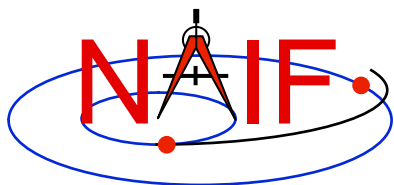


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Navigation and Ancillary Information Facility

**Welcome**  
to the  
**SPICE Tutorials**

**March 2010**

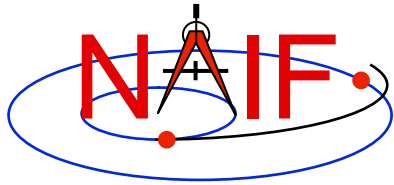


# Objectives

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- **For you**
  - Provide an overview of the entire SPICE system
  - Provide a sense of the purpose and uses of SPICE
  - Provide an introduction to the use of primary SPICE components
  - Provide examples of how to use SPICE software and data files
  - Provide some insight into conventions and common problems
  - Provide a variety of “hands-on” programming exercises
  - Provide a peek at new capabilities being worked on or considered
  - Familiarize you with available SPICE resources
- **For NAIF (if these tutorials are being seen in a class setting)**
  - Get student’s feedback on today’s SPICE system
    - » Especially what’s hard to understand, hard to use, missing
  - Get student’s suggestions for further development of SPICE
  - Get student’s suggestions for improvements to NAIF support of the space science community

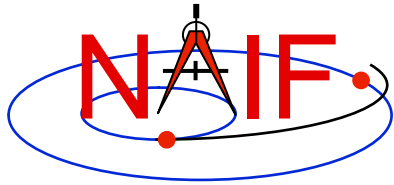


# Scope

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- **Broad coverage**
  - Begins at a high level, but quickly drills down to details
  - Touches on many SPICE-related topics that could be of interest to science and engineering teams
    - » Depth of discussion varies somewhat amongst topics
- **Provide information for FORTRAN, C, IDL and MATLAB programmers**
- **Some topics are addressed very little or not at all**
  - Archiving SPICE data
  - Kernel production

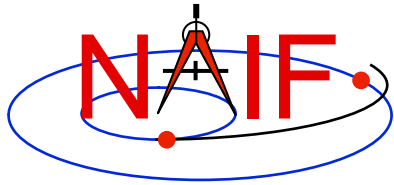


# Repeated Material

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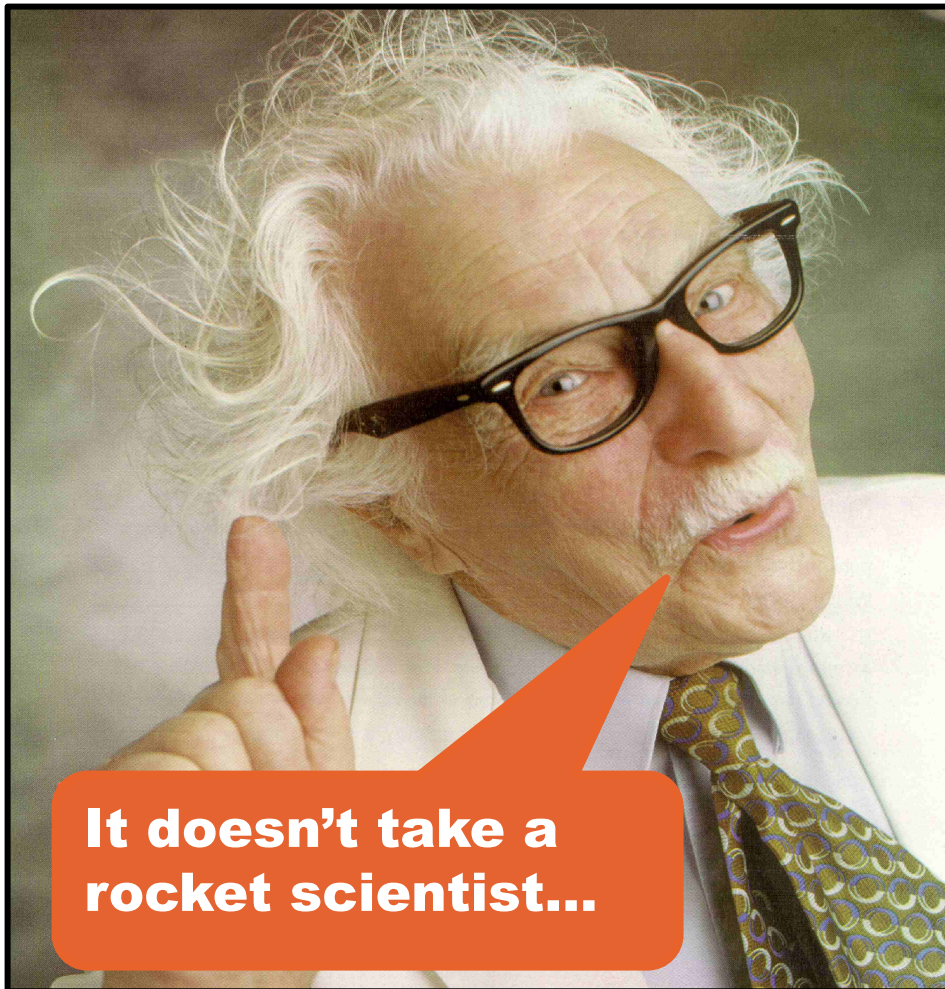
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- **Some topics will be repeated in two or more tutorials**
  - **We're not trying to bore you, but...**
    - » **we don't wish to assume people will read all of the tutorials at the same time**
    - » **we think some items are sufficiently important to mention them more than once**



# Your SPICE Odyssey Begins Here

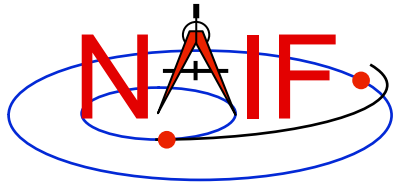
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**It doesn't take a  
rocket scientist...**

**... but it does take a modest amount of effort to learn enough about SPICE to begin to use its features with good success.**

**It helps to have some math skills, some innate sense of spatial orientation, and some familiarity with your computer's operating system, a code editor, and a compiler or Integrated Development Environment (IDE).**

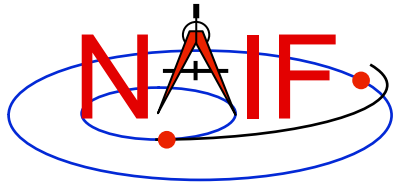


# SPICE is a Large Product

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- **The generic SPICE Toolkit contains:**
  - **Well over 1000 individual public modules**
    - » **most customers use only a handful of these**
  - **about 13 utility and application executables (with User Guides)**
  - **about 23 subsystem reference documents**
  - **4 “cookbook” tutorial programs (with User Guides)**  
**and assorted other documents, scripts and libraries.**
- **Don't let this size bother you...**
  - ... just work your way into it bit by bit.**



# The NAIF Team at JPL

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Navigation and Ancillary Information Facility



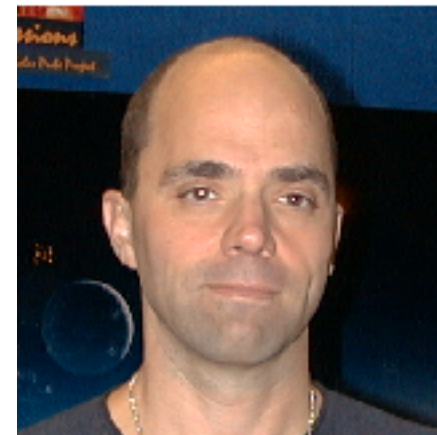
**Chuck Acton**



**Nat Bachman**



**Boris Semenov**



**Ed Wright**