

The Cruncher

STATISTICA distribution

HRS is now the authorised distributor of *STATISTICA* in New Zealand. This program is a major statistics and graphing program, which we believe will satisfy the data presentation and data analysis needs of many of our clients.

Because it has been developed from scratch over the last 15 years or so, it uses the most up-to-date programming techniques, and the look and feel will be much more familiar to spreadsheet users

than some of the competing products. Visual Basic is used as the macro language.

The product is extremely comprehensive, so that some users will see it as a graphing program with statistical functionality, others will see it as a statistics program with nice graphs, and yet others will love it for its quality control tools. You can use it as a stand-alone program on a desktop, or as the basis for enterprise-wide data analysis or data mining.

HRS will be starting seminars on this product in February, and our first public training course will be held on Friday 22 March. Glen will be the account manager in charge of *STATISTICA*.

You can get more information on *STATISTICA* and download a free demo program from www.hrs.co.nz/software/statistica.htm.

SurveyPro for marketing and opinion surveys

Over the years we have had a lot of customers buy statistical software for the purpose of conducting relatively simple surveys. Although the products were suitable for this purpose, and the best available at the time, other products have continued their development.

We now have a situation where SurveyPro has reached the state that it has become a recommended option for many people who need to conduct surveys. In this one product you can design survey forms (for paper or for the Web), perform data entry to its built-in database, and prepare basic reports on the data. With the NetCollect add-on product you can use the Web version of your forms to collect data from a web site.

In the new version 3 you will find a form design interface that is far easier to use than that of the competition, and the data entry process is much easier to use than that of most statistics software. The result reporting tools give enough data analysis for many users, without the expense and complexity of a statistics program.

You can get more information on SurveyPro and download a free demo program from www.hrs.co.nz/software/surveypro.htm.

Statistics Society conference student prize

The photo shows Ray Hoare presenting a prize to Johnathan Godfrey, who won the HRS award for best presentation by a student at the NZ Statistical Association/International Biometric Society conference recently.

HRS has presented the NZ Statistical Association with \$1000 each year for the last seven years, for them to spend as they see fit for prizes at their annual conference. This year the main prize went to Johnathan (for the second time) and two further prizes were given to Natalie Thorne and to Jean Yang.

We wish these students every success in their future careers, and encourage staff members to let their students know that their efforts to prepare papers can reap substantial rewards.



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Business Software



Ray Says:

Spreadsheets

Hoare Research Software has a love-hate relationship with spreadsheets. We know that many people struggle to do things in spreadsheets when they could do them more easily and better in one or other specialist program. On the other hand, many of the products we sell, such as @RISK and What'sBest!, are spreadsheet add-ins, and others (Mathcad, Forecast Pro) work co-operatively with spreadsheets.

I have recently heard a statistician say that "using a spreadsheet for statistics is like digging a garden with a table fork". I have heard spreadsheets described as "fast food", where Mathcad and STATISTICA are gourmet food. On the other hand, Nye John and Dave Whitaker from Waikato University have recently published a book "Statistical Thinking for Managers", where they use Excel for all their technical work. We support them in their attempt to get managers thinking statistically, and accept they are facing reality by demonstrating the concepts using Excel. However, we strongly believe that spreadsheets are not an acceptable environment for performing statistical investigations on which business decisions will be based.

There are four main reasons why we think many people will be better off by using specialist software in many business and technical situations. The hardest one for most people to accept is that a high level of expertise is necessary when using spreadsheets for statistics or advanced mathematics, in order to avoid making subtle but important errors. Much real data has missing values, which are difficult to deal with in Excel.

A second reason is that formulating problems, whether mathematical or statistical, can be much faster in Mathcad or STATISTICA, and in many other programs, than it is in any spreadsheet.

Thirdly, some people all the time, and most people some of the time, will find that spreadsheets do not have the functionality needed for a particular job. I did once have

Offer to SPSS Data Entry Builder users

We have used this product ourselves, and have trained a lot of people in its use. We had high expectations that the product would develop into the kind of tool that users need, but Ray feels it is still cumbersome to use and requires more skill than many of its users possess. If there are organisations who agree with us, and wish to take an alternative approach, we are prepared to help them by offering a discount when buying SurveyPro.

People who have previously purchased SPSS Data Entry Builder will be given a credit of \$1240 towards a purchase of SurveyPro version 3, provided we receive an order before March 28th.

We believe that SurveyPro allows you to design forms in a much simpler way than required by SPSS DEB. It will automatically produce summaries of your data as soon as you enter the data, and you can export the data to SPSS or STATISTICA for more in-depth analysis. Note that SurveyPro is a perpetually licensed product.

Contact Glen@hrs.co.nz to take advantage of this offer.

someone say to me "If I can't do it in Excel I don't do it." He was a bit like the carpenter who had only a hammer, and thought everything was a nail.

The fourth and most important reason to use a specialist program, in my view, is the difficulty of auditing spreadsheets, so that you are sure you are doing what you intend to do. The pre-packaged menu-selected algorithms of STATISTICA and the standard mathematical notation of Mathcad mean you and your colleagues can check what you have done, even from a printed output.

If what you do has no value, then it doesn't much matter what system you use. If your decisions and your time are worth hundreds of thousands of dollars per year, then \$2000 spent on software, and a few days spent in training or self-tutoring, could be a good investment.

Free Electronic Statistics Textbook

This Electronic Statistics Textbook offers training in the understanding and application of statistics. The material was developed at the StatSoft R&D department based on many years of teaching undergraduate and graduate statistics courses and covers a wide variety of applications, including laboratory research, business statistics and forecasting, social science statistics and survey research, data mining, engineering and quality control applications. Owners of STATISTICA have this material in their help system, but anyone can use the version on the StatSoft web site.

The Electronic Textbook begins with an overview of the relevant elementary concepts and continues with a more in-depth exploration of specific areas of statistics, organised by class of analytical technique. A glossary of statistical terms and a list of references for further study are included.

Use it on-line, or download it from www.statsoft.com/textbook/stathome.html

Forecast Pro 4 Unlimited released

Forecast Pro Unlimited is designed to automate and simplify large-scale forecasting jobs. The new version includes:

A forecast adjustment facility that allows you to create, store, share and recall multiple forecast adjustments and overrides.

The ability to collaborate on forecasts and to easily include the input of multiple stakeholders in your forecast.

An entirely new interface that features multiple synchronised windows. As you click from item to item, the on-screen graphs, forecast reports and override views are all automatically updated to show information on the currently selected item.

An intuitive navigator-style representation of your data, making it easy to manage large data files and to quickly drill down into your data hierarchy.

Go to <http://www.hrs.co.nz/software/forecastpro.htm> for more details, or call Glen

Science and Engineering Software

Mathcad Mailing List

The Mathcad Mailing List is a forum for general discussions about the use of Mathcad, a place to ask for support and a source of new information about Mathcad (versions, patches, updates, add-ons etc.) as well as technical and mathematical information, knowledge sharing, hints and tips.

The list is monitored and maintained by the Mathcad support group at Adept Scientific. To subscribe, go to <http://lists.adeptscience.co.uk/subscribe/mathcad.html>.

Why you should consider Mathcad as a teaching tool

- It allows you to describe the mathematics of your subject using the same notation the textbooks use
- Your students will find they can describe what they do in the same document that they use for calculations.
- Assignments are easy to mark
- Mathcad is a tool the students will use in the real world, in many kinds of situation
- We now have affordable academic licensing options.

Mathcad trial CD

We now have stocks of a free trial CD for Mathcad. Contact Marc and find out why we are so keen on this product.

Code generation for FPGAs using Simulink.

Because of their good cost and performance, FPGAs (Field Programmable Gate Arrays) are fast becoming popular in signal processing applications. Xilinx is a company that has developed an interface for converting Simulink models into code that can be implemented in this kind of signal processing hardware. Altera is another company about to announce products for similar techniques. If you are currently using these chips then MATLAB and SIMULINK can be used to decrease the time spent on development. Please contact Marc for more information.

AULOS

This program is used for hydraulic modelling, and is a "made in NZ" program, the marketing material for which is prepared by HRS. Go to www.hrs.co.nz/software/aulos.htm to see more details.

Free program for interpolation

A part of AULOS is a program that calculates cross-sections of a channel, interpolated between the main cross-sections defined by the user. This program has uses beyond its application in AULOS, so has been separated from the program and is available as a free download from links on the above site. Comments and feedback should be addressed to Marc.

Scientific WorkPlace 4.0

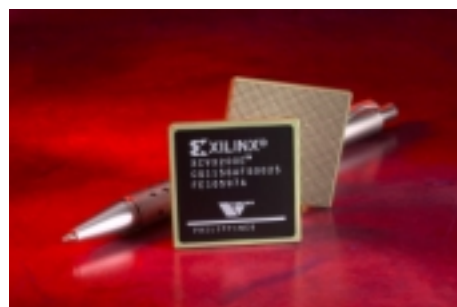
In this new version you can typeset complex technical documents with LaTeX, the industry standard for mathematics typesetting, without having to learn LaTeX.

Because of its superior precision and quality, publishers and writers of scientific material use LaTeX extensively. When you typeset, LaTeX automatically generates footnotes, indexes, bibliographies, tables of contents, and cross-references.

Scientific WorkPlace 4.0 automatically saves your documents as LaTeX files, allowing you to concentrate on writing a correct paper.

You also get document shells designed to meet the typesetting requirements of specific professional journals and institutions. In addition, full computer algebra capabilities are available, using built-in versions of MuPAD or Maple.

Go to the URL www.hrs.co.nz/software/scientific.htm, or contact Marc for more information.



A Xilinx Virtex FPGA chip

HRS Catalogue

We are making important changes to parts of our product line at the moment, so our 2001 catalogue is now well out of date. We expect to send you all a completely revised catalogue in a new format when we complete this process.

We do not expect to change any aspect of our mathematical product line. However, there will be important changes elsewhere.

Please check our web site for up-to-date information on our products and services.

Maplets in Maple

Maplets are a new technique for providing a user interface to Maple applications. A user can interact with your application through buttons, edit boxes, and graph windows, without having to know about Maple programming. Maplets is only available to customers who have paid for the Extended Maintenance Program. They get the necessary software through the New Maple Primes web site, which is accessible only to these customers.

Maple class kits

We can now offer a special license for the Maple mathematical program, for use when you wish to make the software available for students in a computer laboratory. Call Marc for details.

Mathematica and cricket

The article mentioned in the last Cruncher regarding the use of *Mathematica* to model Daniel Vettori's bowling action is now at www.wolfram.com/news/cricket.html.

Axum version 7

Axum is a general purpose graphing program that gives you highly customisable 2D and 3D graphs, with a very easy to use interface.

We particularly like the way it integrates with the Mathcad program, so that you can get more highly customised graphs than provided in Mathcad itself.

Version 7 adds probability plots and Pareto charts, and allows you to customise many details of box and whisker plots.

Details are at www.hrs.co.nz/software/axum.htm – call Marc for pricing.

Seminars and training

MATLAB seminar

In February we will be adding a MATLAB seminar to our quarterly tour of New Zealand. This seminar will provide a general background to the program, with interactive demonstrations that show how the program is used for calculations, plus an overview of the specialist application areas that it is often applied to. If you don't know MATLAB, but are doing general technical computing, or analysis in the areas of digital signal processing, control systems design, or financial analysis, then this seminar may show you new efficient and powerful ways to perform your work.

Mathcad training

We have a public training course scheduled for March. See our web site www.hrs.co.nz/training or contact Marc for time and place. We also run private, in-house ones. Do let us know if you have enough interest in your organisation to run a Mathcad course.

@RISK training

Our next public @RISK training course is in Auckland, in June 2002. Details will be posted at www.hrs.co.nz/training by the end of February. You can enrol for the course on our web site, or give Glen a call. If you want training before then, please contact Glen to arrange an in-house course.

Training in survey software

We are now in a position to offer one-day training courses in SurveyPro and in Remark Office OMR. Because of similarities in the concepts of these two programs, we can also offer a one-day course that covers both SurveyPro and Remark Office OMR.

The seminars in this panel do not have a flyer enclosed with this Cruncher. We sent you one in the previous issue, if you were on our mailing list then.

All details are available on our web site at www.hrs.co.nz/seminars.

Mathcad seminar

This seminar demonstrates the use of Mathcad for performing technical calculations, and for documenting design calculations. We will be using the new Mathcad 2001i for the first time in public.

Satisfaction Survey seminar

This will show you how researchers can save money and get greater understanding by using the related products Survey Pro and Net Collect to create professional forms, capture data and analyse it. With Remark OMR you use a scanner to read your data into a database.

Operations Research seminar

We show how to @RISK to handle uncertainty in a spreadsheet model of the numbers involved in a business decision. We also show you a tool (ForecastPro) that will find the best method for making forecasts of time series, and another one (What'sBest!) that is far better at optimising than the normal Excel methods.

STATISTICA seminar

We will be adding a seminar on STATISTICA 6 to our repertoire, and will demonstrate this product in main centres at the end of February. Come and see us demonstrate its graphing, basic data analysis from databases, and in-depth statistics.

STATISTICA Training

We will be running a one-day introductory STATISTICA training course on Friday March 22, in Auckland. For more details please visit our web site, www.hrs.co.nz/training.

February seminars

Times

Auckland and Wellington

Day 1	10:00am	Surveys
	1:00pm	STATISTICA
Day 2	10:00am	Mathcad
	1:00pm	MATLAB
	3:00pm	Risk, Forecasting and Optimisation

Christchurch

10:00am	STATISTICA
1:00pm	MATLAB

Dates

Auckland

Thursday 21 Feb, Friday 22 Feb

Wellington

Wed 27 Feb, Thursday 28 Feb

Christchurch

Friday 1 Mar

Contacting us ...

We are based in Hamilton, but supply, support and demonstrate our products throughout New Zealand.

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