The Newsletter for SIR UK Users

SIR REPORTER

Contents

- Editorial
- Chair's Chat
- SIR One Day Training 19th June 2009, London
- News from SIR Oz
- SIR tips -The "More Procedures..." Dialog
- SIR Training and Conference June 25th - 27th 2008, Dublin
- Minutes of the AGM June 27th 2008, Dublin
- SIR Godoku
- Committee Members

Editorial

Well first of all it's a Happy New Year from me and a Happy New Editor from him (blatant stealing from the Two Ronnie's). On a personal note I have survived the first term of my son being at University in Leeds (and his return over Christmas).

We have even had our first ever meal cooked by Ben and lived to tell the tale – no it wasn't the turkey!

I am pleased to say that following our meeting over the constitution of the SIR User Group committee in October we will still be carrying on with business as usual.

We have some vacancies on the SUG committee and would love to hear from anyone who might like to join us. We meet 4 or 5 times a year in London to organise conferences and Reporter, and to act as a conduit for user feedback to SIR Oz.

Please contact Dave Doulton if you think you might be interested at sug@sir.com.au

Other news hot off the presses is that Jon Johnson has set up a blog page for SIR that can be used to share coding tips and bright ideas about ways of using SIR. The blog can be found at: -

http://sircoding.blogspot.com/

As far as SIR/XS is concerned there have been some bug fixes and new features added to SIR/XS. These include a new function to copy files: CPYFILE (oldname_str, newname_str), improvements to VARPUT and VALIDATE to warn about truncated strings and numbers, and enhancements to the schema dialogs and painters.

The SIR/XS download page is here: -
http://www.sir.com.au/download/index.html

The latest list of fixed issues in SIR/XS is here: -
http://www.sir.com.au/users/sprxs.htm

I would also like to add my own personal note of appreciation on behalf of the SIR Users Group for all the excellent hard work and dedicated service offered by Kathy Brooks and John Lemon over the years that they have served on the committee. They are already sorely missed.

Adrian Hodgson
adrian.hodgson@orc.co.uk

SIR is at http://www.sir.com.au
UK SIR Users Group is at http://www.sir.com.au/~sug

Chair's Chat

Welcome to the latest edition of SIR Reporter. As you will see you have got me back again as chair. After a year's break handled by John Lemon I have again taken the reins. Thanks to John for filling in. I had thought that I would be ineligible to be on the committee as I am retiring from work this year but a way round this has been arranged and I will continue to use SIR. How could I live without it?

We are very short of committee members there being only 5 of us including Mo from Australia who obviously does not make committee meetings very often. If you could spare a few hours every few months to attend meetings and some time on actions to get Reporter produced and to arrange conferences we would be delighted to have your help.

There are some interesting developments coming with SIR over the next few years so keep your eyes out for future editions of Reporter where I am sure you will find details.

May I wish you a very happy and prosperous New Year.

David Doulton

SIR One Day Training Event 19th June 2009, London

Venue: - Institute of Education
55 – 59 Gordon Square, London

Trainer: - John Lemon, University of Aberdeen

Timing: - 9.30 to 4.30

Cost: - £ 75 to include lunch

Directions: -

http://ioewebserver.ioe.ac.uk/ioe/cms/get.asp?cid=4075&4075_0=9083

Booking form: -

http://www.sir.com.au/~sug/confbook.html

The training will use data from an ongoing project which started in August 2008. This project has been designed to collect data on the use of a number of facilities provided for students in order to determine the level of demand. The data is extracted from the student registration system and a number of daily log files which cover details about: -

The servers which control access to the wireless network

The teaching classroom access logs

Software license servers

The training will be based on a task to add more data from a set of log files, and then answer a number of queries from the merged data set.

There will be several data formats available to allow for different skill levels from beginner to expert.

John Lemon and the SIR User Group look forward to seeing you in London on 19th June.

News from SIR Oz

Tony Reardon
& David Baxter
SIR Pty Ltd

The latest project that we are working on is implementing interfaces to other RDBMS products (e.g. MS SQL Server, MySQL, ProgreSQL, ORACLE, etc.) to increase the market and marketability for SIR's strong features in analysis and application development.

This interface keeps SIR schema definitions and then allows SQL commands within PQL to access and update the external RDBMS. A new database could be defined in SIR and the appropriate SQL commands generated to create that database in the RDBMS. Alternatively, the external RDBMS database might already exist and is simply 'exposed' to SIR. In either case, the external RDBMS is responsible for all aspects of physical data management including backups, restores, journaling and multi-user management.

There will be a new `DATABASE TYPE IS ....` command which defines the host system and any special clauses needed for that particular RDBMS. There is a new `WRITE SCHEMA SQL .....` clause which generates the appropriate SQL commands to define records, variables, indexes, views, etc.
There is a new `EXPOSE DATABASE .....` command. This will allow either the whole database to be accessed by SIR or will allow particular tables or views to be exposed.

There will be a new PQL `SELECT/END SELECT` command.
(Syntax: `SQL SELECT text_expression | BUFFER [=] buffer_name | EXPRESSION = text_expression)`

This allows a SQL SELECT command to be specified and creates a looping block structure equivalent to a `PROCESS REC/END PROCESS REC`. The block allows the normal control commands in it (`NEXT`, `EXIT`, etc.) and returns data one row at a time for each iteration.

The data is accessible to the PQL program in exactly the same way as data from a standard SIR database. However there are some caveats. As you are aware, PQL is first compiled and indeed can be stored in a compiled state. It is then executed. But any references to variables inside the block must be resolved at compilation time. If the SQL statement is fully specified as text, any references to variables can be resolved but it is also possible to delay construction of the SELECT statement until execution time either by using variables that contain the statement or by building it in a buffer. If this is done, then the program either needs to specify a `GET VARS` command inside the block to copy the variable definitions from the schema or to simply define the local variables. For those writing generic code where the variables could be anything and are not known at compile time, the ODBC functions have been upgraded to work with this new interface and these can be used to retrieve column attributes and values.

PQL also allows a generic SQL command that simply passes the following text to an interface routine. This will accept either a text expression or a buffer name. No PQL control structures are created for these commands. This allows clauses such as `COMMIT` or `ROLLBACK` to be passed without having to extensively modify PQL to include the whole of SQL. It is also a very simple way of implementing the update commands (such as `INSERT INTO`) and requires minimal specific coding.

Examples:

```
PROGRAM
SQL SELECT * FROM EMPLOYEE
. WRITE ID NAME SALARY
END SQL
END PROGRAM
```

This returns all the rows and allows access to individual named columns in exactly the same way as in a record block.

```
PROGRAM
STRING*240 MYCOMMAND
COMPUTE MYCOMMAND = 'SELECT * FROM EMPLOYEE'
SQL SELECT EXPRESSION = MYCOMMAND
. GET VARS FROM EMPLOYEE ID NAME SALARY
. WRITE ID NAME SALARY
END SQL
END PROGRAM
```

Because the SQL command is specified as an expression, a `GET VARS` is required inside the block to specify the variables being used. (Note that the `GET VARS` command has been enhanced to allow the specification of the record type).

```
PROGRAM
…
C Get data from screen items
COMPUTE ID = GETTXT (101)
COMPUTE NAME = GETTXT (102)
SQL "INSERT INTO EMPLOYEE (ID,NAME) VALUES (" + ID + ",'" + NAME + "')"
…
END PROGRAM
```

The program inserts rows into a table with a series of values from a screen input. The SQL passed would be something like:
`INSERT INTO EMPLOYEE (ID, NAME) VALUES (1,'John Smith')`

Similarly, a PQL program could easily construct specific UPDATE and DELETE commands by using string expressions to specify values as needed.

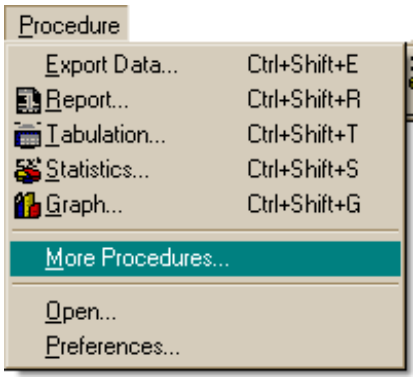
We are currently undertaking initial work to establish the feasibility of the approach using MySQL as a starting target database.

We have written some low level access routines and included functions to call the MYSQL API, and we are adding the higher level PQL interface.

Second and subsequent RDBMS should be reasonably straightforward given that they use standard SQL. Moves to other supported operating systems should also be straightforward, once we have devised the best way to distribute the third party libraries. The current thinking is that the actual library or a dummy library will be used if the real one is not installed on the end user's computer.

SIR Tips – The "More Procedures... Dialog"

If you are already familiar with the "More Procedures…" dialog then you might like to know that there are a few more procedures in there. Otherwise read the whole article below for an overview of how you can use this dialog.

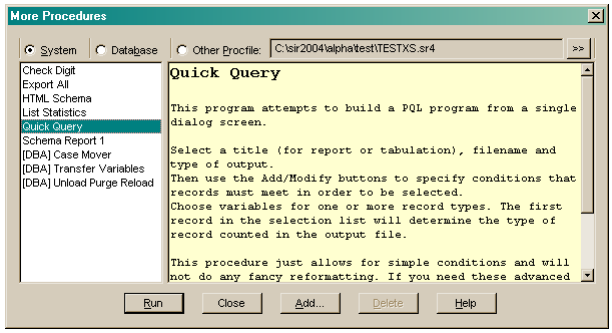


Using More Procedures

The More Procedures dialog under the Procedures menu is a handy store of useful self documenting commonly used programs. There is a set of generic programs (stored in the SYSPROC procfile) but you can create your own database specific programs and have them available through this dialog. You can also put procedures onto other procedure files so that you can access them from any database on your system.

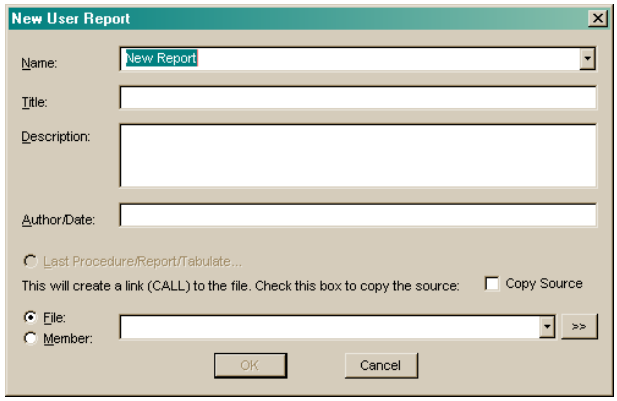
System Procedures

There are a few system procedures and utilities here. Some are prefixed with [DBA] as they update the database – these are not visible unless you are connected to your database at DBA security level. The other procedures will not update your database so feel free to try them out. The text on the right tells you what the procedure does and how to use it.



Database Procedures

Database procedures are stored in the PROCEDURES family of the database procfile. Procedures can be added from a program in a file, from a member or you can use the last program generated by the Report…/Tabulation…/Graph… etc under the procedures menu. When you select "Database" and press the Add… button then you get the following dialog.



Enter a short descriptive name. This is the name you will see in the menu on the left of the More Procedures dialog. The Title, Description and Date/Author appear in the information box on the right.

Select the program you want to run either from a file, a member or last procedure. If you tick the "Copy Source" button then the source code is copied into the member PROCEDURES.*name* (where name is the name you specified above). If you don't check Copy Source then the procedure is created with a CALL or INCLUDE file.

You would do this if you wanted the procedure to be available by other means but only wanted to maintain it in one place – however, if you later delete the source then the procedure will fail.

If you prefix the program name with [DBA] then it will only be visible to the DBA.

More More Procedures...

As said in the introduction, we have recently added a couple of new procedures to the System list. They are Quick Query and Check Digit. (Thanks to Greg Niels of DCC for the Check Digit program and the input into Quick Query).

Quick Query is an attempt at a single dialog retrieval generator (like the Report, Tabulate, Export Data… procedures without the Next> button). The dialog it brings up is quite large and divided into four sections: Output, Conditions, Variables and controls.

Select a title (for report or tabulation), filename and type in the output section, then use the Add/Modify buttons to specify conditions that records must meet in order to be selected. Variables can be chosen from one or more record types. The first record in the selection list will determine the type of record counted in the output file. You can then run or view (and save) your generated PQL program.

Check Digit creates a small report based on all database data. You could use this procedure before and after any maintenance activity to check that the data are still the same. It can be quite slow as it looks at each character in strings, but can be very reassuring.

Rec 1 EMPLOYEE	sums to	-139054
Rec 2 OCCUP	sums to	95907
Rec 3 REVIEW	sums to	228058
Database total is		184911

If you have any ideas or generic programs that you think should be included in the system procedures then let us at SIR know about them and we will consider adding them.

David Baxter
david@sir.com.au

SIR International Training and Conference June 25th – 27th 2008, Dublin

Conference write-up by Adrian Hodgson

Changes over the years and what I like about SIR/XS

Dave Doulton

Dave's experiences of SIR date back to 1983 when Kathy taught him on an early version of the package, and cover versions from 2 ,3, 4 thru SIR 2000, SIR 2002 to SIR/XS.

Dave's first experience as a new user was with SIR 2.1.3 on an ICL 2970 mainframe using batch processing with punched card decks. Interactive use was rare at this time using HOST and an interactive terminal. One of Dave's first applications involved an on screen form to fill in details of car accidents in the New Forest involving collisions with horses. As a result of this work the outcome was a decision to move the fences further back from the road to help cut down on these accidents.

Dave then went on to show each version of the software running a retrieval with all of them running from a memory stick. Screen shots showing SIR start-up, connecting to the company database, entering a retrieval and running a retrieval from a file are shown in the attached slides 10 to 44 for SIR 2.3, 3.2, 4, 4 WDL, 2000 and 2002.

SIR 3.2 introduced a Menu System, a new Editor and a version called SIR/Easy.

SIR 4.0 introduced the first Windows interface, applications which worked without the need to attach a database, a Windows design language called WDL and an API interface.

Sir 2000 introduced more new features: -

- Toolbar
- Multiple databases
- ODBC
- SQLSERVER
- Web support
- Master logon/ logoff
- Execute DBMS

- Spreadsheet
- Graph

Sir 2002

SIR/XS has introduced 27 new features, including a lot of changes that were on Dave's wish list.

Dave outlined his favourite six: -

- Multiple data files
- SEEK function to control file position
- Timestamp functions
- New PQL Server
- IN, OUT parameters on batch execution
- RENAME VARS

Having covered his first six Dave then followed this with: -

"I must say I like these but I also especially like"

He then listed another 9 of his favourites (see Dave's slide 56)

Dave's final comment on the improvements in SIR/XS was: -

"The rest are really good as well."

Followed by a list of the remaining 12 features (see Dave's slide 57)

I couldn't help thinking that Dave rates SIR/XS after all this!

Dave offered some final thoughts about what else he would like to see. His suggestions were: -

- SQL using Master for multi- user updates
- SQL in PQL
- Associative arrays in PQL
- Utilities for conversion between versions.

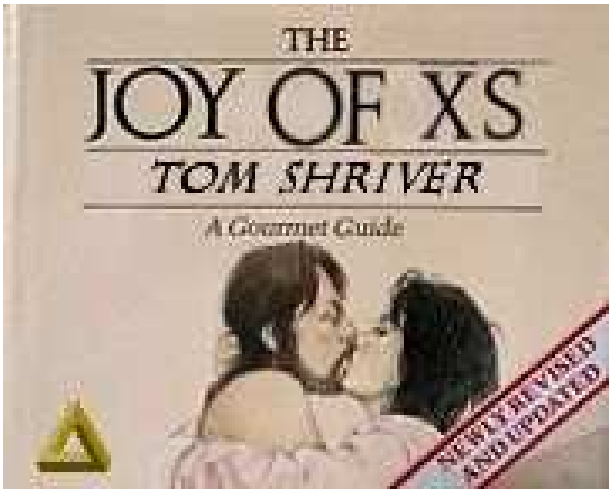
Dave remembered a researcher from the Maidstone conference in 1989 that had re-appeared in 2005 with a SIR 2.1.3 database on tape. Dave managed to read and export this and convert to SPSS, but extra conversion utilities would have been helpful.

Dave's slides:
http://www.sir.com.au/~sug/conf2008/23toxs.ppt

The Joys of XS

Tom Shriver

Tom opened his presentation with this slide which brought the house down!



He then went on to challenge the audience by asking who has converted to XS and for the un-converted, what are you afraid of. He invited others to join in to try the new features so we can enjoy the experience together.

Tom has been using some of the XS features for some applications since 2005, and converted his first production database in 2007.

At DCC /Columbia University new databases are being developed in XS and older ones are slowly being converted. To date they have 13 XS databases (7 new, 6 converted) with 35 still to convert.

At Columbia they are still standardising on eight character variable names, whereas at DataVisor Tom is using short names for database operations and long names for output.

During the early stages of conversion Tom had encountered several bugs, mostly in relation to the New Journaling capabilities. He had received several revisions to the Master code between December and May 2008 to help with "run- away" Master sessions under Citrix. He is still awaiting file based concurrency manager (at the time of the conference).

Tom welcomed the fact that the SIR.INI file is now stored under the Documents and Settings folder as he felt this was a great improvement for controlling end user permissions. In particular this is useful where IT departments lock down access to the \WINDOWS folder.

Other helpful improvements that Tom emphasised included the greater control over the CIR definition

using Record Schema 0, automatic I/O column assignments, and the facility to set "BLANK AS UNDEFINED" in batch data input which saves on the need to set up an extra used defined missing value.

Tom also highlighted the enhanced date formatting (the use of "E" for exact to enforce entry of all elements), and the SYSTEM (81) command to detect if the database corruption flag is set.

Tom gave a brief demonstration of the facility to colour code fields on data entry screens which he uses to distinguish between different data types.

Tom finished his session by talking about TIMER control which he described as "Hot off the Press".

He will be using ENABLE TIMER and DISABLE TIMER commands to help him close down Citrix sessions properly.

Slides:

http://www.sir.com.au/~sug/conf2008/Joy_of_SIR_xs.PPT

The move to XS

Nick Gawrit
heartbase

Nick talked about his experiences of migrating heartbase databases from SIR 2002 to SIR XS using the Windows version XS.01.08.

His first step was to download the software from the SIR.COM.AU website and then follow the set-up wizards to install the software.

The essential second step was to clean up his current database before export to ensure a pristine, verified, version of the source database.

Nick's tips before proceeding further were to make a zip copy "just-in-case", to check the hard disk space available and to run a list stats report on the source database.

Nick then used the Export utility to create an export file Heart_to_XS.exp.

The export utility will only export PQL code stored in families that are associated with the database – in Nick's case in the SIR014.

For the heartbase application there was another set of programs in the procfile HBPROCF.SRP. Nick used the PWRITE utility to export this other procfile.

Nick also uses a transaction log database with heartbase (HBARCHI2) and he needed to convert this as well.

Important tips for these conversions are that you need to remove any overlapping columns in schemas for exports to work properly, to make sure that Master is down and to use single user or admin mode for multi-user databases.

After importing the database into a new folder on the server, the next stage was to generate the user screens, and to check that all screens compiled correctly.

It is also important to set SIR preferences that are stored in SIR.INI and any application specific INI file such as HB.INI for heartbase. This includes the setting of default editors such as WordPad and Textpad the mapping of Word, Excel, SPSS and SAS, and the addition of any custom menu items and icons.

Nick took the opportunity of the conversion exercise to fix any nagging user screen issues that "never seem to get done" and to get rid of old junk programs as part of a general clean up.

The final stage of the conversion involved detailed checking of the new database to make sure record counts were the same as those in the source database and to user test the movement between screens to make sure that everything was working properly.

This stage also involved a small amount of recoding in order to eliminate obsolete commands.

Then Nick proceeded to the fun stage; exploring the new functionality of SIRXS in order to capitalize on the advances.

Plans for the future include the creation of a semi-automated process to update other existing SIR 2002 databases to SIRXS and to roll out SIRXS versions for user beta testing in two locations.

Slides:

http://www.sir.com.au/~sug/conf2008/sir_presentation_2008_conference.ppt

Processing Journals

Tom Shriver
datavisor

Tom commenced his session with outlining the elements of a SIRXS Journal File.

The Journal is a sequential file which tracks database update levels and records details of what happened at each of these updates. This includes when the update happened, what was changed and who controlled the update (e.g. Master or a User).

It records details of any schema changes and also data changes such as new, modified or deleted records.

Tom also identified what the SIRXS Journal file doesn't have. It does not have a complete schema definition, so it doesn't record simple things like "What's the name of record type 3" and "what's the value of CURRPOS in this new record".

Hence in order to fully interpret what journal data means, we must have a database schema attached.

Having said that it provides a very powerful tool with the opportunity to provide much better rollback, better analytical tools, the ability to create user defined recovery and rollback, and enhanced scope for audit trails.

There are two new PQL commands which control the processing of Journal files.

The first of these is PROCESS JOURNAL which allows the user to step through the Journal File and reads the Journal Headers returning the information held.

The second of these is JOURNAL RECORD IS. This reads the detailed records from the Journal and returns the data we would expect from a RETRIEVAL. For this command to work there is a need to have a SCHEMA (i.e. a database) available. This command does not have any indexing functionality such as VIA, NEXT REC.

Tom outlined a real example of customised database recovery using the new Journal functionality.

The user was updating the database in the late evening, and database backups were scheduled to begin at midnight. The user who was logged in via Master and the Backups which operate in single user mode then both struggled for control of the database. In the end the backups won with the result that the database ended up in a mess.

Tom's solution was to write a PQL program to decipher the two Journal files and fix the database.

Tom closed his session with some discussion over the use of Journal PQL functionality for Audit Trails.

The first problem to overcome is to establish the scope of an Audit Trail. Is this the detail of all variables and all records, or is it a subset of the most important variables only.

As well as storing the data in an audit trial there is also a need to store user explanation for database modifications.

Tom discussed three implementation strategy possibilities for Audit Trails.

- Keep Journal Files on one continuous file

The issue with using this for audit is that there is no schema stored in the Journal; perhaps Tony could change this?

- Store the Audit data in the database

This could be achieved by using mirror image record types with additional high level keys. The problem with this approach is if keys are changed or the CaseID

- Store the Audit data outside the database

This would involve the use of an Audit database or tabfile, or alternatively a text or CSV file

Slides: -

http://www.sir.com.au/~sug/conf2008/Processing_Journals.PPT

EXTERN

Dave Doulton
University of Southampton

Dave's paper on Extern functions covered what they are, how to use them and how to create them.

The EXTERN and EXTERNS are two functions held in the extern.dll (dynamic linked library) in Windows. They can have both string and numeric parameters. EXTERN returns a number and EXTERNS returns a string.

In order to create these functions you can use the supplied template which is located in the api\examples sub directory from the SIR installation directory.

David Baxter had constructed a dll that reads web pages, and this was used to create five example programs to illustrate the use of these functions in reading from and writing to web pages. It is not possible to use these to read from secure web pages that start with https.

The five example programs write the contents of a web page to a file, reading share prices from the msn money website, reading weather forecast information from the BBC weather website, reading train live running details from the national rail website and reading Formula 1 grand prix results from the F1 web page. These programs use sub-procedures to read from the web server in chunks of text ending in the next > (HTML tag) encountered. This keeps the size of the text chunks relatively small which helps in the analysis process.

Dave then illustrated these programs with several live demonstrations.

He showed the weather forecast for the next 5 days for several locations including London Bridge, Romsey and Los Angeles. He then gave a demonstration of train times from the live running site for Kings Cross and observed wryly that he had noticed that First Great Western trains are always late.

The final demonstration was for the Formula 1 Grand Prix results. This is a useful application for Dave as he takes part in a Fantasy F1 league at work. His application reads all the F1 results to date. Dave updated the results for the most recent race which was the Canadian Grand Prix. This had been a disappointing race for Dave's Fantasy team as he had dropped from 3rd place to 4th with the latest results. This was because one of Dave's fantasy team drivers is Felipe Massa who had been disqualified in the Canadian Grand Prix on Lap 51 for a pit lane infringement, whereas other colleagues have Lewis Hamilton as one of their drivers who had won the Canadian Grand Prix.

Dave's slides:
http://www.sir.com.au/~sug/conf2007/extern.ppt

Examples and DLL:
http://www.sir.com.au/~sug/conf2007/externexamples.zip

Barcode reading with SIR

John Lemon
University of Aberdeen

John described his paper as SIR and Barcodes a.k.a. "Another non-standard use".
The Engineering department at the University of Aberdeen wanted to increase the number of engineering graduates and Student Recruitment came up with the gimmick of offering a free laptop to engineering students. Unfortunately they started to publicise this before talking to the University IT department (DIT)! The immediate questions from DIT when this scheme was announced were as follows: -

- What specification?
- Which software would be needed?
- When would the laptops be needed?
- How many of them?

After this was agreed 225 laptops were delivered to secure storage at the university during fresher's week.
The next dialogue went along these lines: -
"We will issue to students tomorrow, but only to those students who are eligible; we assume you can knock a database up by tomorrow".
John decided on the KISS approach – "Keep It Simple Stupid", due to the short timescales. Each student has a unique id number, and each laptop has a unique serial number so these could be linked together in a database.
John felt that they would not want to type in 225 Students IDS and the associated laptop serial numbers and started to look at potential shortcuts.
He ordered a barcode reader for delivery by 12.00 the next day and the engineering department provided an Excel workbook with the student details.
John tested this the next day shortly before the first student briefing session which was scheduled for 2.30. Unfortunately the test revealed that the barcode had an extra check digit which is not apparent on the printed serial number.
As a result John was still coding his "time-saving solution" as the first briefing started to 100 students.

In summing up John said that the bar code reader coped, the Sir code coped, but the staff handing out the machines couldn't. John's solution even provided help with the chancers trying it on.

"Can I collect my friend's machine",
"I haven't had my machine yet"

Slides:
http://www.sir.com.au/~sug/conf2008/BarCodes.ppt

Open Heart Narrative Reports

Nick Gawrit
heartbase

Nick presented details of a recent heartbase application designed to assist in the production of operation notes. The aims of this application were to reduce the surgeon time needed for producing open heart surgery operation notes and to improve the accuracy of these notes.

Other benefits were to provide the data needed for other requirements such as registries and to satisfy the data needs of perfusionists who operate the heart lung machines during surgery. The application also included information for patients via a graphical snapshot of the coronary tree.

A vital first step in the creation of the new operation notes was the enlistment of a physician champion to design a report for CABG only cases.

The heartbase team and the physician met with the perfusionists to review the design and gain their input on data entry. Then they met with transcription to review the requirements and set up the automatic transfer to the transcription system.

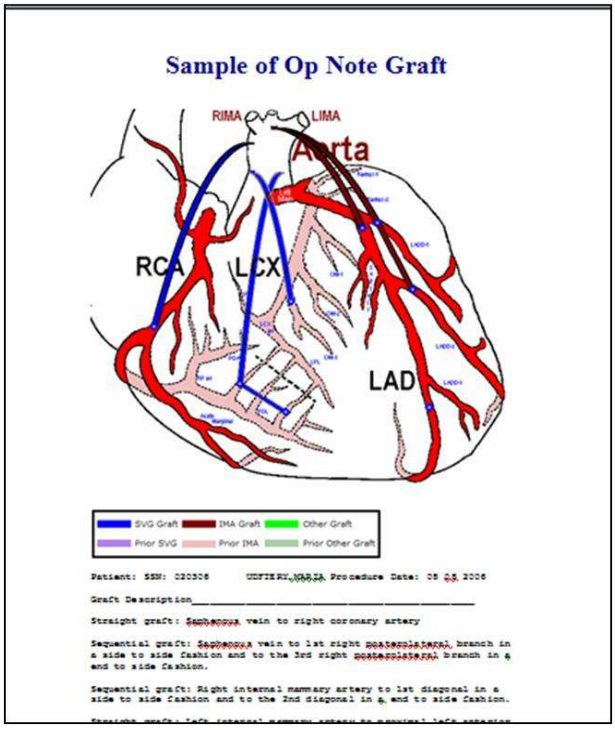
The heartbase data administrator and staff assisted by coordinating all the required activities.

One of the first components of the new development was a customised data entry screen that reflected the data needs of the perfusionist, the hospital board data collector, the surgeon and the transcription team.

The next stage of the process was to develop customised PQL code to auto generate paragraphs for the operation note from the data entry fields.

This code included the generation of a CSV file that could be used with Word and mail-merge at a later stage.

For patients the application generates a graphical coronary tree diagram with wallet sized output including narrative data. This part of the application was developed by Tom Shriver.



The application was also enhanced to interact with flash drives and to create a pocket sized handout for patients.

The system allows surgeons to dictate additional findings in the operating room which in turn can become part of the Electronic Heath Record.

Nick concluded his talk with a summary of the benefits of this operation note application. The system had introduced savings of 20-30 minutes of surgeon time per operation note.

The data validation was also enhanced by comparing information from the operation note with the data in the database.

Other benefits included saving of transcription time, the ability to use electronic signatures, the speeding up of dispatch of the Operating note to the referring MD by 1-2 days and the optional customisation of reports for physicians.

There was also the unexpected benefit of improving the coding used for billing purposes.

Slides:
http://www.sir.com.au/~sug/conf2008/OP_NOTES_SIRCONFERENCE_2008.ppt

Prognostic Risk Scoring

Nick Gawrit
heartbase

Nick introduced a scoring algorithm for the risk involved in open heart surgery operations.

The risk algorithm was provided by the Society of Thoracic Surgeons (STS) for use in retrospective risk scoring. The surgeons and the heartbase team both saw the potential of using this tool ahead of surgery.

The surgeon's primary interest was to evaluate the risks involved in forthcoming procedures, and the heartbase team wanted to develop a module that allowed risk to be analyzed and reassessed periodically as the patient approaches surgery.

The scoring model looks at the risk of death, stroke, heart attack and extended lengths of post – operative hospital stay.

The key features needed for the Risk Scoring Tool were: -

- The ability to score patients on any PC
- Field completion of required data
- The production of a Score Report
- A Patient Score history
- Integration into the heartbase application

In order to easily establish these key features the following needs were identified: -

- Integrate into event management
- A new schema for all required variables
- Conversion into a prognostic model
- Validate the algorithm using test cases
- Screens to reflect relevant risk variables
- Adjustment of risk variables over time
- Print functionality for risk assessments
- Training on the use of the scoring tool
- Review of impact on medical paperwork
- An online history of assessments
- The production of various reports

The existing database schemas were examined to identify all the variables that would be needed in the risk model and these were them copied to a new STS record type.

A screen painting tool was then used to set up a new STS prognostic scoring screen, with a summary of the relevant variables and the predicted risk scores.

The retrospective STS risk models for mortality, morbidity and length of stay were then interpreted into a prognostic model version 2007.1.2.

The risk algorithm was manually tested using 2000 cases, that had risk scores generated by the STS.

The conclusions from this to date are that the key actions that patients can take to reduce risk ahead of an operation are to reduce weight, to take exercise, to adopt healthy eating regimes, to manage any diabetes, to take pre-operative medication to treat hypertension and to be allocated to a good physician.

Nick is currently working on evaluating the reporting needs for the Scoring Tool.

In the future potential developments will include the creation of a web site to link to the application, the possibility of providing appropriate reports and data via flash drives and mobile phones, and the extension to include a Euro Scoring Tool.

Nick concluded his paper with a demonstration.

Slides:
http://www.sir.com.au/~sug/conf2008/PROGNOSTIC_SCORING.ppt

SIRXS Database Assembly Line

David Merle
Columbia University

David talked about his database assembly line to convert a suite of SIR 2002 databases to SIRXS.

The generic conversion process involves the creation of new screens, the link to a main menu, the re-compiling of screens, the creation of an HTML codebook and the re-linking to the database back up routine.

David has set up a central control area for user connection to his assorted SIR 2000 and SIR 2002 databases that he calls his ATC (Air Traffic Controller). This ATC co-ordinates the user and password authentication from Citrix, and restricts user access to the databases that are appropriate for their access level. He has a SIRXS icon which launches a SIRXS Air Traffic Controller and a SIR 2002 icon which leads to the SIR 2002 ATC and associated databases.

There is also a central location for storing information about all of the Data Coordinating Center's (DCC) databases. This is referred to as the Counting database and is used to register new databases.

As part of the standard SIR menu available for the Columbia University applications there is a DCC tab which includes a range of tools that are available for all of the databases. This includes an "Import Database" menu option which handles the conversion of a database from SIR 2000 to SIR 2002.

This DCC menu option carries out the following processes: -

- Extracts database name from export file
- Rename's the database in the export file
- Removes the password from SIRXS
- Makes a database folder on the server
- Imports and creates the SIRXS database
- Creates & compiles PQL screens
- Establishes a link to the main menu call
- Establishes a link to the back up routines
- Registers with the COUNTING database.

Once this routine is complete the new SIRXS database is fully integrated with the rest of the application, as it is registered in the COUNTING database, it is connectable through Citrix and the ATC, it is part of the standard DCC back-up routine, the codebook with all the schema definitions has been created and SPSS files for every record type will be automatically created overnight. It is also searchable and modifiable using the DCC restructure tool.

As an added safety check David runs a check sum count on the data in the database before and after the schema modification run to make sure that no data is lost in the conversion process.

David then proceeded to carry out a live demonstration of the generic conversion process.

Slides:

http://www.sir.com.au/~sug/conf2008/DatabaseAssemblyLine.ppt

Minutes of AGM 27 June 2008, Dublin

Committee Present
Mo Reardon, Dave Doulton, Frances Williams, Adrian Hodgson, John Lemon, Kathy Brooks

Minutes of Previous Meeting: Agreed.

Chair's Report (John Lemon)
We held a one day UK conference and training in London in June 2007. The intermediate training was well received. The last issue of Reporter had been issued electronically and this will continue in future.

We have also just had an international conference and training in Dublin at the Jury's Croke Park Hotel 25th – 27th June 2008.

Treasurer's Report at 23rd June 08
Current account: £9,627.34
Saver account £1,302.88
Business reserve: £ 236.80

The current account has not had all of the conference payments deducted yet. We expect to make a slight loss on the conference.

Elections
Both Kathy Brooks and John Lemon confirmed their resignations from the Sir Users Group Committee. John thanked Kathy for her many years of service. Dave had been persuaded to stay on as Chairman of the group, which news was gratefully received by all present. John also thanked all members of the committee for the work in organizing the conference.

There being no further nominations Dave Doulton, Adrian Hodgson, Jon Johnson, Frances Williams and Mo Reardon were re-elected to the committee.

Any Other Business
The future of the User Group was discussed on several occasions over the course of the Dublin conference. Due to the resignations from the Committee, the current committee does not have enough members under the current constitution to enable them to change the constitution or hold a vote. It was agreed by those present from the committee and UK users that it would be acceptable for the current committee to operate without a quorum in the meantime. It was also agreed that suitable constitution wording changes would be put forward by the returning Chairman soon after the conference so that a Users Group meeting could be convened in the near future to vote on the constitution wording changes, and to attend to any other Users Group Business.

SIR GODOKU

If you still have some New Year desire for puzzling and haven't yet run out of patience with the jumbo Christmas crossword or endless Sudoku puzzles, here is one with a difference supplied by our chairman.

It uses letters rather than numbers, and you need to complete the puzzle so that every row, column and every 3 X 3 box contains the nine letters show in the grid.

As an extra clue the letters spell a word that appears in a row or column to make it easier.

Happy Godoku puzzling!

	C			P		A		
R			K		W			
		K					L	
				R	L			
	L							P
			P		O	E	C	
E				L		K		
A	R		E					
							W	

Did you know that?

Sudoku was originally called NumberPlace and the first puzzle was not from Japan but the USA.

Howard Garns an American architect and a freelance puzzle constructor submitted a puzzle for Dell Magazines in 1979 using Eulers Latin square concept applied to a 9 x 9 grid.

The Times started the British newspaper trend for including the puzzle on 12th November 2004 and this turned into an all out press circulation war from February 2005 when the Telegraph started to feature the puzzle on its front page.

The puzzle became especially prominent in newspapers soon after the 2005 general election, leading some to suggest that Sudoku was filling the gaps previously used for election coverage!

Sky One launched the world's largest Sudoku puzzle with an 84 metre square puzzle carved into the side of a hill near Chipping Sodbury.

http://www.sudoku.org.uk/blunder.htm

This resulted in red faces all round when it was discovered that it has 1,905 possible solutions.

They should have used Dave's SIR suduko solver and then they wouldn't have had any problems.

SIR UK User Group Committee Members

2008/2009

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