

## THE ARENA PRODUCT FAMILY: ENTERPRISE MODELING SOLUTIONS

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### ABSTRACT

Organizations throughout the world are quickly moving to adopt process modeling and simulation as an integral part of their business decision-making and continuous improvement initiatives. With wider acceptance of simulation, these consumers are demanding tools that support a breadth of applications, scale to fit different needs through a project life cycle, and integrate with corporate modeling and database systems.

Systems Modeling fulfills these needs in the Arena product family, encompassing Arena Business, Standard, and Professional Editions for mapping processes and simulating discrete and continuous systems; Call\$im for call-center analysis; and HiSpeed\$im for high-speed production-line modeling. These products complement each other in meeting the various needs for simulation in an enterprise via a common software interface and compatible features, providing a natural growth path as simulation needs expand.

This paper introduces the Arena suite of products for modeling and simulation, highlighting product architecture and technology features that are targeted toward successful deployment of simulation and Arena throughout an enterprise.

### 1 INTRODUCTION

Today's business managers are rapidly embracing modeling and simulation as required competencies. Continuous process improvement, business process reengineering, and ISO 9000 compliance initiatives have motivated organizations to look for ways to capture, document, and communicate enterprise operations. Leading organizations employ these models further by simulating them to explore alternative changes to the business before implementation.

Simulation also has maintained significant growth in traditional decision-support activities. Many organizations have instituted policies requiring simulation analysis prior to capital expenditures over a prescribed threshold. Others have formed centers of

expertise in modeling and simulation where professional analysts provide internal training, coaching, and consulting to institute a common methodology for using simulation successfully. In service, manufacturing, communications, government, and other segments of worldwide economies, simulation is employed widely for enabling better decisions, improving processes, and avoiding costly mistakes.

The Arena product suite (Figure 1) is designed for use throughout an enterprise, from strategic business decisions, such as locating capacity in a supply chain planning initiative, down to operational planning improvements, such as establishing production line operating rates. All Arena products share a common software foundation so that integrated organizations can establish a common methodology using a scaleable tool, leveraging product knowledge throughout diverse business entities.



Figure 1: Arena Product Family

The Arena product offerings begin with the Business Edition (Arena BE), which is targeted both at modeling business processes and at simulating other systems (e.g., manufacturing, service) in support of high-level analysis needs. For more detailed models of discrete and continuous systems, the Arena Standard Edition (Arena SE) provides complete modeling flexibility, enabling analysts to capture the dynamics of a system at any