

# Siena: From PowerPoint to Web App in 5 Minutes

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**Abstract.** Siena lets users design web applications using commonly available PowerPoint as the modeling/development tool. From PowerPoint, users can model business artifacts and processes, transform applications to a standard representation and then immediately deploy and execute these composite applications on a model execution engine.

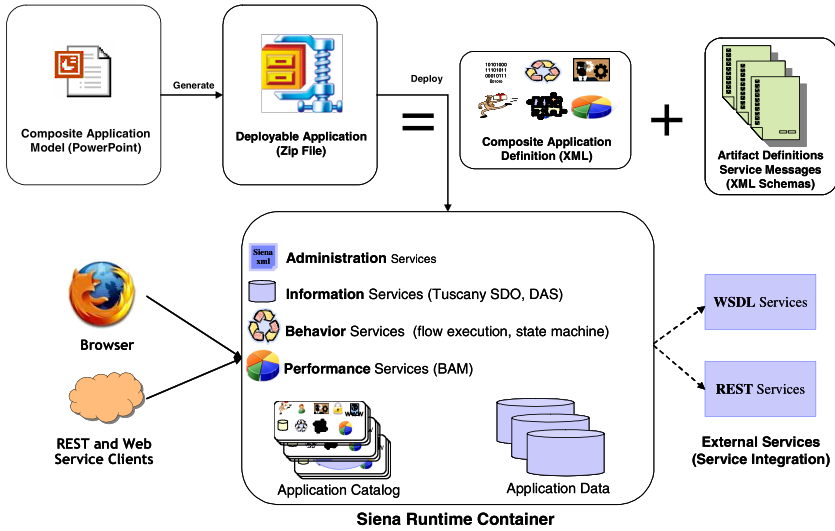


Fig. 1. Siena Architecture

## Characteristics and Architecture

By contrast with traditional Business Process Management (BPM) tools, Siena provides a flexible method for developing BPM applications that let innovators focus on business transformation and adapt to changes rapidly:

- A radically simplified modeling tool based on PowerPoint empowers any business user to model and manage the entire lifecycle of BPM applications.
- A standard, human-readable XML representation facilitates the persistence and sharing of BPM application definitions.

- The Siena Runtime Container, a web 2.0 model execution engine running on Apache Tomcat, allows for rapid solution development and deployment.

Fig. 1 describes the overall Siena architecture. Clients communicate with deployed BPM applications using a browser and REST or Web Services. As part of provisioning these services, the Siena runtime does the following:

- Manage applications (Administration Services).
- Persist, access and manage business artifacts (Information Services).
- Execute business flows and state machines (Behavior Services).
- Monitor business performance (Performance Services).
- Consume services from other applications (External Services).

Fig. 2 and Fig. 3 examine the end-to-end transformation of an artifact lifecycle. Users start by drawing a state diagram for their business artifact in PowerPoint. The deployed application automatically offers persistence and transition services.

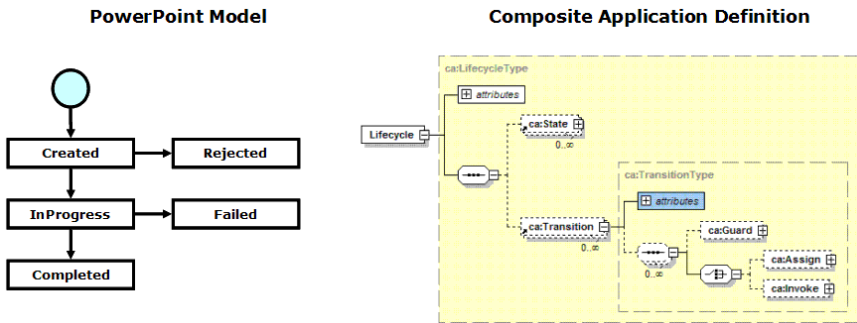


Fig. 2. Artifact Lifecycle in PowerPoint and in Composite Application XML Definition

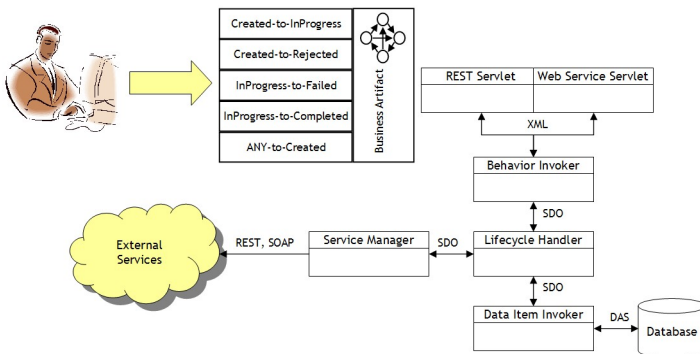


Fig. 3. Execution of Artifact Transition Services

The demonstration showcases the creation of business artifacts and component services, the invocation of external services, and the deployment and testing of the resulting composite applications.