



Procession® SSXMQ

Procession® SSXMQ is a lightweight, high performance Message Queue.

It enables operational processes to interface to industry standard Middleware and Integration Hubs as well as providing a platform for direct integration with legacy systems.

Lightweight Messaging

Operational processes in the “middle-office” need to integrate with back-end systems. Typically these systems might be Enterprise Application Integration (EAI) hubs, Message Oriented Middleware (MOM) servers or directly to legacy systems. The Procession® SSXMQ provides a high performance, reliable conduit from the business process environment of Procession® Process Engine into the Business Process Automation environment.

Conduits

Messages delivered to the Procession® SSXMQ are ultimately handled by process-oriented conduits. There are two built in conduits that enable full integration with standard systems. A SOAP Conduit integrates Procession® Transformation Engine and Procession® Web Services Layer with many standard systems. In addition there is a simplified Email conduit for those process designers that wish to “push” email based alerts to users without the complexity of a full SOAP over SMTP transport.

Email Conduit

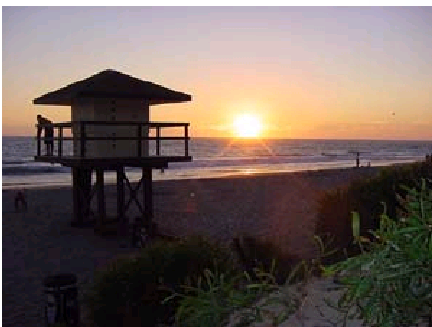
The email conduit is based around the Java Mail API allowing a number of low-level protocols to be used for the creation of multipart email messages. This conduit has been benchmarked at 144000 email messages per hour on very modest hardware.

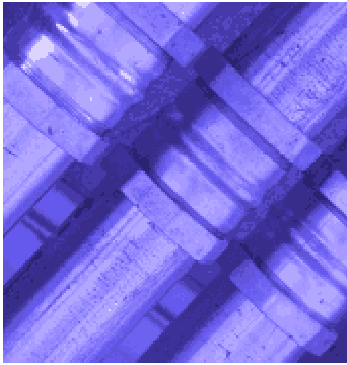
SOAP Conduit

The SOAP conduit enables processes to interact on a message basis with binary and XML interfaces. It is capable of transforming a data feed into a SOAP message, issuing the SOAP message via a transport to a web service and transforming the resulting response back into data feed to another system. By using the Procession® Transformation Engine, the SOAP adapter can operate with almost any data input and output purely by mapping. This is as true for XML data where no binary to XML conversion is necessary as it is for binary data. Occasionally binary data feeds will require SAX adapters to be written to ensure that the binary data is converted to XML before transformation can commence.

The SOAP conduit has been created with flexibility in mind. The input stream can be specified and retrieved from a Web Service, in which case the Web Service Definition document (in WSDL) can be specified or retrieved from a Universal Description, Discover and Integration (UDDI) registry. Additionally the output

“Operational processes must integrate with back-office systems, but no one has the resources available to build custom EAI adapters. Procession® SSXMQ, coupled with its SOAP Conduit enabled us to integrate our legacy systems without resorting to code whilst maintaining the existing Business Process Automation provided by our EAI hub...”





transformation can be sent to a Web Service. Since the SOAP Conduit exists within the Procession® SSXMQ, which is a J2SE server, any registered transport is available (http: , ftp: etc). In normal operation, the SOAP Conduit interfaces with the Procession® Web Service Layer to provide complete process driven integration capabilities.

Conduit API

In common with all the Procession® components, the Procession® SSXMQ has a Conduit API. This is to enable 3rd parties or Procession's professional services to create custom conduits. Normally conduits created in this way are process specific and address a focused aspect of a legacy system that cannot be handled by the mapping techniques used in the SOAP Conduit. It is rare to be forced to resort to custom conduits, since modern WSDL toolkits can automatically create the stream handlers for many component technologies. This includes handling the technology bridges like Java Beans to COM.

Standards Based

The Procession® SSXMQ is a Java 2 Standard Edition (J2SE) implementation that operates as disconnected parallel servers all servicing messages from a single Procession® Process Engine instance. This approach enables the SOAP Conduit and custom conduits to build on the rich set of API's, transports and services available to J2SE, whilst maximising the parallel scalability of the Message Queue. The use of J2SE also ensures that the server and adapters can operate multi-threaded, an option that is not available within a Java 2 Enterprise Edition (J2EE) container. A side effect of this approach is to reduce the licensing costs, as no J2EE container is required for base level operation of this component.



Requirements

Java JDK 1.3 or later
128Mb RAM minimum
10MB Hard Disk

Solaris, Windows NT, Windows 2000, Linux.

Asheridge Road
Chesham
HP5 2QD
UK
+44 (0) 1494 781 444
<http://www.procession.com/>
sales@procession.com

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