

## eXpresso

An InDetail paper by Bloor Research  
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**Philip Howard**

The market for spreadsheet management solutions is broadly split into four areas: monitoring tools, which audit what anybody does to any spreadsheet at any time; control and compliance tools that extend monitoring to include security and management of who is allowed to do what; auditor's tools that allow you to compare spreadsheets, detect errors in formulae, find out where data came from and so on; and automation tools that provide controlled development environments for creating new spreadsheet applications (but only new applications—no facilities are provided for existing spreadsheets).

eXpresso falls into the monitoring, control and compliance categories though it also has the ability to compare spreadsheets. However, where it differs from other products in the spreadsheet management market is that it provides on-line, real-time collaborative capabilities for the use and management of spreadsheets. In addition, it is the first product in this sector (as far as we know) to be offered as a service.

### Key findings

In the opinion of Bloor Research the following represent the key facts of which prospective users should be aware:

- eXpresso controls all relevant spreadsheets through a secure, centralised database and the user interfaces with Excel through a web browser.
- eXpresso does not provide facilities for discovering existing spreadsheets so you will need to tell the software which spreadsheets to upload. There are also no facilities provided for assessing the risks associated with any existing spreadsheets.
- Full version control and an audit trail (including detailed cell history reports) are provided.
- By default, all spreadsheets are locked for use against everybody except the 'owner'. However, the owner can invite contacts to share a spreadsheet with the owner applying relevant locking criteria down to cell level.
- Using eXpresso, shared users of a spreadsheet can exchange notes and there is also an on-line chat facility. There is also an alerting capability, which means that you can get the software to automatically send you a notification when a relevant event, such as a cell change, occurs.

- There are no workflow capabilities in the product and nor are there any specific facilities for designing approval processes. However, we are pleased to hear that these capabilities are on the product roadmap for a future release.
- There is an automated facility to convert spreadsheets from one format into another. This will be particularly useful when you exchange information with third parties via spreadsheets. We have not seen any other product with this capability.

### The bottom line

While there are certainly facilities in other products that eXpresso lacks, this is perhaps not surprising in a first release. More to the point, there are significant capabilities in eXpresso that other offerings do not have. In particular, no other vendor (at least that we are aware of) has any collaborative capabilities for sharing spreadsheets and we are similarly unaware of any other product that can provide the automated conversion of spreadsheets that is provided within eXpresso.

So, there are technical benefits, as well as drawbacks, to the eXpresso offering. That is almost beside the point. The big advantage that eXpresso offers is that it is available as a service à la Salesforce.com. Given that leading control and compliance tools typically cost six to seven figures for enterprise-wide implementation, the ability to implement eXpresso for a much lower monthly charge and on an incremental basis is potentially compelling. Moreover, it is the only vendor in this market to have such an offering at present. As a result, we believe that eXpresso has the potential to become a major player in this market within a very short period of time.

## Background information

eXpresso is a new Software as a Service (SaaS) offering from SmartDB Corporation, which was founded in the mid nineties and is privately owned with venture capital backing. The company has historically specialised in data integration (particularly, in the early days, on ETL—extract, transform and load) for Oracle environments. Today, its leading product is SmartDB Workbench, which provides a variety of tools for developing, testing and deploying adapters that can be used to integrate Oracle with other environments, especially legacy mainframe environments. The company also markets a suite of pre-built 'intelligent' adapters and a special-purpose environment for companies wanting to migrate from PeopleSoft to Oracle environments.

The company is US-based and uses distributors in Europe. It has customers in 20 countries.

**SmartDB web addresses**  
[www.smartdbcorp.com](http://www.smartdbcorp.com)

## Product availability

eXpresso is in its first release (June 2007) although the platform it has been built upon is actually three years old as it was originally designed for another project. eXpresso is available both as a service (SaaS) and via an enterprise license, though the company's main focus is on the SaaS offering.

The product works with versions of Microsoft Excel from Excel 2000 onwards and requires the use of an Oracle database for the enterprise version (it will be transparent to SaaS users). In theory the product should run on top of any relational database so the company will consider porting it to, say, SQL server or DB2 if there is sufficient demand at the enterprise licence level.

The company plans to add comparable facilities for managing and sharing Word documents and PowerPoint presentations, at some point in the future.

**Product description**

eXpresso is a product that treats Excel spreadsheets as a corporate resource, bringing them under management control in order to provide the security that is lacking in Excel itself and adding control and compliance capabilities. In addition, and unlike all the other enterprise spreadsheet management products that we have seen, eXpresso adds collaborative capabilities for shared working with spreadsheets. As has been stated, the software as a service model is the one that eXpresso is targeting and this report will focus on the facilities provided when using this approach though the enterprise version of the product will not be significantly different: it simply means that you will be self-hosting the environment.

**Architecture**

The architecture of eXpresso is both similar to, and significantly different from, the other spreadsheet management control and compliance tools that are available on the market. This is because all of the other vendors centralise spreadsheets around a content or document management system of some sort, which may be proprietary or it may be Microsoft SharePoint 2007 or, in one case, Documentum. eXpresso, on the other hand, centralises on an Oracle database, as illustrated in Figure 1, which shows the architecture of the product.

Whereas conventional approaches to spreadsheet management simply store Excel documents as Excel documents, eXpresso decomposes them and stores all the various elements of the spreadsheet (data, formulae, macros, formatting, cell references and so forth) within relational tables inside an Oracle database. In addition, spreadsheet images are also stored within the database. This means that all the security, management, auditing and so forth that is available within the database can be directly applied to spreadsheets and the elements within them.

At run-time, spreadsheets are presented to users through the eXpresso interface via their web browser, with the various tabular data being re-transformed back into spreadsheets data. There is, of course, an overhead involved in this transformation process, which is performed by the Abstractor shown in Figure 1 (and for which various patents are pending), but this should not be noticeable to the end user as it will be small compared to any delays that may occur in the browser.

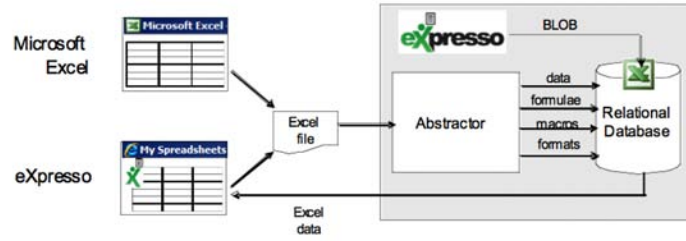


Figure 1: Architecture of eXpresso

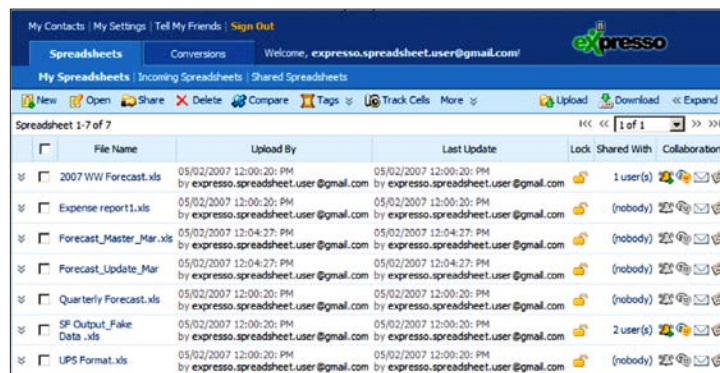


Figure 2: 'My Spreadsheets' page

**Using eXpresso**

The first thing that you do when you want to use eXpresso is to log on (with conventional security applied so that only authorised users have access to eXpresso spreadsheets) and then you will be presented with the 'My Spreadsheets' page, as illustrated in Figure 2. This shows the user's (secure) Excel spreadsheets together with the File Name, details of when it was initially uploaded and most recently updated and how, whether this spreadsheet is locked, who it is shared with, and the various collaboration tools that support alerts (which you can set as required; for example, whenever a change is made to a cell), chat, the exchange of notes and so forth. There are also shortcuts to cell tracking (for which you can produce history reports), comparison capabilities (to compare two spreadsheets or versions of the same spreadsheet—see later), tags (which can be used to filter the spreadsheets shown so that you can look at just those spreadsheets pertaining to a particular task), file sharing and upload and download facilities.

The other notable point about this screen that needs to be discussed is the conversions tab. This is provided so that you can convert spreadsheets from one format into another. This is important when you want to use

spreadsheets to integrate with third party organisations such as Salesforce.com or DHL. The problem, of course, is that these companies expect spreadsheet data in a particular format but that format may not be suitable for use inside your own organisation. What eXpresso can do, through the use of its Abstractor transformation technology, is to automate the conversion of your spreadsheet format to theirs.

Once you open a spreadsheet, the eXpresso Edit Screen appears, as shown in Figure 3. As can be seen, this is precisely a Microsoft Excel interface, which has been implemented by means of Microsoft Web Components.

Going beyond this, the major feature of eXpresso that distinguishes it from competitive products is its collaboration capabilities and Figure 4 shows a part of the functionality provided, illustrating how the spreadsheet 'owner' can share selected files with other users, define access control rights (see later) and attach messages.

Note that this sharing obviates the need to email spreadsheets to collaborators, which is inherently dangerous and insecure. Instead, anyone you share a spreadsheet with must also be authorised by the eXpresso system. A secondary benefit is that this approach facilitates remote working since you can simply retrieve spreadsheets by connecting to the system via the Internet. For off-line working there is a check-out (download) capability that will provide automated synchronisation once you log back in and upload the spreadsheet you have been working on.

### Control and compliance

As already indicated, security is applied directly by eXpresso and spreadsheet owners can apply relevant access controls to those that they share spreadsheets with. These controls can be set to read-only or to provide write access and individual controls can be applied to cells, ranges, columns, rows and so forth.

On the compliance side, as mentioned, a complete cell level history is maintained so that you can track all changes to a spreadsheet: who made a change, when, from what values to those values, and so on.

Company XYZ					
Quarterly Sales Forecast for Year 1					
(in thousands)					
	Q1	Q2	Q3	Q4	
Customers	12	22	15	18	
250 US License Revenue	2,700	4,950	3,375	4,050	
20 US Services Revenue	216	440	300	360	
ROW License Revenue	300	550	375	450	
ROW Services Revenue	24	44	30	36	
18% Maintenance Revenue	1,340	1,790	1,475	1,810	
<b>Total:</b>	<b>4,580</b>	<b>7,774</b>	<b>5,655</b>	<b>6,506</b>	
Breakdown of US License Revenue					
Kevin Dewhurst (North East)	2	3	3	4	
Glenn Scott (South East)	2	2	3	3	
Veronica Ochoa (South Central)	5	12	2	2	
Bill Jackson (Pacific NW)	0	1	2	2	
John Howard (Midwest)	2	2	2	2	
Amber Newman (California)	1	2	3	5	

Figure 3: The Edit screen in eXpresso

Step 1: Are you sure you want to share selected files? If you don't want to share the file uncheck the box or click Cancel.

Files selected for sharing:

File name	Shared With
<input checked="" type="checkbox"/> Quarterly Forecast.xls	(Nobody)

Step 2: Invite contacts to share with: You can select from your contacts or simply enter the email address (separate by comma for multiple email addresses) of the person(s) with whom you want to share.

With whom would you like to share?

Select from: [My contacts]

[marcia.bigler@gmail.com [Marcia]] Add

List of people you have added:

Name	Rights
<input checked="" type="checkbox"/> marcia.bigler@gmail.com [Marcia]	Read Only

Step 3: Assign access rights: Click next to the Rights area to view the rights menu for each contact. Select the permission(s) that you would like to grant and close the menu.

Write notes for your shared spreadsheet(s)  
[Marcia, please update your forecast for Q2... Thanks!]

Figure 4: Setting Collaboration preferences

However, what eXpresso does not have (and this is hardly surprising in a first release) is the ability to discover existing spreadsheets and automatically load them into the eXpresso environment. Further, it does not have any facilities for assessing the risk associated with any particular spreadsheet, either because of its potential impact on the business or because of the size and complexity of the spreadsheet. Such functionality is important as it enables a measurement of the most important spreadsheets to take under management control. However, this typically requires the use of Auditor's tools and these can be had relatively inexpensively from third parties.

That said, eXpresso does offer spreadsheet comparison capabilities, as shown in Figure 5, which allows you to compare two different spreadsheets or versions of the same spreadsheet. Note both the colour coding and the reference at the bottom that we are here comparing all cells. As alternatives you can compare ranges, rows, columns and formulae.

Finally, one other significant aspect of control and compliance that eXpresso does not provide is workflow or some means of defining approval processes and the segregation of duties: that is, a formal process by which the owner, developer, tester and auditor of a spreadsheet have formalised roles prior to the spreadsheet going into production. However, this capability has been identified as a key new feature by the vendor and will be added in an upcoming release of eXpresso.

## Summary

At present, eXpresso is the only SaaS vendor in this marketplace and we believe that software as a service makes sense for spreadsheet management. However, it is likely that other suppliers will move to compete with eXpresso, particularly if it is as successful as we expect. Assuming that to be the case then SmartDB needs to make the most of the time window (whatever that may be) that it has before other SaaS offerings appear. This is both a technical consideration (it needs to add further functionality that it is currently lacking) and a marketing one, in the sense that it needs to rapidly build significant market momentum. If it can achieve these goals then the product's future should be a bright one.

Company	Q1	Q2	Q3	Q4
Customers	12	12	16	
250 US License	2,700	2,700	3,600	
20 US Services	216	240	320	
ROW Licen	600	600	300	
ROW Serv	24	24	32	
<b>Total:</b>	<b>3,540</b>	<b>3,564</b>	<b>4,252</b>	

Company	Q1	Q2	Q3	Q4
Customers	10	12	14	
250 US License	2,250	2,700	3,150	
20 US Services	180	240	280	
ROW Licen	250	300	350	
ROW Serv	20	24	28	
18% Maintenanc	1,250	1,340	1,430	
<b>Total:</b>	<b>3,950</b>	<b>4,604</b>	<b>5,238</b>	

Figure 5: Comparing spreadsheets in eXpresso

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- Update clients' expertise, enabling them to have a clear understanding of IT issues and facts and validate existing technology strategies.
- Bring an independent perspective, minimising the inherent risks of product selection and decision-making.
- Communicate our visionary perspective of the future of IT.

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**Philip Howard**  
Research Director - Data

Philip started in the computer industry way back in 1973 and has variously worked as a systems analyst, programmer and salesperson, as well as in marketing and product management, for a variety of companies including GEC Marconi, GPT, Philips Data Systems, Raytheon and NCR.

After a quarter of a century of not being his own boss Philip set up what is now P3ST (Wordsmiths) Ltd in 1992 and his first client was Bloor Research (then ButlerBloor), with Philip working for the company as an associate analyst. His relationship with Bloor Research has continued since that time and he is now Research Director. His practice area encompasses anything to do with data and content and he has five further analysts working with him in this area. While maintaining an overview of the whole space Philip himself specialises in databases, data management, data integration, data quality, data federation, master data management, data governance and data warehousing. He also has an interest in event stream/complex event processing.

In addition to the numerous reports Philip has written on behalf of Bloor Research, Philip also contributes regularly to [www.IT-Director.com](http://www.IT-Director.com) and [www.IT-Analysis.com](http://www.IT-Analysis.com) and was previously the editor of both "Application Development News" and "Operating System News" on behalf of Cambridge Market Intelligence (CMI). He has also contributed to various magazines and published a number of reports published by companies such as CMI and The Financial Times.

Away from work, Philip's primary leisure activities are canal boats, skiing, playing Bridge (at which he is a Life Master) and walking the dog.

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