



DAKOTA 101

Half-day Training Agenda and Startup
Sandia National Laboratories
Spring 2011

Please complete a class survey before you leave – your feedback is important to us!

- (~15 min) Verify computer, DAKOTA and JAGUAR operation, location of files
- (~60 min) DAKOTA Overview; how to run DAKOTA and JAGUAR, parameter studies
- (~45 min) Sensitivity Analysis and Screening
- (~15 min) Break
- (~60 min) Uncertainty Quantification
- (~45 min) Optimization and Calibration
- Class-directed Topics / Q&A

Startup Guide (more details available if needed)

1. Verify DAKOTA runs from a terminal or command prompt: dakota -v

Might need (Linux/Mac laptops)

```
export PATH=/home/jdoe/Dakota/bin:/home/jdoe/Dakota/test:.:$PATH
```

Might need (Mac laptops; similar with LD_LIBRARY_PATH for Linux binaries)

```
export DYLD_LIBRARY_PATH=/home/jdoe/Dakota/bin:$DYLD_LIBRARY_PATH
```

Might need (Windows laptops)

```
set PATH=C:\Dakota\bin;C:\Dakota\test;%PATH%
```

Might need (MO22 Linux desktops); in each terminal opened

```
source /apps64/dakota/training/dakenv.sh
```

2. Verify JAGUAR 2.1 runs (requires JRE 1.5 or newer):

- Windows: Launch from Start Menu > Programs > Jaguar
- Mac: Launch from Applications or terminal with Jaguar &
- Linux: Launch from terminal: Jaguar &

Might need (terminal launch):

```
export PATH=/home/jdoe/Jaguar:$PATH
```

If Jaguar doesn't work or you prefer not to use it, locate a text editor with which you're comfortable (emacs, vi, gedit, nano, wordpad).

3. Locate helpful training materials (in MO22 these will automatically be copied to \$HOME/dakota101 when you source dakenv.sh):

- Dakota/examples/[tutorial|methods]/ (consider copying to a convenient place)
- Downloaded example files (downloadable from training site mentioned below)

4. If desired, create a directory, e.g., \$HOME/dakota101 to store class examples

5. Verify resources if you have web access: <http://dakota.sandia.gov/>;
<http://dakota.sandia.gov/training/2011/>