BIRT for Beginners
The definitive beginners guide to BIRT including the open source version and the commercial additions.

Sample Chapter from BIRT for Beginners
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Introduction

After seeing a demonstration of the commercial Actuate version of BIRT at an IBM Maximo user group meeting, I thought I would take a look at the free open source version of the software to see how easy it was to actually install and use.

Certainly during the demonstration the software and technology looked rather appealing. The interactive “flash” based reporting seemed to suggest that the long promised and tantalising possibility of “easy to create” dashboard style Business Intelligence reports, over which the end user has an unparalleled degree of control may finally be a reality.

Just to set this in context, I have been a software developer and technical consultant for over 30 years, currently working in the field of enterprise application integration. I have implemented systems on practically every continent on Earth for some of the world’s largest companies. It is rare that a new technology spikes my interest and imagination. So when I say that I spent a whole Saturday (much to the chagrin of Mrs B) downloading, installing and attempting to understand what BIRT was all about, you will realise that this is indeed something worthy of note – my Saturdays are very precious to me!

Working for a software vendor, it was a little tricky to get an invitation to the user group meeting because the organisers were understandably sensitive about vendors using the forum for shameless self promotion. Having been granted the opportunity of attending the meeting I thought I would give something back to the community to show that I wasn’t just in it to sell software and services, by publishing the findings of my weekend’s toil so that other members of the group could benefit.

As I started unwrapping the layers of BIRT and finding that the product had a lot more depth to it than I had originally perceived and that whilst reasonably straightforward for a technically oriented person to get to grips with, I did feel that for the average end user there were a few challenges waiting in the wings. So I decided to publish a quick start guide to help people in their very first steps with BIRT. This was so popular that I very quickly found that I couldn’t keep up with all the email requests I was receiving. The only way to make the report public whilst still remaining in my marriage was to create a web site that allowed people to download a copy for themselves.

BIRTReporting.com was born.

After only a few weeks of BIRTReporting.com being made public I was contacted by the good folks over at Actuate Corporation, who (all credit to them) had spotted what I was up to and had taken an interest. This was great news because they were very open about their company and were very keen to work with me on my project. So much so that a few short weeks after that they had given me their blessing to start the BIRT User Group UK.
For further information about the user group and to become a member please visit http://www.BIRTReporting.com.

A short while later, Actuate kindly sent me the two fabulous BIRT Books “BIRT A Field Guide to Reporting” and “Integrating and Extending BIRT”. These books are very detailed accounts of everything that can be achieved with BIRT. Whilst they are excellent reference material, they are not really designed to get you up and running quickly with the minimum of effort.

What was needed was an easy to read overview of the BIRT toolset with powerful quick start guides to enable ordinary, non-technical folk to be able to evaluate the products easily before making a large commitment of time and energy. As a result I decided to write this book which is the culmination of my work so far with BIRT and is intended as a quick start guide for complete beginners.

I hope you find this book useful. Please feel free to drop me an email to let me know what you think.

All the best with your own adventures with BIRT.

**What is BIRT?**

Initially I had no idea what BIRT was or what Actuate had to do with it, but somewhere along the line the magical words “open source” had been mentioned and I suspect that this may have had something to do with my new found enthusiasm for the product. So a bit of Googling later I discovered that BIRT (Business Intelligence Reporting Tools) was actually a freely available, open database reporting technology, that consisted of two major components, the report designer and the report server – which when combined allowed the user to create graphically rich reports that can be deployed from a central web server into a standard internet browser.

Roughly translated this means that pretty much anyone, with a reasonable working knowledge of the database against which they want to report can write reports that contain lists and graphs and that can allow the user to filter the data by any columns that the report author allows. Furthermore, these reports can be hosted on a central server in an organisations intranet or even on a publically available web server and viewed by anyone who had a copy of Internet Explorer handy on their PC. I suspect that other browsers are supported although I didn’t try that yet!
The BIRT report designer within Eclipse.

What do you need?

At first I discovered that in order to create a BIRT report one required a copy of something called Eclipse. This turned out to be a freely available, open source Integrated Development Environment (IDE) into which one installs the BIRT designer components. So I made my first goal to install a copy of Eclipse with these components installed.

Google soon pointed me in the right direction to obtain the relevant software and in no time I was able to follow a tutorial on how to build my first BIRT report.
The Eclipse Designer

At this stage I was beginning to be impressed – the report designer is clearly and logically laid out and basic listing reports are created in a similar manner to creating an HTML table in a WYSIWYG web design package. The downloadable components even include a database against which you can build your first report. This was a godsend because I had no idea how to connect the report designer to one of my existing SQL Server databases, but after creating my demo report this was my next challenge.

Connecting to SQL Server

Again turning to Google and the wonderfully informative BIRT forums I found a great Java component called JTDS, which according to the forums was faster and more reliable than the Microsoft JDBC connector. Once I had this in place I was very easily able to connect to my SQL server and access the tables. I still have a small problem with this whereby I am unable to browse the database tables from within the BIRT / Eclipse environment, but so long as I knew the table and field names that I was after this did not present a significant difficulty.

Getting Ambitious

Before long I had created a report which combined data from two tables, into a third, from which the ultimate report would run. I even ventured as far as creating four separate report variables, that would allow the user to enter parameters such as a period and account range, against which the report would filter. Having gained some confidence by this stage I was able to apply a bar chart above my data table and even an image to the header of the report. Every step of the way I could preview my report in the report viewer and very soon came up with a result that I was reasonably happy with.

Having written a parameter driven report, containing advanced components and a complex data source my next challenge was to publish it to a browser.
Publishing to a Browser

For this I discovered that I needed a copy of the Tomcat web server, again freely available online. Having downloaded and installed Tomcat and put my report in the folder where the instructions told me to put it – it didn’t work! In order to solve the problem I had to copy my JTDS driver into the Tomcat server framework and restart the Tomcat service in order to pick up the change. Then I was able to point a web browser, from another machine, across the network at my Web server run my report from all the way across my living room!
What does Actuate Add

One of the exciting things about the demonstration that we saw on the user group day was the ability for the report user to physically tweak a flash control that looked a bit like a VU meter and have the report data modified to reflect the change in real time. This turns out to be the key difference between what you can download and use for free and what you get if you buy the BIRT add-ons from Actuate. There is also a different report designer available from Actuate and I shall be installing the trial version of these tools as soon as my wife will let me and hope to write about my experiences with those too.

A simple BIRT report grouped by account code – BIRT adds the left hand content pane automatically and it is active, so clicking on an account displays that section of the report!
Conclusion

In conclusion, the freely available BIRT reporting tools running on the Eclipse and Tomcat combination allow intermediate level users to create and deploy graphically rich, parameter driven reports. The report designer does need a good understanding of the source database and these reports are not capable of using the advanced, real time, flash based Actuate tools, but still offer an easy to use reporting environment with a result that is easy to deploy across the enterprise.

Order the full version

This has been an extract from BIRT for Beginners, to order either an e-version or the paperback please visit

http://www.birtreporting.com/BIRT-for-Beginners.html

Also on BIRTReporting.com you will find much more information and guidance on BIRT all free of charge so sign up for your free membership today.