



# Procession® Process Engine

Procession® Process Engine is a high performance process engine.

It enables businesses to implement core business processes, precisely measure their performance and perform constant process improvement with complete business continuity.

## Rich Process Environment

The Procession® Process Engine provides a complete process environment, as you would expect from any leading BPM vendor. The process environment supports human and automated interactions that enable complete end-to-end processing within an operational business.

## Parallel Threaded Processes

The Procession® Process Engine enables process flows to exist with multiple parallel threads. Sophisticated split and join flow objects enable precise control of how a process flow interacts with disparate parts of the organisation. Clear control of the parallel threading is maintained by sophisticated join operations.

## Multiple Split paths

At every split it is possible to create multiple true and false outcome flows within the same run instance. Once started these split flows may operate independently of one another until recombined by a join object.

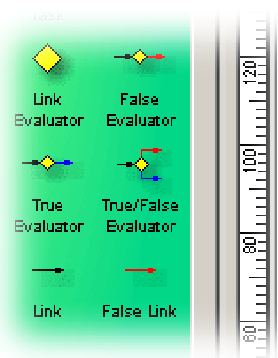
## Recombination

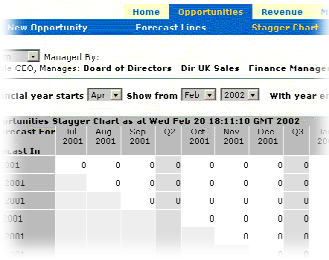
The Procession® Process Engine gives the process designer precise control over the recombination of parallel process flows. Recombination can obey logical “and” joins, logical “or” joins or temporal “first past the post” (fpp) joins. In logical “and” joins, flows from all the input lines into the join object are required before a single process flow is produced from the output of the join. In logical “or” joins, every flow appearing on the input lines of the join creates a corresponding flow on the output of the join object. This join operation recombines but maintains the parallel flows in a process. Temporal fpp waits for a single process flow to appear at the input of the join object. This flow results in a single output flow. All remaining flows within the cycle of the process flow are terminated. This enables direct implementation of simple operations like “one of many authorisation”.

## Form Tasks

With every real operational process flow, there are points where human interaction is required. If a system is to perform

“Procession’s unique ability to support constant process improvement enables our organisation to pursue the goal of Six Sigma Plus, minimising the customers experience of variance and fundamentally delivering what the customer wanted”

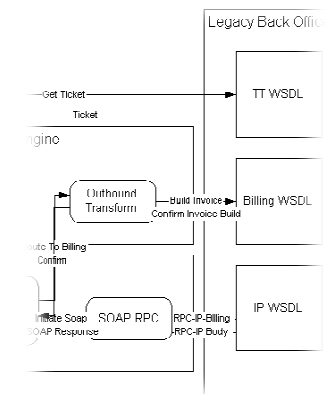




more than event reaction it must be capable of allowing workers within the business to drive the operational process flow. The user of a Procession system usually interacts with the system via form tasks. These are forms presented to the user, controlled by the process flow, designed to capture significant pieces of information and display derived or store pieces of information. In Procession® these forms are typically “pull” or “push” type tasks. A pull type form is one where the user is actively moving an operation process along from a work queue or as a result of completing a preceding form. A push type form is a form that is delivered to the user via email, SMS or some other form of transport. The Procession® Process Designer has powerful form creation utilities that enable a Process Designer to create powerful data bound form definitions that can be passed directly to a Web Author for interface deployment.

### Message Queue Tasks

Underlying Procession® Process Engine is the ability to delegate processing and requests to message-orientated middleware (MOM). Server Side Message Queue (SSMQ) tasks perform this operation. The built in adapters enable the process flow to interface with external systems via message queues or more directly via SOAP RPC. The interaction with the external system can be performed on a synchronous basis where the SOAP RPC call or the delivery and acceptance into MOM is part of the process flow transaction. Additionally Message Queue Tasks may operate asynchronously where the operation is committed via a two phase commit to an internal message queue before forwarding to the servicing message queue server.



### Data manipulation Tasks

A core feature of the Procession® Process Engine is the ability to associate complex, enterprise wide data with individual process flows. This enables the process designer to create a web of processes that interact with one another to support the operational aspects of a business. Frequently data manipulation is required to de-normalise the underlying data or consolidate information. Simple data manipulation tasks enable complex calculations to be performed using a powerful data manipulation notation. Complex data manipulation tasks give the experienced process designer complete access to the underlying database so that full data mining, consolidation and real-time de-normalising can be performed as part of the process flow. This unique ability to embed incremental manipulations within a process flow helps process designers create systems where all the information is real-time. Hence there are no lengthy batch jobs required to build management reports.

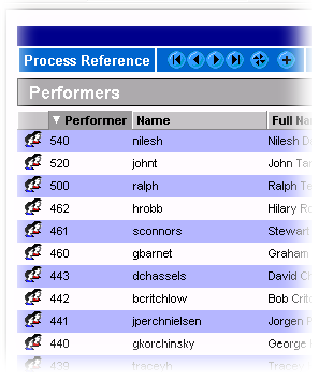
Priority	Task	Performer	Name	Task Description
70901	1 holiday check		Check 1 holiday Taken	
71516	Holiday Check		Check Holiday Taken	
71813	Holiday Check		Check Holiday Taken	
72633	Holiday Check		Check Holiday Taken	
73245		(DEV)	Fix Problem	
73228		(DEV)	Fix Problem	
73224		(DEV)	Fix Problem	
73212		(DEV)	Fix Problem	
73186		(DEV)	Fix Problem	
73187	Issuing	(IP-V)	1st Fix	
73169	admin	Admin 1	Administration Form 1	
73163	admin	Admin 1	Administration Form 1	
73158	Issuing	(DEV)	Test Fix	
73144		(USER)	Test	

### Process measurement and Journaling

Within Procession® Process Engine, the process designer can associate groups of tasks with an activity. The engine can then automatically record process metrics associated with those activities in the journal logs. This information can be used to build a deeper understanding of the performance of a process within the organisation. This knowledge enables the process designer to improve the operation of the process.

In addition to the activity based monitoring, the Procession® Process Engine automatically records an audit trail for every run, and records the detailed information for those tasks that have been marked as of interest by the process designer. Access to this information, via the manager interface, is controlled by the complex Management Structures that are built into the Procession® Process Engine. This enables a suitably authorised manager to see into individual run instances and the completed forms and data associated with those instances, along with who performed the operation, at what time and for how long. This interface also enables the manager to manage workloads amongst the process workers, reallocate work and control the operation of the regions of the operational processes under their control.

Journaling at its most detailed level can inform on almost every operation that the Procession® Process Engine performs. This information can be invaluable when process designers need to trace complex operational paths within the engine itself.



Performer	Name	Full Name
540	nilesh	Nilesh De
520	johnit	John Tam
500	ralph	Ralph Te
462	hrobb	Hilary Ro
461	sconnors	Stewart
460	gbarnet	Graham E
443	dchassels	David Ch
442	bcritchlow	Bob Critc
441	jperchrielsen	Jorgen P
440	gkorchinsky	George I
439	tracadvh	Tracadvh

## Management Structures

Coupled with the ability to modify operational processes in real-time, manage and monitor every aspect of those processes there comes risk of unauthorised access and modification. With this in mind Procession® Process Engine contains a complete multidimensional organisational structure that enables any organisational controls to be applied to the processes within the engine. Coupled to this organisational structure is a complete set of access controls that address every aspect of every object within the system. This ensures that fine level process specific control can be exerted over every discrete item within a process flow.

For example:

- A manager may be granted the ability to view all the data associated with flows of a particular process, but denied access into a sensitive form.
- A manager may be granted the right to co-opt other managers with the same rights to assist him in managing and load balancing a particularly busy queue.
- A Web Designer may be given design rights, by the process owner, to a set of forms definitions and execution rights to the process, but denied design rights to the process itself.

The Procession® Process Engine comes with a complete set of template Management Structures to ensure that process designers are able to implement processes with ease. Only when control outside the default settings is required is the Management Structures Web interface used to modify the standard templates.

## High Performance, Standards Based

The Procession® Process Engine is delivered in a J2EE Framework supported by Oracle 8i. The fundamental architecture of the Procession® Process Engine enables sideways parallel scalability in the service layers. Partitioning and clustering in the Oracle core maintains backend scalability and high availability without the complexity of Parallel Oracle. Great care has been taken in developing this architecture to maximise efficiency and resource usage by closely controlling the migration and creation of user state.

### Requirements

Oracle 8.1.7 R3

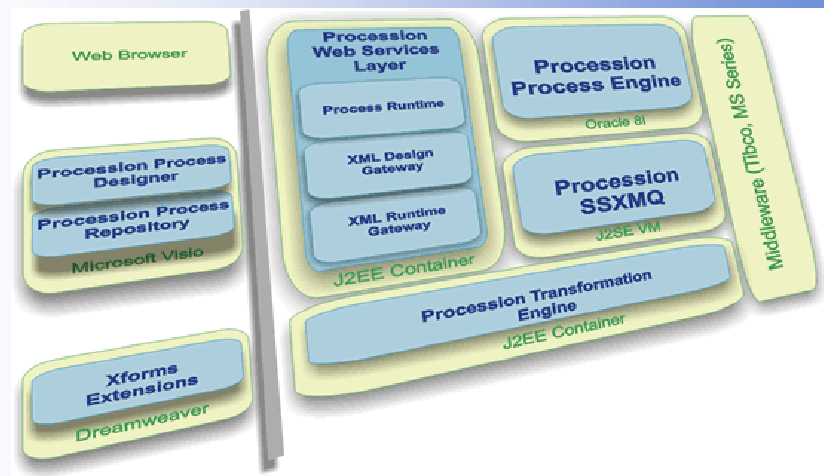
Java JDK 1.3 or later

512Mb RAM minimum

2GbMB Hard Disk

Windows NT, Windows 2000, Solaris, Linux etc

Single or Symmetric Multiprocessor



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