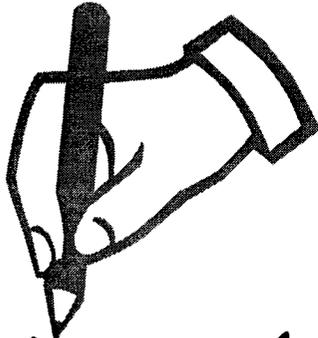




CRISP NEWS

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Editorial

Welcome to the first in a series of regular newsletters for users of SAGE CRISP. There is a sense of *deja vu* for me because it was nearly 12 years ago that I assisted in the launch of the first CRISP News, in October 1984! That was just after the CRISP User's Group formally came into being, at the 2nd Users Workshop held at Cambridge.

Many of you have supported the user's meetings which have been

held since then, and I am sure you would agree that there has been a strong sense of community among CRISP users. Our meetings have been characterised by a willingness to talk about our successes and failures, and a desire to learn from each others experience in using the program.

Over the years, CRISP has been applied successfully to a wide range of geotechnical problems and has become well established in the UK and overseas. However, it would be fair to say that some ground was being lost to other numerical modelling packages which were offering better designed user interfaces. The shortened learning curves offered by such programs has, understandably, been very attractive to industry.

Important changes have now taken place. For the first time, we have a commercial engineering and software company taking responsibility for the development of CRISP. So far, this

has been restricted to the user interface, but in coming months we can expect to see this evolving. The next edition of CRISP News will give more details of the CRISP Consortium which has recently been formed, and the developments which this is likely to lead to.

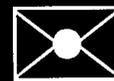
Exciting times lie ahead. I believe that the CRISP Users Group still has an important role to play, and I hope that you will continue to give it your full support. This newsletter is a part of the improved service which users can expect to receive in future.

It is customary with newsletters of this type for the Editorial to end with a plea for contributions for future issues. This newsletter is no exception - consider yourself solicited!

Rick Woods



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CRISP NEWS

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SAGE CRISP FAR EAST REPORT

Interest has been very strong from the East Asian countries since the launch of the beta version of SAGE CRISP. In response, SAGE CRISP has been represented at four events in the region in the past 6 months.

In November, Mike Gunn and Roger Chandler spent 5 days touring Singapore and Malaysia giving brief

lectures on Critical State Soil Mechanics and the new SAGE CRISP. The tour included a lecture sponsored by the Institute of Engineers Malaysia (IEM) which was attended by over 70 engineers.

In February, Roger Chandler aided and lectured at the Asian Institute of Technology's five-day course on

Numerical Analysis in Geotechnical Engineering in Bangkok. The delegates were given opportunity for hands-on experience of the new interface. SAGE CRISP has also been represented at the HATTI conference in Indonesia (23-24 April) and at the 13th South East Asian Geotechnical Conference in Kuala Lumpur (6-10 May).



SAGE CRISP COURSE AND FIRST DEVELOPERS' CONFERENCE

The next SAGE CRISP training course will be held at Cambridge University Engineering Department, from Monday 15th to Thursday 18th July 1996. The course will be along similar lines to the one which was run last September, which in turn was based on the "Advanced Geotechnical Analysis" courses run since 1990.

The course will be under the auspices of Cambridge Programme for Industry, who have sent out their own publicity material.

If you have not received information, please contact CPI or SAGE Engineering.

Immediately following this course will be the first CRISP Developers Conference. This will be an annual series of meetings, and will be run quite separately from the CRISP User's Workshops (which will continue to function in the normal manner). The Developers Conference will provide a forum for researchers and practitioners who are actively making changes to the

CRISP source code (for whatever reason). The focus of these meetings will be quite specific and obviously more specialised than the User's Workshops.

Details of the Conference are available from SAGE Engineering. Note that the Conference will not be organized by the Cambridge Programme for Industry, but rather by the CRISP Consortium.

SAGE CRISP Course Programme

15th July - Critical State Soil Mechanics Review
(Professor Powrie, Professor Schofield, Professor Muir Wood)

16th July - Analysis Preparation and Parameter selection
(Professor Gunn, Dr Chandler)

17th July - Analysis output interpretation
(Professor Gunn, Dr Britto, Dr Chandler)

18th July - Advanced Use and Applications
(Professor Powrie, Dr Swain, Dr Richards)



USER REVIEWS OF SAGE CRISP



Jaakko Heikkila

Turun Viatek Oy, Finland

I have been using CRISP 90 since 1991 in different design projects. Typical problems are reinforced embankments, deep excavations and other composite structures in soft clay. The most commonly used soil model is Modified Cam-clay.

In CRISP 90 it was quite time consuming to generate an element mesh with bar and beam elements, and no graphical output was provided for these elements. The SAGE CRISP pre-processor provides a very efficient way to create complex element meshes, including bar and beam elements. When using the modified Cam-clay soil model, the automatic calculation of in situ stresses including the size of the yield locus $P'o$ is a real time saver, although the determination of in situ stresses in complex models would, in my opinion, be one of the most important future developments of SAGE CRISP. With the SAGE CRISP post-processor it is easy to produce graphical output for all kind of elements, including bending moment diagrams for beam elements and tensile stress distributions for bar elements. There is also an easy and fast way to plot out stress paths, which is a very useful possibility when working with the modified Cam-clay soil model. To the technical support of SAGE CRISP I must give special thanks for the fast and friendly service.

Hilary Skinner

BRE, Watford, UK

This year I have moved over to using SAGE CRISP from a 1991 version of CRISP 90. Obviously the differences are significant!

The pre-processor uses a graphical interface to first generate the finite element mesh including element types and material zones before writing the main program data file. The graphical display and Windows menu driven environment make developing and checking the mesh and input data a far simpler task than previously, although the individual selection of a large number of elements or nodes can become tiresome.

The main program now runs in the Windows environment, followed by the more time consuming data converter rewriting the .NRS file in a database format. The analysis control dialogue box allows easy checking of error messages and, most usefully for a critical state or elasto plastic analysis, provides a summary of the equilibrium check and stress state codes in each increment of the analysis.

The post-processor is also based on a

graphical interface, with menu driven data processing. This allows an overview of the results via contour plots, displacement vectors or stress state codes, followed by more detailed plots based on selected nodes or integration points over one or more increments. One of the new features which has proved most useful is the ability to run a number of parametric analyses using the same mesh and to compare and plot the results from each directly.

The manuals have been updated and are more user friendly than before, but I was happy to note that the data record descriptions are retained should I still wish to text edit the .GPD and .MPD files! SAGE CRISP is still at the beta- release stage and so is not yet completely hassle free, but it does represent a significant advance in user friendliness when developing, checking and presenting analyses.



Did You Know ...

From the middle of the summer you will be able to get an evaluation copy of SAGE CRISP. The evaluation version has all the features but a limited number of nodes and elements.

To order your copy now, contact SAGE Engineering.

CRISP USERS DISCUSSION GROUP

Over the past 10 years, many CRISP users have gained useful tips and advice from the yearly, UK-based CRISP User Group Meetings. These meetings have always adopted a very informal approach and often generate many interesting discussions on the use, and sometimes abuse, of CRISP. Via the Internet, it is now possible to have 'discussions' with other users through an electronic discussion forum called CRISP-USERS.

The way it works is quite simple. If you wish to put a question to other CRISP users, you compose the question as an E-mail message, and then send it to the CRISP-USERS discussion list at Mailbase. Your message is then distributed to everyone who belongs to the list (called list members) just as if you had e-mailed them directly. Answers to questions can be sent just to the originator, or can be posted to the whole group if you feel everyone would benefit from your response. There are obvious similarities with the Usenet Newsgroups, if you have ever subscribed to one of these.

To join the discussion group, send the following message to mailbase@mailbase.ac.uk (no other text is required in your message):

join crisp-users first_name last_name stop

(substitute your own first/last names as appropriate). To find out more about the Mailbase system, send the following message to the same address:

send mailbase user_card stop

The CRISP-USERS discussion list is free of charge and open to users and non users of CRISP, whether based in industry or academia. The list is 'owned' by Rick Woods and Geoff Watson, who are responsible for its administration.

In future Issues ...

- WWW and geotechnical engineers
- Who's who in the CRISP world
- Company profiles
- The CRISP Consortium introduced
- Tricks of the CRISP trade

Any article on these topics, or indeed, any other, will be gratefully received. Remember the greater the reader response, the better the newsletter.

BETA OR NOT BETA? THAT IS THE QUESTION

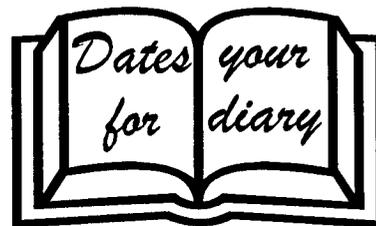
After the users group meeting and the SAGE CRISP course last September it was generally felt by the delegates that the new SAGE CRISP code should be released in a beta format to users. Over the last nine months SAGE Engineering have been selling this version at a reduced price and supporting the users free of charge.

As with all beta programs, there have been some users who have had frustrating experiences, but the majority of feedback has been very positive. SAGE are currently testing the full release, due out sometime during June 1996, which includes many new features such as, Tunnel Node creation, Node alignment, Region Select, Bending Moments and Shear Forces and fully bound manuals (with indices).

It will be possible to purchase the beta version (at beta prices) up to full release. All beta users will receive a full version of the program at no charge and receive three further months free technical support.

I would like to personally thank all beta users, on behalf of SAGE Engineering, for their feedback and patience. I hope that together we have produced a program to meet all your requirements.

Roger Chandler



15th-18th July - Advanced Geotechnical Analysis using the finite element program SAGE CRISP.

Cambridge University - Contact CPI

19th July - First CRISP Developers' Conference

Cambridge University - Contact SAGE Engineering

21-23 August - Advanced Geotechnical Analysis using the finite element program SAGE CRISP

COPPE/UFRJ-PEC-Rio de Janeiro - Contact Professor Almeida (55)21 280 0003

13th September - 9th CRISP Users group meeting

South Bank University London - Contact SAGE