

STATE OF THE  
PRACTICE OF  
FORMAL METHODS

CURT CLIFTON

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

# TEN COMMANDMENTS

- “TEN COMMANDMENTS OF FORMAL METHODS... TEN YEARS LATER”, IEEE COMPUTER, 2006.

- JONATHAN P. BOWEN

  - LONDON SOUTH BANK UNIVERSITY

- MICHAEL G. HINCHLEY

  - NASA SOFTWARE ENGINEERING LABORATORY

**SOFTWARE ENGINEERS WANT TO BE REAL ENGINEERS. REAL ENGINEERS USE MATHEMATICS. FORMAL METHODS ARE THE MATHEMATICS OF SOFTWARE ENGINEERING. THEREFORE, SOFTWARE ENGINEERS SHOULD USE FORMAL METHODS.**

**– MIKE HOLLOWAY, NASA**

**DO YOU AGREE? WHY OR WHY NOT?**

I. THOU SHALT CHOOSE AN  
APPROPRIATE NOTATION

II. THOU SHALT FORMALIZE  
BUT NOT OVERFORMALIZE

III. THOU SHALT  
ESTIMATE COSTS

IV. THOU SHALT HAVE  
A FORMAL METHODS GURU  
ON CALL

V. THOU SHALT NOT  
ABANDON THY TRADITIONAL  
DEVELOPMENT METHODS

# CARTOON OF THE DAY



VI. THOU SHALT  
DOCUMENT  
SUFFICIENTLY

VII. THOU SHALT NOT  
COMPROMISE THY  
QUALITY STANDARDS

VIII. THOU SHALT NOT  
BE DOGMATIC

OR ELSE?

IX. THOU SHALT TEST, TEST,  
AND TEST AGAIN

X. THOU SHALT REUSE