# NLID_Tools

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# Getting nlid_tools

- Download
  - nlid_tools:
    - www.bmed.mcgill.ca/reklab/nlid_tools/nlid_tools.zip
  - utility_tools:
    - www.bmed.mcgill.ca/reklab/nlid_tools/utilty_tools.zip
  - demofiles from the book:
    - www.bmed.mcgill.ca/reklab/nlid_tools/nlid_book.zip
  - Introduction (this file):
    - www.bmed.mcgill.ca/reklab/nlid_tools/nlid_tools/nlid_tools.pdf
- Unzip files to generate:
  - …/nlid_tools/...
  - …/utility_tools/…
  - …/nlid_book/…
- Put directories in matlab path

# nlid_tools.zip

- An object oriented matlab tool box for linear and nonlinear system identification
- Requires system specific mex files. Distribution includes files for:
  - Windows
  - Sun Solaris
  - Linux

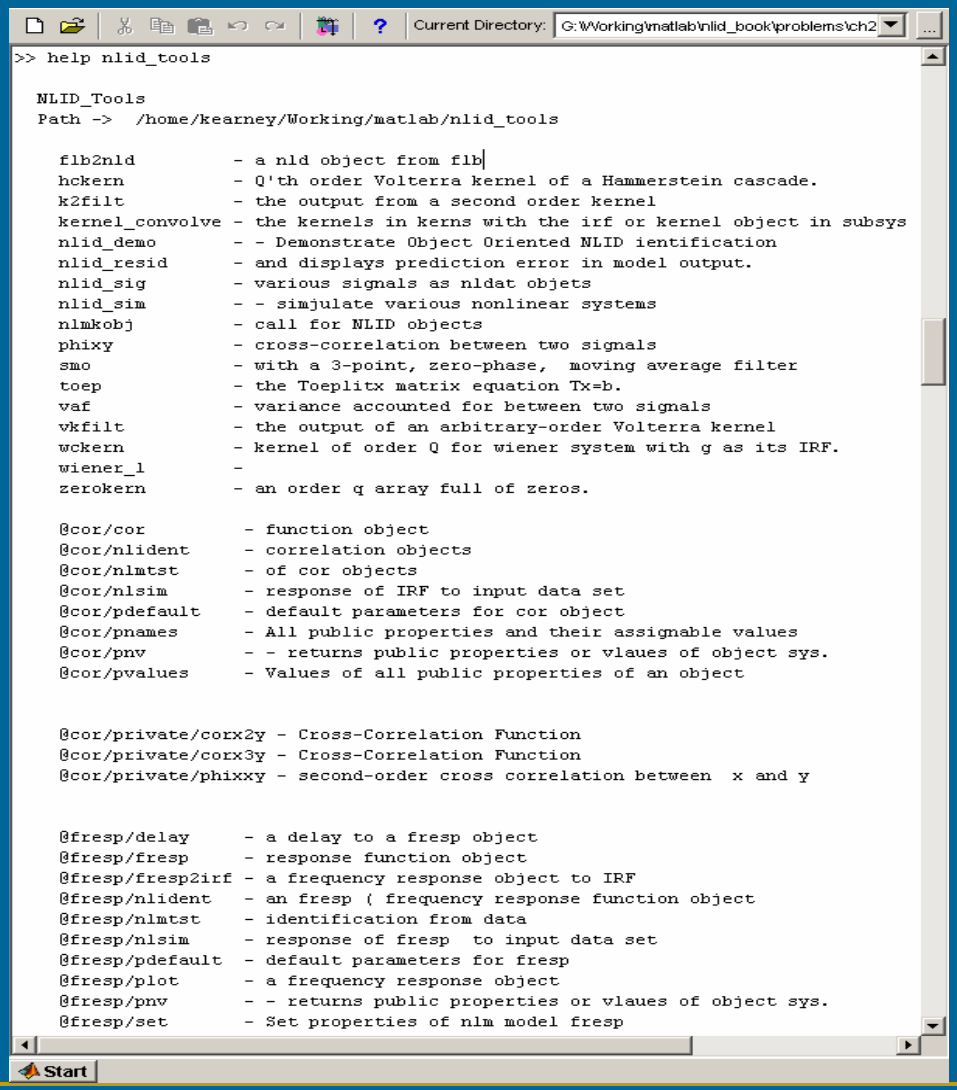
# nlid_book.zip

- Exercises and examples from:
  - Westwick, D. T. and Kearney, R. E. (2003). Identification on Nonlinear Physiological Systems: Theory and Practice, IEEE Book Series in Biomedical Engineering, IEEE Press.

# Help methods

- Help nlid
  - Provides a one-line list of top level routines and classess
- Help class name
  - Provides detailed help on each class
- Methods ‘class_name’
  - Provides list of methods available for each class

# help nlid_tools



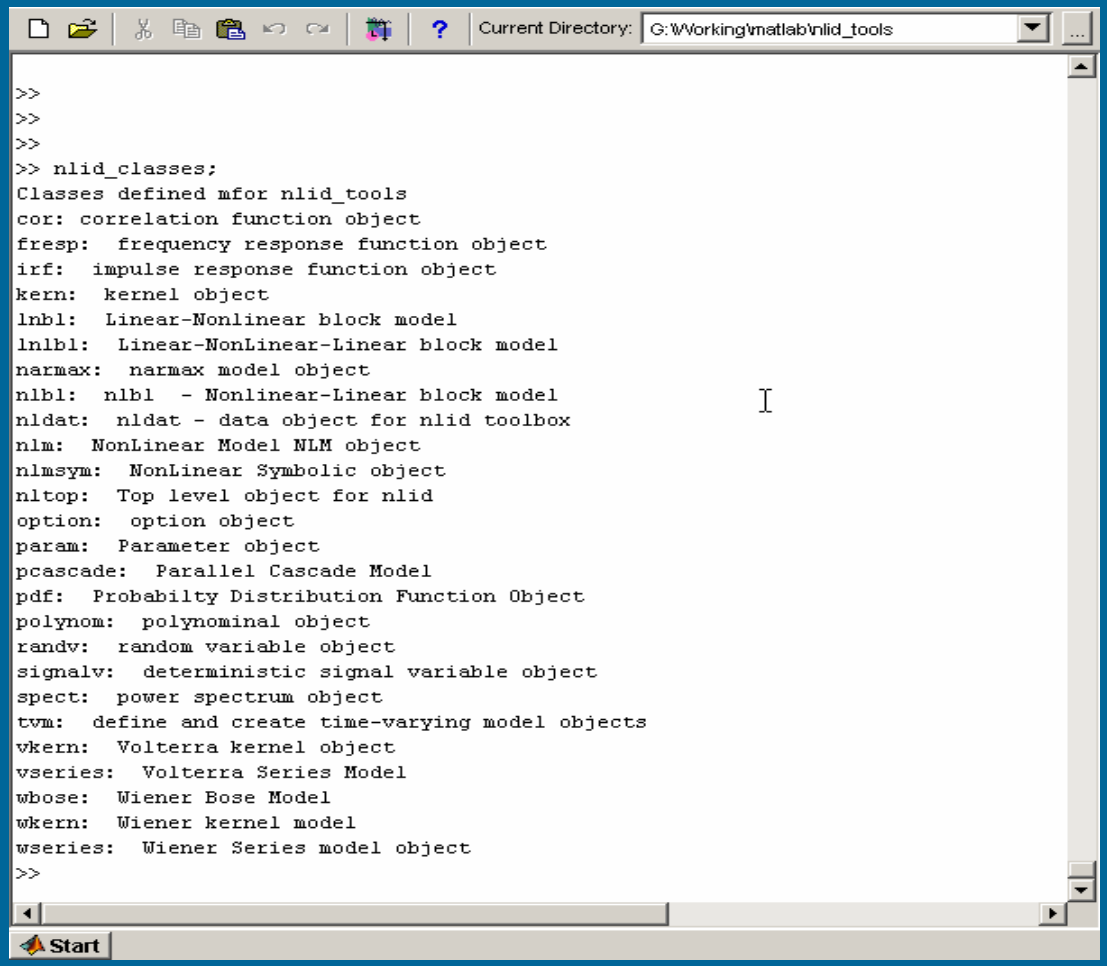

Utility tools

@cor/ … – correlation class and functions

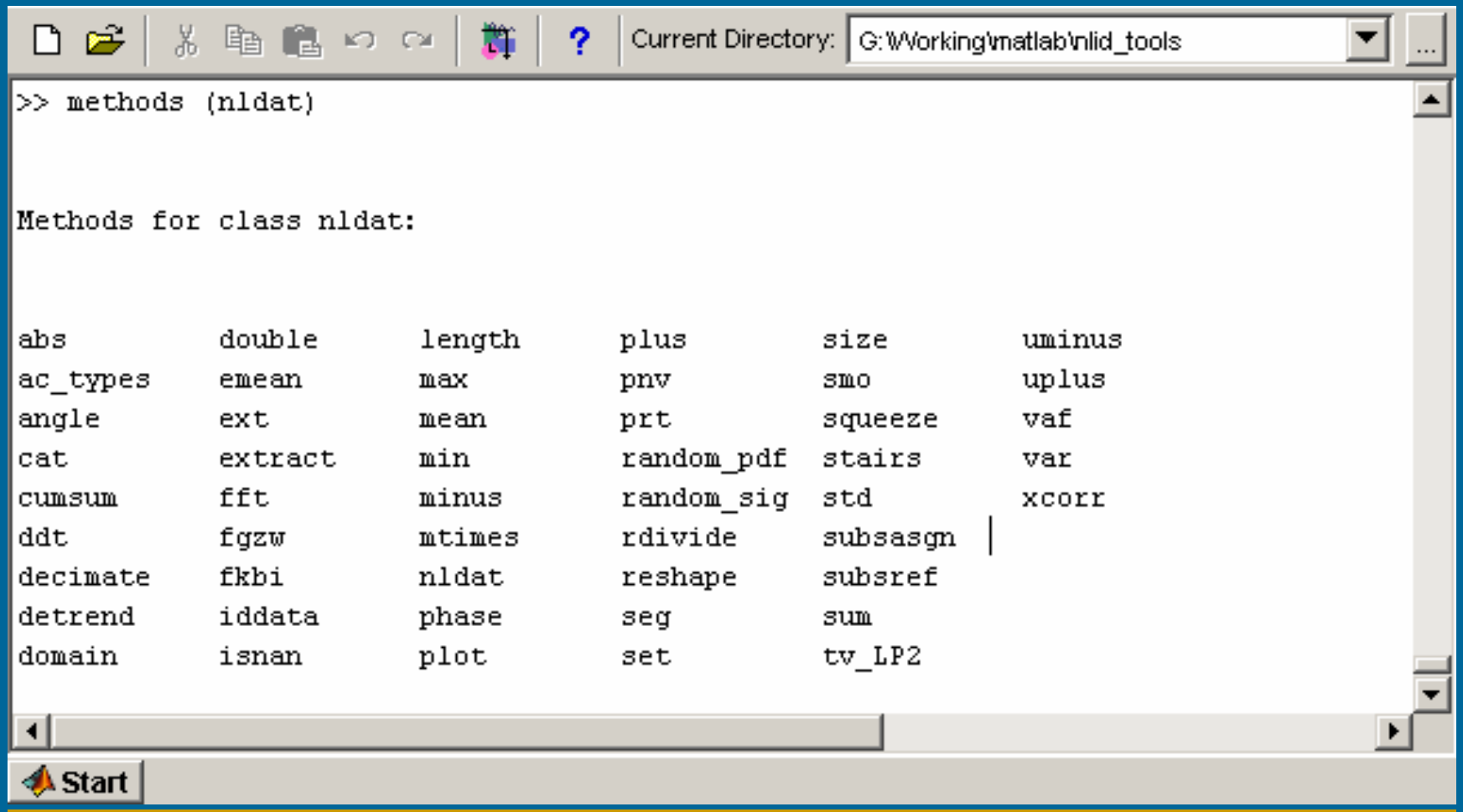
@fresp/ … – frequency response class and functions

# nlid_classes

## .... list classes and brief description

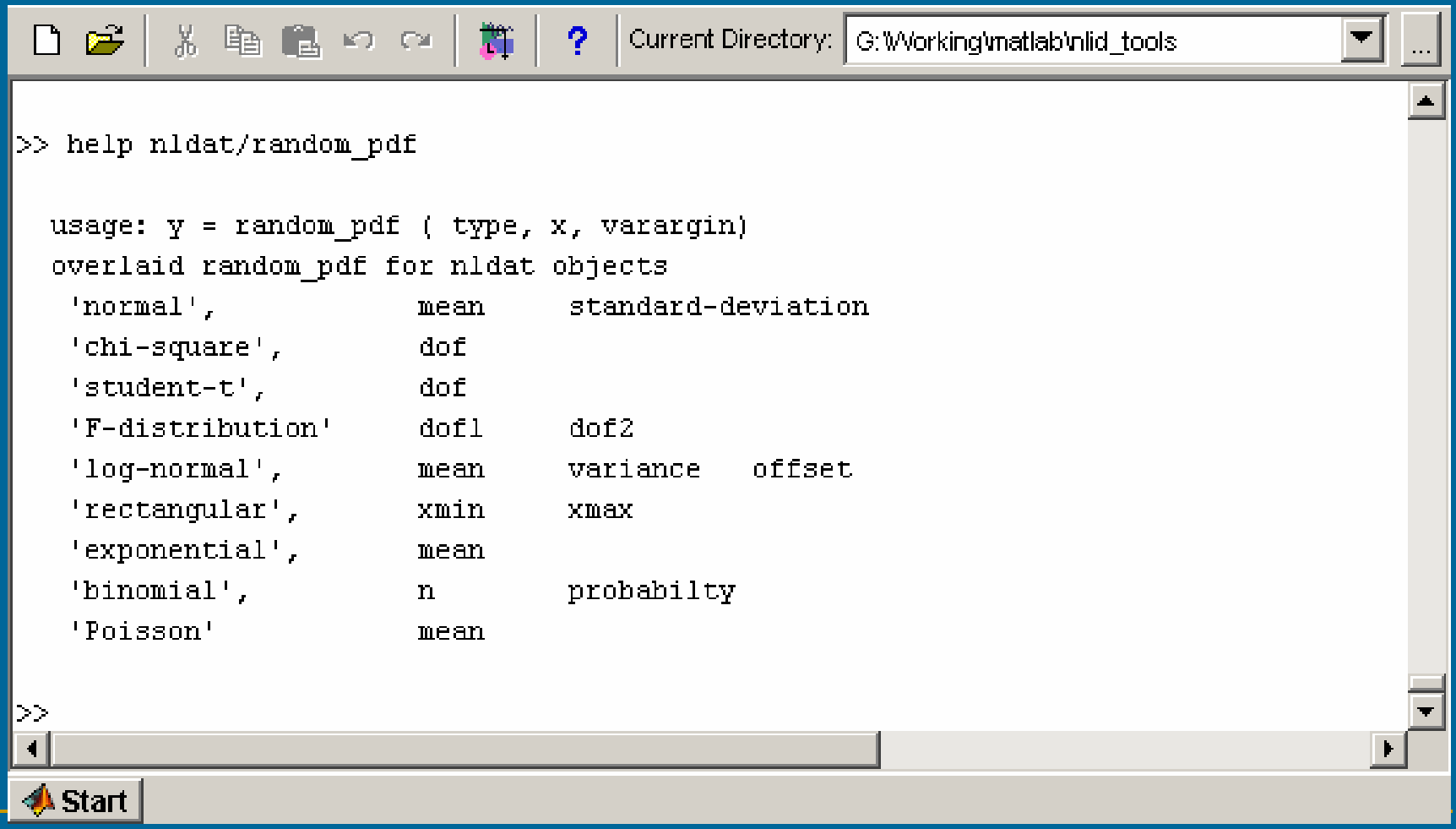


# `methods (classs_name)`
# - list of methods defined for class

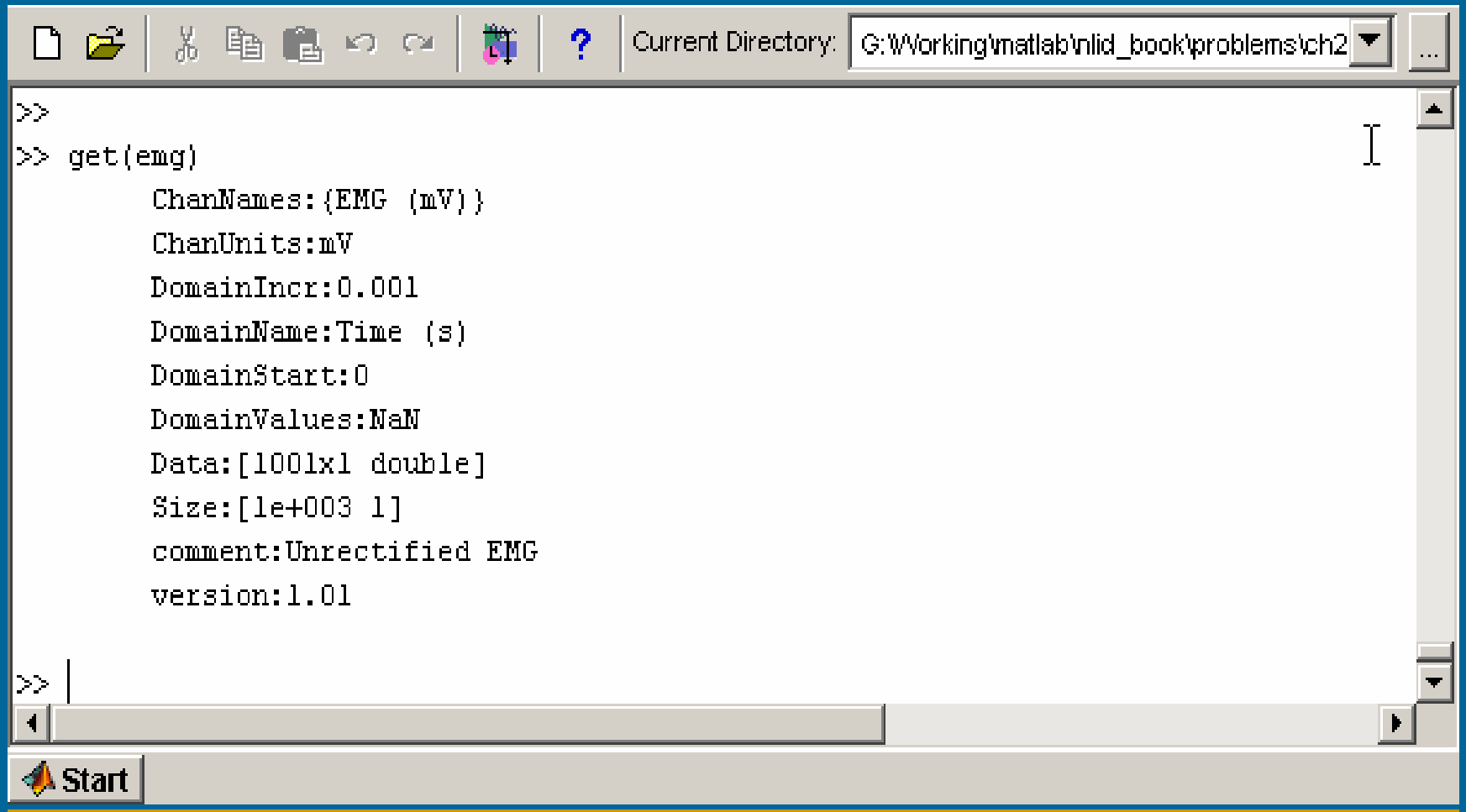


# help class_name/method_name

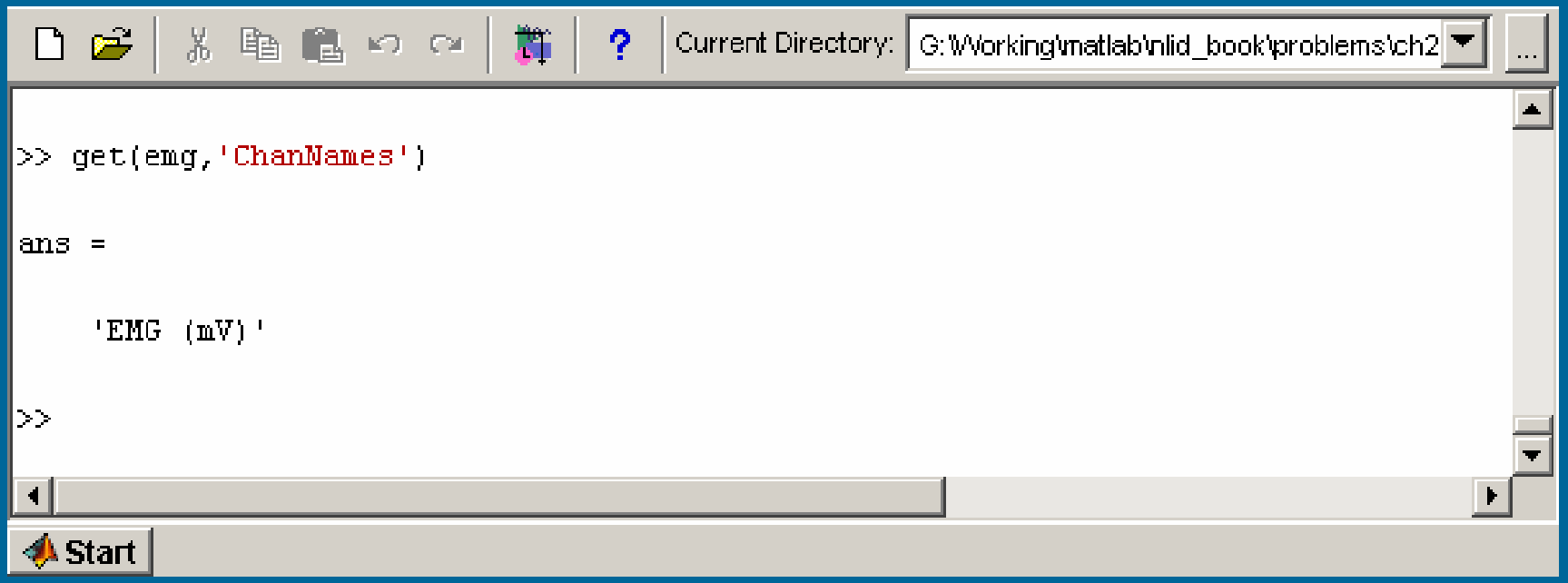
## … help on a class method



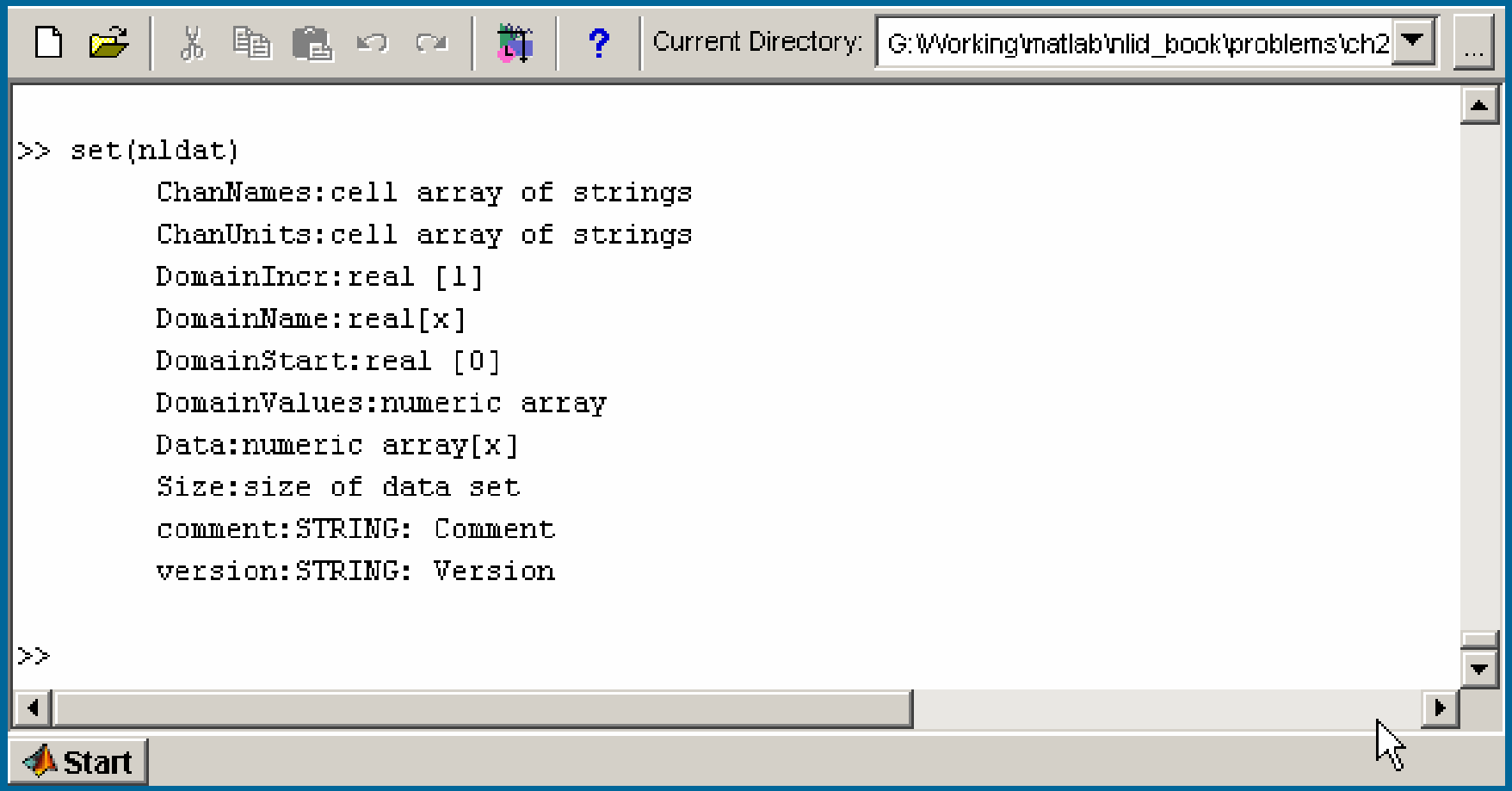
# `get (class_name)`
# .... show properites for class



# `get(var_name,'property_name')`
# … returns value of properties

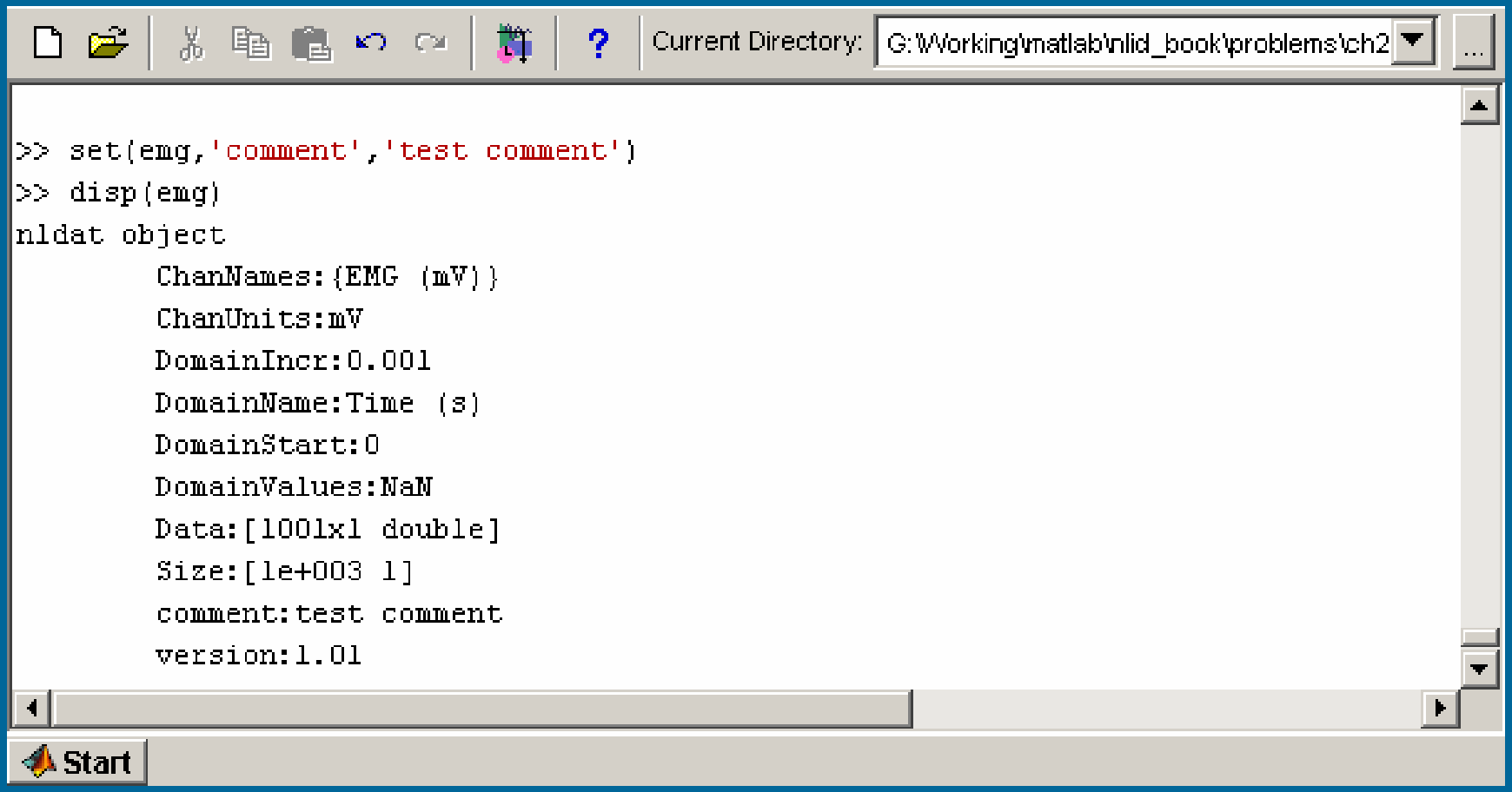


# `set(class_name)`
# … information properites that can be set



# `set (var_name,'property_name',value)`

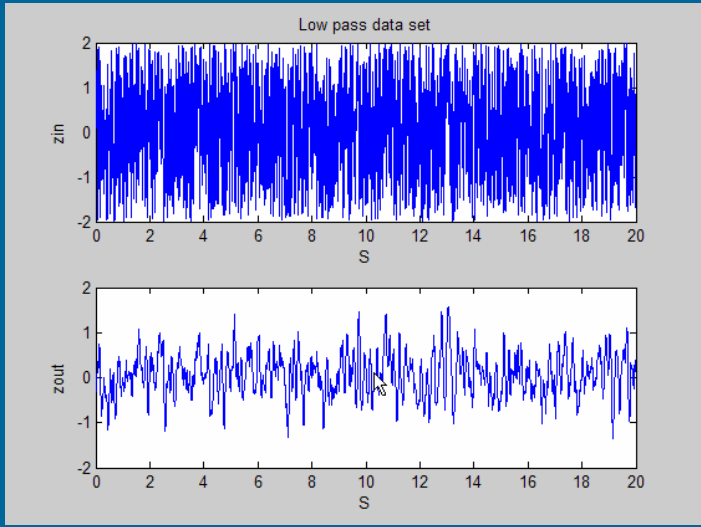
## … set property value

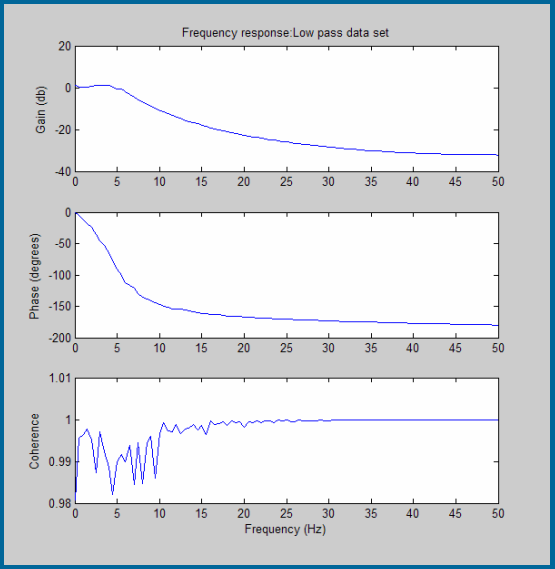


# `nlmtst(class_name)` … test and demo class

NlmtstNlmtst(fresp)

- Generates test data set from low-pass filter
- Computes and displays gain, phase, and coherence



# Nlm class