

Our Feature Presentation

In this issue, we would like to introduce our newest employee, Marcelo Canga.

Marcelo Elisardo Canga was born in Carmen de Patagones, Argentina, August 2, 1964. He received a masters degree in Civil Engineering degree in 1988 at the Universidad de Buenos Aires, Argentina.

After two years of engineering practice, he continued his graduate studies as a research assistant at Carnegie Mellon University, Pittsburgh, USA. He earned a Masters degree in Mechanical Engineering in 1992. In 1993 he entered graduate school at The University of Texas at Austin and in December, 1997 earned his Ph.D. in Engineering Mechanics.

His area of expertise and technical interests include finite element numerical analysis, fluid-structure interactions, hydrodynamics, rigid body dynamics, constitutive material modeling and structural analysis.

Marcelo is married with one child. He married Liliana Burasi in 1992 and their daughter Sophia was born in Austin, Texas on March 15, 1997.

Marcelo enjoys two great sports—soccer and golf.

Ultra.news

Events at Ultramarine...

Typically we have the “Events at Ultramarine” on the last page of our newsletter. But this time, we have a special event. Not to down-play all the other “exciting” things that usually happen in an engineering firm; but every now and then, something *really* exciting happens, and it goes on the front page.

On a beautiful Saturday afternoon about six months ago, an event of epic proportions occurred. For the first time in as long as anyone can remember, Ray didn't go into the office; Curtis actually put on a tuxedo; and Roger indulged in fried crab cakes. Now, what in the world might make these three men behave so erratically? Well, a wedding, of course.

On March 21, 1998, Ray's daughter, Jennifer, was married to Brett Atwood of Cedar Rapids, Iowa. After a short (but effective) ceremony in the ballroom of The Junior League of Houston, they were pronounced man and wife. Then the fun began.

The reception was filled with laughter, sentimental toasts given by the best man and maid of honor, good food, and dancing. Ray was actually dragged out onto the dance floor and stood patiently while three bridesmaids danced around him. When everyone was full (and tired), the bride and groom left ceremoniously in a white 1965 Princess Rolls Royce.

On Monday, they left for their honeymoon. They traveled throughout the Midwestern states (Oklahoma, Kansas, Missouri, and Iowa) staying in small towns at Bed and Breakfasts. Why on earth would someone do that for a honeymoon, you ask? Well, I'll tell you.

There were many friends and family members who could not make it to Houston for the wedding, so on Saturday, March 28th, Brett's parents

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Recent Projects Using Ultramarine Software

- On the **Shell Brent SPAR**, AMEC Process & Energy used MOSES to analyze novel methods of rotating SPAR to horizontal onto barge for transportation and eventual onshore disposal.
- Ultramarine performed the installation engineering for the **Shell SALSA** jacket which was recently installed in the Gulf of Mexico.
- During the installation of the **Shell SPIRIT** jacket, MOSES was used offshore to simulate the launch in sea/current conditions which were larger than the design condition, thus saving considerable installation time.
- In Korea, Ultramarine performed an analysis of the novel installation of the **Pusan Bridge** which was installed via jacks instead of crane barges.

Events...(cont'd. from page 1)

hosted a second reception in Anamosa, Iowa, which is a small town outside of Cedar Rapids, and where the groom's family lives.

Two days later, they returned home to their new home in Cedar Hill, Texas, which is about 30 miles south of the Dallas/Ft. Worth metroplex. Brett is a network engineer working for Excel Telecommunications. Jennifer is currently working at Bowne Business Solutions in downtown Dallas (and still producing the news-letter for Ultramarine).



So with all that happened, how do we sum up an event like this? It was the single-most expensive evening that Ray has ever experienced—but but well worth it.

And just when you thought that a wedding was going to be the most exciting news in this issue, we have another announcement. In our last issue, we told you that Yvan had married Fathia in June of 1997. We are now pleased to tell you that they are having a baby that is due in January! Congratulations!

Also, after months of searching every weekend for a house, Marcelo and Lili have finally found one and will begin the wonderful task of moving soon. Congrats on the house, and I recommend waiting until October to move!

Another noteworthy event at Ultramarine is that Georgina Maldonado has left us, but has begun an exciting new job at Barnett & Casbarian here in Houston. She actually started there in December of last year, but this is the first newsletter we've put out since then! Good luck, hope to see you soon!

MOSES: *The Next Generation*

Ultramarine is proud, and somewhat despondent, to announce that this is the last release of the 5 generation.

So, with Rev. 6.0 looming in the near future, what does this mean to you as user? Probably not too much.

The program will still do exactly what it does now. However, the way you talk to MOSES may change.

With MOSES 6.0, when a user is in an interactive session, you will have the option of pushing buttons and being lead through the process of issuing commands.

This is just one of the ways MOSES is becoming more of an automated program and one more example of Ultramarine's pursuit to facilitate the use of this software for the end user.

For more information on MOSES 6.0, please read all the details in our next issue of Ultra.news.

What's new in Release 5.08

General Changes

This will be the last release of the 5 generation. The main thing with this release is that finally, the UNIX and windows versions of MOSES have the same look and feel. This was accomplished by writing our own primitives for the two windowing systems. For this release, we only have the basic command input, but we have laid the foundation for a complete graphical interface which will come with the next release. In addition to having the same look and feel, the new interface has quite a bit more functionality than what was previously available. The "unix" tools for dos have been moved. In the past, they were in the directory \ultra\bin\dos_unix. Since we now have some tools specifically for Windows 95 and Windows NT, they now are in either: \ultra\bin\win32 or \ultra\bin\dos. Also, this is probably the last release of MOSES for Windows 3.1 / DOS. To the best of our knowledge, nobody is using MOSES on Windows 3.1. If you are please let us know, or it will be gone in the next release.

Several minor changes have also been made

- The name HYDRO_SUM has been changed to COMPART_SUM and a new report has been added, PIECES. This report gives the wind and drag properties of each exterior piece.
- A new option, -NUM_APL has been added to the BEAM, PLATE, CONNECTOR, #WEIGHT, #AREA, #BUOY, #PLATE, and #TUBE commands. This option defines a NUMBER, which multiplies all of the results of something's attributes before they are applied. In other words, the force, mass, drag, added mass and

stiffness are first computed based on the properties defined. Then, each of these quantities are multiplied by the number specified before they are applied to the body.

- A new option, -L_DYNAM has been added to the &CONNECTOR command for flexible connectors. This option changes the length of a connector during a time domain simulation.
- A new command ST_CLEARANCE has been added to the FREQ_RESP Menu. This command allows one to compute the statistical clearance between a point on a body and the water surface. Also, the difference between the mean and the statistic is reported.
- Also, the report received when one issues BEAM_SUM TUBE has been changed so that the "distance" printed is now in BLENGTH units.
- The manner in which DXF files are emitted has been changed so that the colors are contained in different layers and the text is now written as text instead of being drawn.
- Several new actions for the string function &BODY have been added. The action DEFWT_CG returns the center of gravity of the "defined weight", and F_XXXXX returns the value of the force of type XXXXX on the body. Here, XXXXX is the name of the force as used in &STATUS FORCE. Finally, MIN_DOWN returns the minimum height of the downflooding points.
- A new type, INTERPOLATE has been added to those available with the string function &NUMBER so that one

can interpolate from a table.

- A new command &PI_VIEW and a new string function, &PI_VIEW() have been added so that one can define specific pictures which he wants to plot.
- The use of " has been extended so that one can now have a second level of quoting. This makes it possible to include blanks in things which are already quoted. This is useful with the new options of the EMIT command.

What No Longer Works

- The Automatic Installation Macros for this release will cause errors if used with an install.dat from the previous release. To fix the problem, you should change the line &SELECT :CLASS to &SET CLASS =
- The -JNTCLASS option has been removed from the &REP_SEL and JOINT commands. It can now be used on the JNT_PROP command.
- The options: -PERMIABILTY, -NONE, and -3DDIF on the EMIT_BLOCK command no longer work.

What Answers Will Change

- The computation of the bending stress for joint crushing has been changed to account for the curvature of the chord. This results in quite small changes.
- The entire &SURFACE Menu has been rewritten. Expect some numerical differences here as well as the fact that it is now much more reliable.

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Frequently Asked Questions... ...and Answers

You may have noticed that our Frequently Asked Questions section is missing from this issue.

We at Ultramarine decided to make a little more room for the Events at Ultramarine section and the New Release information section.

Whenever we get a question from a client, (via e-mail, fax, or other) it is answered as soon as possible, and then posted on our website. We feel that this is a more direct approach and can be viewed by our other users faster.

We do still highly encourage any questions you can think of for our website and we hope this has not caused any problems with reference material.

For all Frequently Asked Questions from previous issues of Ultra.news, please visit our help desk located at www.ultramarine.com/hdesk/question.htm.

Welcome New Users!

**CLA Engineering Pte. Ltd.
Singapore**

**Columbus Norsesea Limited
London, United Kingdom**

**Dona Maju Sdn Bhd
Selangor, Malaysia**

**Nippon Steel Corporation
Singapore**

**Stolt Comex Seaway A/S
Haugesund, Norway**

**TL Offshore Sdn. Bhd.
Kuala Lumpur, Malaysia**

**Ulsan University
Ulsan, Korea**
