

# Reports using MS Word

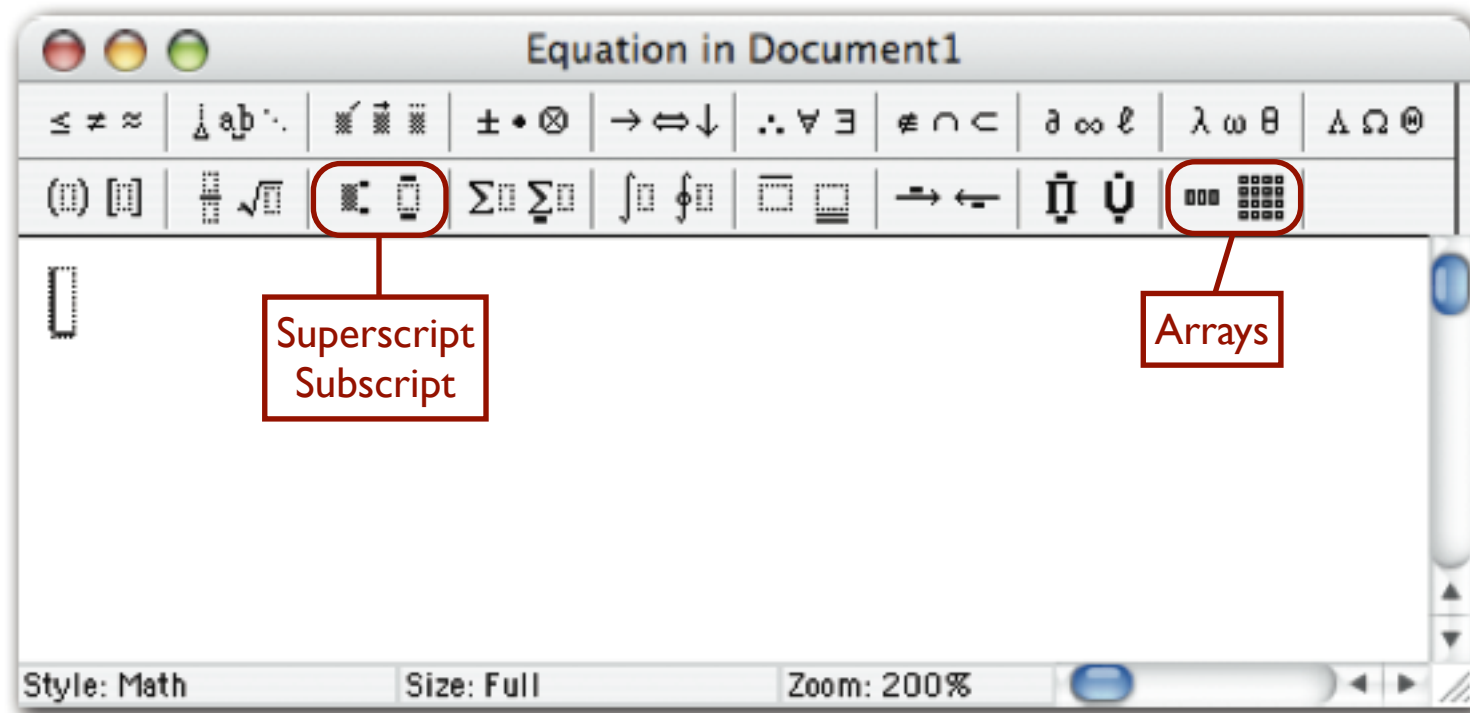
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CHEN 1703

NOTE: Much of this may be out-dated in Office 2007. ICC still has Office 2003...

# Equations

Insert → Object → Microsoft Equation



Close Equation Editor when you are done to insert the equation into MS Word.

# Numbering Equations

<http://support.microsoft.com/kb/212381/EN-US/>

1. On a new line, insert a **tab**, then insert the **equation**, then insert another **tab**.
2. Choose **Insert**→**Caption**, and select “**Equation**” as the label type.
3. Click the “**New Label**” button and enter “(” and click “**OK.**”
4. Enter a “)” after the caption and push enter.
5. Select the entire line of text & choose **Table**→**Convert**→**Convert Text to Table**.
6. Choose **3** columns & click “**OK.**”
7. Choose **Format**→**Borders and Shading** and click the “**none**” box.
8. Right-click on the cell containing the formula and choose **Cell Alignment**→**Align Center**.
9. Right-click on the cell containing the label and choose **Cell Alignment**→**Align Center Right**.

**NOTE:** Modify step 6 (2 columns) and 8 (align left) if your equation should be aligned left.

# Figures

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## Inserting a figure:

- If saved on disk:  
Insert→Picture→From File
- If copied onto the clipboard,  
simply paste it.

## Creating a caption

- Select the figure,  
Insert→Caption
- Set label to “Figure”
- Type text for your caption in  
the text box & click “OK”

## Formatting

- Right-click & choose “Format  
Picture”
- Size - allows you to change  
figure’s size
  - “Lock Aspect Ratio” - prevents you  
from distorting figure...
- Layout - changes how text  
wraps around figure.
  - Click “Advanced” & select “Top  
and Bottom” to have no text  
wrapping.

**NOTE:** MS Word doesn't handle figures too well.  
Occasionally, captions can detach. Try not to drag  
figures around the document once you place them...

# Cross-References

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- Insert → Cross Reference
- Choose type of cross reference (figure, equation, table, etc.).
  - Note that for equation references, you should select “(“ as the type of cross reference (see slide on numbering equations).
  - Pay attention to the drop-down box entitled “Insert caption reference to:”
    - ▶ On figures, only insert the label & number, e.g. “Figure 2”
    - ▶ On equations (see slide on numbering equations), use “Entire caption”
- If references are “out of date” then select the whole document, right-click and choose “Update Field”

# Citations / Bibliography



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- At the end of your document, start a new section entitled “References”
- Begin a numbered list
- Add each reference as a new item in the list
- Refer to references using Insert → Cross Reference
  - Note that inserting a reference in the beginning of the list can break the cross-referencing to the first item...
  - Adding references in the middle or at the end works fine.

**NOTE: As with equations, no elegant solution exists in Word 2003.**

# Alternatives...

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-  **LaTeX** - a very powerful typesetting language.
  - <http://www.latex-project.org/>
  - VERY good at equations, placing figures, and doing cross-references.
  - Used extensively in the math, science & engineering fields for technical reports & papers.
  - Produces PDF documents
  - Not GUI-based WYSIWYG.
  - Available on all platforms (Windows, Mac, Linux, Unix).
-  **Lyx** - GUI front-end for LaTeX. Very good for “beginners” and experts alike.
  - [www.lyx.org](http://www.lyx.org)
  - Available for Windows, Mac, Unix, Linux.

# Exporting MATLAB Figures

- In the figure, choose **File** → **Export** setup
  - Edit fonts, background, etc., or choose a predefined export style.
  - Click “Export” and choose the file name and type (eps, tiff, jpg, gif, etc).

- Copy & Paste the figure into MS word, Powerpoint, etc.

The screenshot shows the 'Properties' dialog box for a MATLAB figure. The 'Fonts' tab is selected in the left sidebar. The 'Custom size' checkbox is checked, and the 'Scale font by' radio button is selected, with 'auto' in the percentage field and '14' in the 'with minimum of' points field. The 'Use fixed font size' radio button is also selected, with '18' in the points field. The 'Custom name' is set to 'Helvetica', 'Custom weight' is 'normal', and 'Custom angle' is 'normal'. The 'Export Styles' section at the bottom has 'Load settings from' set to 'default', 'Save as style named' set to 'default', and 'Delete a style' set to 'James'. On the right side of the dialog, there are buttons for 'Apply to Figure', 'Restore Figure', 'Export...', 'OK', 'Cancel', and 'Help'.