

Openoffice – Workout

1. Starmath – a simple equation editor
- 2.

Screenshort

OpenOffice.org File Edit View Insert Format Table Tools Window Help

these_anglade_p142 - OpenOffice.org Writer

Default Times New Roman 12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Juste pour voir :

$$(\rho_k^{(3)})^2 = \sum_{\alpha, \beta, \gamma=0}^2 \left(\sum_{j \neq k} \rho^{a(3a)}(|r_{kj}|) S_{kj} r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma \right)^2 - \frac{3}{5} \sum_{\alpha=0}^2 \left(\sum_{j \neq k} \rho^{a(3b)}(|r_{kj}|) S_{kj} r_{kj}^\alpha \right)^2$$

$$= (\rho^{3a}(|r_{kj}|))^2 - (\rho^{3b}(|r_{kj}|))^2$$

$$\frac{\partial (\rho_k^{(3a)})^2}{\partial r_k^\epsilon} = \sum_{\alpha, \beta, \gamma=0}^2 \left[\left(\sum_{j \neq k} \rho^{a(3a)}(|r_{kj}|) S_{kj} r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma \right)^2 2.0x \right.$$

$$\left. \sum_{j \neq k} \left(\rho^{a(3a)}(|r_{kj}|) S_{kj} \frac{\partial r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma}{\partial r_k^\epsilon} + \frac{\partial \rho^{a(3a)}(|r_{kj}|)}{\partial r_k^\epsilon} S_{kj} r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma + \frac{\partial S_{kj}}{\partial r_k^\epsilon} \rho^{a(3a)}(|r_{kj}|) r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma \right] \right.$$

$$= \sum_{j \neq k} \left[\left(\sum_{j \neq k} \rho^{a(3a)}(|r_{kj}|) S_{kj} r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma \right)^2 2.0x \right.$$

$$\left. \sum_{\alpha, \beta, \gamma=0}^2 \left(\rho^{a(3a)}(|r_{kj}|) S_{kj} \frac{\partial r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma}{\partial r_k^\epsilon} + \frac{\partial \rho^{a(3a)}(|r_{kj}|)}{\partial r_k^\epsilon} S_{kj} r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma + \frac{\partial S_{kj}}{\partial r_k^\epsilon} \rho^{a(3a)}(|r_{kj}|) r_{kj}^\alpha r_{kj}^\beta r_{kj}^\gamma \right) \right]$$

$$\frac{\partial (\rho_k^{(3b)})^2}{\partial r_k^\epsilon} = \sum_{j \neq k} \left[\left(\frac{3}{5} \sum_{\alpha=0}^2 \rho^{a(3b)}(|r_{kj}|) S_{kj} r_{kj}^\alpha \right)^2 2.0x \right.$$

$$\left. \left(\frac{\partial \rho^{a(3b)}(|r_{kj}|)}{\partial r_k^\epsilon} S_{kj} r_{kj}^\alpha + \frac{\partial S_{kj}}{\partial r_k^\epsilon} \rho^{a(3b)}(|r_{kj}|) r_{kj}^\alpha + \frac{\partial r_{kj}^\alpha}{\partial r_k^\epsilon} \rho^{a(3b)}(|r_{kj}|) S_{kj} \right) \right]$$

$$\frac{\partial (\rho_k^{(3)})^2}{\partial r_k^\epsilon} = \sum_{\alpha, \beta, \gamma=0}^2 \left(\rho^{(3a)(\alpha, \beta, \gamma)} \sum_{j \neq k} fFA33a_k^\epsilon[\alpha][\beta][\gamma](j) \right) - \sum_{\alpha=0}^2 \left(\rho_k^{(3b)(\alpha)} \sum_{j \neq k} fFA33b_k^\epsilon[\alpha](j) \right)$$

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Works fine in most cases.
Easy to use
Nice and simple syntax

Only a few known issues
baseline problem - issue 972
some missing symbols

- http://wiki.services.openoffice.org/wiki/Education_Project#Education_Project_Efforts
Our Efforts

http://eric.bachard.free.fr/Education/Documentation/starmath/Doc_Math/html
Doxygen

The heart of starmaths

- node.hxx / node.cxx
- parse.hxx / parse.cxx
 - rect.hxx / rect.cxx
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