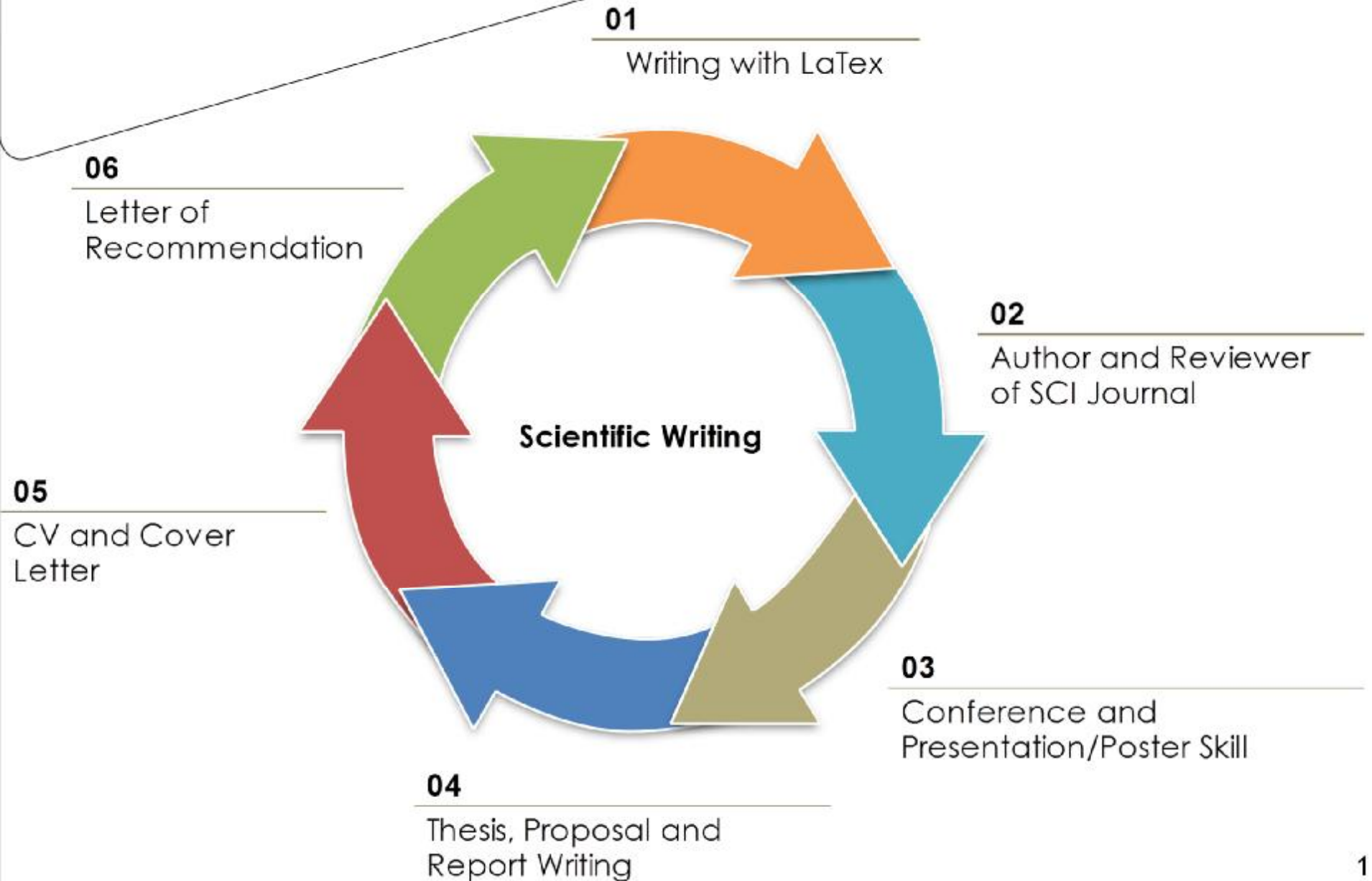


Series Contents



Scientific Writing - No. 01

Chen , Yi

leo.chen.yi@gmail.com

2017-Jan-02



Writing with LaTeX

BETA 1.0.0.9



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What is LaTeX

LaTeX - pronounced /leitɛk/, /leitɛx/, /la:tɛx/, or /la:tɛk/

LaTeX is a document preparation system for high-quality typesetting. It is most often used for medium-to-large technical or scientific documents but it can be used for almost any form of publishing.

Why LaTeX?

à Quality Based

à Efficient

à Free

<http://en.wikipedia.org/wiki/LaTeX>

What is LaTeX - some cases

[1] English Paper - [IEEE](#)/[Springer](#)/[Elsevier](#)/[ASME](#)

[2] Chinese latex – ([1](#))

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Compiling Systems



Writing in English

MikTex <http://miktex.org/>

TeX Live <http://www.tug.org/texlive/>

Writing in Chinese

CTeX 套装

<http://www.ctex.org/HomePage>

Compiling Systems

<http://www.ctex.org/HomePage>

Welcome to **C**hinese **T**eX

项目

- [CTeX套装 / 下载中心](#)
 - 最新稳定版 v2.8.0.125
- [ctex-kit](#)
- [ctex-doc](#)
- [中科院学位论文 / 博士后工作报告 / 中国运筹学会会议论文](#)

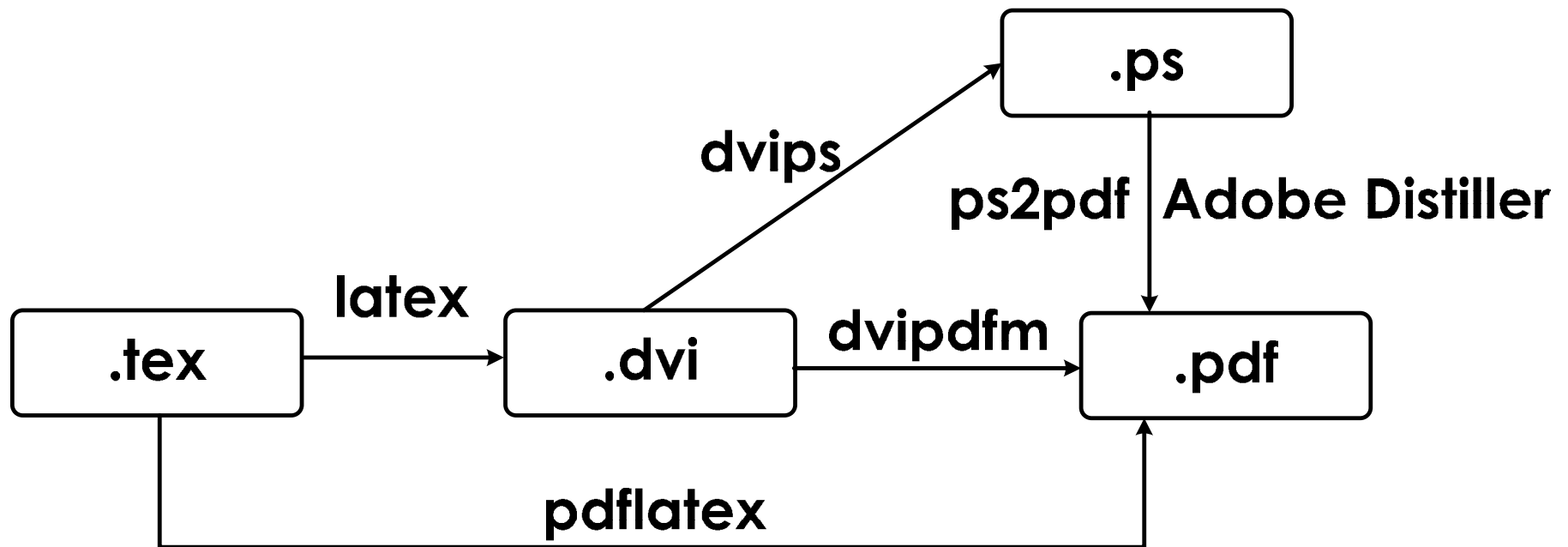
镜像状态


- [CTAN](#)
- [CRAN](#)

帮助文档

- [基本知识](#)
- [在线文档](#)
- [CTeX FAQ \(常见问题集\)](#)

Compiling Workflow





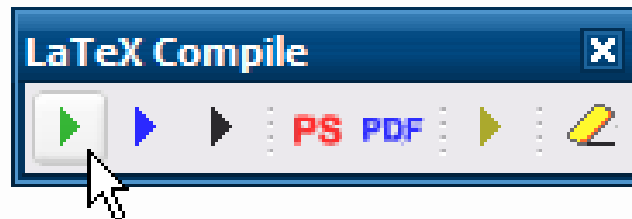
```
graph LR; A[Editing .tex file] --> B[Compiling .tex file to .pdf];
```

Editing .tex file

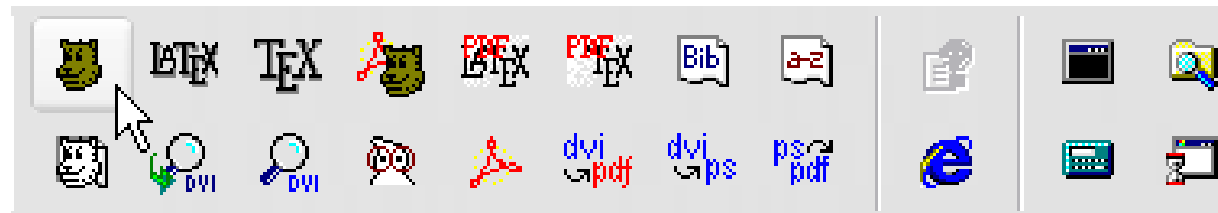


1. WYTIWYM - What You Think Is What You Mean

LED



WinEdt



Editing .tex file

TexMakerX

<http://texstudio.sourceforge.net/>

2.WYSIWYG - What You See Is What You Get

Lyx,
BaKoMa,
Scientific Word

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Layout

- (1) 1 inch + \hoffset
- (2) 1 inch + \voffset
- (3) \topmargin
- (4) \headheight
- (5) \headsep
- (6) \marginparwidth
- (7) \marginparsep
- (8) \evensidemargin
- (9) \textwidth
- (10) \textheight
- (11) \footskip
- (12) \footheight
- (13) \marginparpush

\hoffset = 0pt

\voffset = 0pt

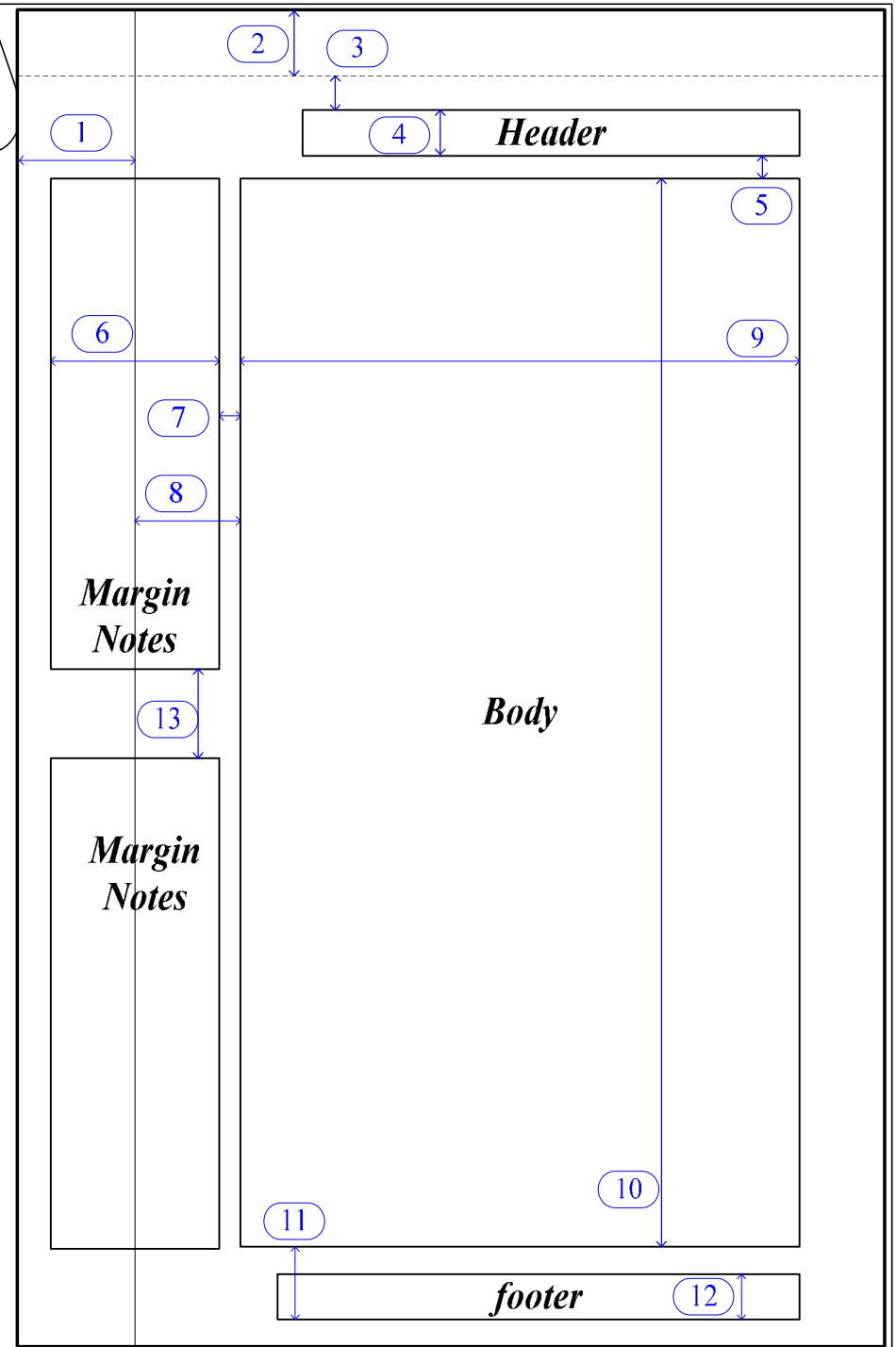
%%

(1) + (8) = 4cm

(2)+(3)+(4)+(5) = 1.8cm

(10) = 29.7cm – 1.8cm – 1.8cm = 26.1cm

(9) = 21cm – (1) – (8) – 1.5cm = 15.5cm



Using Memoir package

% start with a comment line

```
\documentclass[12pt, a4paper, makeidx, oneside]{memoir}  
\settypeblocksize{26.1cm}{15.5cm}{*}
```

```
%% The command \setlrmargins can be used to specify the side margins  
%% with the width of the page and the typeblock being fixed  
%%  $21.0 - 15.5 - 4.0 = 1.5\text{cm}$  for the right margin  
\setlrmargins{4.0cm}{*}{*}
```

```
%% setting the vertical spacings  
%%  $29.7 - 26.1 = 3.6\text{cm} / 2 = 1.8\text{cm}$  for the  
%% top and bottom margin  
\setulmargins{*}{*}{1}
```

```
\setheadfoot{\onelineskip}{2\onelineskip}
```

```
\setheaderspaces{*}{2\onelineskip}{*}
```

```
\def\baselinestretch{1.1}  
\checkandfixthelayout
```

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Templates

ASME

http://www.asme.org/Publications/ConfProceedings/Author/Author_Templates.cfm

Elsevier

<http://www.elsevier.com/wps/find/authorsview.authors/latex>

IEEE

<http://www.ieee.org/portal/pages/pubs/transactions/information.html>

Springer

http://www.springer.com/cda/content/document/cda_downloadaddocument/LaTeX.zip?SGWID=0-0-45-468198-0

<http://www.ctan.org/tex-archive/macros/latex/contrib/>

<http://uk.tug.org>

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Equations

```
\begin{equation}
\Delta s_t = f(x_t) + \{\backslash varepsilon_t\}
\label{Mendel_exchange_rate}
\end{equation}
```

$$\Delta s_t = f(x_t) + \varepsilon_t \quad (1)$$

```
\begin{equation*}
\Delta s_t = f(x_t) + \{\backslash varepsilon_t\}
\label{Mendel_exchange_rate}
\end{equation*}
```

$$\Delta s_t = f(x_t) + \varepsilon_t$$

Math	Greek	Symbols	International	Typeface	Functions(x) ...	{ } ...	<=> ...	+/- ...	--> ...	AMS	AMS =<>	AMS NOT =<>
Σ	Π	\prod	\int	\oint	\cap	\cup	\hat{a}	\check{a}	\grave{a}	\acute{a}	\grave{a}	\tilde{a}
\sqcup	\vee	\wedge	\odot	\otimes	\oplus	\oplus	\oplus	\oplus	\oplus	\oplus	\oplus	\oplus
\tilde{a}	\bar{a}	\vec{a}	\grave{a}	\ddot{a}	\widetilde{abc}	\widehat{abc}	\overleftarrow{abc}	\overrightarrow{abc}	\overline{abc}	\widehat{abc}	x^k	\mathbb{N}
\tilde{a}	\bar{a}	\vec{a}	\grave{a}	\ddot{a}	\widetilde{abc}	\widehat{abc}	\sqrt{abc}	$\sqrt[n]{abc}$	f'	$\frac{abc}{xyz}$	x_k	\mathbb{C}
											\mathbb{B}	\mathbb{T}

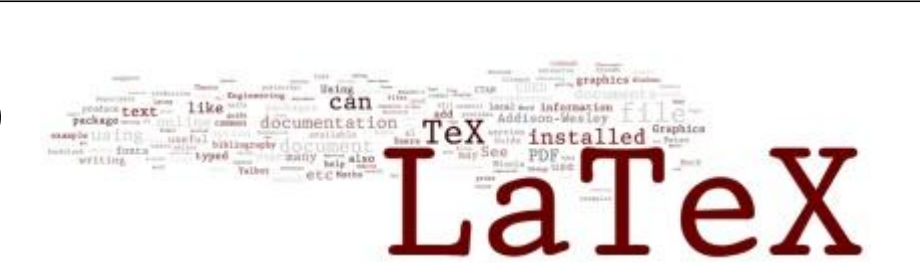
Symbols

Latex Symbols



©	<code>\textcopyright</code>	å	<code>\aa</code>	June 28, 2009	<code>\today</code>
®	<code>\textregistered</code>	Å	<code>\AA</code>	T _E X	<code>\TeX</code>
°C	<code>\$^\circ\$C</code>	æ	<code>\ae</code>	L ^A T _E X	<code>\LaTeX</code>
¥	<code>\textyen</code>	ø	<code>\o</code>	L ^A T _E X 2 _ε	<code>\LaTeXe</code>
£	<code>\pounds</code>	ö	<code>\"o</code>	METAFONT	<code>\MF</code>
€	<code>\texteuro</code>	ô	<code>\^o</code>	METAPOST	<code>\MP</code>
...	<code>\dots</code>	õ	<code>\~o</code>		

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Tables

```

\begin{table}[h!]
%\begin{sidewaystable}[ht!]
\centering
\caption{2-in-1-out FLC rule table for 2-DOF SA suspension system \cite{Chen2009Skyhook}}
% \scriptsize % re-set the font size for the table
\begin{tabular}{r|c|cccccc}
\addlinespace
\toprule
\multicolumn{2}{c}{\textbf{\normalsize U}$} & \multicolumn{7}{c}{\textbf{\normalsize EC}$} \\
% \midrule
\cmidrule{3-9}
\multicolumn{2}{c}{} & \textbf{NL} & \textbf{NM} & \textbf{NS} & \textbf{ZE} & \textbf{PS} & \textbf{PM} & \textbf{PL} \\
\cmidrule{3-9}
{} & \textbf{NL} & PL & PL & PM & PS & PS & PS & ZE \\
{} & \textbf{NM} & PL & PM & PS & PS & PS & ZE & NS \\
{\textbf{\normalsize E}$} & \textbf{NS} & PM & PS & ZE & ZE & ZE & NS & NM \\
{} & \textbf{ZE} & PM & PS & ZE & ZE & ZE & NS & NM \\
{} & \textbf{PS} & PM & PS & ZE & ZE & ZE & NS & NM \\
{} & \textbf{PM} & PS & ZE & ZE & ZE & NS & NM & NL \\
{} & \textbf{PL} & ZE & NS & NS & NS & NM & NL & NL \\
\bottomrule
\end{tabular}
\label{tableFLC}
\end{table}

```

Tables

Table 2: 2-in-1-out FLC rule table for 2-DOF SA suspension system [34]

U		EC						
		NL	NM	NS	ZE	PS	PM	PL
E	NL	PL	PL	PM	PS	PS	PS	ZE
	NM	PL	PM	PS	PS	PS	ZE	NS
	NS	PM	PS	ZE	ZE	ZE	NS	NM
	ZE	PM	PS	ZE	ZE	ZE	NS	NM
	PS	PM	PS	ZE	ZE	ZE	NS	NM
	PM	PS	ZE	ZE	ZE	NS	NM	NL
	PL	ZE	NS	NS	NS	NM	NL	NL

Complex Tables

[1] <http://texblog.org/2012/12/21/multi-column-and-multi-row-cells-in-latex-tables>

[2] [table_mori.pdf](#)

Multi-column and multi-row cells in LaTeX tables

December 21, 2012

By tom

I always forget how to do this. If you have the same problem, here is a quick post for your bookmarks.

Basic commands

Let's try this

[table_sample.tex](#)

Table 1

Estimated median $\log(\sqrt{MSE})$ of the multivariate models with medium SNR ($\sigma = 0.735$ for Gaussian responses, scaling factor $c = 0.75$ for Binomial outcome, scaling factor $c = 0.5$ for survival models). Numbers in gray cells represent the respective smallest median of the algorithms for each row and distribution.

f	n	Gaussian						Binomial Logit						Survival			
		FP		GCV		REML		FP		GCV		REML		FP		AIC	REML
		FP2	FP4	LRSS	PS	LRSS	PS	FP2	FP4	LRSS	PS	LRSS	PS	FP2	FP4	PS	PS
f_1	100	0.012	0.012	0.021	0.025	0.018	0.018	0.043	0.042	0.146	0.194	0.074	0.076	0.015	0.016	0.427	0.019
	500	0.004	0.002	0.006	0.006	0.004	0.004	0.014	0.011	0.03	0.034	0.028	0.028	0.02	0.007	0.024	0.005
	1000	0.005	0.001	0.003	0.002	0.002	0.002	0.006	0.005	0.013	0.012	0.011	0.01	0.016	0.012	0.012	0.006
	2000	0.008	0.001	0.002	0.001	0.001	0.001	0.004	0.003	0.007	0.006	0.004	0.004	0.022	0.014	0.007	0.036
f_2	100	0.07	0.063	0.072	0.068	0.068	0.061	0.265	0.815	0.338	0.35	0.189	0.174	0.041	0.043	0.423	0.036
	500	0.038	0.011	0.021	0.017	0.022	0.017	0.05	0.048	0.062	0.055	0.057	0.053	0.026	0.013	0.024	0.012
	1000	0.019	0.006	0.013	0.009	0.012	0.009	0.029	0.022	0.034	0.028	0.029	0.025	0.023	0.015	0.012	0.012
	2000	0.02	0.003	0.008	0.005	0.008	0.005	0.015	0.01	0.019	0.017	0.016	0.015	0.021	0.017	0.007	0.046
f_3	100	0.308	0.222	0.21	0.186	0.251	0.268	0.39	0.403	0.409	0.432	0.319	0.318	0.153	0.157	0.445	0.107
	500	0.193	0.04	0.057	0.039	0.059	0.047	0.108	0.107	0.134	0.124	0.156	0.167	0.079	0.029	0.026	0.035
	1000	0.188	0.02	0.039	0.02	0.04	0.029	0.101	0.032	0.076	0.064	0.082	0.082	0.086	0.031	0.013	0.028
	2000	0.186	0.014	0.031	0.01	0.03	0.018	0.09	0.017	0.054	0.039	0.051	0.046	0.092	0.03	0.008	0.074
f_4	100	0.49	0.149	0.225	0.186	0.252	0.258	0.763	0.768	0.56	0.579	0.4	0.404	0.184	0.163	0.426	0.133
	500	0.461	0.037	0.076	0.041	0.079	0.058	0.32	0.085	0.159	0.145	0.189	0.218	0.137	0.029	0.026	0.038
	1000	0.459	0.025	0.058	0.02	0.06	0.039	0.292	0.031	0.1	0.08	0.107	0.095	0.145	0.026	0.013	0.035
	2000	0.458	0.021	0.049	0.01	0.049	0.02	0.289	0.017	0.062	0.038	0.059	0.049	0.144	0.025	0.008	0.014

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Figures

Figures \ref{PSA_suspension}

```
\begin{figure}[h!]
```

```
\centering
```

```
\includegraphics[scale=0.22]{suspension_concept}
```

```
\caption{Passive, Semi-active and Active Suspension Systems }
```

```
\label{PSA_suspension}
```

```
\end{figure}
```

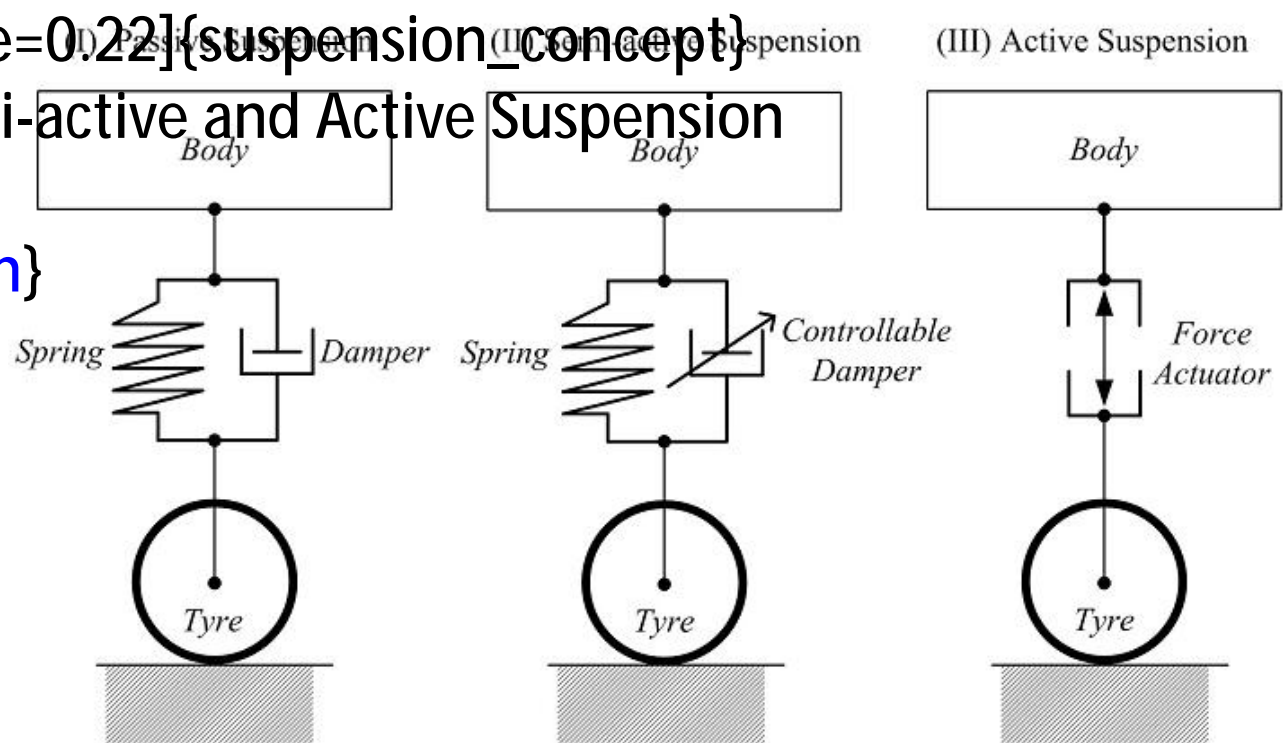


Figure 2: Passive. Semi-active and Active Suspension Svstems

Figures

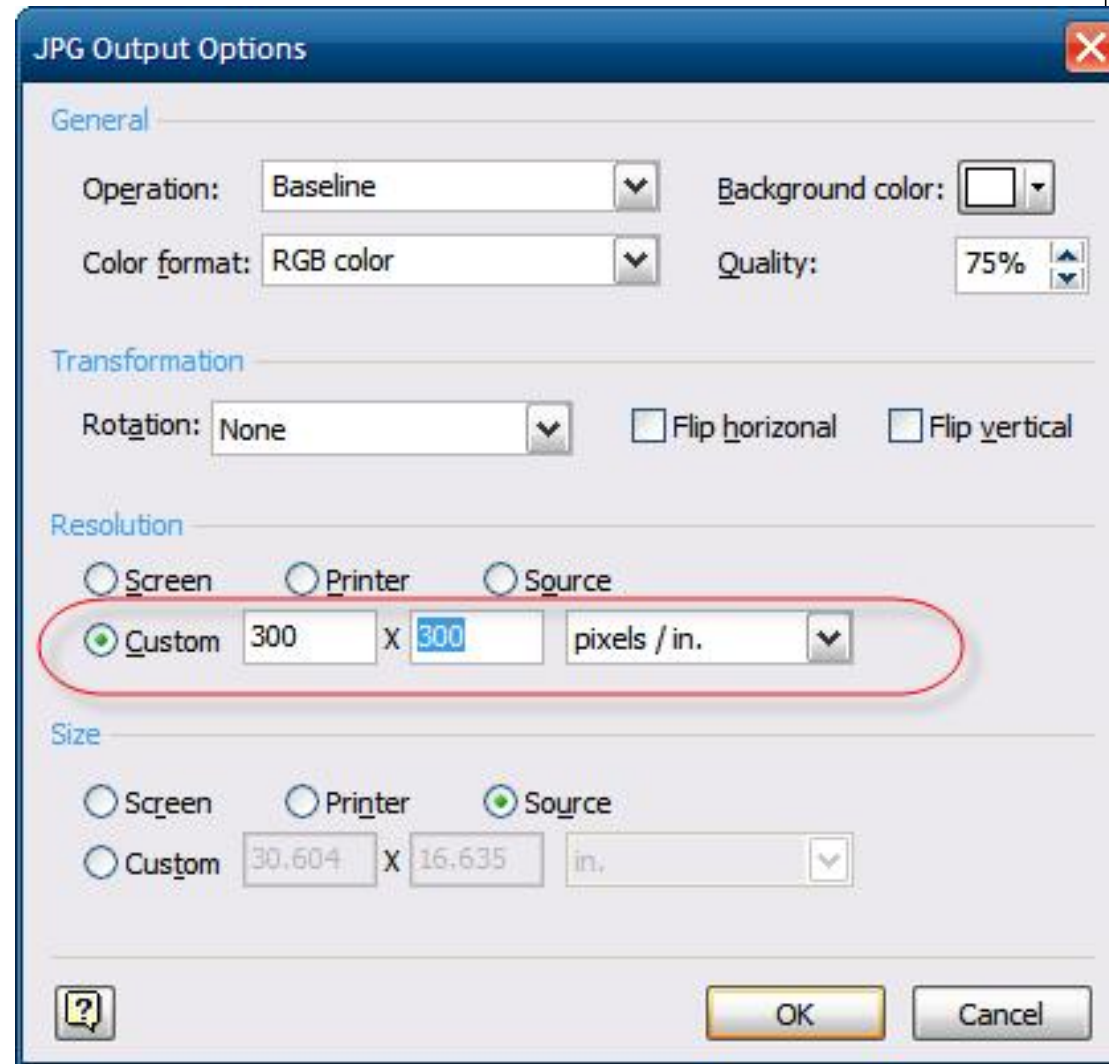
Steps:

1) Drawing in Microsoft Visio;

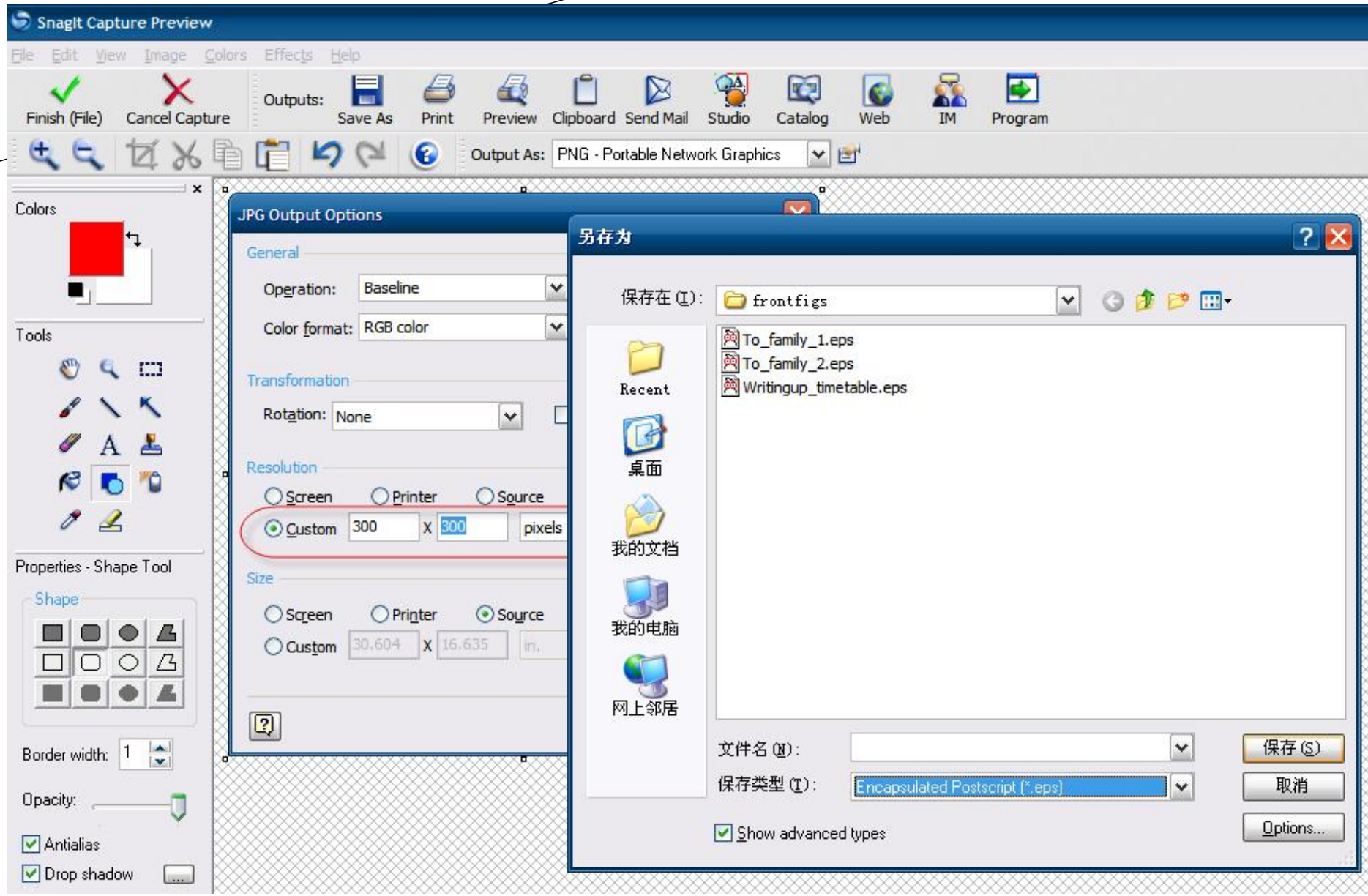
2) Save file as .jpg with 300dpi

3) Convert .jpg à .eps

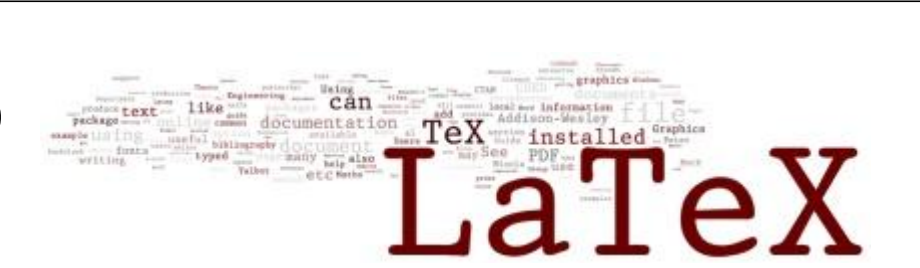
.eps file > 300 dpi



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Bibliography Management

.bib is the database of LaTeX
Bibliography

- [1] JabRef
- [2] Reference Manager
- [3] Bibloscape Librarian (Chinese Characters Supported)
- [4] EndNote

Problems: à .bib à .tex

- 1) Reference number may lost
- 2) Compiling error

Solution:

```
\begin{thebibliography}{00}  
%\input{bib.tex}  
...  
\end{thebibliography}
```



Bibliography Management

`\cite{Andr2009}`

In a .tex file, need to be built TWICE,

1st building will be [?][?]

2nd builing will display [1][2]

```
\begin{thebibliography}{00}
```

```
%
```

```
%\input{bib.tex}
```

```
%
```

```
% and use \bibitem to create references.
```

```
% 1
```

```
\bibitem{Andr2009} Andr\'{a}s Sz\'{H{o}}ll\'{H{o}}s, Miroslav \u{S}m\'{i}d, Jaroslav  
H\'{a}jek, ``Aerodynamic optimization via multi-objective micro-genetic algorithm  
with range adaptation, knowledge-based reinitialization, crowding and  
$\varepsilon$-dominance",
```

```
Volume 40,
```

```
Issue 6,
```

```
June 2009,
```

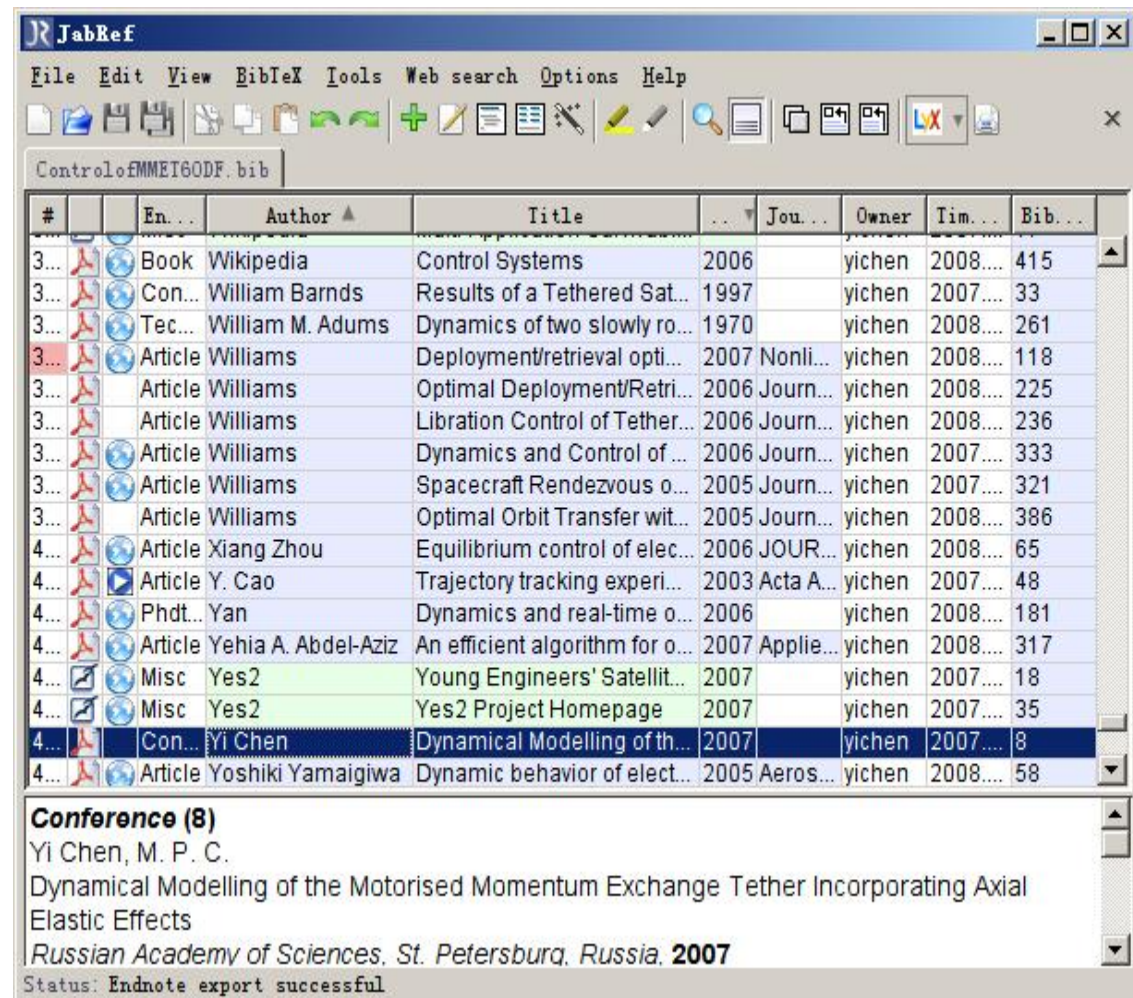
```
Pages 419-430 (2009)
```

```
\end{thebibliography}
```


Bibliography Management

How to convert JabRef to Endnote

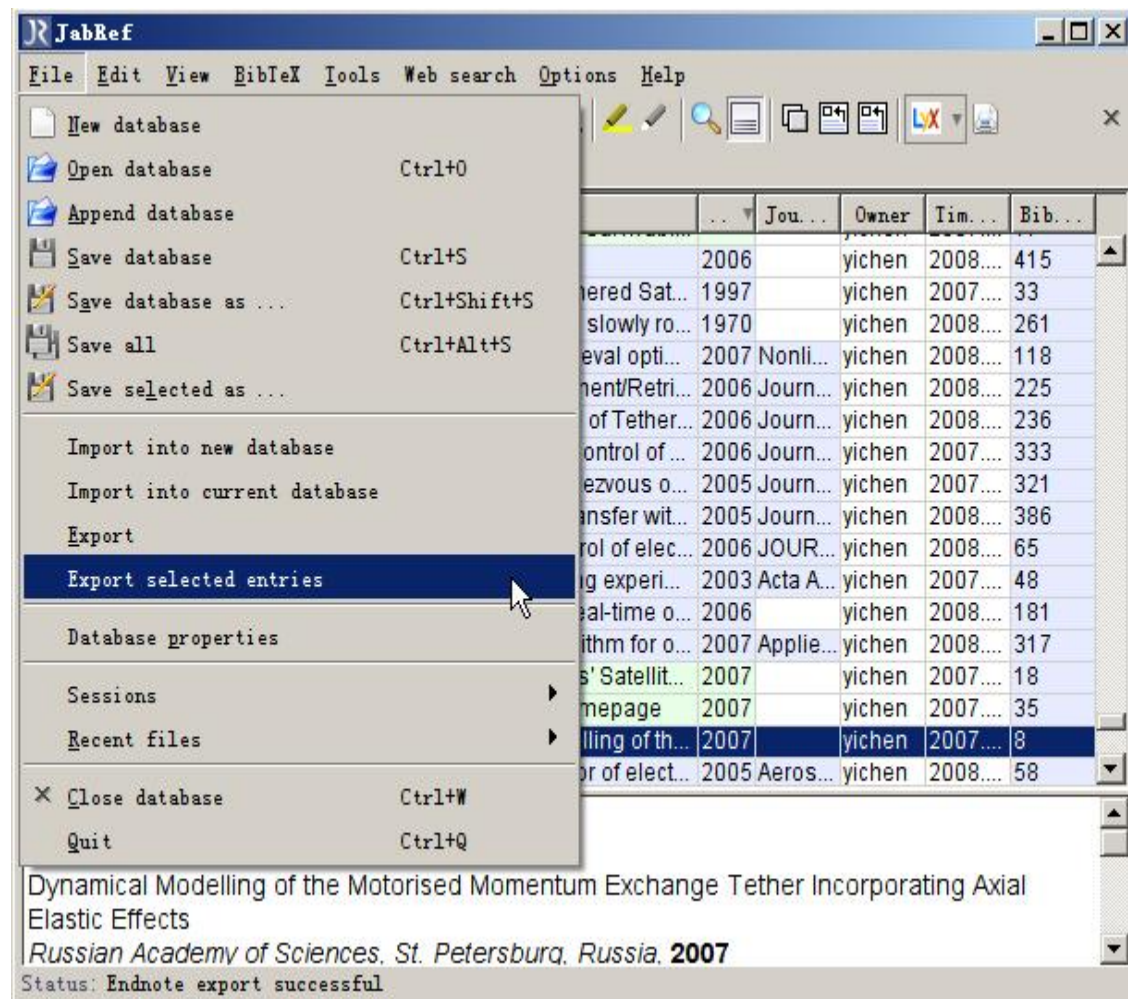
Step 1:



Bibliography Management

How to convert JabRef to Endnote

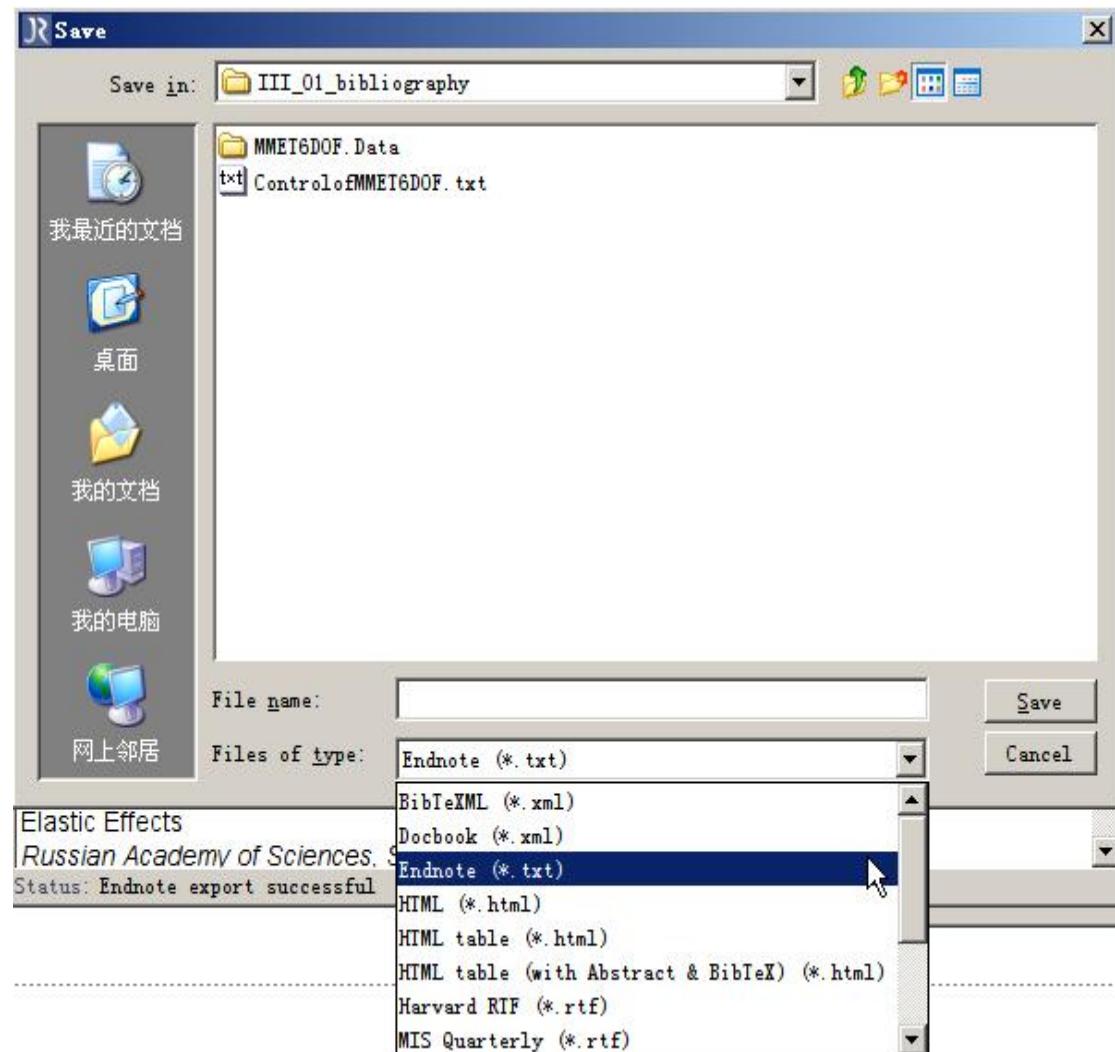
Step 2:



Bibliography Management

How to convert JabRef to Endnote

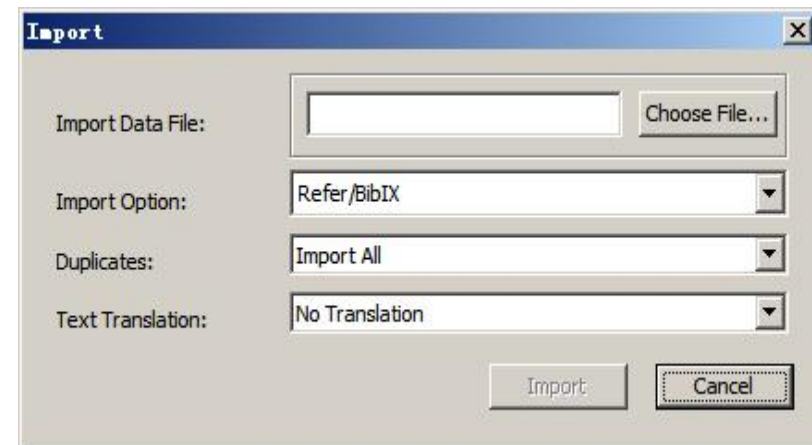
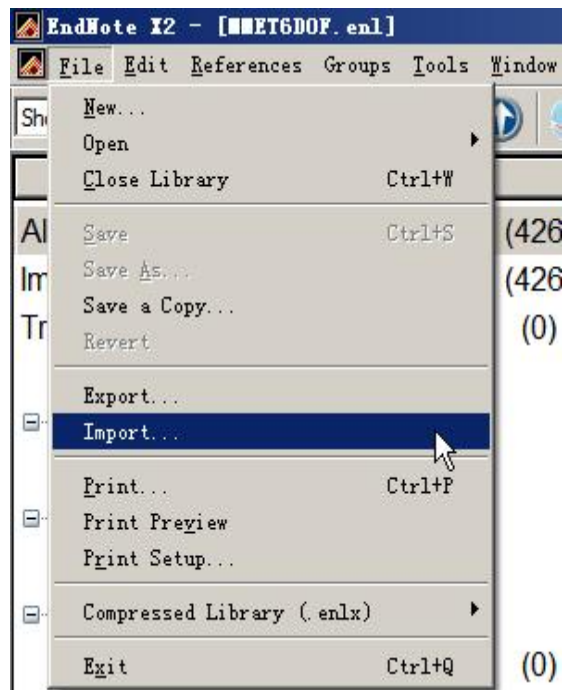
Step 3:



Bibliography Management

How to convert JabRef to Endnote

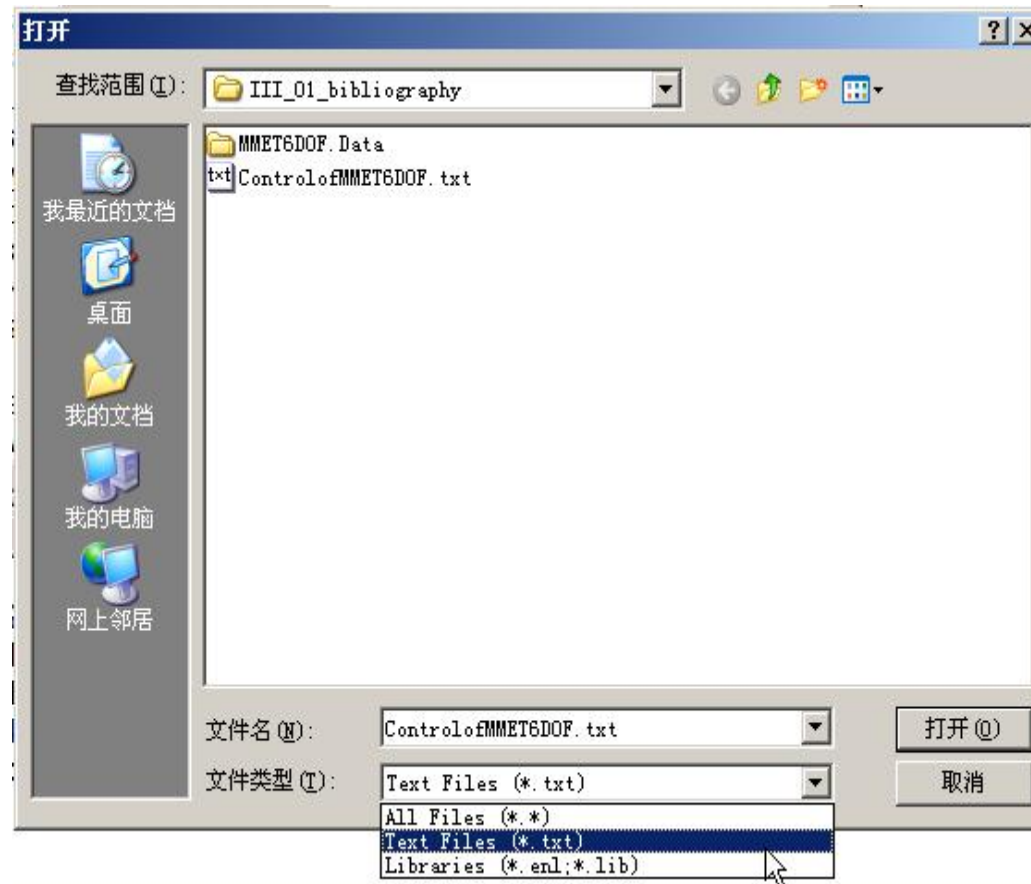
Step 4:



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How to convert JabRef to Endnote

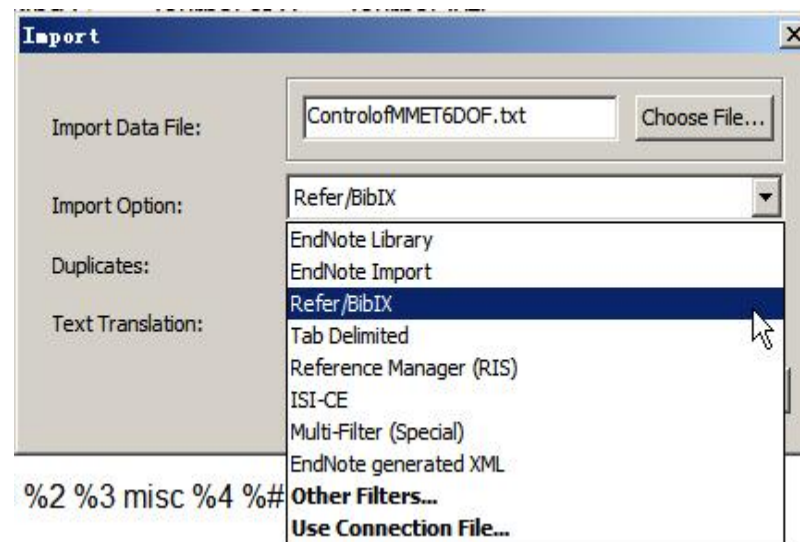
Step 5:



Bibliography Management

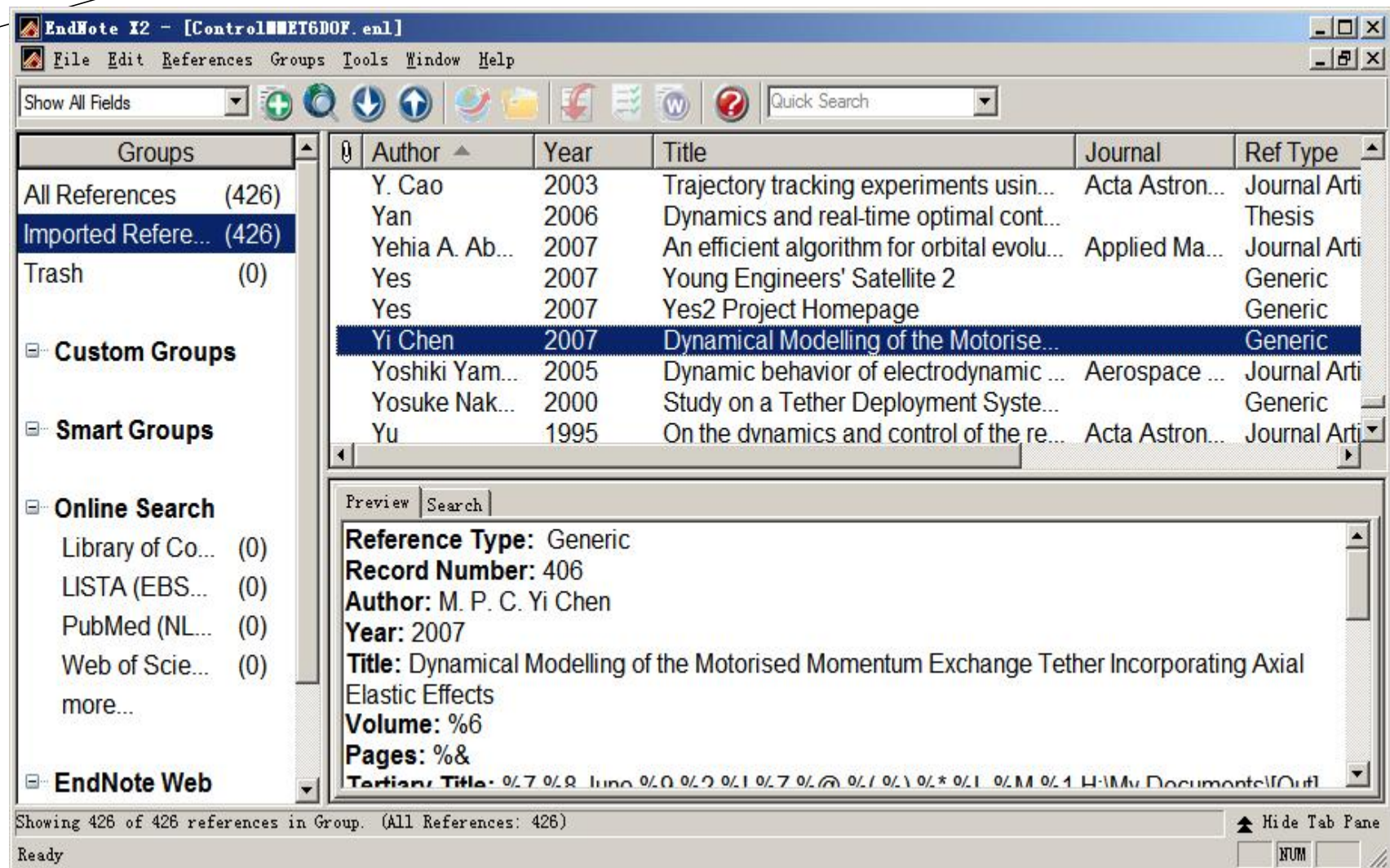
How to convert JabRef to Endnote

Step 6:



Bibliography Management

How to convert JabRef to Endnote Step 7: end

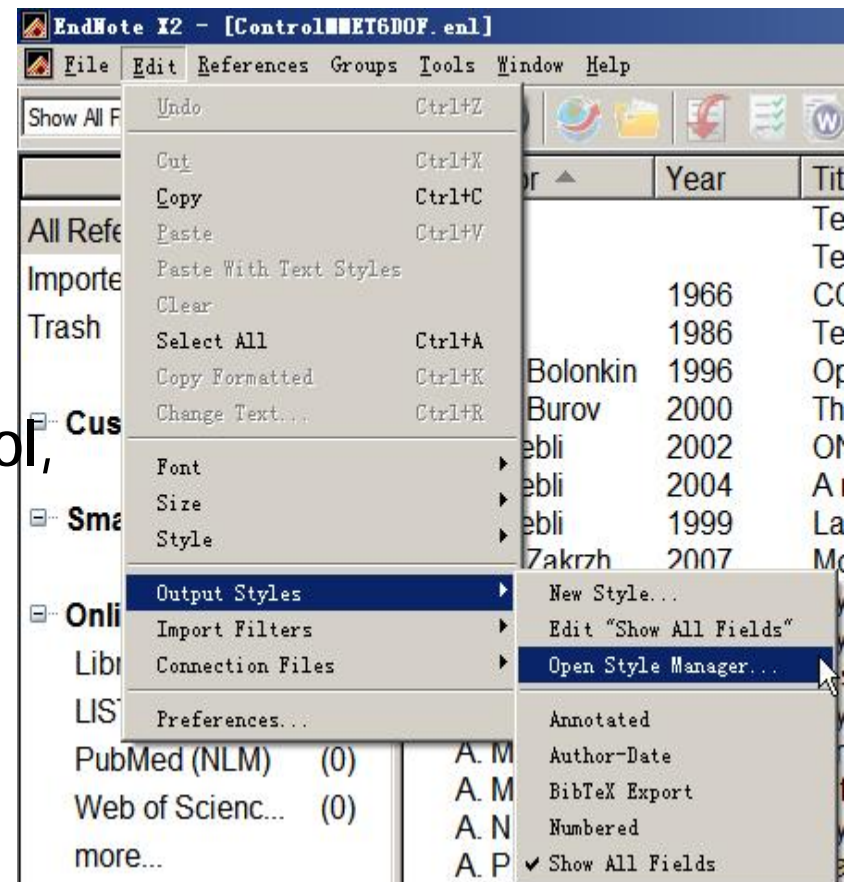


Bibliography Management

How to generate .bib file from Endnote

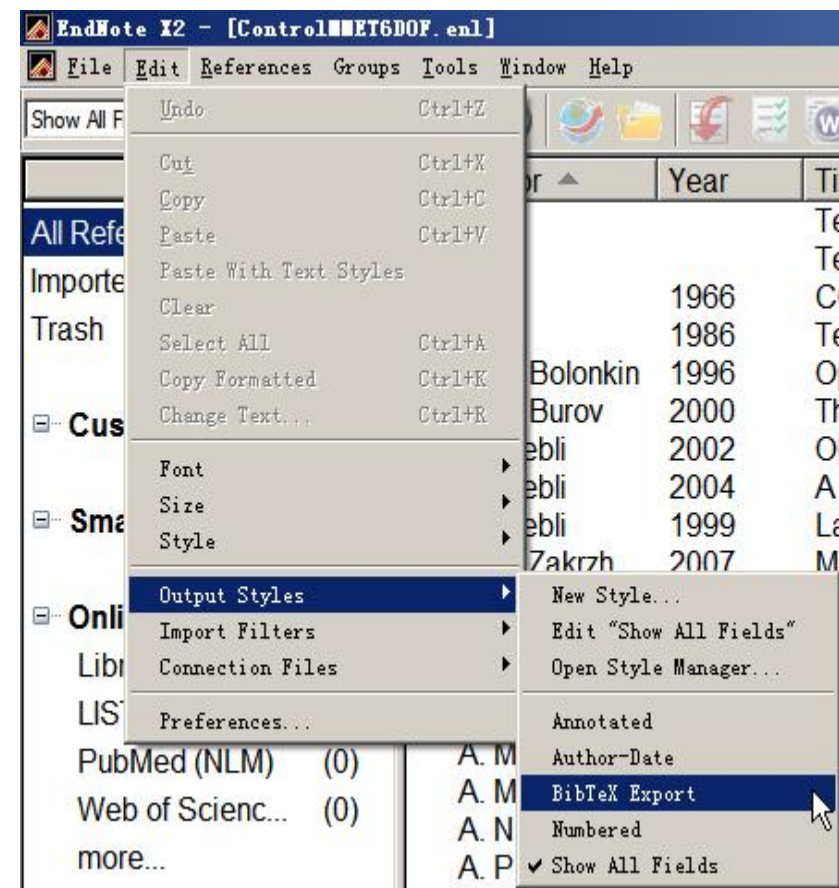
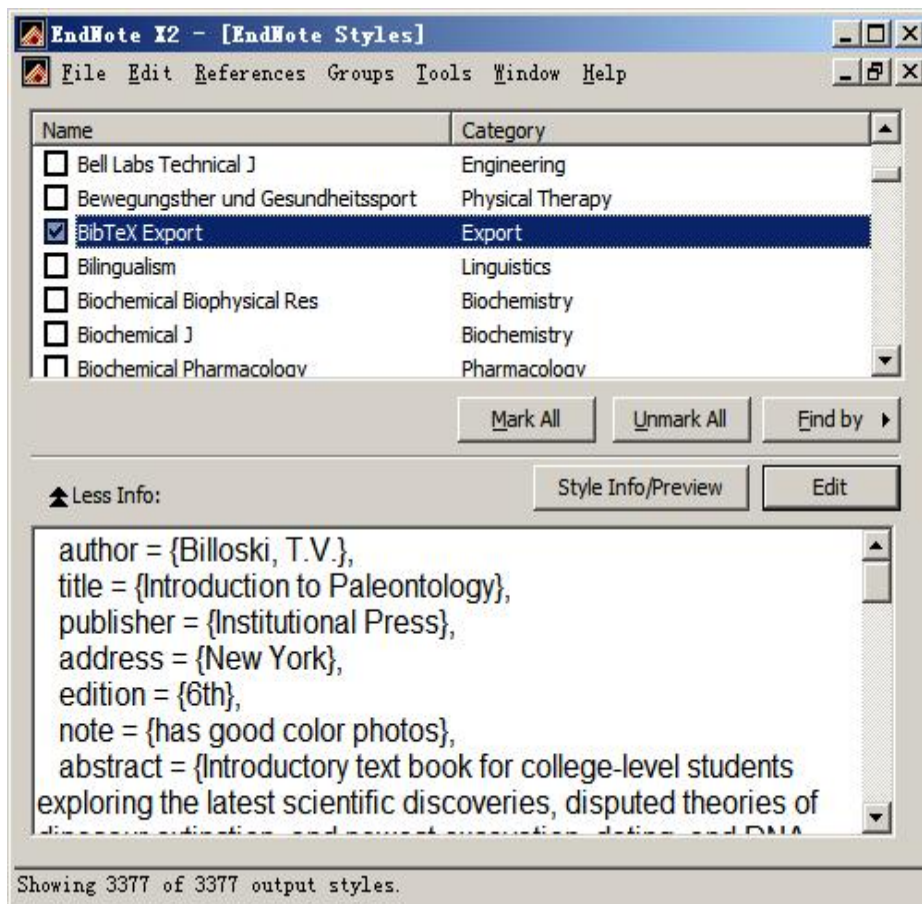
.bib is a type of .txt file

```
@article{ Williams2007a,  
  author = {Williams, Paul , Trivailo,  
Pavel },  
  title = {Dynamics of Circularly Towed  
Aerial Cable Systems, Part I: Optimal  
Configurations and Their Stability},  
  journal = {Journal of Guidance, Control,  
and Dynamics},  
  volume = {30 },  
  number = {3},  
  pages = {753-765 },  
  year = {| 2007 |}  
}
```



Bibliography Management

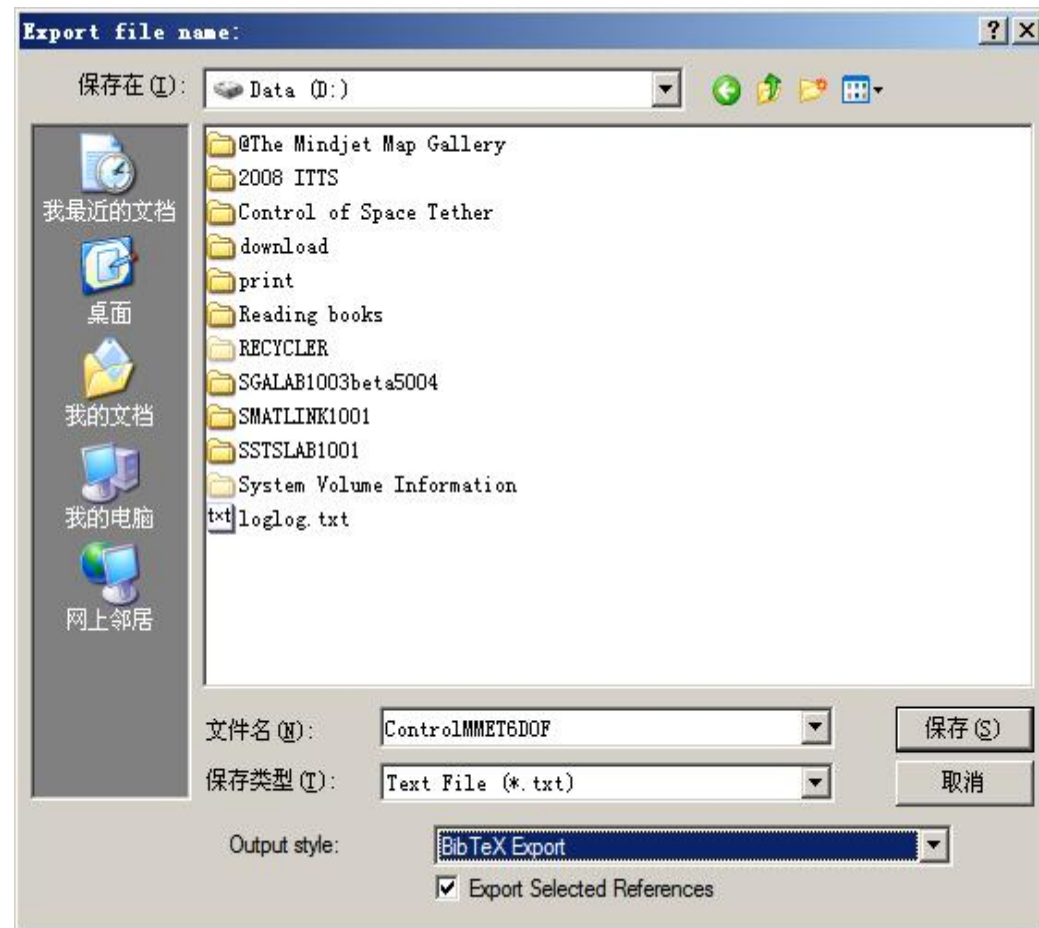
How to generate .bib file from Endnote



Bibliography Management

How to generate .bib file from Endnote

More reading



Name ▲	Extension
txt ControlMMET6DOF.txt	txt
ControlofMMET6ODF.bib	bib

Bibliography Management


How to find new journal style for Endnote
<http://endnote.com/downloads/styles>

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Click the column heads in the table below to sort all styles by style name, citation style, discipline, or date.


USE THE STYLE FINDER BELOW TO SEARCH FOR A STYLE NAME AND/OR CITATION STYLE AND/OR PUBLISHER.

Style or Journal Name


Contains 

Citation Style


Is one of 

- Any - 

Publisher

Contains 

[APPLY](#) [RESET](#)

Style or Journal Name	Citation Style	Discipline	Date 	
Apidologie	Author-Year	Entomology	2013-02-25	DOWNLOAD
Dairy Science and Technology	Author-Year	Dairy Science	2013-02-25	DOWNLOAD
Annals of Forest Science	Author-Year	Forestry	2013-02-25	DOWNLOAD

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FAQ-6 displaystyle

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FAQ-9 pdf to word and word to pdf

FAQ-10 LaTeX in MATLAB

FAQ-11 LaTeX in MATHEMATICA

FAQ-12 large LaTeX Project

...

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FAQ-13 brackets and functions

FAQ-14 line number

FAQ-15 .dvi blank display

FAQ-16 the Greek alphabet

FAQ-17 how to include an SVG image in LaTeX

FAQ-18 converting Word to LaTeX

FAQ-19 Converting LaTeX to word

FAQ-20 how to change reference style

FAQ-21 How to add new EndNote style

FAQ-22 List of Notations (Nomenclature)

...

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FAQ-23 include a horizontal dashed line in a table?

FAQ-24 Special vertical line in a table

FAQ-25 generate word from tex source codes

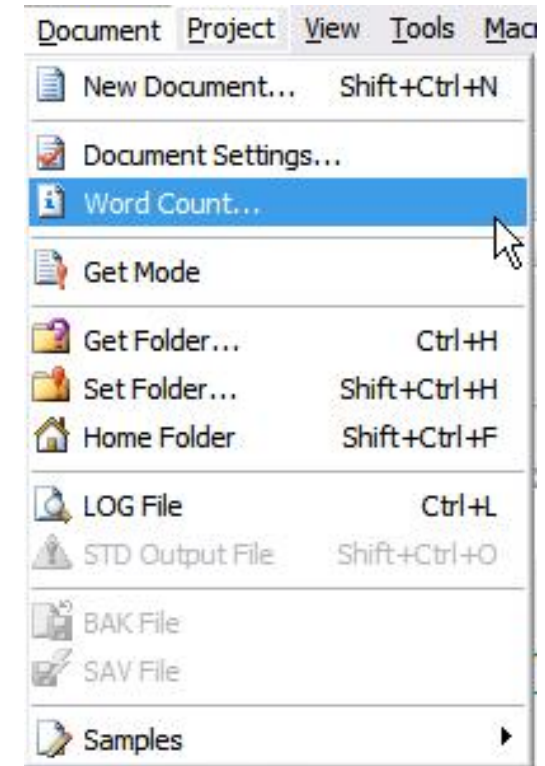
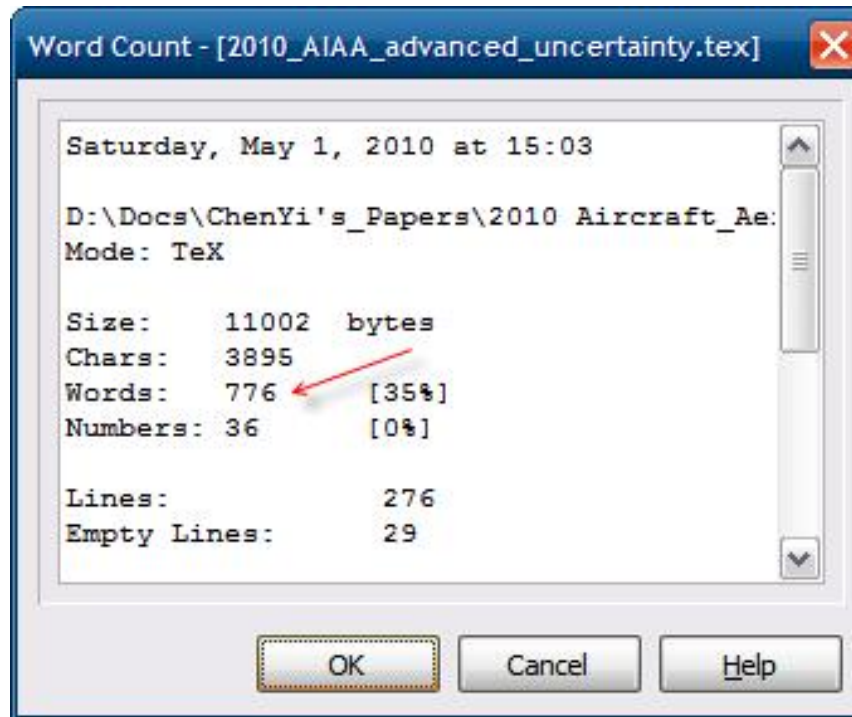
FAQ-26 long table on multiple pages

FAQ-27 Finding Unused Citations - How?

FAQ-1 Long equation

Case-1: [FAQ-1-long_equation.PDF](#)

FAQ-2 word count



FAQ-2 word count

Free Online Word Count

<http://felix-cat.com/tools/wordcount/>

Count On It: Free Online Word Count

Results for le.txt

Characters:	53,291
Chars (no spaces):	46,603
Asian characters:	6
Non-Asian words:	6,790
Words:	6,796

Select File

filename:	<input type="button" value="选择文件"/> 未选择文件	<input type="button" value="Count"/>
-----------	---	--------------------------------------

Da Rules

- Don't DoS me, bro! **Max file size is 1 MB**
- Click Browse to select a file, and Count to get a count.
- Supported file formats: PDF, HTML, XML, CSV, text
- What it counts: Words, characters (with/without spaces), Asian characters, non-Asian words
- Word counts emulate those provided by MS Word as much as possible

FAQ-3 colour text

`\usepackage{color}`
`Colors.sty`

```
%\definecolor{proof_No1} {cmyk}{0 , 0 , 0 , 1 }  
% black for printing
```

```
\definecolor{proof_No1} {cmyk}{1 , 1 , 0 , 0 }  
% blue for reviewing
```

```
%\definecolor{black} {cmyk}{0 , 0 , 0 , 1 }
```

```
\definecolor{proof_No2} {cmyk}{0 , 1 , 1 , 0 } % red
```

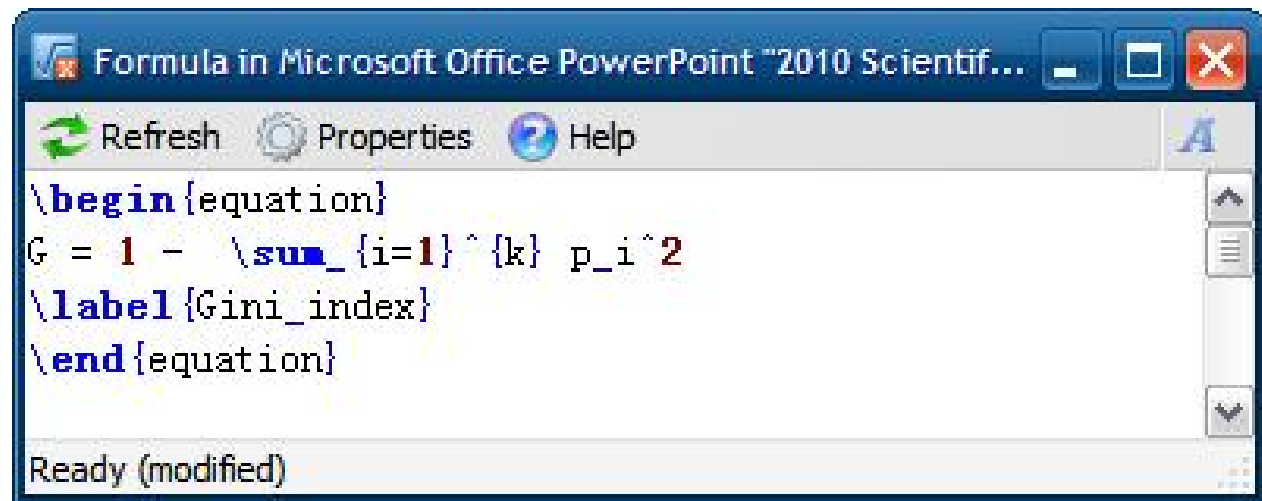
```
\definecolor{proof_No3} {cmyk}{1 , 0 , 1 , 0 } % green
```

...

```
\begin{document}
```

```
{\color{proof_No1} colourful text }
```

FAQ-4 use LaTeX in word



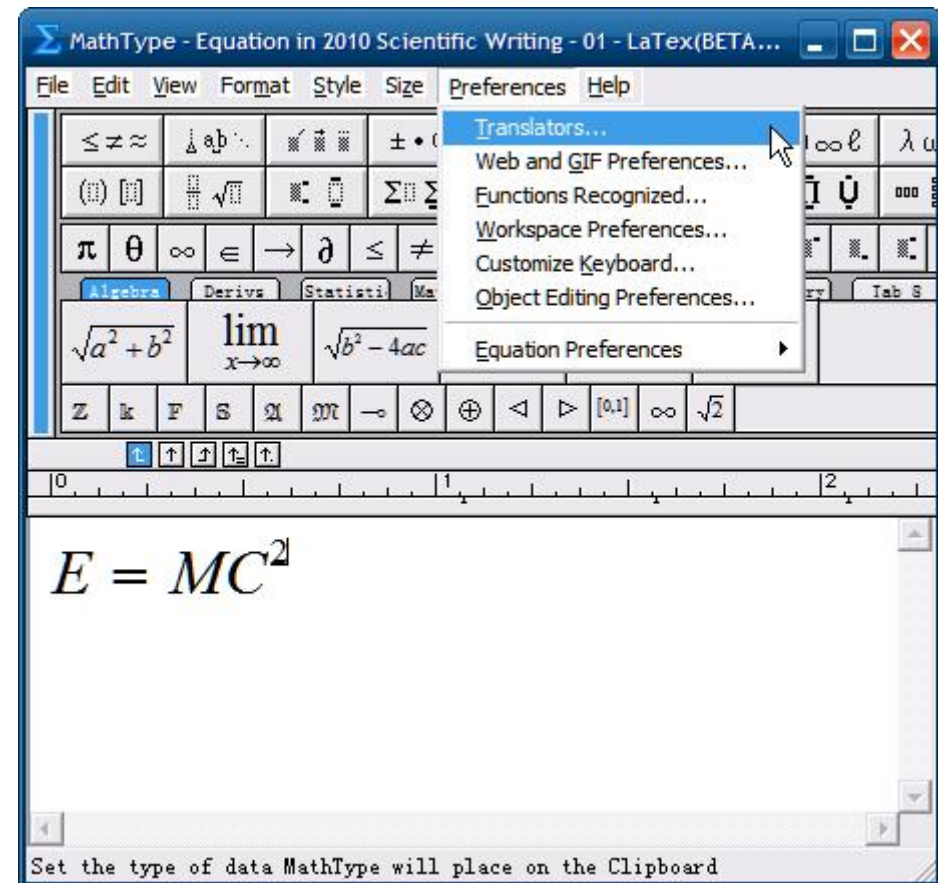
$$G = 1 - \sum_{i=1}^k p_i^2 \quad (1)$$

FAQ-5 convert MathType to LaTeX

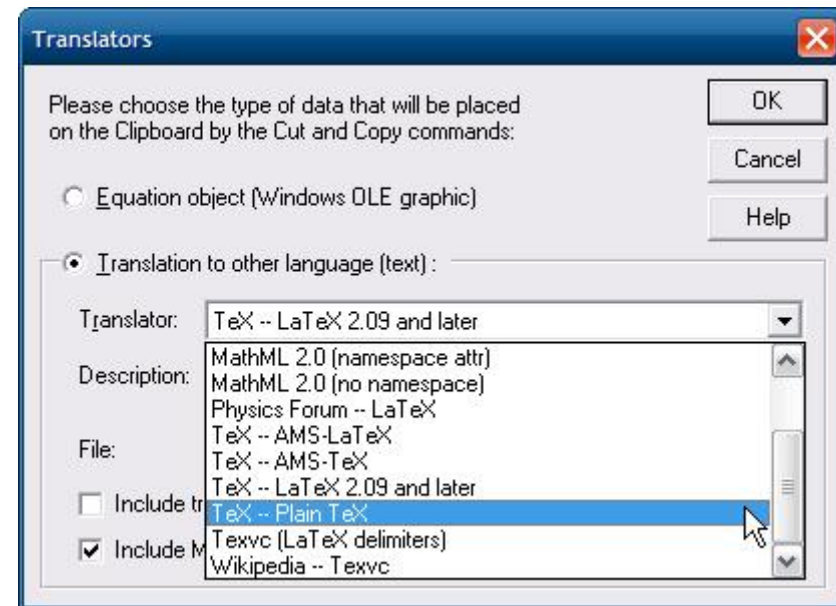
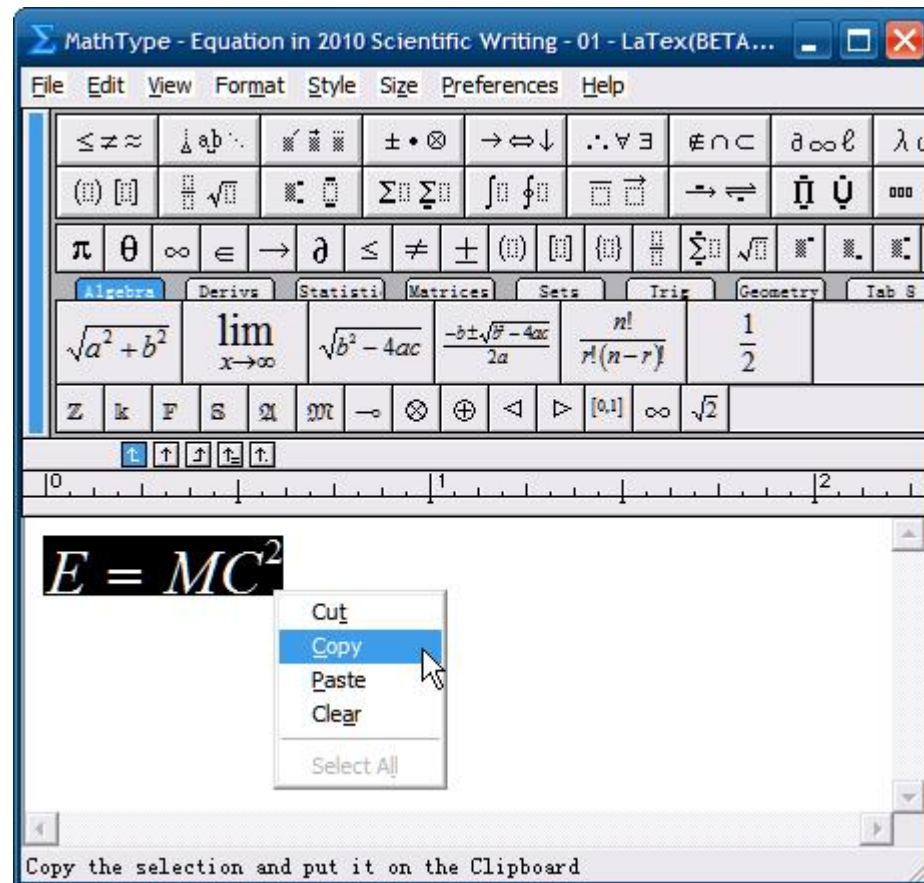
$$E = MC^2$$

MathType 6.5 + version

Equations can be copied as LaTeX,
and paste to .tex file



FAQ-5 convert MathType to LaTeX



$$E = MC^2$$

FAQ-6 \displaystyle

$$G = 1 - \frac{1}{k}$$

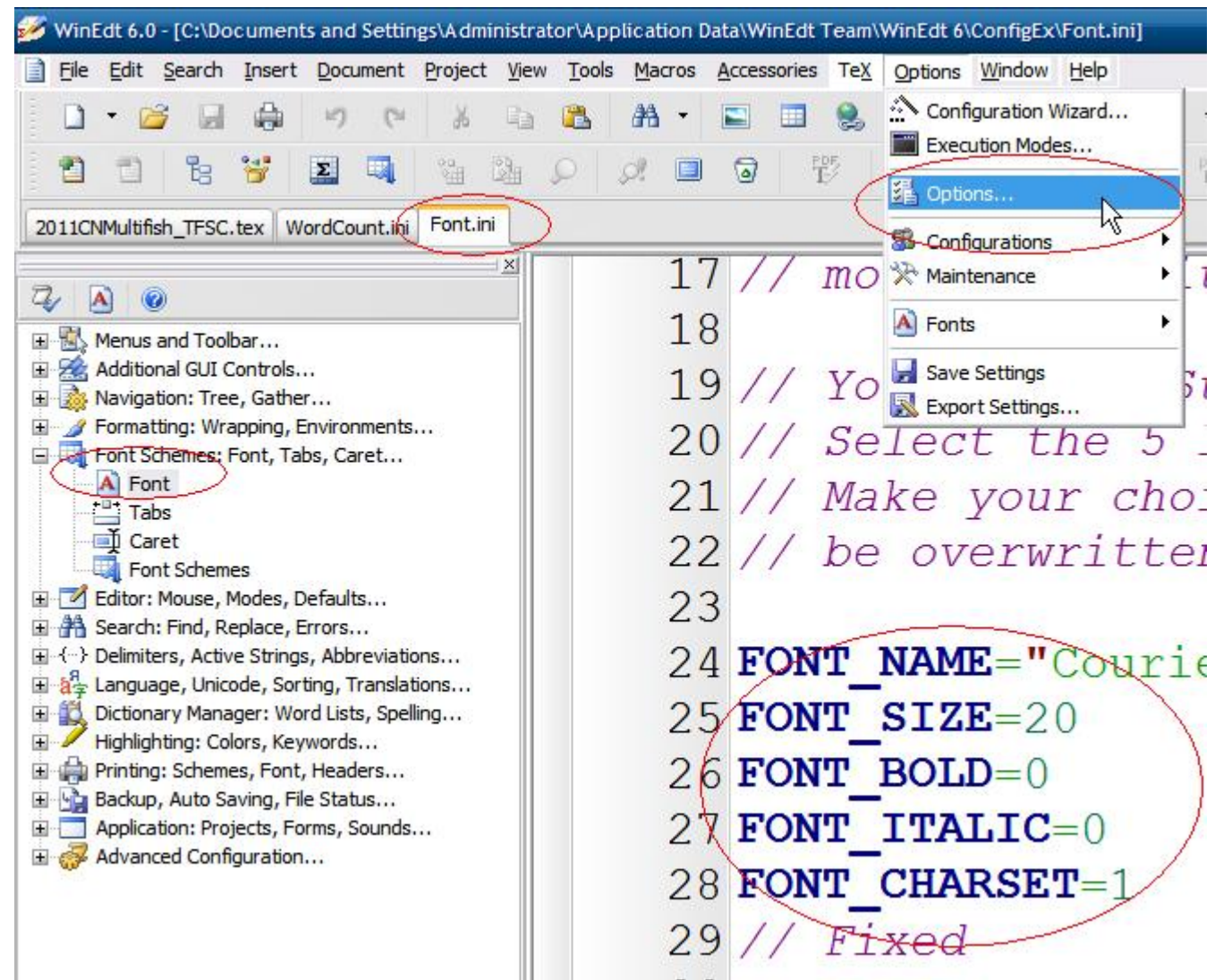
$$\$ G = 1 - \displaystyle \frac{1}{k} \$$$

$$G = 1 - \frac{1}{k}$$

$$\$ G = 1 - \frac{1}{k} \$$$

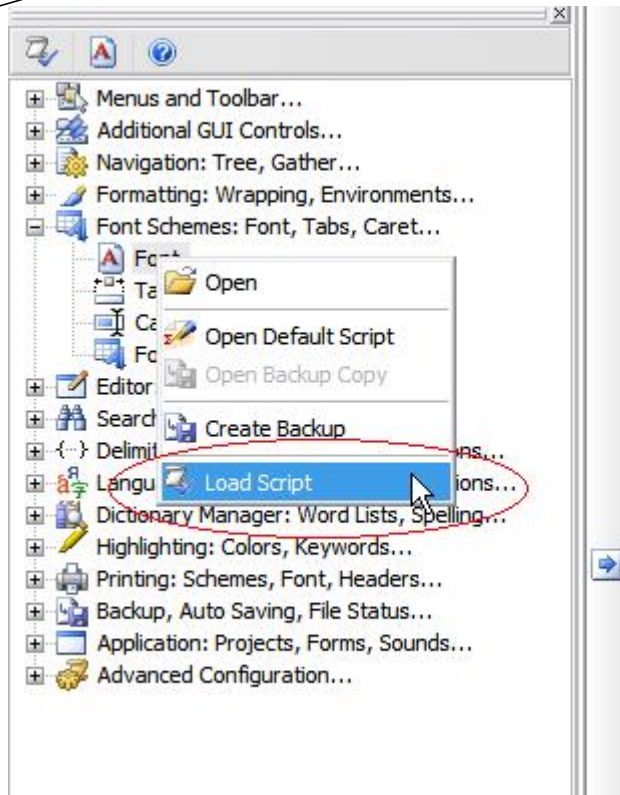
FAQ-7 font setting

Step - 1



FAQ-7 font setting

Step - 2



```
17 // modes overwritten by
18
19 // You can use Standard
20 // Select the 5 lines be
21 // Make your choices in
22 // be overwritten. Then
23
24 FONT_NAME="Courier New"
25 FONT_SIZE=22|
26 FONT_BOLD=0
27 FONT_ITALIC=0
28 FONT_CHARSET=1
```

<http://www.eng.cam.ac.uk/help/tpl/textprocessing/>

FAQ-8 one and half (1.5) and double spacing

```
\documentclass[preprint,12pt]{elsarticle}
```

%How Do I Get LaTeX to Double-Space?

```
\renewcommand{\baselinestretch}{1}
```

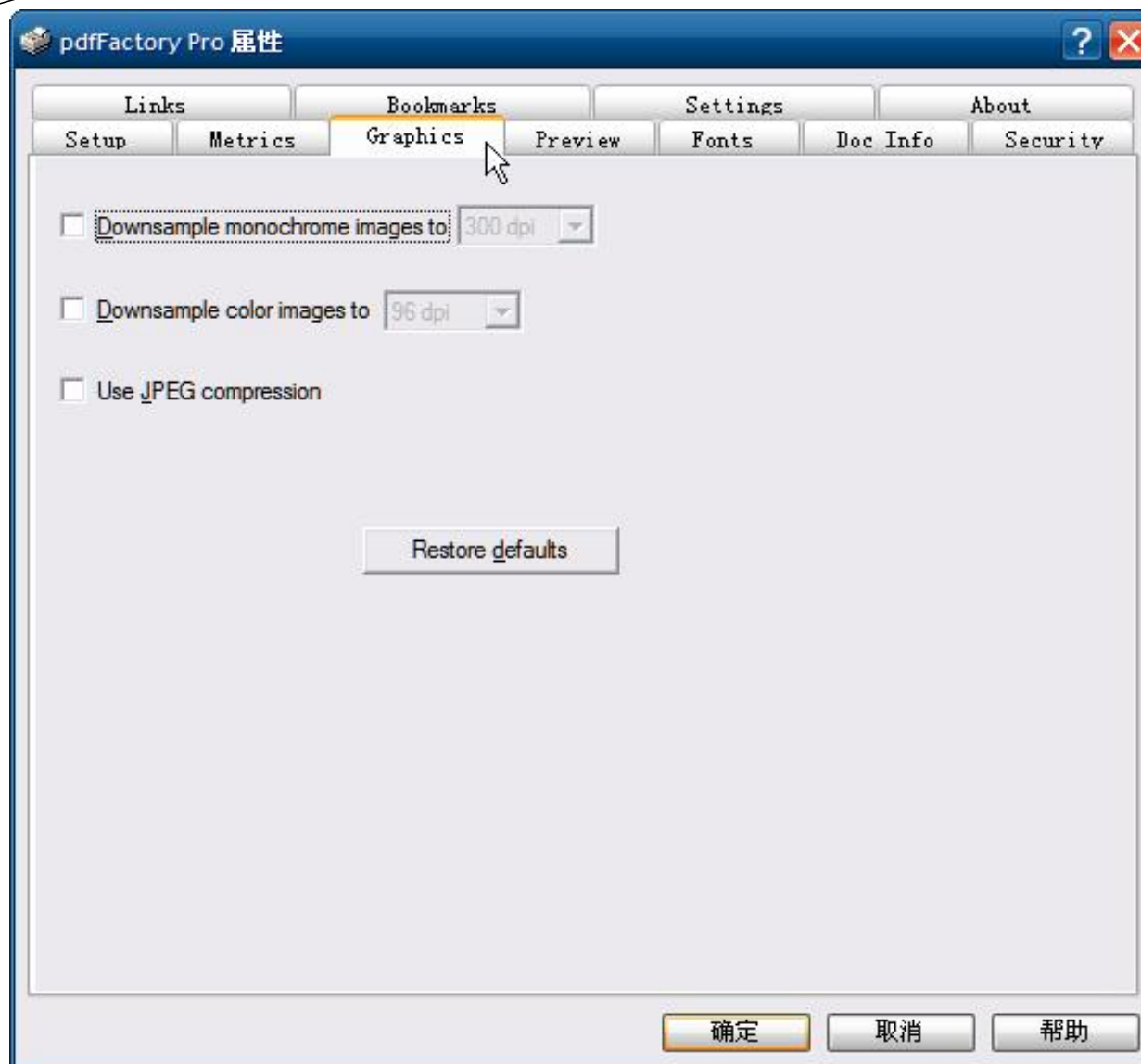
% For other spacing (ie triple) just change the 1
to 2

```
\begin{document}
```

FAQ-9 word to PDF



FAQ-9 word to PDF



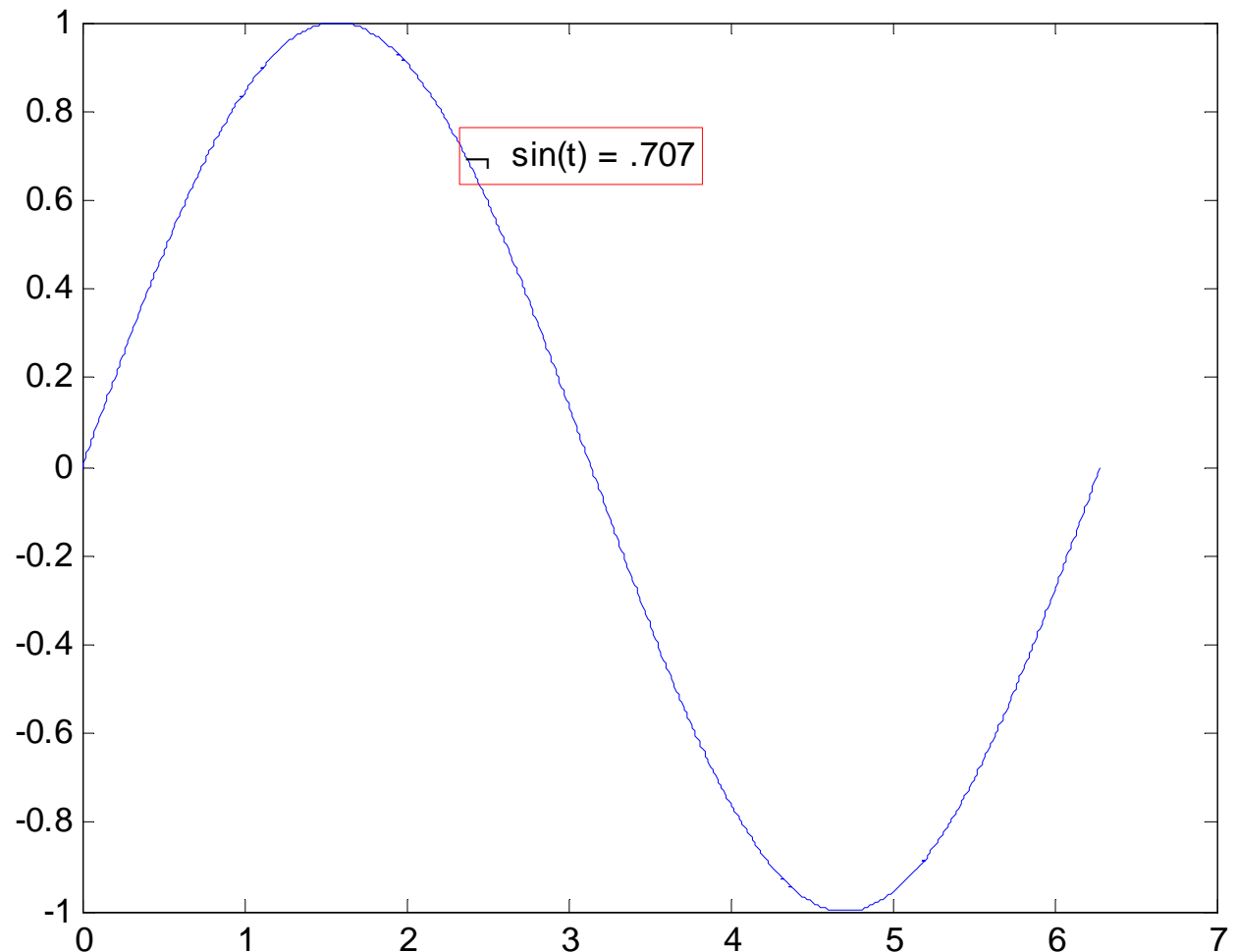
FAQ-9 PDF to word



FAQ-10 LaTeX in MATLAB

```
x = 0:0.01:2*pi;  
y = sin(x);  
plot(x,y);
```

```
text(3*pi/4, sin(3*pi/4), \leftarrow sin(t) = .707', 'EdgeColor','red');
```



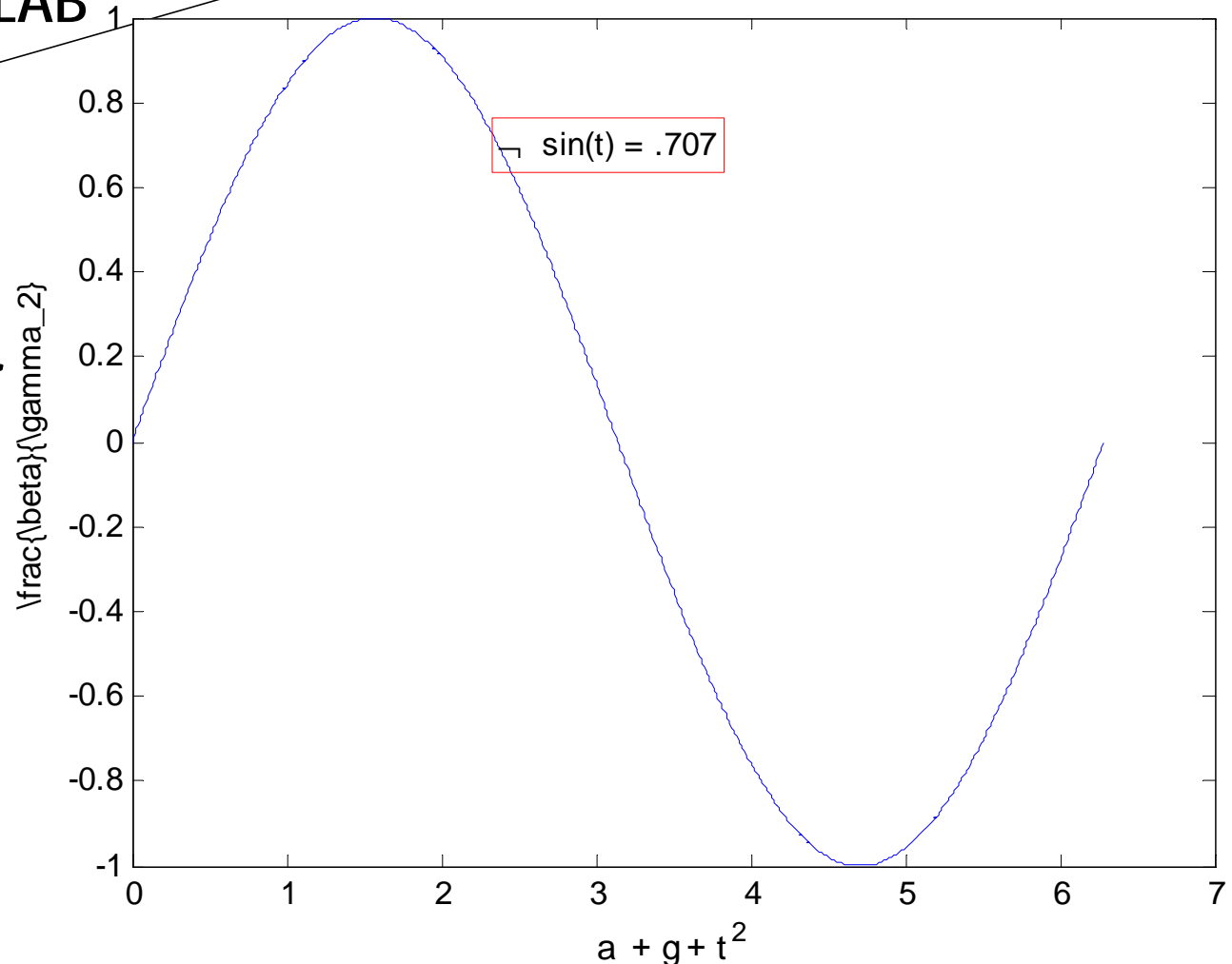
http://www.mathworks.com/access/helpdesk/help/techdoc/ref/text_props.html

Warning: Unable to interpret TeX string "\frac{\beta}{\gamma}"

FAQ-10 LaTeX in MATLAB

*LaTeX Problem Report:
Save a fig as a eps file
LaTeX output may not
be interpreted*

```
x = 0:0.01:2*pi;  
y = sin(x);  
plot(x,y);  
text(3*pi/4,sin(3*pi/4),' $\leftarrow \sin(t) = .707$ ', 'EdgeColor','red');  
xlabel('\alpha + \gamma + \tau^2');  
ylabel('\frac{\beta}{\gamma_2}');
```



FAQ-10 LaTeX in MATLAB

LATEX LaTeX representation of a symbolic expression.

LATEX(S) returns the LaTeX representation of the symbolic expression S.

```
syms x
```

```
f = taylor(log(1+x));
```

```
latex(f)
```

```
ans =
```

```
\frac{\log(1+x)}{1}
```


FAQ-11 LaTeX in MATHEMATICA

How to convert the equation of $\frac{x}{\sqrt{5}}$ in MATHEMATICA to tex?

- Way 1: `In[2]:= TeXForm[$\frac{x}{\sqrt{5}}$]`

`Out[2]//TeXForm=`
`\frac{x}{\sqrt{5}}`

Send converted latex code to a .tex file.

`In[1]:= TeXForm[$\frac{x}{\sqrt{5}}$] >> equation.tex`

If *equation.tex* is an existing file, the output can be appended to it by using `>>> equation.tex`

FAQ-11 LaTeX in MATHEMATICA

```
In[1]:= ExportString[ $\frac{x}{\sqrt{5}}$ , "TeX"]
```

- Way 2:

```
%% AMS-LaTeX Created by Wolfram Mathematica 6.0
```

```
\documentclass{article}
```

```
\usepackage{amsmath, amssymb, graphics}
```

```
\newcommand{\mathsym}[1]{{}}
```

```
\newcommand{\unicode}{{}}
```

```
\begin{document}
```

```
\[ \frac{x}{\sqrt{5}} \]
```

```
\end{document}
```

[1] <http://reference.wolfram.com/mathematica/ref/format/TeX.html>

[2] <http://reference.wolfram.com/mathematica/ref/TeXForm.html>

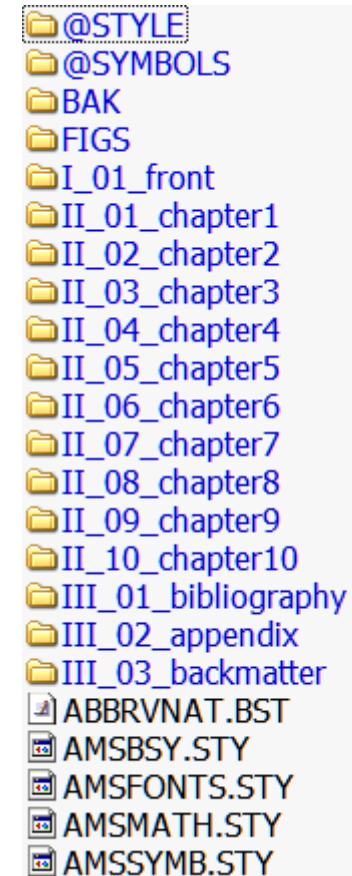
[3] <http://reference.wolfram.com/mathematica/ref/format/LaTeX.html>

FAQ-12 Large LaTeX Project

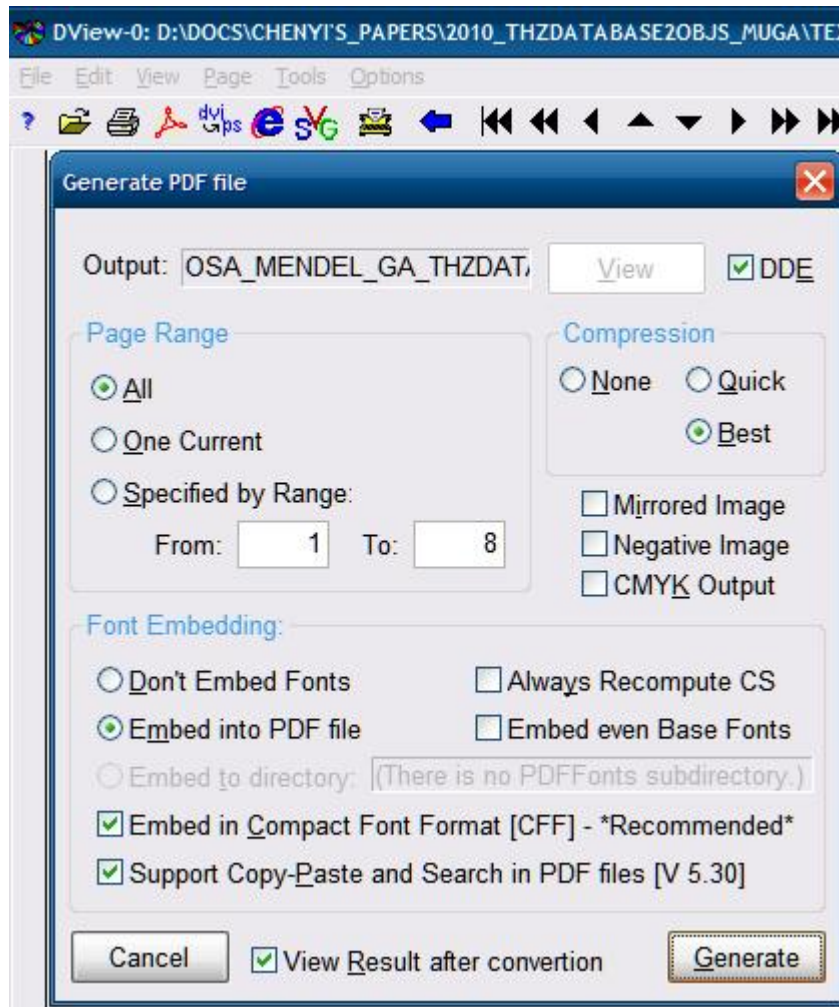
A case: [PhDthesis_Control_of_Space_Tether.tex](#)

`\input{\folder\demo.tex}`

`\include{\folder\demo.tex}`



FAQ-12 Large LaTeX Project

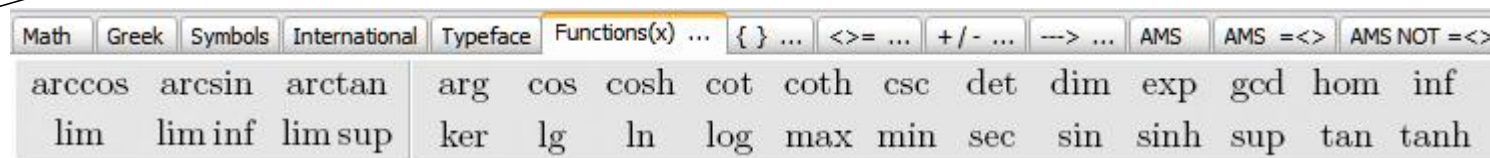


Convert .dvi file to .pdf file
with large .eps figures
(>100M)

by BaKoMa >> DView.

FAQ-13 brackets and functions

`\cosh \csc \gcd \limsup \liminf`



Equation

LaTeX

$$\log(dm/dollar)$$

$$\log(dm/dollar)$$

$$\log(dm/dollar)$$

$$\log(dm/dollar)$$

$$\log\left(\frac{dm}{dollar}\right)$$

$$\log\left(\frac{dm}{dollar}\right)$$

$$\log\left(\frac{dm}{dollar}\right)$$


$$\log\left(\frac{dm}{dollar}\right)$$

FAQ-14 line number

Add line number to manuscript

Demo.tex

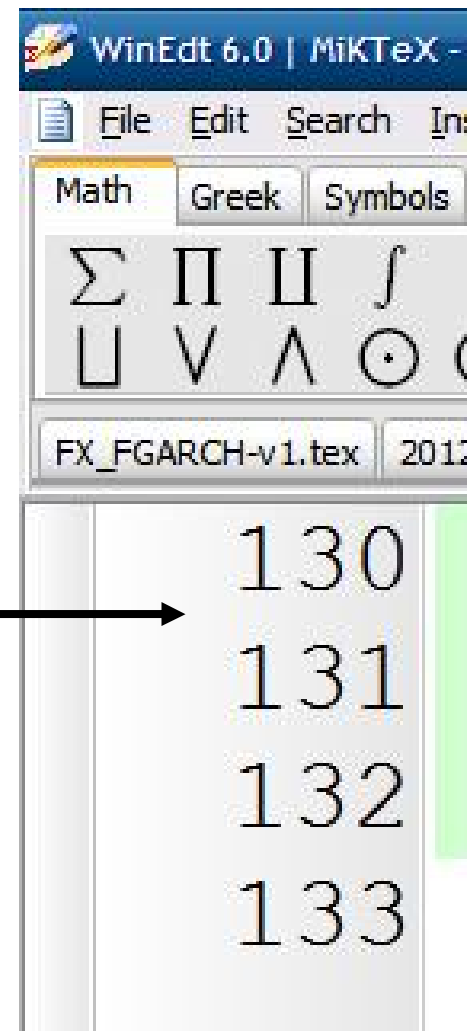
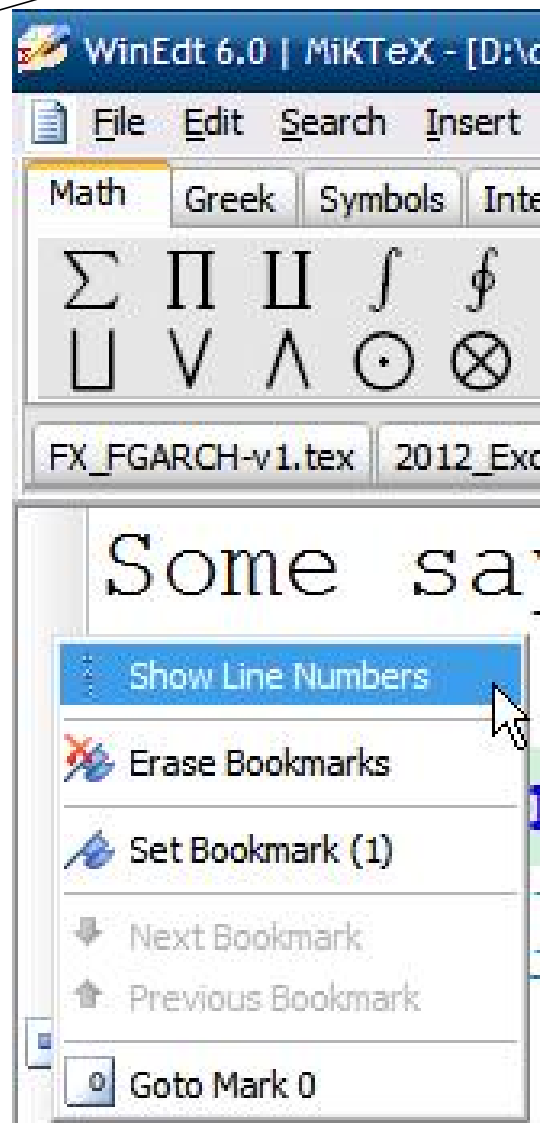
lineno.sty



```
\documentclass[preprint,12pt]{elsarticle}  
...  
\usepackage{lineno}  
...  
\begin{document}  
...  
\linenumbers  
...  
\end{document}
```

FAQ-14 line number

Add line number to Winedt



FAQ-15 .dvi blank display

Check list:

1. The file name is too long, rename it with a shorter length;
2. The .dvi file path, is it the right file;
3. Try to re-build the .tex file;

FAQ-16 The Greek Alphabet

[The Greek Alphabet](#)

[LaTeX_symbols](#)

FAQ-17 How to include an SVG image in LaTeX

- [1] [InkscapePDFLaTeX.pdf](#)
- [2] [How to include SVG diagrams in LaTeX](#)
- [3] [LaTeX-SVG-to-PDF makefile](#)

FAQ-18 Converting word to LaTeX

- | [Converting Word documents to LaTeX](#)

- | RTF to LaTeX conversion

- | <http://sourceforge.net/projects/rtf2latex2e/?source=recommended>

FAQ-19 Converting LaTeX to word

- | LaTeX to RTF converter

<http://sourceforge.net/projects/latex2rtf/?source=recommended>

- | LaTeX Equation Editor for Windows

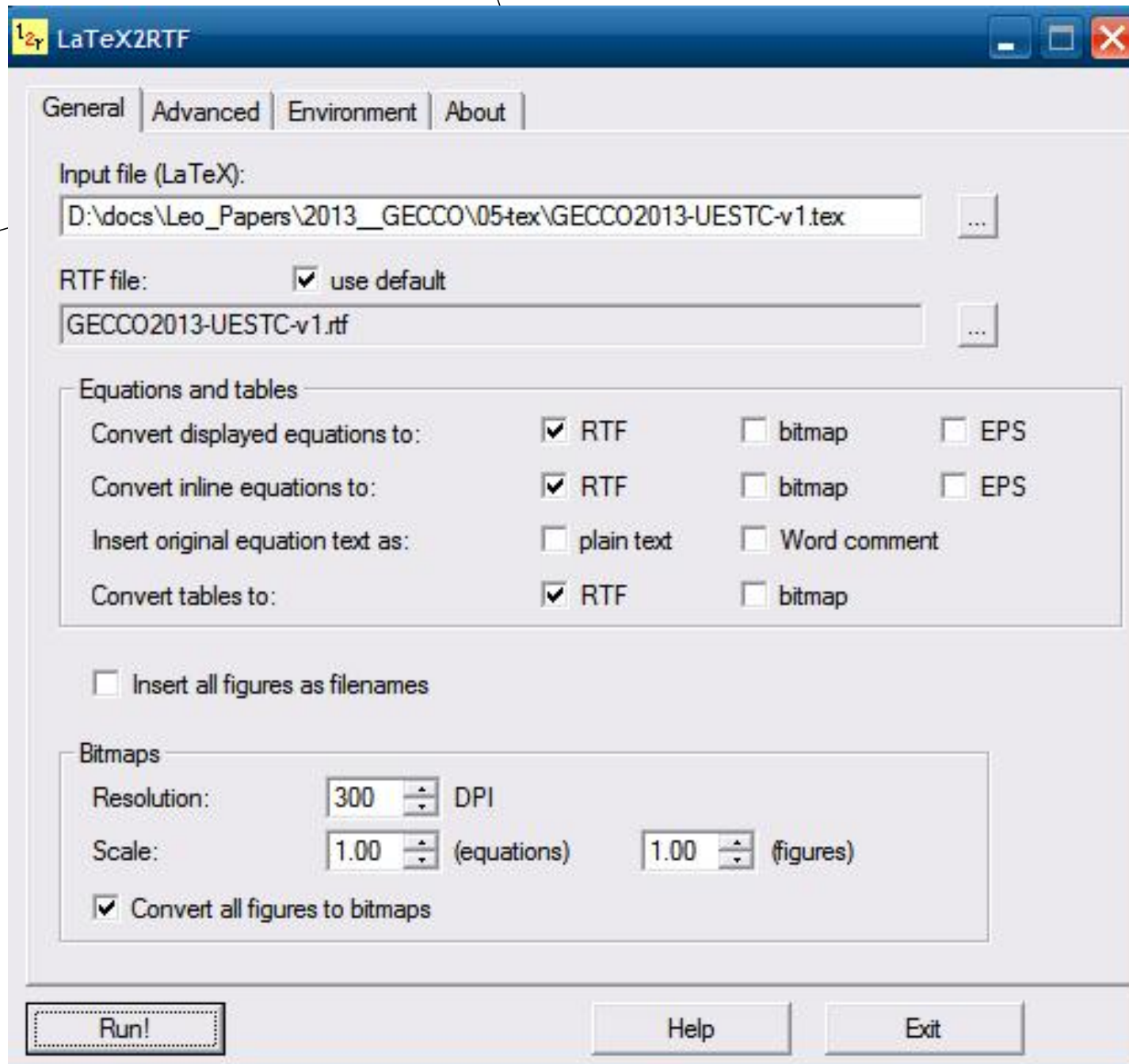
<http://sourceforge.net/projects/latexeqedit/?source=recommended>

- | TeXsword

<http://sourceforge.net/projects/texsword/?source=recommended>

- | LaTeX in Word

<http://sourceforge.net/projects/latexinword/?source=recommended>



FAQ-20

How to change reference style

```
\usepackage{natbib}
```

See the support documents:

[usrguid3.pdf](#)

[natbib.pdf](#)

[bibtex2.pdf](#)

```
\bibitem[Cartmell et al. 2007]{Cartmell2007} M.P. Cartmell, D.J.  
McKenzie, (2007), A Review of Space Tether Research,  
Progress in Aerospace Sciences, Volume 44, Issue 1, January  
2008, Pages 1-21.
```

FAQ-21

How to add new EndNote style

Step 1: download new journal style file from

<http://endnote.com/downloads/styles>

Step 2: download the .ens file to your computer

Step 3: copy this .ens file to the installed folder

e.g. C:\Program Files\EndNote X5\Styles

Step 4: restart Endnote

<http://endnote.com/downloads/styles>

```
\documentclass{article}
```

```
\usepackage{nomenc}
```

```
\makenomenclature
```

```
\renewcommand{\nomname}{Time Zones}
```

```
\begin{document}
```

UTC\makenomenclature{UTC}{Coordinated Universal Time} is 3 hours behind ADT\makenomenclature{ADT}{Atlantic Daylight Time} and 10 hours ahead of EST\makenomenclature{EST}{Eastern Standard Time}.

```
\printnomenclature
```

```
\end{document}
```


FAQ-22

List of Notations (Nomenclature)

Way 2

`\section*{List of symbols}`

`\begin{tabbing}`

`XXX \= \kill%` this line sets tab stop

`η \> efficiency of fins \\`

`ν \> coolant viscosity, \textit{m2/s} \\`

`ρ_f \> coolant density, \textit{kg/m3} \\`

`ξ_i \> bend loss coefficient, N \\`

`\end{tabbing}`

FAQ-23

include a horizontal dashed line in a table

column1a		column2a		column3a
column1b		column2b		column3b
column1c		column2c		column3c
column1d		column2d		column3d

```
\documentclass{report}
\usepackage{arydshln}
```

```
\begin{document}
```

```
\begin{tabular}{c:cc}
```

```
column1a & column2a & column3a \\\
```

```
column1b & column2b & column3b\\ \hdashline
```

```
column1c & column2c & column3c \\ \cdashline{1-2}
```

```
column1d & column2d & column3d \\\
```

```
\end{tabular}
```

```
\end{document}
```

FAQ-24

Special vertical line in a table

Column 1	Column 2	column3
second row		
third row		

FAQ-24

Special vertical line in a table

See more table in [tabu.pdf](#)

```
\documentclass{article}
```

```
\usepackage{array,booktabs,arydshln,xcolor}
```

```
\newcommand\VRule[1][\arrayrulewidth]{\vrule width #1}
```

```
\begin{document}
```

```
\begin{tabular}{!{\VRule[2pt]}c!{\VRule}c!{\color{red}\VRule[3pt]}c!{\VRule}}
```

```
Column 1 & Column 2 & column3 \\specialrule{3pt}{0pt}{0pt}
```

```
second row & & \\hdashline
```

```
third row & & \\specialrule{4pt}{0pt}{0pt}
```

```
\end{tabular}
```

```
\end{document}
```

FAQ-25

generate word from tex source codes

You should have .tex (latex file) and .eps (figure) files at hand.

Step 1: .tex is a text file, open it by MS.word and save as a new name.doc;

Step 2: go to 'title' section, you will have the manuscript's title in 'title{ xxx }';

Step 3: go to 'author' section, to find the authors

Step 4: \section{ xxx } gives the section of the manuscript;

Step 5: equations, see FAQ-4 use LaTeX in word, or manually;

FAQ-25

generate word from tex source codes

Step 6: figures, convert .eps file to .jpg using photoshop, or other software, then insert in word;

Step 7: Table, build new table in word manually according to latex source.

FAQ-26 long table on multiple pages

So let's get started:

`\usepackage{longtable}`

Now, other than for single page tables, there are a few additional commands which define the headings and captions:

`\endfirsthead`: Line(s) to appear as head of the table on the first page

`\endhead`: Line(s) to appear at top of every page (except first)

`\endfoot`: Last line(s) to appear at the bottom of every page (except last)

`\endlastfoot`: Last line(s) to appear at the end of the table

FAQ-27 Finding Unused Citations - How?

`\usepackage{refcheck}`

See [Refcheck.pdf](#)

References

`[book1]` [1] A book.

`[book2]` [2] Another book.

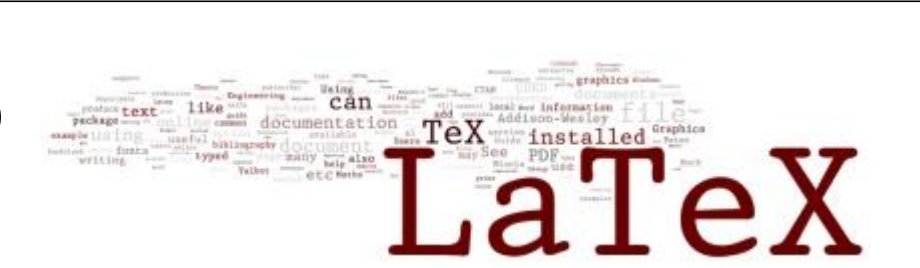
`?book3?` [3] Third book.

defined as follows

```
\begin{thebibliography}{9}  
  \bibitem{book1}A book.  
  \bibitem{book2}Another book.  
  \bibitem{book3}Third book.  
\end{thebibliography}
```

Further, we use the labels of [1, 2] with the command `\cite{book1,book2}` and **do not use the label 'book3'.** Then, the `.log` file will contain the following message

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à Reference

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Reference

- [1] George Gratzner, "[Math into LaTeX - an Introduction to LATEX and AMS-LATEX](#)", Birkhauser Boston, 1996
- [2] Herbert Voß, "[Math mode - v.2.34](#)", 2008

See useful links or Search 'LaTeX' in Google BOOK

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Useful Links



[1] <http://www.eng.cam.ac.uk/help/tpl/textprocessing/>

[3] <http://en.wikipedia.org/wiki/LaTeX>

[4] <http://www.latex-project.org/intro.html>

[5] <http://www.ctan.org/tex-archive/macros/latex/contrib/>

[6] <http://uk.tug.org>

[7] <http://www.ctex.org>

Online LaTeX compiler

[8] <http://nirvana.informatik.uni-halle.de/~thuering/php/latex-online/latex.php>

Useful Links



[9] <http://www.lib.gla.ac.uk/bibsoftware/>

[10] <http://www.lib.gla.ac.uk/researchskills/bibsoftware.shtml>

[11] http://en.wikibooks.org/wiki/LaTeX/Page_Layout

[12] LaTeX for Word Processor Users

<http://www.ctan.org/tex-archive/help/Catalogue/entries/latex4wp.html>

[13] TeX Catalogue (Brief Ctan Edition)

<http://www.ctan.org/tex-archive/help/Catalogue/brief.html>

[14] elsarticle.cls of Elsevier journals

[15] <http://web.reed.edu/cis/help/latex/bibtexstyles.html>

Scientific Writing - No. 01

Chen , Yi

leo.chen.yi@gmail.com
2017-Jan-02



Writing with LaTeX

End



[菩萨蛮·夏]
清风推月过云帐，
枝影惊雀掠稻行。
蝉鸣越后墙，
飞蛾扑火忙。
儿郎默书样，
兢兢何欢畅。
三更灯影尽，
五更天色亮。

