

Extract Science Website

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Home

Welcome to Extract Science Limited.

Extract Science specialise in ...

- **Report Development** – creating bespoke management reports that put you in control
- **Report Conversion** – assisting you switch from Crystal Reports to Reporting Services
- **Training** – providing quality training in Crystal Reports, SQL Server and Reporting Services
- **Consultancy** – offering sound, impartial technical advice on IT-related matters

With a wealth of experience in many business sectors, Extract Science is well placed to help you and your company succeed.

Extract Science - Making your data speak volumes TM.

About Us

Extract Science Ltd was set up by Dr Alastair Morton in 1998 to provide bespoke management reports to companies that either didn't have the resources in-house to develop their own reports or as an additional help to larger companies whose IT departments were overstretched. Over time the services I offer have expanded to include not just bespoke report development but training and consultancy too.

Extract Science is a micro company – me essentially - but one that offers a personable, highly skilled and tailored service.

I've a wealth of experience – having a background in engineering, a degree in electronics and a higher degree in computing. Although technical, I am approachable. I don't speak in jargon and will give honest, straight-forward advice, training or reports that will help you achieve the objectives you've set for your company.

I can be hired on an hourly or daily basis and, unlike hiring people from an employment agency, there's no agency fee, no pestering phone calls and no minimum term; you can access my expertise for as long or as short a period as required.

Services

Reporting Overview

Every organisation these days has data and the larger the organisation the more data they are likely to hold. Utilizing that data – rather than just processing or storing it – is where reporting comes in.

- How profitable is the company?
- Who are our best customers?
- Which is the most profitable product line?
- Which sales representative (or partner) brings in the most revenue?

These are all examples of the sort of questions management need answers to in order to effectively run their business. Without information it's difficult to effectively manage. Knowing that something or someone is performing well, or conversely is under-performing, is the first step of management. **Managing blind isn't really management.**

And this is where reporting comes in.

Reporting is the process of converting data to information – the process of taking masses of (often) meaningless data and converting it into useful, objective, measurable information.

Most software solutions that run businesses these days offer reports that to a large extent provide the information required. It's on those few occasions where this isn't the case or that additional specific reports are required that the need for a skilled report writer comes in. Businesses that run off-the-shelf software solutions typically fall into this category. The business is often made to fit the software, and as every business is different, the standard reports that are supplied with the package aren't always sufficient; something tailored is often required in these instances.

If you find yourself in this situation, despair not. Help is at hand!

Types of report

There are two basic types of report. Everyday, 'bread and butter' reports such as invoices, despatch notes, goods received notes and so on that run a company at the lowest level. These are so fundamental that they are not always looked on as reports – but are an essential tool in running a business. Typically the data needed to create these reports requires little or no special processing; the design of the database is such that these reports are readily available.

The other type of report goes beyond merely reporting what's happening on the shop floor to give higher-level or meta-level information that's more useful to management. Examples include reports such as a gross profit report, a commission report, a sales by region by rep report or a report detailing the 'productivity' of each employee etc. For these types of report the data needs to be processed and summarised in order to create the report. It is this type of report that yields real value to managers.

Reporting Tools

There are many reporting tools available but two principal reporting technologies are Crystal Reports and Reporting Services. Extract Science specialises in them both.

Crystal Reports

Crystal Reports is a popular general purpose report writing tool which has been around since the early 1990's. With it you can connect to virtually any data source and produce a wide variety of reports. The latest version is Crystal Reports 2008. In this brand-new version Business Objects have done away with the usual 3 editions per version – standard, professional and developer – and have released a single edition that is the feature equivalent of the previous developer edition. One of the appeals of Crystal Reports is its ease of use – you don't need to be technical to create a

“There's no shame in acknowledging your company doesn't have adequate management reports. What's shameful is being aware of the situation and doing nothing about it.”

report. Wizards are there to assist the novice while more experienced users drag and drop the required fields onto the report canvas. Behind the scenes, Crystal writes the necessary query which is then passed to the database when the report is run. As with all software, the more you know of the product, the more you can get out of it.

However, Crystal's ease of use can also lead to problems. Suddenly, everyone is a report writer. For straight-forward reports that's fine; the problem arises though when complex reports are required. Without a thorough understanding of database concepts, the inter-relation of tables and the types of join needed for certain reports, coupled with the need for efficiency (a long running report could be a sign of a poorly written one) and rigorous testing, end users can find themselves with a birds nest of a report that doesn't give correct results – or worse, the results are assumed to be correct. The danger is that managers base decisions on such reports. It's akin to dispensing with a professional wedding photographer while allowing a member of the congregation to take photos with a mobile phone! In either case the results will be disastrous.

A specialist report developer has the required understanding of databases and the required knowhow and tools to properly develop and test complex reports. I am of the opinion that end-users, much less managers, should not be writing reports – unless they are familiar with such concepts and their reports have been tested and proved to be correct.

“Reports are often as individual as the companies that request them.”

Report Distribution

There is always more to reporting than meets the eye. Another area that organisations need to address is report distribution – how is a company to deliver the reports to those who need them? With Crystal Reports the onus is on the user to locate and run the required report. There's no inherent security (anyone within the organisation with access to Crystal Reports and the required database permissions can obtain sensitive information), typically a copy of Crystal Reports is required on each PC and there is the danger that a report could be modified (intentionally or unintentionally) without the report author's knowledge or approval.

To overcome these issues a sister product called Crystal Server exists (formerly Crystal Enterprise). This is a comprehensive report distribution system that takes the reports that are created with Crystal Reports and 'publishes' them to a secure reporting website within the company (an intranet).

Security can be established to ensure that only those with the appropriate permission to see a particular report do so, reports can be scheduled to run at a particular time (say overnight – ready for the next day) and the only software required by the report user is a standard internet browser; only report developers need a copy of Crystal Reports.

This is a much more efficient, secure and controlled way of distributing reports – so called enterprise-wide report delivery. This approach lends itself to requiring only a clutch of report developers (with the prerequisite report design skills and a solid understanding of the company's database); everyone else in the organisation is a report consumer and only requires a browser (and the required permissions) to view a report. Despite viewing reports via a browser, users can still print or email reports or export them into Excel for further analysis.

Additional Information

- [Recommendations](#)
- [Training](#)
- [Crystal Reports](#)
- [Crystal Server](#)

Reporting Services

Reporting Services is a server-based reporting platform developed by Microsoft that enables centrally-managed, secure and scalable browser-based database reporting. It is part of Microsoft's SQL Server database product; it was initially available as a downloadable add-on for SQL Server 2000 but is now incorporated into SQL Server 2005.

It differs from Crystal Reports in many ways, but primarily:

- One browser-based reporting product – whereas Crystal Reports has two distinct products, one to create reports and one to publish them, Reporting Services is all-in-one. If you purchase SQL Server 2005 you have the ability, out of the box, to create rich, secure browser-based reports.
- Aimed at database professionals and system developers – this is a tool for technical professionals; a greater level of technical knowledge is required to develop reports.
- It is 'free'. Reporting Services is supplied as part of SQL Server 2005 so if you have SQL Server then you have the inherent ability to create and deploy browser-based reports (the reporting functions available depend on the edition of SQL Server). This is fine for companies with a small report user base, but larger companies with many report users would benefit from a dedicated reporting platform and would therefore incur the cost of an additional SQL Server licence in order to host the report server on a separate physical server.

Although Reporting Services is part of SQL Server 2005 you can use it to create reports from virtually any data source though the report definition must reside on a SQL Server (in much the same way as you need Crystal Reports to open a Crystal Report!).

Reporting Services is inextricably linked to SQL Server 2005 – the range of database and reporting features available depends on the edition. Enterprise edition is the full product with all available functionality and is designed for organisations that need high-availability databases and have high-volume reporting requirements. Standard edition is suitable for organisations that don't require the high-availability database features and who have moderate reporting requirements. There are also Workgroup and Express editions.

Additional Information

[Recommendations](#)

[Training](#)

[SQL Server 2005 Feature Comparison](#)

[Reporting Services Feature Matrix](#)

[Microsoft Reporting Services](#)

[Crystal Reports vs Reporting Services](#)

Report Conversion

It is inevitable that as a company grows, diversifies or switches to new technology, existing reports may need to be modified or re-written to reflect such changes. If your company is going through such a transition and you need additional help, please get in touch.

Crystal Reports to Reporting Services

With the advent of Reporting Services there's now a credible alternative to the Crystal Reports/

Crystal Server path. For organisations who have decided to switch, the bottleneck in that process is often the conversion of existing Crystal Reports. If you find yourself in this situation and need additional help, please contact us.

Additional Information

[Upsizing Access to SQL Server](#)

[Microsoft Reporting Services](#)

[Crystal Reports](#)

Training

You're only going to get the best out of a software package by being trained in it. There's an awful lot to Crystal Reports and even more to Reporting Services so it makes good sense to get a sound overview of their respective capabilities before launching into them. This is *especially* true of Reporting Services; it's a reporting platform (and not just a reporting tool like Crystal Reports) and as such it requires careful thought as to how it will be implemented (in terms of hardware requirements, the version of SQL Server that would best meet your reporting needs, licensing, security etc) – in addition to knowing how to use it to write reports. So proper training is essential.

There are many training providers who teach Crystal Reports or Reporting Services – full stop. But reporting is always wider than the tool used. You need to learn about the reporting tool in context. It's all very well to learn about Crystal Reports (for example) and yet know nothing about databases, schemas or joins, or how to set up connections to databases etc. There's always more to reporting than meets the eye. So if you're looking for training providers ensure you get a full and rounded picture of the reporting process in addition to the tool.

One such training provider whose courses do present a full and comprehensive view of reporting is Learning Tree International. I should know – I teach for them!

Learning Tree International is very well respected in the corporate IT world and is the UK's largest, vendor-independent IT and Management training provider. As their name suggests, they have a global reach and run formal classroom-style training throughout the world at their education centres or on a customer's own premises. Such on-site courses can be tailored to clients' specific requirements and you can even ask for a particular instructor.

Unlike any other training organisation I know, Learning Tree International's instructor force are not employees of Learning Tree. They are freelance professionals who are contracted to teach courses within their area of specialism. In this way they bring real-world experience into the classroom; they only qualify to teach Learning Tree Courses after completing a rigorous industry-leading screening and training programme.

I currently teach the following courses:

Student Feedback

"Very enthusiastic, open and humorous, easy to listen to and keeps ones attention."

"The one thing that I think made the course a very enjoyable one was the instructor. He was absolutely fantastic. A pleasure to learn from. He made the course fun and light hearted even though we had a lot to learn. Would definitely recommend him for future courses for anyone interested in learning crystal reports."

- Crystal Reports: Hands-on (course 126)
- Reporting Services: Presenting Data for Business Intelligence (course 523)
- SQL Server 2005: A Comprehensive Introduction (course 131)

I am also the Technical Editor for the Crystal Reports course.

Should you have a training requirement please contact Learning Tree International direct on **0800 282 353**. If you require an on-site course and would like me as your instructor just mention that when you call.

Additional Information

- [Recommendations](#)
- [Crystal Reports](#)
- [Reporting Services](#)
- [SQL Server 2005](#)
- Learning Tree International - Sales: **0800 282 353**

Consultancy

If computing or Information Technology isn't your thing it can be difficult to know where to go – and who to trust – for sound, impartial advice; and especially so if your company doesn't have its own IT department. If you find yourself in that situation, or would value a second opinion, then I'd be happy to help. Of course, this is easier if you're already a client and you've established a trust relationship with me. But even if this isn't the case there's no harm in asking.

I define consultancy as '*expert analysis and advice which facilitates decision making*'. I know a lot about IT and have many contacts in the industry. If I'm unable to advise you (and I'd tell you straight) there's a good likelihood I'll be able to give you a contact of someone who could help.

In terms of offering advice I can be either pro-active or passive.

If required, I'll be pro-active in the advice I offer. In the course of developing reports and working closely with your staff I may notice areas of weakness, vulnerability or inefficiency which I know could be addressed by advances in technology (which you or your staff simply may not be aware of. It's very easy to do something one way because it's always been done like that). You may not like the advice – because it'll likely involve change and cost – but if there's a more efficient way of achieving the same I'd be doing you a disservice by keeping quiet. The least I can do is offer the advice; whether you act on it or not is up to you.

The second mode of operation is passive. I'll only offer advice when or if my opinion is sought – and only then within the bounds of the request.

If you seek my help for report writing or/and consultancy let me know which option you'd prefer.

Clients

Here's a list of some of my clients.

- [Abbey Industrial Solutions](#) - Wakefield
- [Howorth Airtech](#) - Bolton
- [Iceland Frozen Foods](#) - Deeside
- [Learning Tree International](#) – London
- [North Wilts District Council](#) - Swindon
- [Pension Trust](#) - Leeds
- [Science & Technology Facilities Council](#) (formerly PPARC) – Swindon
- [The Book People](#) - Haydock

Recommendations

If you're in need of a particular product or service then jump-start your decision making process by considering the products or services listed here. I **only** recommend products and services that I use myself and find useful. I've had to learn the hard way what works and which is best. Save yourself some time by starting from this distillate!

Books

- [SQL Server 2005 Bible](#) by Paul Nielsen (Wiley)
- [Hitchhiker's Guide to SQL Server 2000 Reporting Services](#) by Peter Blackburn & William Vaughn (Addison Wesley)
- [Crystal Reports 9: The Complete Reference](#) by George Peck (Osborne)

As with all computer books they go out of date so quickly – still, I wouldn't hesitate to recommend more recent books from any of these authors.

Hardware

- [Dell](#) – Can't go far wrong with Dell Servers or PCs
- [HP LaserJet Printers](#) – Dependable workhorse printers

Software

- [Crystal Reports](#) – World-class desktop reporting tool
- [Crystal Server](#) – Enables browser-based delivery of Crystal Reports
- [MailList King](#) – Powerful bulk e-mailing software
- [Partition Magic](#) – Industry-leading disk drive partitioning software
- [Perfect Disk 8](#) – Powerful disk defragmentation software
- [QuickBooks](#) – Superb small business accounting software!
- [SQL Server 2005](#) – Industry-leading database with in-built web reporting capabilities
- [VMware](#) – Run multiple operating systems on one piece of hardware!
- [Win2PDF](#) - Acts like a printer but creates a PDF document as output!

Service Providers (Sorted alphabetically by company name)

- [AnServe](#) – a no-nonsense telephone answering service
- [Bang Marketing](#) – Like my logo? Meet the designers!
- [Clarkson & Co](#) – Proactive Chartered Accountants
- [Co-operative Bank](#) – Genuinely free business banking if you're a member of the FSB!

- [CreditSafe](#) – Ideal for ascertaining facts about and credit-worthiness of a company
- [Federation of Small Businesses](#) – Join the club!
- [Icon Insurance](#) – Business insurance for small and growing businesses
- [Katara Ltd](#) – Knowledgeable and approachable QuickBooks trainer/advisor
- [Learning Tree International](#) – world-class IT and Management training
- [MarketSafe](#) – Ideal place to purchase data for marketing campaigns
- [Windsor Telecom](#) – For all your non-geographic (0845, 0800) numbers. (For a 10% discount call Joe Phillips on **0800 1777 474** quoting Ref: **JP410OF**)

Pricing

All jobs are priced on an hourly or daily-rate basis. Experience has shown that it's not viable to give a quote as even the simplest looking report can be deceptively complex. It's only on starting a job that unforeseen issues can present themselves.

That's not to say all reports will be problematic or take a long time to produce; it's all down what the report is required to show and what data processing is required to formulate the information needed. If the data is in a form ready to be reported on then a report can be turned around quickly.

By keeping overheads to a minimum I am able to offer a very competitive daily rate. For assignments beyond 80 miles from Leeds (West Yorkshire) reasonable travel and accommodation expenses will be charged. These will be discussed prior to the commencement of any work. Alternatively, remote working is an option, thereby saving any additional expense.

Remote working

Report development lends itself to remote working. Either grant me remote access to your database or give me a 'cut' of your data (a backup will usually suffice) and I'll develop the reports you require from that. On completion of the project all such data will be deleted. Either way, the advantages are clear; you save on the additional expense of travel and accommodation – and the need for that extra desk!

My preference is towards working on-site until a trust relationship and knowledge of your data and database is established.

Frequently Asked Questions

Why hire a professional report writer?

If you've ever done or witnessed the following in your company perhaps you should consider bringing in an expert:

1. Compiling (often manually into Excel) data from a number of reports to yield the report that's really needed. Do you realise you could have that report written especially for you?
2. Managers writing their own reports – is that *the best* use of their time?
3. Employees attempting to write reports; often with no understanding of database concepts, structured query language, table joins (especially outer joins) or the reporting tool itself. Managers are basing decisions on such a foundation. That's really scary!
4. Running a company blind i.e. not having any meta-level reports *at all*.

My company has no effective management reports. What do I do?

There's no shame in acknowledging that your company lacks certain management reports. Knowing

that is the first step in addressing the problem.

1. To begin with, highlight the areas of your business for which you need reports – e.g. finance, sales, warehousing, distribution etc.
2. Then define each report. Be as specific as possible in terms of content. Be realistic; ensure your systems capture the data that will compose the report (I can assist if you're unsure).
3. Prioritise. Which report is the most pressing? Which, while nice to have, can wait?
4. Contact me to discuss your requirements. I prefer doing business face-to-face so we'll arrange to meet. An on-site visit is an ideal time to meet key personnel with whom I'll need to liaise when (or if) the project starts. Quite who I'd need to meet rather depends on the nature of the report/project. In the majority of cases it'll be the person who looks after your database (or his/her representative) and the person for whom the report is to be written (or his/her representative). We'll discuss the nature of the project, whether the work is to be conducted on or off site, likely timescales and costs.

What steps do you take to ensure the confidentiality of my company's data?

The issue of confidentiality is taken extremely seriously. Not only would we be willing to sign an appropriate Non-Disclosure Agreement (and have done so for a number of our clients) but any data supplied to us for the purpose of report development will be destroyed on completion of the project. Furthermore all workings out, printouts, test results and any other sensitive customer information is shredded (to DIN level 4) before being discarded. CDs and DVDs containing sensitive customer information are also shredded.

Contact Us

If you've got a requirement for report development, training or consultancy - or think you may have but would value the opportunity to discuss it first - please get in touch. Standard business hours are from 9am till 5.30pm Monday to Friday.

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