



Technology & Suppliers

On the Radar: BP Logix

November 2015

This *On the Radar* briefing note follows a simple “ten questions” format, which we designed to provide a concise but thorough overview of a company and its products and services. We use this format to focus on the capability and suitability of small, specialist vendors – to help you build the best possible vendor shortlists when looking to make new technology investments.

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1. Who?

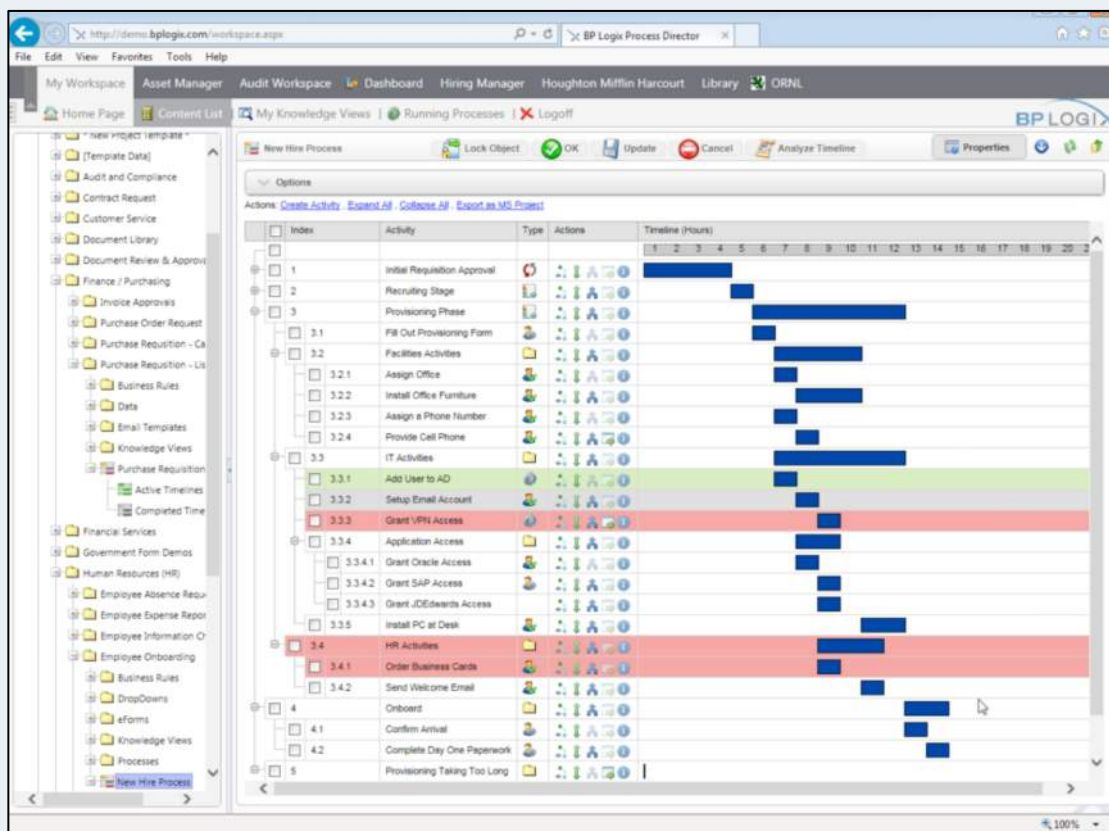
BP Logix, Inc (www.bplogix.com) was originally founded in 1995 as an enterprise application development company. In 2009, following a divestment of many of its products (and their purchase by CA) BP Logix began to focus exclusively on its BPM technology platform Process Director. The company is based in California, USA; with additional offices in Cambridge, UK and Tokyo, Japan.

2. What does it do?

Process Director, BP Logix's core product, is an integrated BPM technology platform combining design tools and a runtime platform that delivers workflow, rules, form and task management, content management and reporting and dashboarding functionality. It's currently at version 4.0.

The core feature of interest in Process Director is the Process Timeline, which is almost unique in the BPM technology universe. Process Timeline is, to simplify, a way of modelling and then managing automated task and process flows through a Gantt-chart metaphor. Rather than specifying a sequence of activities by explicitly linking them together in a flow diagram (whatever the flow notation), using the Process Timeline you don't explicitly represent activity sequences at all; instead, you specify activity *preconditions*. As a trivial example, you might specify: 'this activity B cannot start until activity A completes'.

Figure 1 An example Process Timeline model



Source: BP Logix

Fundamentally, this means that rather than defining processes as serial sequences of activities – that may be executed in parallel if you include a branch in your model – with Process Director you define processes as sets of activities that by default will all execute in parallel; but you may choose to constrain when certain activities (or groups of activities) execute based on the state of the overall system. Activities may be grouped together into discrete ‘phases’, and activity branching and looping are also supported. Activity preconditions can be quite elaborate: for example, you can specify ‘cross-dependencies’, in which activities in certain phases (which you can think of as sub-processes, albeit potentially only partially ordered) can depend on activities that are contained within completely separate process phases.

In operation, Process Director will estimate the timing of completion of process instances, based on historical performance data relating to activities and phases within those processes; timing estimates appear on the Process Timeline graphically (just as they do in project management tools that use Gantt charts).

Figure 1 shows an example of the Process Timeline in action. In the example timeline, there are multiple levels of nested phases at work; as you can see, phases aren’t just an organising concept within your models that helps with readability, but can also be used to group sets of activities together in terms of their dependencies on other activities (or phases).

Crucially, the Process Timeline isn’t only a design-time model; it’s also used (by those with appropriate permissions) as a way to interact with the system during the operation of processes. At runtime Process Director continually evaluates the performance of activities against expectations, revising end-to-end performance estimates automatically (and instigating automated escalation actions if they are defined); and in addition, if you have advance knowledge of problems, you can manually force the system to re-evaluate estimates of end-to-end process performance simply by dragging graphical estimate markers for problem activities ‘further into the future’.

Alongside the Process Timeline, there are five other core design concepts in Process Director: forms, business values, rules and knowledge views.

As you might expect, forms are the principal way that individuals interact with Process Director applications. Process Director takes an unusual approach to support for task form definition: rather than providing a graphical web-based form design tool as so many other BPM technology vendors do, with Process Director you use Microsoft Word (with a BP Logix add-in) to perform initial layout work for each form. The result is a form definition that gets saved and exported as a bundle of HTML5/Javascript/CSS code that you then use the core web-based Process Director tools to ‘wire up’ to business process activities, rules and business variables (see below).

Business values are a new concept in Process Director 4.0. Business values are in effect data objects that act as ‘proxies’ for data stored and managed elsewhere, outside the Process Director platform (for example in a CRM system); or that are managed within Process Director itself (for example, the value of a Goal). You define them once in Process Director, and then you can use those definitions throughout multiple process applications in order to have your applications read and write data transparently from/to external systems.

Many BPM technology platforms enable designers to specify business rules, but then constrain the use of those rules to specifying branching decision behaviour in process models. In Process Director, rules (specified using a wizard-like tool to reference data and create expressions with simple logical constructs) can be used to define additional preconditions for activities, and thereby serve the same function as branching in a sequential flow model. However they can also be referenced in many other parts of a process application specification – including in the definition of process goals and actions, the assignment of tasks associated with activities, and the validation of data entered into – and the dynamic presentation of – forms.

Knowledge views are reusable user interface elements that are responsible display data from the Process Director platform. Importantly, when a knowledge view is called on to provide data, it can be configured to do more than just display data; it can also execute business rules that might (for example) instigate another business process (or initiate a new process instance for each row of data accessed), calculate aggregate values, etc. Knowledge views are tied into Process Director's sophisticated role-based access control (RBAC) framework, ensuring that sensitive data will only be shown to those with appropriate permissions in the system. As well as providing data to Process Director's own web-based user interface, knowledge views can also be configured to work as portlets in third-party portals, or as web parts in Microsoft SharePoint installations.

Goals in Process Director are constantly-evaluated business performance attributes, managed in the system, and used to influence the behaviour of the system at runtime. Goals are defined independently of processes, forms and rules, but can directly affect the behaviour of those things. Goals can monitor process performance either within one individual instance or across a group of instances; or they can monitor other system elements – and goals can be associated with actions, so that if goals are missed the system can send alerts, execute rules, and/or drive actions in the platform (such as, for example, kicking off a separate exception-handling process; or starting a particular process phase that has the fulfilment of a goal as its precondition).

Process Director applications are fully localisable (there's also support for right-to-left languages), and the platform is also designed to be easy to license, embed and customise for use in other commercial software products and hosted services.

Process Director is available as a hosted service (on Rackspace and Amazon cloud platforms) and as a traditional on-premises product. The hosted version is priced principally on a per-user-per-month basis and licensed annually; for on-premises deployment you purchase a perpetual license and then pay yearly for maintenance and support.

3. Who is it for?

Process Director is a .NET-based platform, and if you're looking at on-premises deployment you'll be most comfortable with its administration (and able to take advantage of its links to platforms like Active Directory, SharePoint and Dynamics CRM) if you have a significant investment in Microsoft technologies.

BP Logix focuses particularly on helping clients in government, higher education, and utilities sectors. Most of its direct-sales business currently comes from North America, but it has growing customer bases in Europe and Asia thanks to a small group of international sales and implementation partners. Around 20% of BP Logix revenue comes from outside North America.

Owing to a couple of specific functional capabilities of Process Director – the dynamic, time-sensitive nature of the Process Timeline and the platform's suitability to deployed at organisational boundaries – the platform is likely to be particularly interesting to organisations looking to improve service delivery to customers, partners, and/or suppliers; or, in very large corporations or governments, within shared-service delivery outfits.

4. Why is it interesting?

BP Logix and Process Director are principally interesting for two key reasons (briefly introduced above).

Firstly, the platform's ability to support business processes that need to exhibit significant dynamic flexibility, particularly in time-sensitive situations. This principally comes through the Process Timeline concept, which provides a way for organisations to make truly informed decisions about process optimisation in-flight, and also for processes to be optimised dynamically to minimise cycle time; and in addition, through the ability for anyone with appropriate permissions to create, assign and execute *ad hoc* tasks.

Secondly, the platform's ability to surface process application features to external actors and communities. This comes primarily through the platform's open approach to user authentication (see How open is it? below); the ability for your process applications to host 'anonymous' users and make resources available to them; and your ability to define very sophisticated role-based access control schemes that secure access to application functionality and data down to a fine-grained level of detail.

5. How established is it?

BP Logix first released Process Director in 2010. The company currently has over 200 customers, and under 50 employees. The company is privately-held with no external investment. The company is profitable, and has grown year-over-year for each of the past five years.

6. How open is it?

In some respects (most notably in its very broad support for third-party authentication systems) Process Director is an open platform. There's support for all modern browsers for both the web-based design tools and the Process Director runtime user and administrator interfaces.

However the product is undoubtedly built to work best in a Microsoft-centred technology environment, with favoured integration interfaces for SharePoint and Dynamics CRM and a reliance on Microsoft Word for form definition. If you need to build custom extensions for your Process Director installation then you'll need to use Microsoft's Visual Studio.

For those interested in utilising standard process notations, there's no implementation of BPMN in the product.

7. Who does it partner with?

BP Logix maintains partnerships for technology reasons (examples of partners here include ConceptShare, which offers a cloud-based multi-media annotation tool) and for distribution reasons (for example BP Logix partners with Japanese company Assist Micro as its master distributor in the Asia-Pacific region). BP Logix also has a set of consulting and services partners outside North America providing implementation and support for international customers.

8. Are there areas for improvement?

Process Director has many strengths, but the current lack of separation and indirection between the definition of forms and the definition of business data that can be used within a business process is an architectural quirk that won't sit well with everyone. One important result of the tight link between forms and data is that many Process Director customers only define one form per business process, and use rules to show/hide sections of that form during the execution different activities so that it appears as if there are multiple forms in play. Among other things, this causes issues because it creates a development bottleneck – only one person can work on defining the form(s) for a business process application at any one time.

The alternative – defining multiple forms for use within a business process – is entirely possible, but each form has its own local scope for managing data: so if you want to have some business data available through the end-to-end execution of such a process, you have to manually code the transfer of data from one form to the next, within each form. (Having said that, it is possible to identify 'sync fields' that enable every instance of a given form to display the same data.)

The tight link between forms and data in the current version of Process Director is a challenge for maintainability because if you want to reuse data definitions across business processes; or indeed if you need to change how an external data source is referenced – perhaps because an external source application is upgraded or a database is changed – you have to track down all the forms that reference that data and change all the references manually.

9. What's next?

Fortunately, BP Logix understands the weaknesses inherent in closely tying the design of presentation and business data together, and it has plans to improve the situation in the next release of Process Director (currently slated for early 2016). A new design concept, 'business values', will introduce global business object definitions that will act as proxies for externally-managed business data, and that form and process definitions will all be able to reference.

In addition to the introduction of the 'business values' concept, the next version of Process Director will feature more explicit modelling support for case management-style applications – including the ability to define case properties in the Process Director data model that are scoped to cases rather than to individual forms.

Lastly, BP Logix is planning to enable Process Director to be hosted on Microsoft's Azure cloud platform.

10. Should I consider it?

If you're looking for a platform that will help you build support systems for business processes that need to be able to be reshaped and re-prioritised to maximise service delivery – particularly, business processes in which customers/citizens, partners or suppliers play key direct roles – then you should definitely consider BP Logix and Process Director.