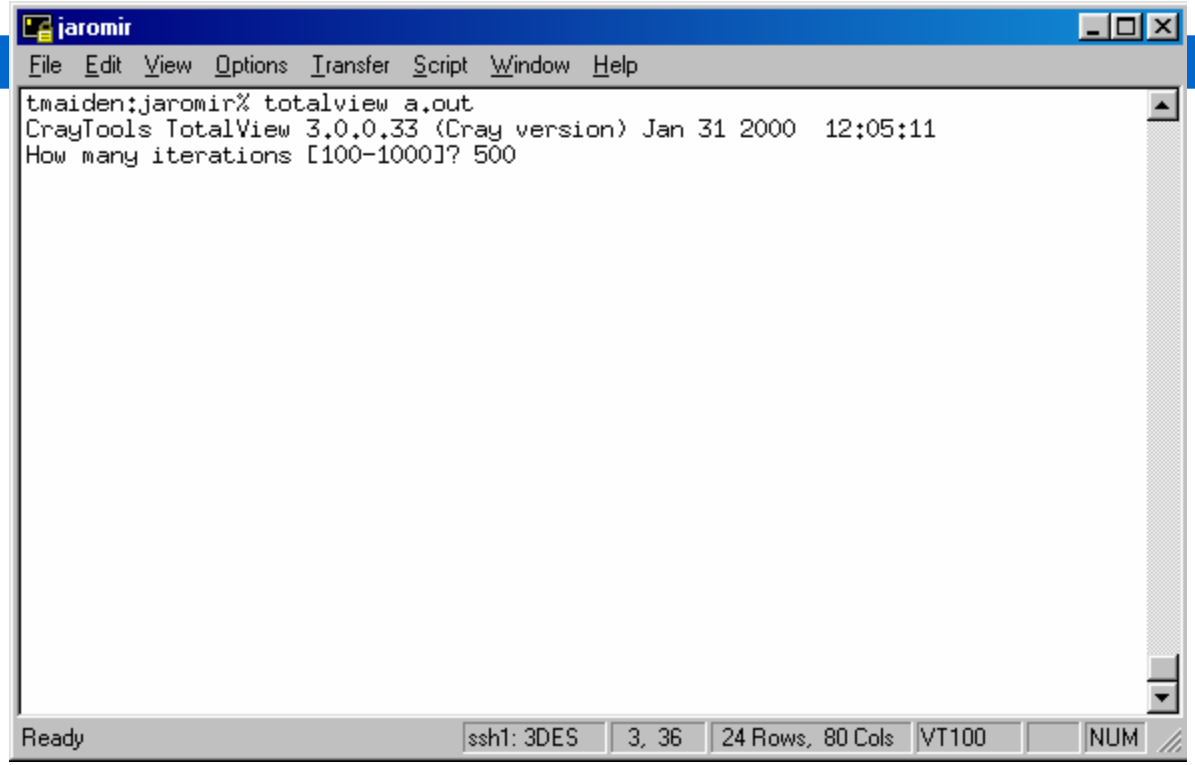

jaromir
File Edit View Options Transfer Script Window Help
tmaiden:jaromir% cc -g -X4 -lmpi laplace_mpi_c.c
Ready
ssh1: 3DES
2, 1
24 Rows, 80 Cols
VT100
NUM



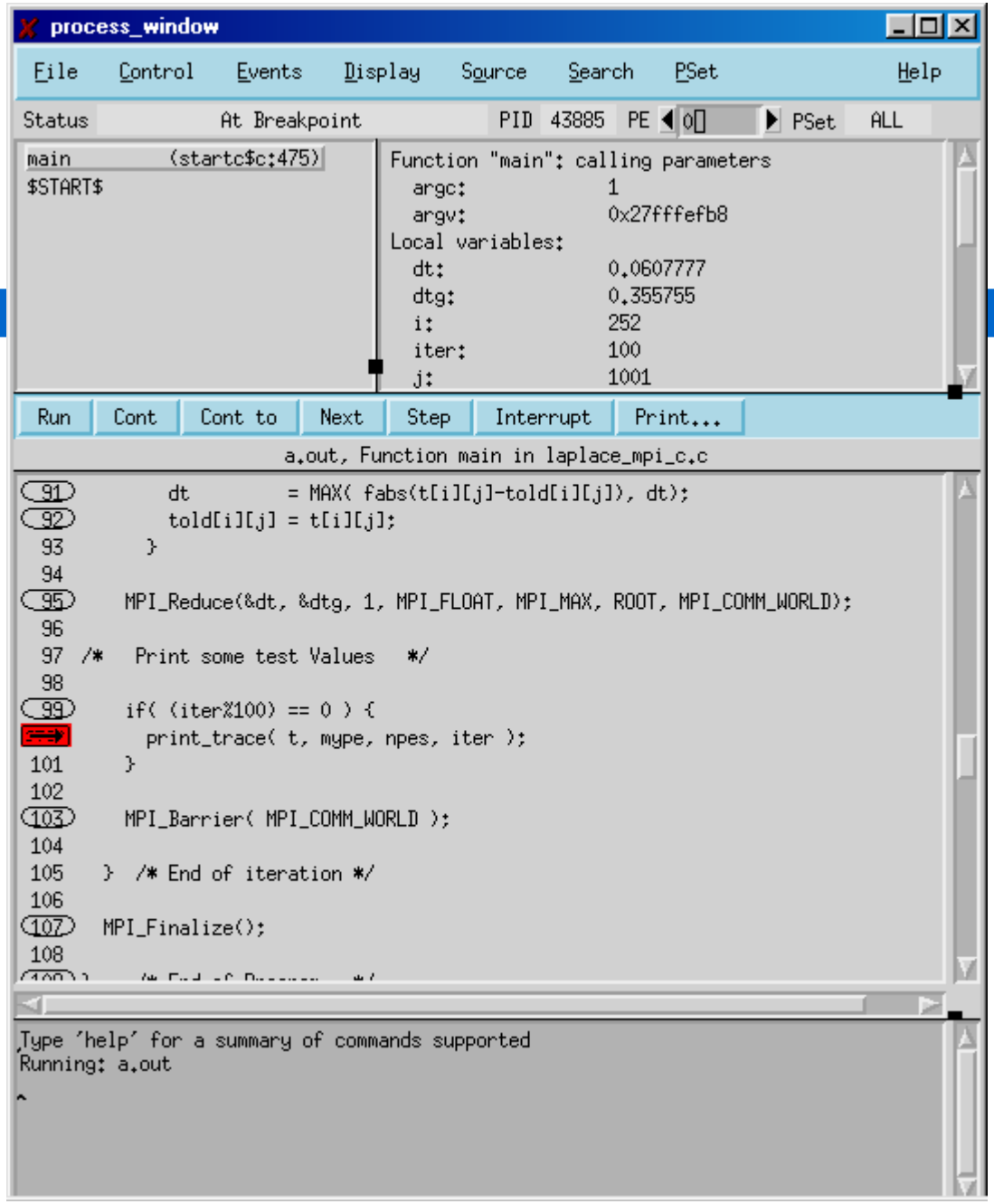

Insert a breakpoint



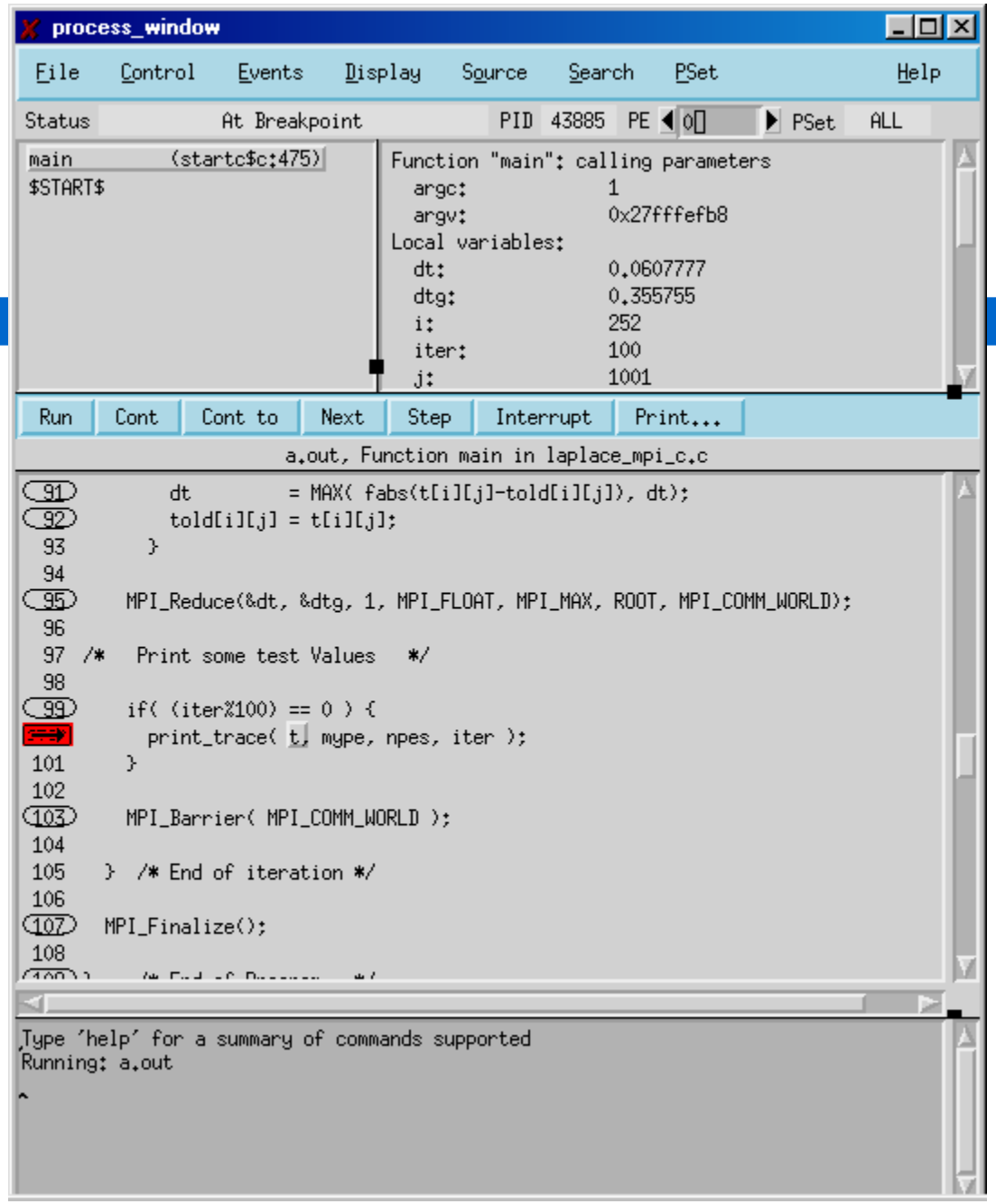

C version



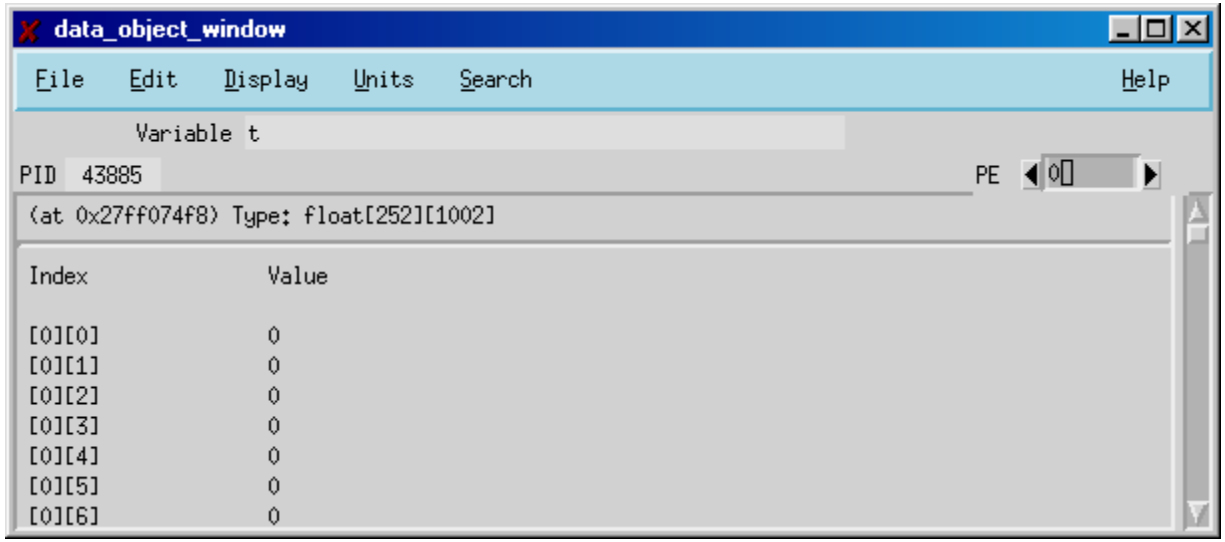

Enter the number of iterations

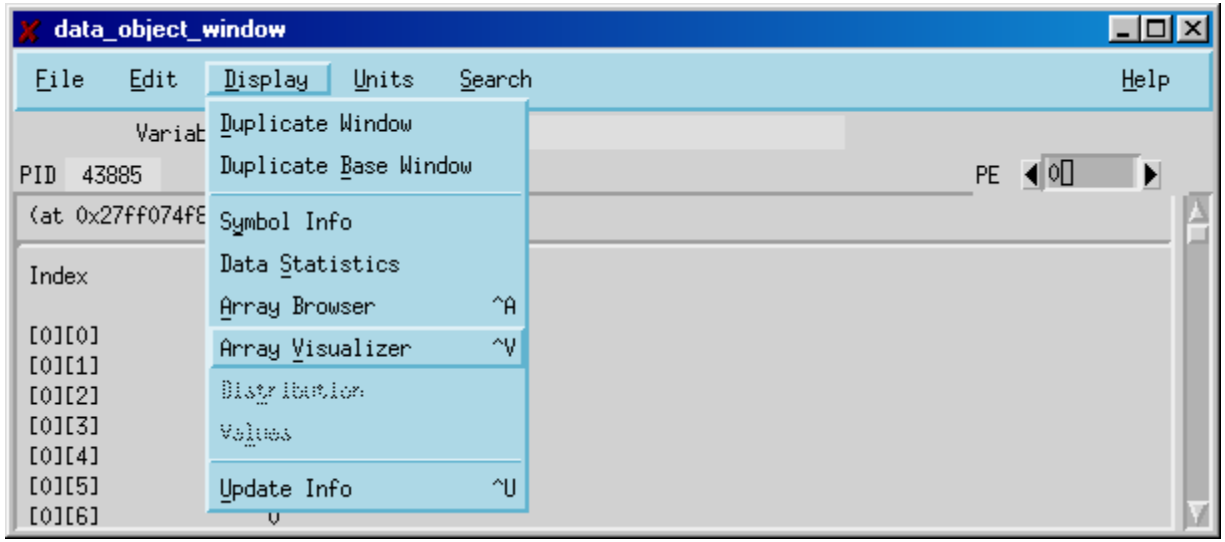


Right click t

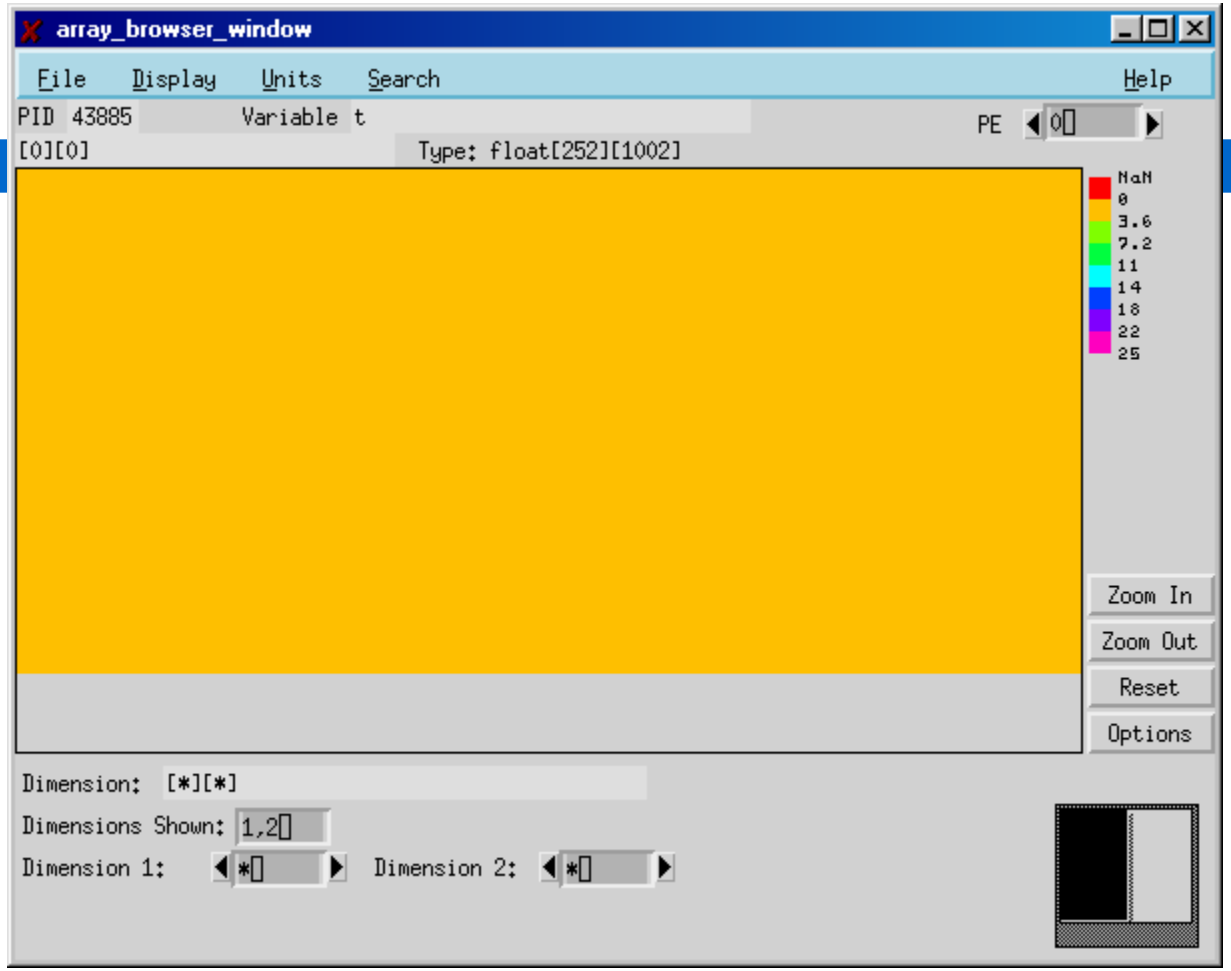


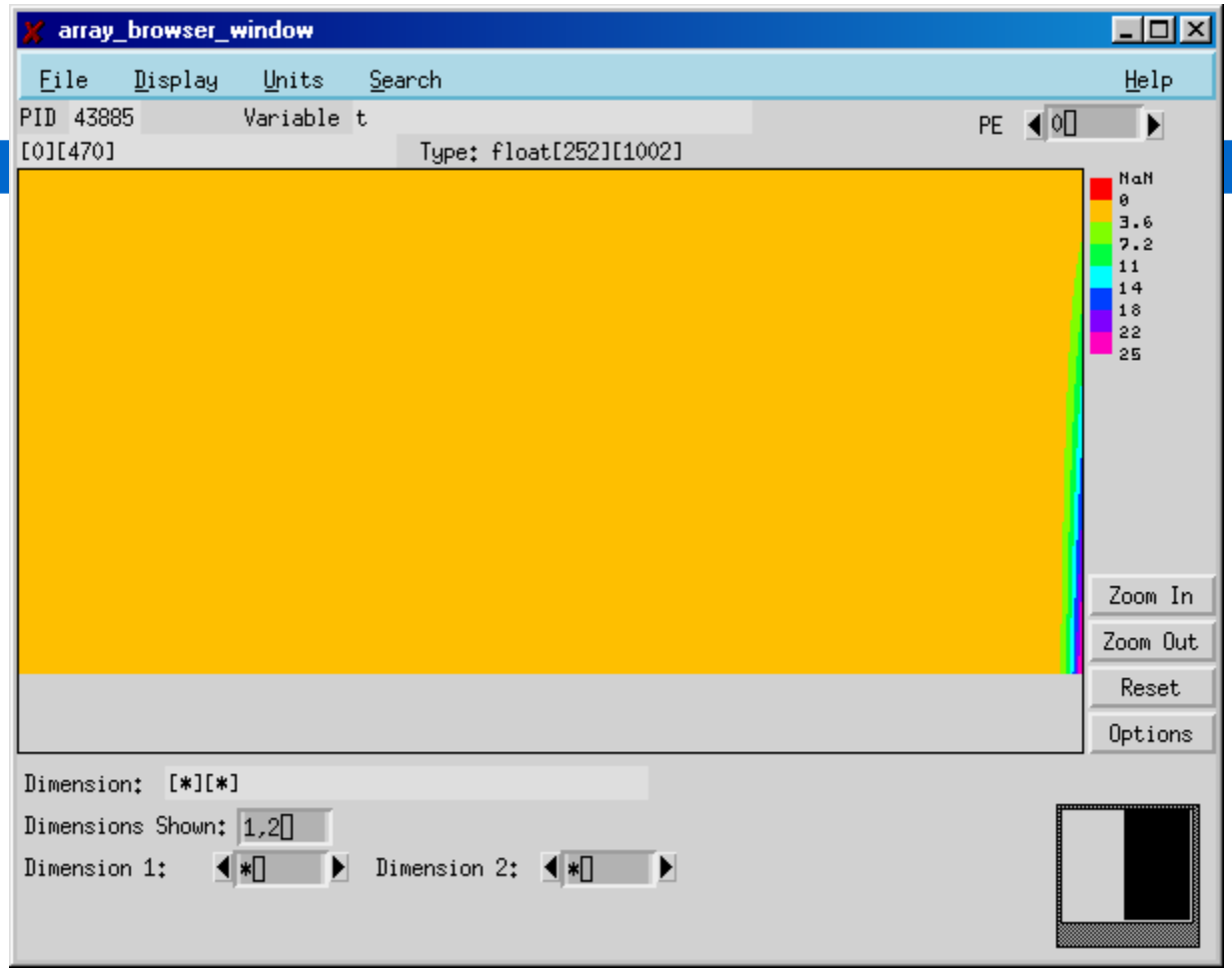

April 24, 2002


data_object_window
File
Edit
Display
Units
Search
Help
Variable t
PID 43885
PE 0
(at 0x27ff074f8) Type: float[252][1002]
Index
Value
[0][0] 0
[0][1] 0
[0][2] 0
[0][3] 0
[0][4] 0
[0][5] 0
[0][6] 0




# Display Array Visualizer



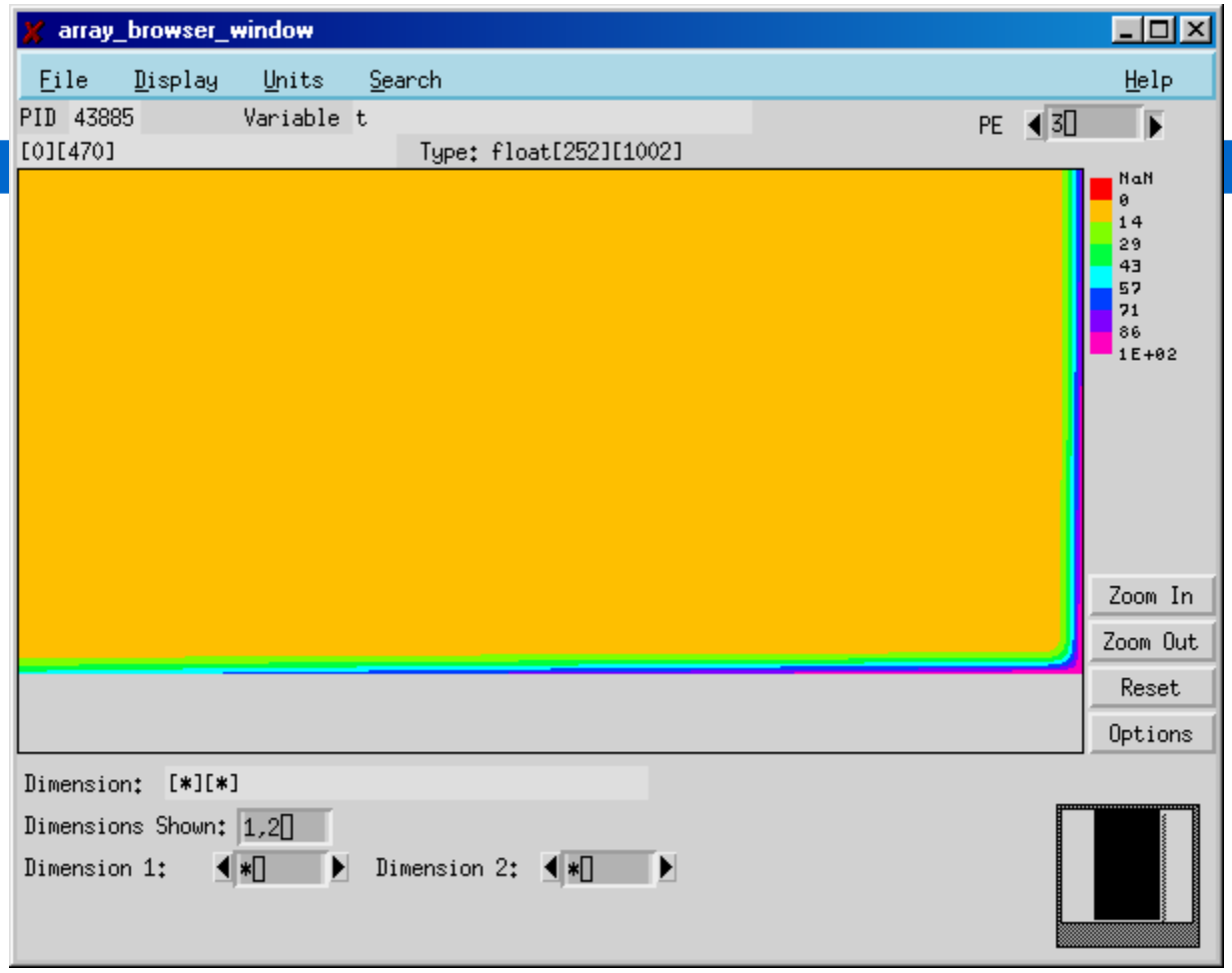



Slide

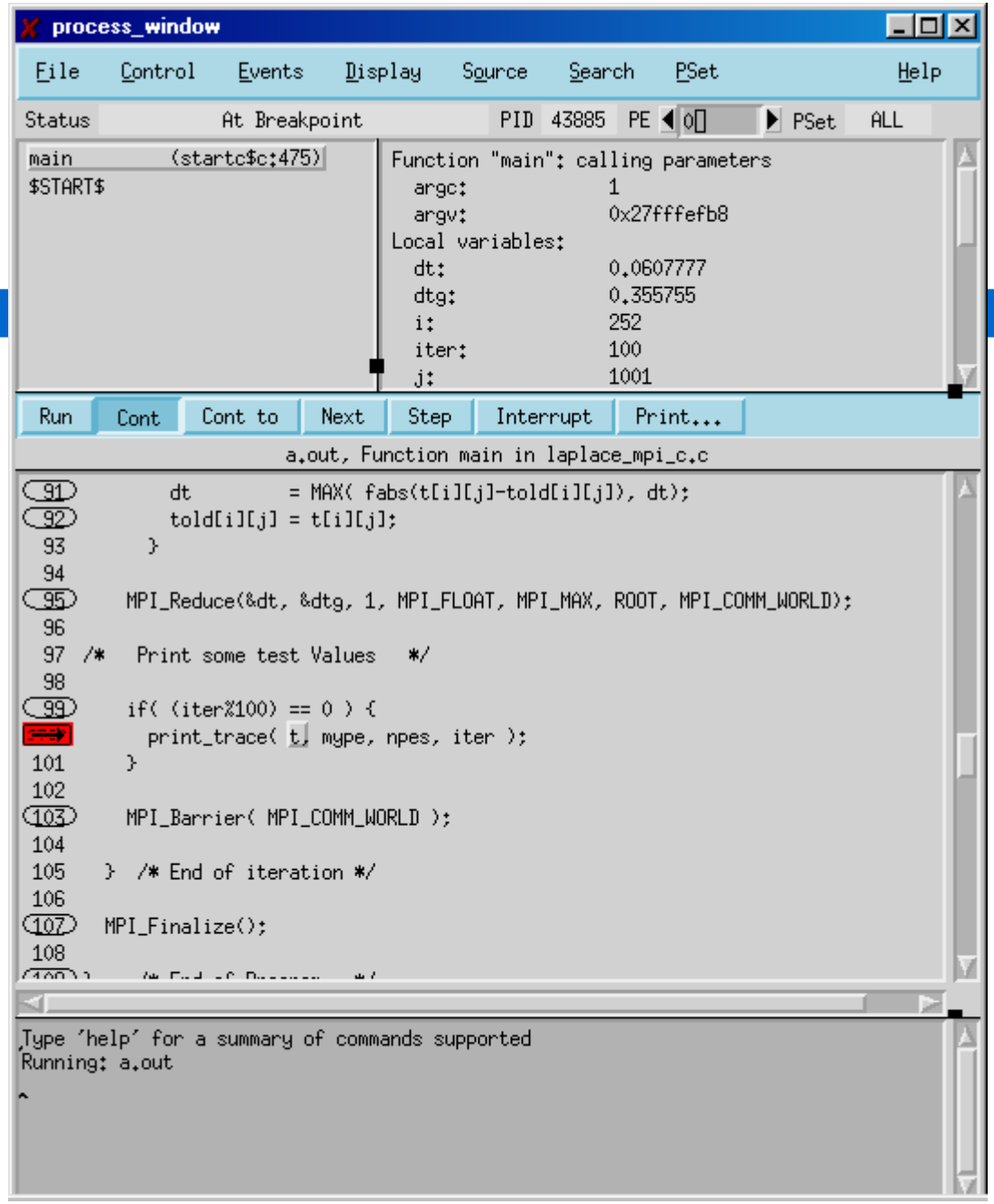
April 24, 2002

PITTSBURGH SUPERCOMPUTING CENTER

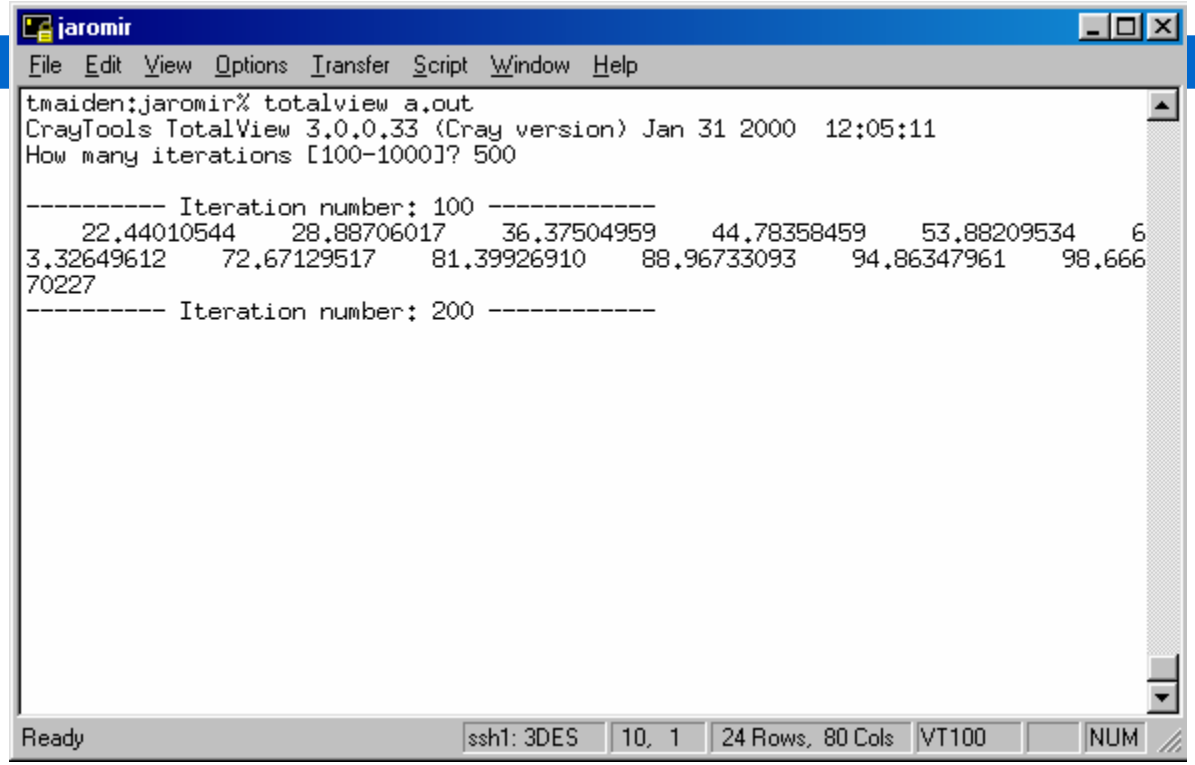
# Choose PE 3



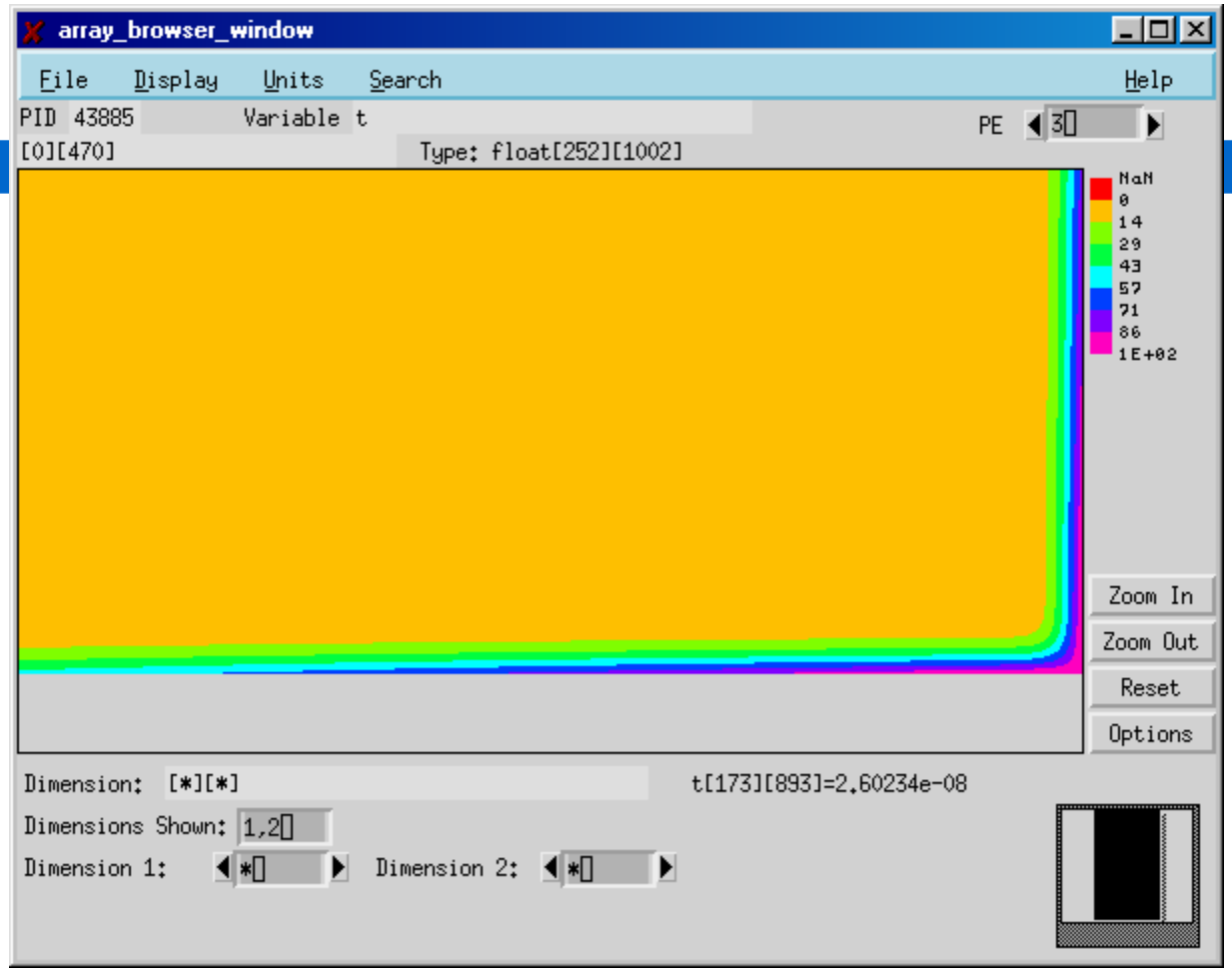
# Continue



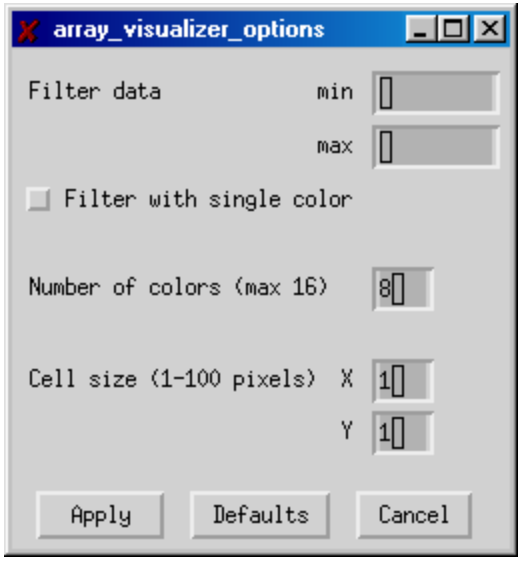
# Check the progress

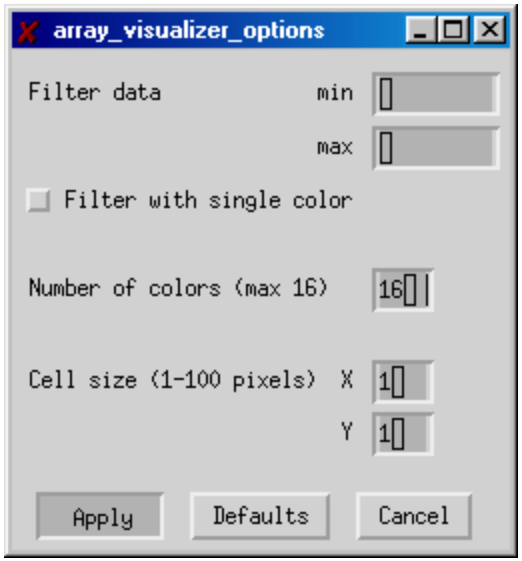


# Notice the change

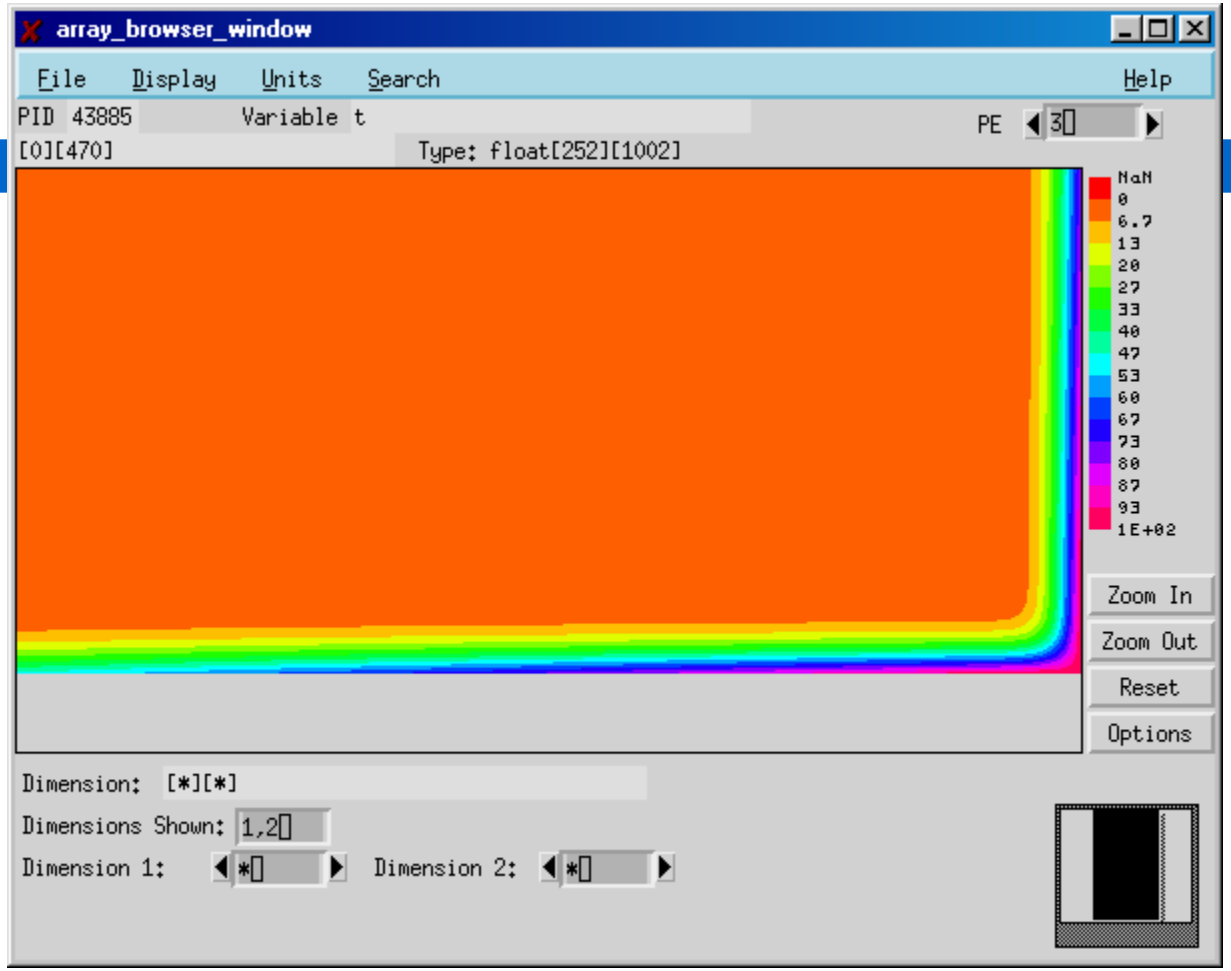


# Visualizer optoins






Change number of colors


array_browser_window
File
Display
Units
Search
Help
PID 43885
Variable t
PE 3
[0][470]
Type: float[252][1002]
NaN
0
6.7
13
20
27
33
40
47
53
60
67
73
80
87
93
1E+02
Zoom In
Zoom Out
Reset
Options
Dimension: [*][*]
Dimensions Shown: 1,2
Dimension 1: *
Dimension 2: *

# Click on any point to get exact value