The Two Indisputable Material Facts for Componentology

The first material fact is this: The existing Body of Knowledge (BoK) that underpins the theoretical foundation of Component-Based Software Engineering (CBSE) is fundamentally pseudoscientific. It lacks the empirical rigor, testable definitions, and falsifiability required of any valid scientific discipline. Anyone who wishes to challenge this assertion may do so by providing a single counterexample: namely, one significant work—whether a peer-reviewed research paper, academic textbook, or widely accepted software component model (such as those developed by Grady Booch or implemented in tools like Rational Rose)—that is not based on pseudoscientific misconceptions. To date, no such example has been produced or found. The absence of any valid, falsifiable, and empirically grounded work in the existing CBSE literature confirms the assertion that its theoretical foundation is, in essence, indisputable dogmatic pseudoscientific hokum.

The second material fact is this: Componentology—along with its associated Body of Knowledge (BoK)—meets every criterion necessary to be recognized as a hard science (like botany, or zoology). It is grounded in objectively verifiable facts, built upon falsifiable hypotheses, and supported by reproducible empirical evidence. The principles and methodologies of Componentology have been rigorously tested, repeatedly validated through practical implementation, and demonstrate predictive power—hallmarks of any legitimate scientific discipline.

The existing CBSE paradigm relies on vague definitions, circular reasoning, and untestable pseudoscientific misconceptions, while Componentology offers precise conceptual clarity, scientific rigor, and a consistent framework for constructing and validating real software components and Component-Based Products (CBPs). Its strict adherence to the scientific method distinguishes it as a credible and robust scientific foundation for addressing the infamous software crisis.