OpenCell

Status and plans

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COMBINE 2010, Edinburgh, Scotland
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The equation displayed is:

\[
FV = \begin{cases} 
V_{\text{max}} - V & \text{if } V \leq 0.0 \\
\frac{V_{\text{max}} + (c v0 + c v1 \times L) \times V}{b r - \left( (c v0 + c v1 \times L + c v2 \times L^2) \times V \right) / b r + V} & \text{otherwise}
\end{cases}
\]

Model cheng_model_2000 loaded.
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- **OpenCell 0.7**: support for drag and drop editing of connections and graph traces, multiline math input, experimental Fortran 77 code export; and
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- **OpenCell 0.8RC1**: support for IDA as an integrator, copy and paste of parts of models from the tree views.
EDITING IN OPENCELL

- Editing of CellML files can be done using:
  - The initial conditions/constants view;
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- However, this may not always be the fastest and/or most obvious way to edit a CellML file.

- Another possible approach is that of COR which relies on a proprietary language.
COR-LIKE VIEW IN OPENCELL

- Not 100% compatible with COR, but CellML 1.1 capable.
PLAN FOR A NEW OPENCELL

- OpenCell currently relies on the Mozilla XULRunner Framework, making it difficult to develop OpenCell further.
- New OpenCell to be developed using Qt/C++. 

![OpenCell screenshot](image_url)
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- New OpenCell to be developed using Qt/C++.
- Aiming at a working version by the end of next year.
- Initial focus will be on combining the current versions of OpenCell and COR.
- Next, the focus will be on metadata, ontologies, etc.
CONCLUSION

- OpenCell 0.8 is soon to be released (OpenCell 0.8RC1 is currently available for download).
- There might be an OpenCell 0.9 (with the COR-like view).
- OpenCell, as we know it, is soon to enter maintenance mode.
- A new OpenCell is to be developed (led by Oxford), using the existing CellML 1.0/1.1 API (led by Auckland).
- A first public release is expected by the end of next year.

www.opencell.org

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ACKNOWLEDGEMENTS