

Business Process Management Tools White Paper

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The Need for Business Process Management Tools (in the Federal Student Aid environment)

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(Comments to T. Hardgrave)

While business process management (BPM) diagrams have been used for many years, information technology (IT) professionals are beginning to realize that BPM is an integral part of Enterprise Architecture (EA) and should be an early product of the EA lifecycle.

For web-based systems (and increasingly many systems have a web-based front-ends), the initial event in a business-process is that an end-user/customer logs into a portal and enters a request plus some initial information. That event begins a process that may involve several sub-organizations, some backend servers, some database servers, etc. and will eventually terminate when the customer's request is finally satisfied.

Prior to the creation of intelligent Business Process Modeling (BPM) tools, Visio, Word, and Excel were used to capture and display Business Process Models. Within the last few years, BPM tools have become more sophisticated in that each box in the BPM diagram may have attributes associated with the box. These attributes are stored in a database that is held behind the diagram and enables additional processing including reformatting of the diagram based on choices for swim lanes, cost calculations, modeling, monitoring and perhaps even automatic prototype generation. That is, Visio is no longer the ideal tool for BPM since Visio lacks the ability to store hidden information behind the diagram that may be used for other processing.

Each FSA portal (e.g. students, borrowers, schools, etc.) provides a natural starting point for a BPM diagram. At a minimum, the EA should include these BPM diagrams. Furthermore the diagrams should show the databases-of-record and the master-entities (e.g. student, borrower, school, etc.) and the entity-transitions (student-to-borrower). However, the sub-entities (i.e. non-master-entities) such as school-branch or school-office would not be shown in the BPM diagrams.

Evaluation and Pilot of BPM tools

FSA has a potential need for a tool with enhanced BPM capabilities to support the short-term goals of:

- ❖ Documenting the Enterprise Architecture
- ❖ Obtaining flow diagrams for the Technical Infrastructure Blueprint (TIB)
- ❖ Capturing and storing the detailed Business Process Models developed in the Data Strategy
- ❖ Supporting the development of reusable requirements and Rapid Application Development

- ❖ Aiding the development of a Data Architecture by storing Business Process Models for use in developing the higher level Data Architecture components

While there are a number of BPM tools in the marketplace, the FSA EA team is seriously evaluating the following three tools:

- Popkin BPM (part of System Architect)
- IBM Websphere Business Integration (WBI)
- Rational Suite

Popkin BPM

SA is already part of the FSA environment. The BPM tool is relatively new to the Popkin suite of products and the functionality is relatively new. This immaturity may lead to some defects that could affect the FSA team. The lack of version-control facilities may also be a problem in that several simultaneous updaters may interfere with one another.

IBM Websphere Business Integration (WBI)

WBI can be bundled as part of the Websphere suite for calendar year 2004 and (as the EA Team understands it) may be used on an evaluation basis for the remainder of 2003. The WBI tool exhibits many of the desirable features discussed above, but some experience with the tool in modeling FSA processes will be required before a firm recommendation is possible.

Rational Suite

While Rational supports UML modeling using the Rational Unified Processing methodology, the tool suite requires users to be knowledgeable of the UML modeling techniques and RUP methodology to be effective. UML and RUP are intensely technical in nature and are not really designed for use by business modelers.

The Goal

The immediate goal would be to generate one or more BPM diagrams (e.g. FAFSA/CPS) in the short term in the various tools and try to import/export those diagrams to/from the other tools. Hopefully a final decision on a BPM tool plus standards for BPM diagrams can be obtained by the end of calendar year 2003.