

LaTeX 數理排版系統

(MikTeX/TeXStudio)

吳漢銘

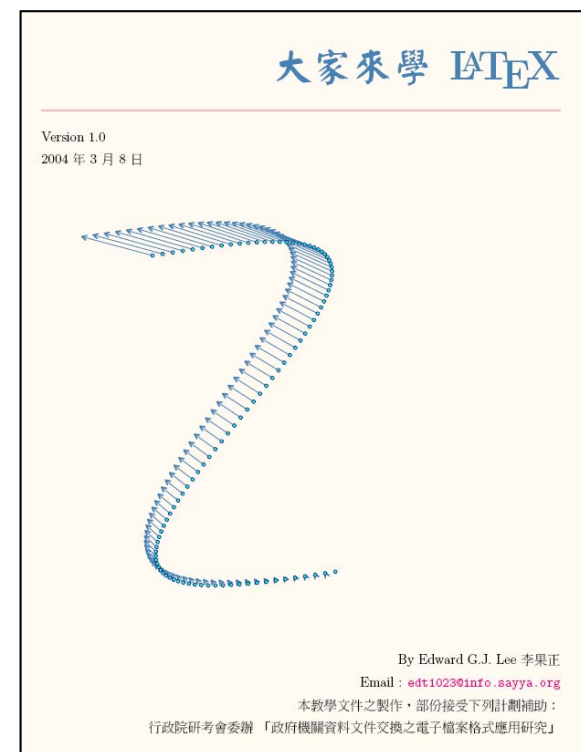
國立政治大學統計學系



本章大綱&學習目標



- 本章大綱
 - LaTeX 簡介
 - LaTeX 處理流程
 - 軟體安裝
 - 文件編譯/TeXstudio設定
 - MiKTeX設定
- 學習目標
 - 會**成功**安裝並設定 MikTeX，TeXstudio。
 - 會編譯(中英文)LaTeX文件，最後產生pdf文件。



簡介

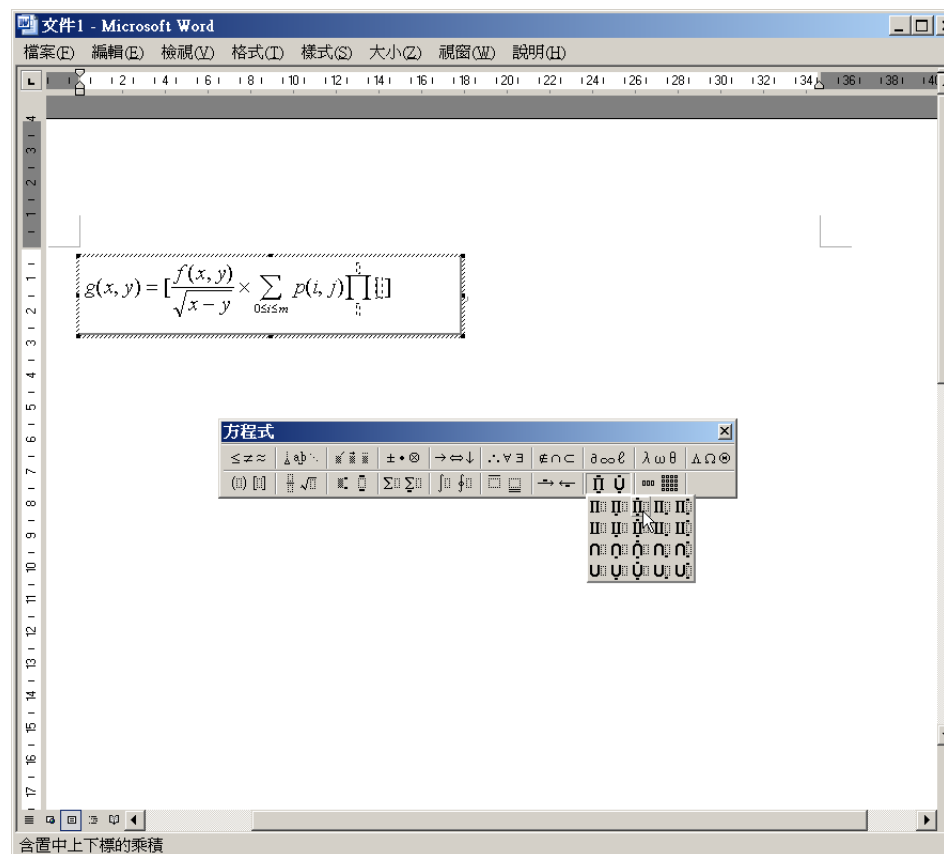
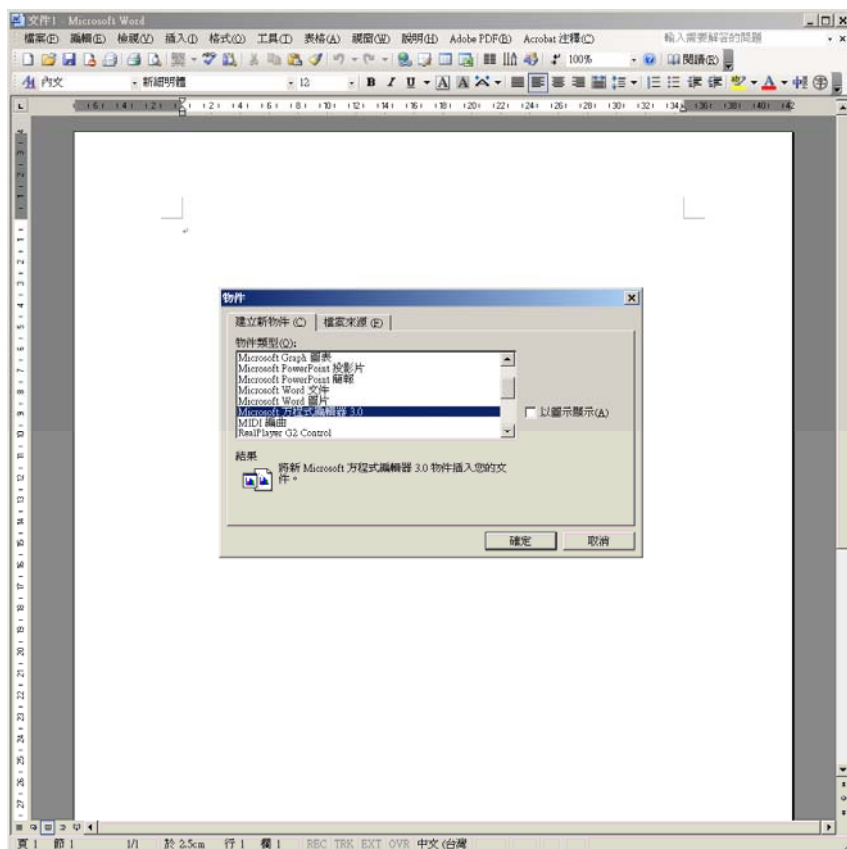


- TEX: Donald E. Kunth, 1977.
 - 低階排版語言
- Macro (巨集): 經常用到的功能，事先定義好。
- LaTeX:
 - A Macro of TeX.
 - Leslie Lamport (1985)把版面配置和文章內容，分開處理。
- LaTeX網站
 - <http://www.latex-project.org/latex3.html>

編輯方程式: Word方程式編輯器



所見即所得



線上TeX編輯器 (1)

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https://www.tutorialspoint.com/online_latex_editor.php

The screenshot shows the Online LaTeX Editor (TeX Live 2016) interface. The editor is titled "codingground Online Latex Editor (TeX Live 2016)". The source code in the editor is as follows:

```
1 \documentclass{article}
2 \usepackage{graphicx}
3
4 \begin{document}
5
6 \title{Introduction to \LaTeX{}}
7 \author{Author's Name}
8
9 \maketitle
10
11 \begin{abstract}
12 The abstract text goes here.
13 \end{abstract}
14
15 \section{Introduction}
16 Here is the text of your introduction.
17
18 \begin{equation}
19 \label{simple_equation}
20 \alpha = \sqrt{\beta}
21 \end{equation}
22
23 \subsection{Subsection Heading Here}
24 Write your subsection text here.
25
```

The rendered document (Result) shows the following content:

Introduction to \LaTeX

Author's Name
March 6, 2018

Abstract
The abstract text goes here.

1 Introduction
Here is the text of your introduction.

$$\alpha = \sqrt{\beta} \quad (1)$$

1.1 Subsection Heading Here
Write your subsection text here.

2 Conclusion
Write your conclusion here.

The keyboard interface at the bottom includes a "Basic" tab and various symbols and operators.

線上TeX編輯器 (2)



<https://www.latex4technics.com/>

1 $\int_a^b f(x) dx = F(b) - F(a) \setminus \setminus$
2
3 $\begin{eqnarray}$
4 $\lim_{x \rightarrow \infty} \left(5 + \frac{1}{x} \right)$
5 $\lim_{x \rightarrow \infty} 5 +$
6 $\lim_{x \rightarrow \infty} \frac{1}{x}$
7 $5 + 0$
8 5
9 $\end{eqnarray}$

Compile Error
1. Check the configured compile mode in settings
2. Check the LaTeX log file:
[Open Log](#) [Clean & Compile](#)

$$\int_a^b f(x) dx = F(b) - F(a)$$
$$\lim_{x \rightarrow \infty} \left(5 + \frac{1}{x} \right) = \lim_{x \rightarrow \infty} 5 + \lim_{x \rightarrow \infty} \frac{1}{x}$$
$$= 5 + 0$$
$$= 5$$

線上TeX編輯器 (3)

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<https://www.overleaf.com>

The screenshot displays the Overleaf online LaTeX editor interface. The top navigation bar includes the Overleaf logo, PROJECT, HISTORY & REVISIONS, SHARE, PDF, JOURNALS & SERVICES, and SIGN UP / SIGN IN buttons. Below the navigation bar is a toolbar with icons for Source, Rich Text, undo, redo, Edit, Find, and other editing tools. The main workspace is split into two panes: Source and Preview.

Source Pane: Contains LaTeX source code for a document class, packages, and content. The code is as follows:

```
1 \documentclass[a4paper]{article}
2
3 %% Language and font encodings
4 \usepackage[english]{babel}
5 \usepackage[utf8x]{inputenc}
6 \usepackage[T1]{fontenc}
7
8 %% Sets page size and margins
9 \usepackage[a4paper,top=3cm,bottom=2cm,left=3cm,right=3cm,marginparwidth=1.75cm]{geometry}
10
11 %% Useful packages
12 \usepackage{amsmath}
13 \usepackage{graphicx}
14 \usepackage{colorinlistoftodos}{todonotes}
15 \usepackage{colorlinks=true, allcolors=blue}{hyperref}
16
17 \title{Your Paper}
18 \author{You}
19
20 \begin{document}
21 \maketitle
22
23 \begin{abstract}
24 Your abstract.
25 \end{abstract}
26
27 \section{Introduction}
28
29 Your introduction goes here! Some examples of commonly used
30 commands and features are listed below, to help you get
31 started. If you have a question, please use the help menu
```

Preview Pane: Shows the rendered output of the LaTeX code. It includes a title page with the title "Your Paper", author "You", and date "March 6, 2018". Below the title page is an abstract section and an introduction section. The introduction section contains a paragraph of text and a figure of a green frog. The figure is captioned "Figure 1: This frog was uploaded via the project menu."

編輯軟體組合(2): MikTeX + TeXworks

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```
hmwu-LaTeX-Example.tex - TeXworks
File Edit Search Format Typeset Scripts Window Help
pdfLaTeX+MakeIndex+BibTeX
1 %%%%%%%%%%
2 % Header %
3 %%%%%%%%%%
4 \documentclass[11pt]{article}
5 \usepackage{epsfig, color}
6 \usepackage{svgnames}{xcolor}
7 \usepackage{moreverb} % source code listing
8 \usepackage{listings} % R source code
9 \usepackage{fancybox}
10 \usepackage{hyperref} % links
11
12 %%%%%%%%%%
13 % 中文設定 %
14 %%%%%%%%%%
15 \usepackage{xibtra, fontspec, xunicode} % 設定字體
16 \usepackage{slantfont, boldfont}{xeCJK} % 允許斜体和粗体 %讓中英文字體分開設置
17 \setCJKmainfont{微軟正黑體} % 可以改用「標楷體」、「細明體」
18 \XeTeXlinebreaklocale "zh" % 中文才能自動換行
19 \XeTeXlinebreakskip = 0pt plus 1pt % 中文才能自動換行
20
21 %%%%%%%%%%
22 % R程式碼列印設定 %
23 %%%%%%%%%%
24 \stset{language=R,
25 basicstyle=\ttfamily,
26 stringstyle=\color{red},
27 otherkeywords={0, 1, 2, 3, 4, 5, 6, 7, 8, 9},
28 morekeywords={TRUE, FALSE},
29 keywordstyle=\color{blue},
30 commentstyle=\color{DarkGreen}
31 }
32
33 %%%%%%%%%%
34 % Page Format %
35 %%%%%%%%%%
```

hmwu-LaTeX-Example.pdf - TeXworks

File Edit Search View Typeset Scripts Window Help

LaTeX 教學範例文件

吳漢銘*
國立臺北大學統計學系
February 24, 2018

目錄

1 簡介	2
2 數學式	2
2.1 文中數式 \dots	2
2.2 單獨數式 \dots	3
3 圖形	3
4 表格	3
參考文獻	4
附錄	5
A 程式碼 (一般/加框)	5
B 程式碼 (編行號)	5
C 程式碼 (語法突顯)	5

圖目錄

1 圖形置於 figure 環境中·自動編號*	4
-------------------------	---

表目錄

1 Characteristics of the datasets. All datasets contain no missing observations.	4
--	---

*E-mail: hmwu@gm.ntpu.edu.tw

1

100% page 1 of 5

編輯軟體組合(3): MikTeX + TeXmaker

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The screenshot displays the TeXmaker application window. The title bar reads "Document : E:/hmwu-LaTeX-Example.tex". The menu bar includes "文件(F)", "編輯(E)", "工具(T)", "LaTeX", "數學(M)", "精靈(W)", "參考文獻(B)", "自定(U)", "預覽(V)", "選項(O)", and "求助(H)". The toolbar contains icons for file operations and a "快速編譯" (Quick Compile) button. The main window is split into three panes:

- Structure Panel (Left):** Shows a tree view of the document structure with categories like LABELS, BLOCKS, 簡介, 數學式, 圖形, and 表格.
- Source Editor (Middle):** Displays the LaTeX source code for "hmwu-LaTeX-Example.tex". The code includes package declarations, font settings for Chinese (e.g., `\setCJKmainfont{微軟正黑體}`), and list settings. Line numbers 1 through 34 are visible on the left margin.
- PDF Viewer (Right):** Shows the rendered PDF output. The title is "L^AT_EX 教學範例文件". The author is "吳漢銘" from the Department of Statistics, National Sun Yat-sen University. The date is "February 24, 2018". The content includes a Table of Contents (目錄) and a Subject Index (表目錄).

The status bar at the bottom indicates "Structure Messages / Log Pdf Viewer Source Viewer Ready" and "UTF-8 正常模式".

編輯軟體組合(4): MikTeX + TeXstudio

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The screenshot displays the TeXstudio interface for editing a LaTeX document. The main window shows the source code for `hmwu-LaTeX-Example.tex`. The code includes a definition for a derivative, a list of items, and a section for a figure. The preview window on the right shows the rendered output, which is a title page for a LaTeX example document, including the author's name (吳漢銘), affiliation (國立臺北大學統計學系), and date (March 6, 2018). A table of contents is also visible, listing sections like 'Introduction', 'Mathematics', 'Figure', and 'Table'. The messages window at the bottom shows several warnings about overfull and underfull boxes.

```
$x_0$, denoted  $f'(x_0)$ , is
\begin{equation}
f'(x_0) = \lim_{h \rightarrow 0} \frac{f(x_0+h) - f(x_0)}{h}
\end{equation}
\label{def:derivative}
\end{equation}
provides this limit exists.
\item \verb|\begin{eqnarray} ... & ... & ...
\end{eqnarray}|, 多數式有標號。\\
\begin{eqnarray}
\lim_{x \rightarrow \infty} \left( 5 + \frac{1}{x} \right)
&& \lim_{x \rightarrow \infty} 5 +
&& \lim_{x \rightarrow \infty} \frac{1}{x} \\
&& 5 + 0 \\
&& 5 \quad \text{\label{ex:answer}}
\end{eqnarray}
\end{enumerate}

% Section:
Figure %
\section{圖形}\label{set:figure}
記得圖檔和tex檔要放在同一目錄,
```

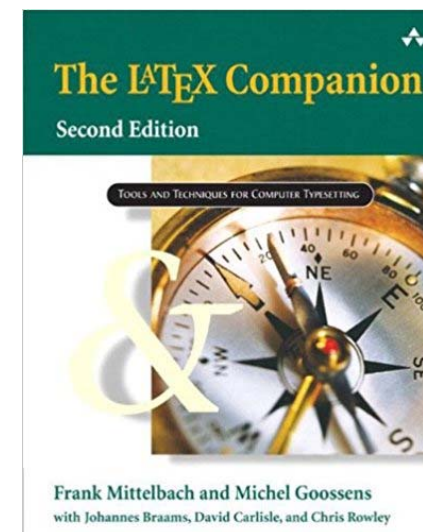
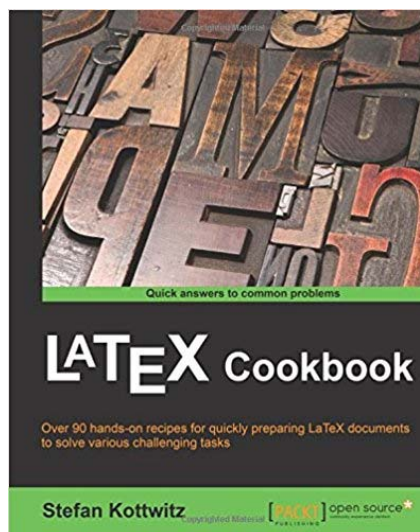
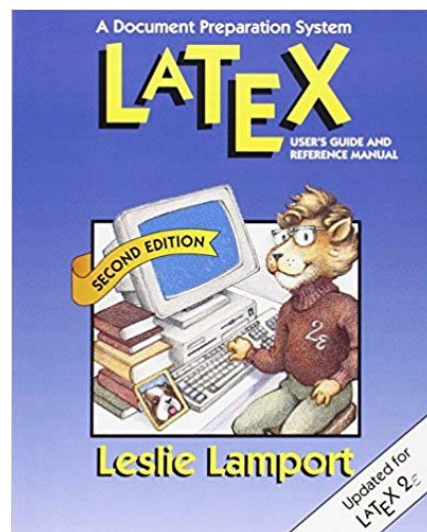
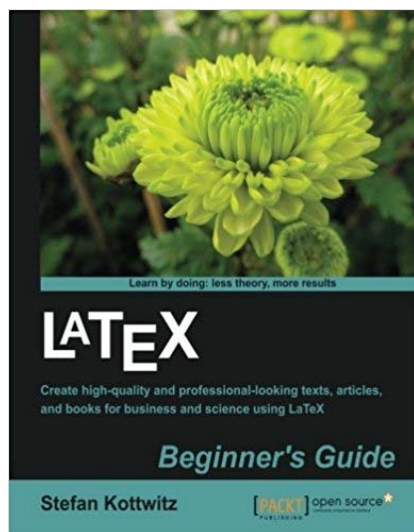
Messages

File	Type	Line	Message
hmwu-LaTeX-Example.tex	bad box	line 81	Overfull \hbox (2.40729pt too wide) in paragraph
hmwu-LaTeX-Example.tex	bad box	line 84	Overfull \hbox (35.63722pt too wide) in paragraph
hmwu-LaTeX-Example.tex	bad box	line 138	Underfull \hbox (badness 10000) in paragraph
hmwu-LaTeX-Example.tex	bad box	line 185	Overfull \hbox (5.11604pt too wide) in paragraph

參考書籍



- 李果正, 2004, 大家來學LATEX。
<https://www.cs.pu.edu.tw/~wckuo/doc/latex123/latex123.html>
- 吳聰敏, 吳聰慧, 1997, cwTeX排版系統, 臺北市: 翰蘆。
<http://homepage.ntu.edu.tw/~ntut019/cwtex/cwtex.html>



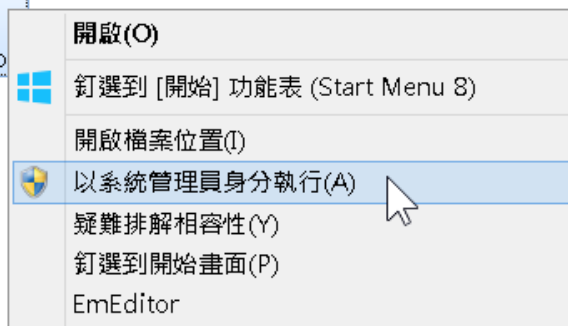
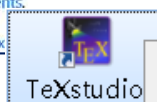
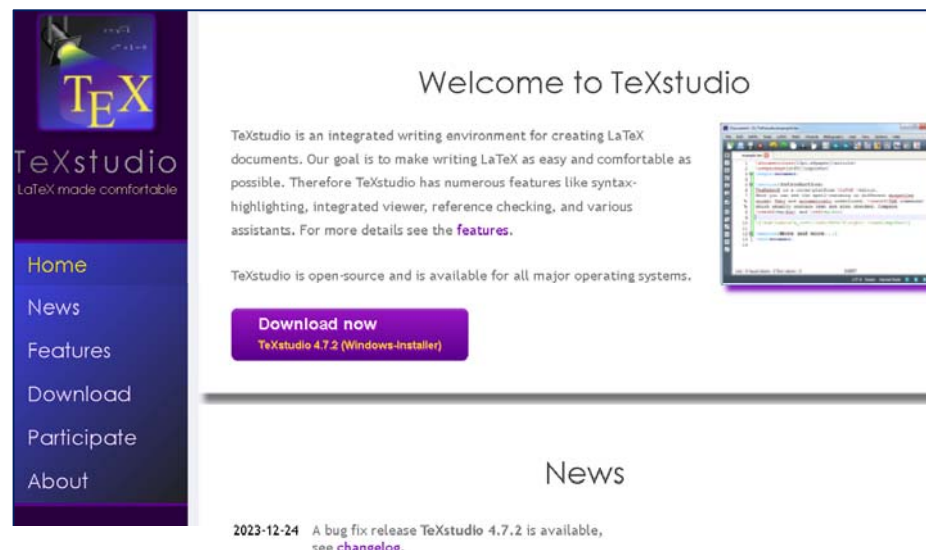
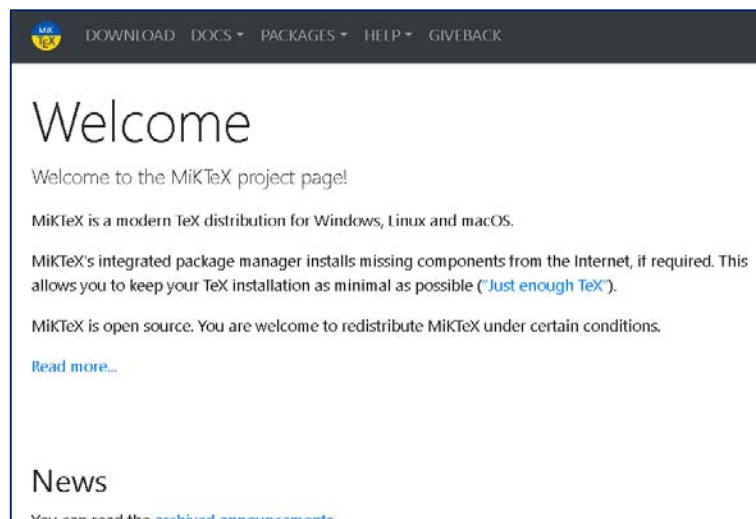
軟體下載安裝與執行



- 本課程使用MiKTeX + TeXstudio。
- 使用其它TeX軟體系統也可以(能打出LaTeX碼，並編譯出pdf文件即可)。
- 需注意電腦作業系統是Windows或是Mac OS。

<https://miktex.org>

<https://www.texstudio.org/>



!! 重要!!

若要安裝套件或更動TeXstudio設定，需以"系統管理員身份"開啟程式。

安裝完測試

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1. 開啟 C:\Program Files\texstudio\templates\template_Article.tex
或於「C:\Users\hanmi\AppData\Local\Programs\」尋找

3. 填入
英文名

2. 填入
Hello \LaTeX \ World!

6. (自動)產生預覽

4. 按F5或按
或按Tools => Commands => PDFLaTeX
(若是中文文件: 按Tools => Commands => XeLaTeX)

5. 確定沒有錯誤

```
1 \documentclass[{}]{article}
2
3 %opening
4 \title{Hello \LaTeX \ World!}
5 \author{hmwu}
6
7 \begin{document}
8
9 \maketitle
10
11 \begin{abstract}
12
13 \end{abstract}
14
15 \section{}
16
17 \end{document}
18
```

Change of Default Shortcuts

Over the time, the shortcuts for the main tools have been somewhat fragmented. Additionally, they partly overlapped with standard keys. In particular, F1, F3, F10, F11 and F12 reserved meanings on some systems.

We've decided to set this right in favor of more a consistent layout:

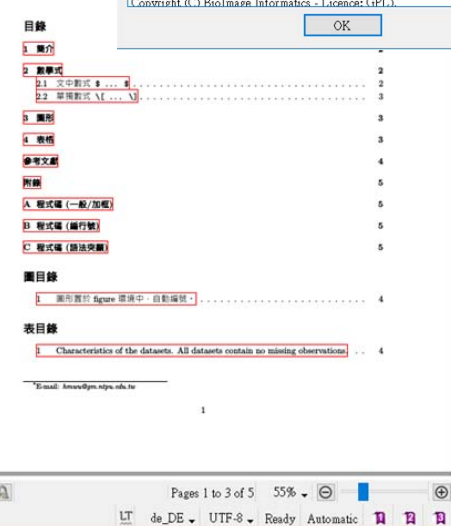
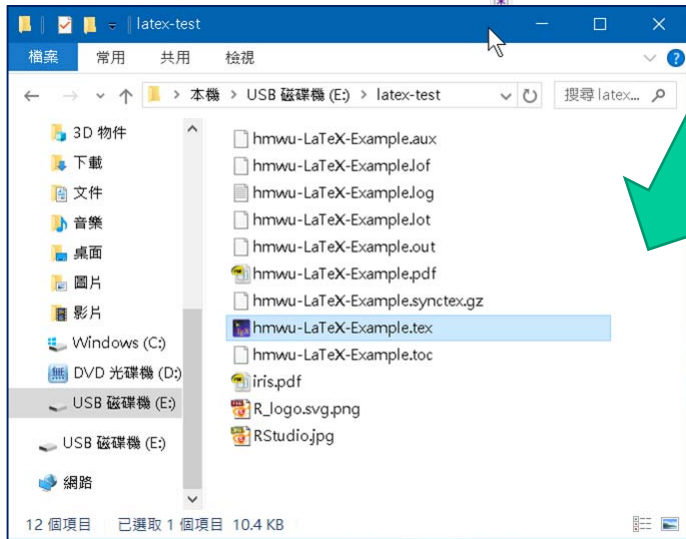
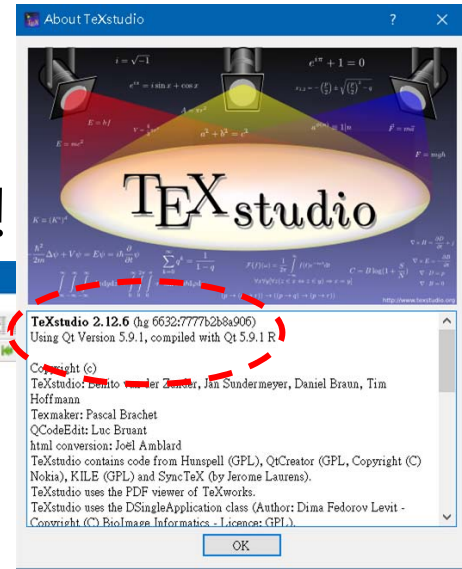
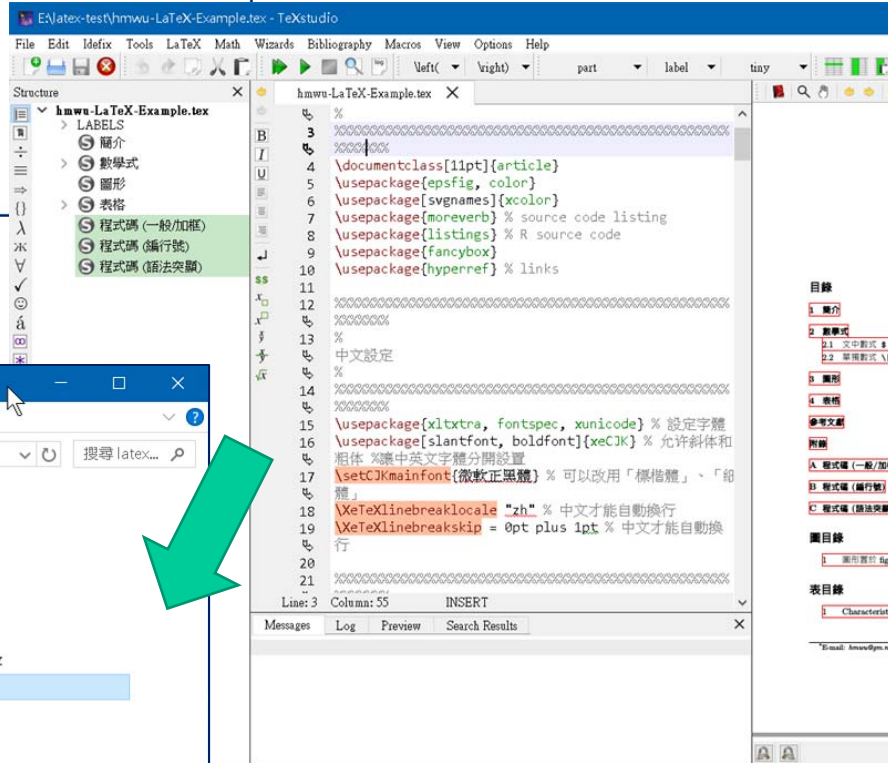
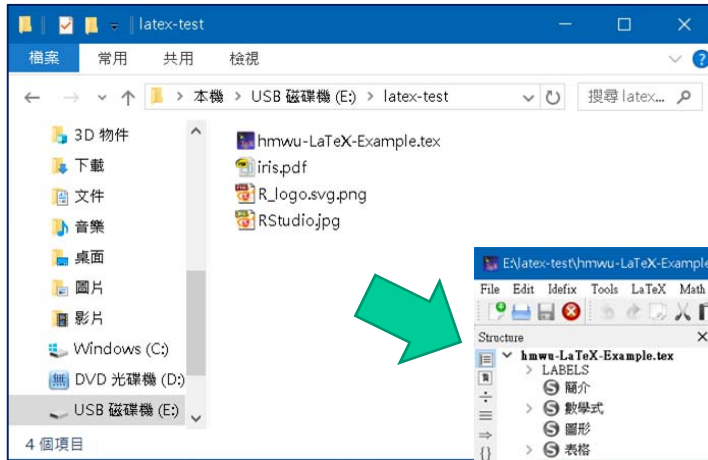
- The shortcut for Build & View will move from F1 to F5.
- The shortcut for Bibliography will move from F11 to F8.
- The shortcut for Glossary will move from F10 to F9.
- The tool Index won't have a default shortcut anymore (formerly F12) because it's not called very often.

F5 F6 F7 F8 F9
Build & View Compile View Bibliography Glossary

Process started: pdflatex.exe -synctex=1 -interaction=nonstopmode "template_Article".tex
Process exited normally

LaTeX 編譯過程，產生的一些檔案

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TeXstudio設定: Editor 顯示行號



Options => Configure TeXstudio...

新版TeXstudio的Show Line Numbers位於Editor

1 (option filter) Show Advanced Options

2 OK

3 Editor

4 All Line Numbers

TeXstudio設定: 顯示符號表



The screenshot displays the TeXstudio interface with several key elements highlighted by red dashed circles and blue numbers:

- 1:** A red dashed circle highlights the window control buttons (minimize, maximize, close) at the bottom left of the main window.
- 2:** A red dashed circle highlights the 'Relation symbols' table on the left side of the editor.
- 3:** A red dashed circle highlights the 'Greek letters' table, which is overlaid on the main editor window.

The main editor window shows the LaTeX source code for a document titled 'hmwu-LaTeX-Example.tex'. The code includes package loading and font settings. The preview window on the right shows the rendered document, which is a table of contents in Chinese. The status bar at the bottom indicates 'Pages 1 to 3 of 5', '55%' zoom, and 'UTF-8' encoding.

TeXstudio設定: 深色佈景主題



請自行決定是否更換佈景主題。

- 下載 Dark theme: Texstudio-dark-Hurtado.txsprofile:
<http://www.pauljhurtado.com/latex/TeXstudio-dark-Hurtado.txsprofile>
- Various Editor Theme for Texstudio Examples:
<https://tex.stackexchange.com/questions/108315/how-can-i-set-a-dark-theme-in-texstudio>
- Installing RStudio and TeXstudio: Dark Color Theme for TeXstudio Editor
<http://www.pauljhurtado.com/teaching/software.html>

```

1 \documentclass[11pt]{article}
2
3 % These packages help with equations, math symbols, etc.
4 \usepackage{amsmath,amssymb}
5 % This EXCELLENT resource is your guide to writing equations in LaTeX!
6 % ftp://ftp.ams.org/pub/tex/doc/amsmath/short-math-guide.pdf
7
8 \usepackage[margin=lin]{geometry} % better margins and spacing
9 \setlength{\parindent}{0in} % 0 = no paragraph indentation
10
11 % For more compact numbered lists...
12 \usepackage{enumitem}
13 \setlist{noitemsep, topsep=-0.5em}
14
15 \usepackage{multicol} % Easy columns
16
17 \usepackage{graphicx} % If you want to include an image
18
19 \begin{document}
20 % Configure some details for knitr...
21 <<setup, include=FALSE>>=
22 # smaller font size for chunks
23 knitr::opts_chunk$set(size = 'footnotesize', concordance=TRUE)
24 @
25
26 % Main text begins here:
27 \textbf{\large COURSE TITLE, Homework X \hfill STUDENT NAME}
28 \vspace{1pt}
29 \hrule
30 ~\ % this just forces a blank line.
31
32 \textbf{1.} What is  $1+1$ ?
33
34  $1+1=2$ 
35
36 Or in R... %% This is a block of R code parsed by knitr!
37 <<conepusone, tidy=TRUE>>=
38 ## R code to compute 1+1 (the complicated way...)
39 x=1; y=1;
40 addtogether = function(a,b) { return(a+b) }
41 addtogether(x,y)
42 @

```

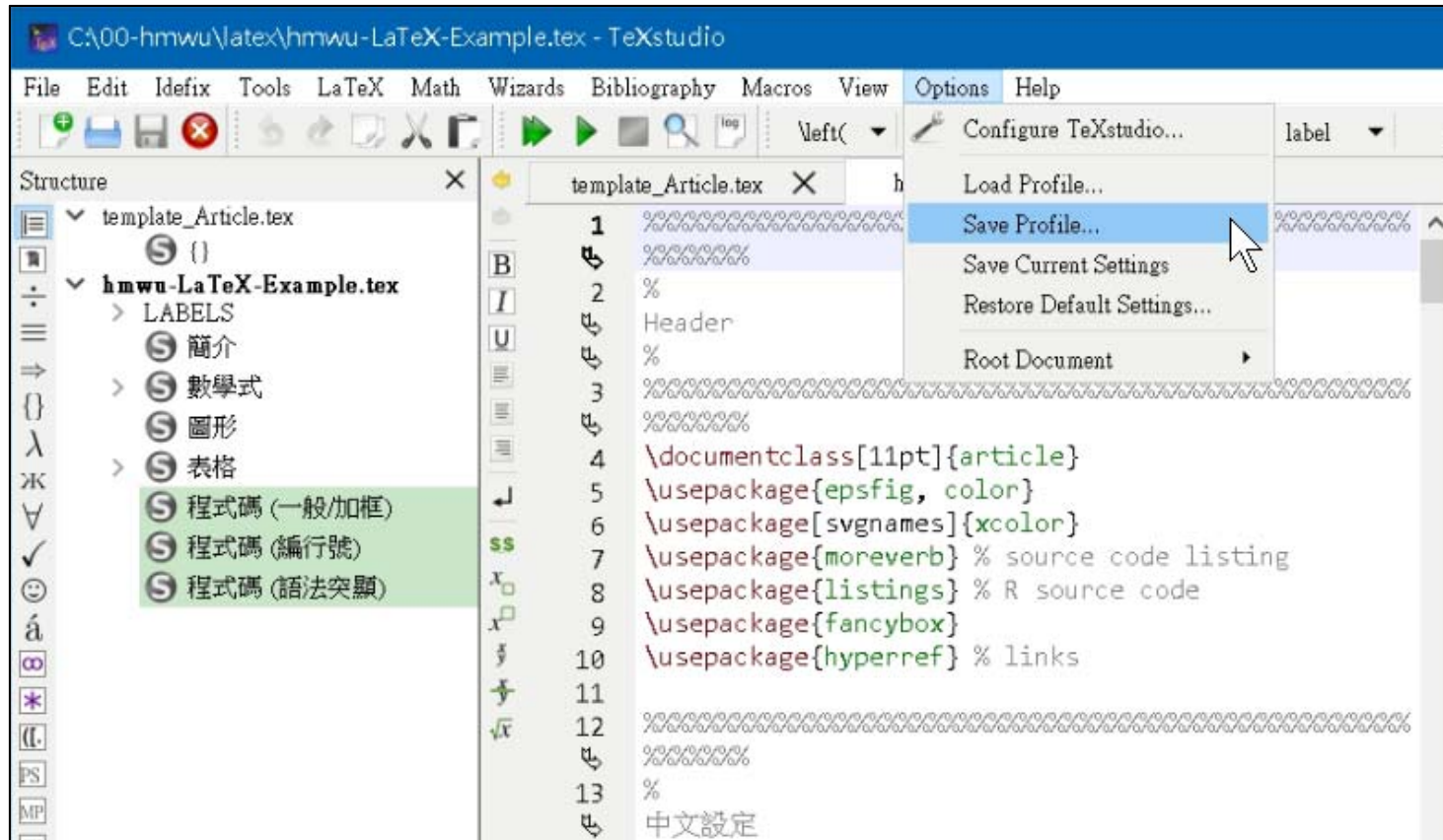
```

1 \documentclass{article}
2 \usepackage{listings}
3 \usepackage{xcolor}
4 \usepackage{upquote}
5 \usepackage{textcomp}
6
7 \lstset{%
8   language=matlab,
9   %tabsize=4,
10  basicstyle=\ttfamily,
11  backgroundcolor=\color{black!05},
12  aboveskip=\baselineskip,
13  showtabs=false,
14  keepspaces=true,
15  showspace=false,
16  showstringspaces=false,
17  breaklines=true,
18  columns=flexible,
19  %literate={'}{\textquotesingle}1,
20 }
21
22 \begin{document}
23 \begin{lstlisting}
24 window_dim = [0, 50, 1500, 975];
25 figure('OuterPosition',window_dim);
26 ax1 = gca;
27 hold on

```

TeXstudio設定: 深色佈景主題

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1. 先儲存目前profile, 命名"user-default.txprofile"
 2. 再儲存一次profile, 命名"my-dark.txprofile"
- (要記得存在哪一個目錄下)

TeXstudio設定: 深色佈景主題

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The screenshot displays the TeXstudio interface with a dark theme. The main window shows a LaTeX document with the following content:

```
66 \tableofcontents
67 \listoffigures
68 \listoftables
69 \clearpage
70
71 % Section: Introduction
72 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
73 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
74 \section{簡介}\label{set:intro}
75 Hello {\Large everyone}! This {\bf is} a
76 {\LaTeX}\footnote{\url{https://www.latex-project.org}} \
77 {\tt document}. 這是一份 {\LaTeX} {\bf 教學文件}, 希望大家學習愉快。
78
79 \begin{itemize}
80 \item 要找一本好的工具書來參考, 例如Shultis (1994) \cite{Shultis94}.
81 \item 安裝軟體為 MikTeX (\url{https://miktex.org}) 和 TeXStudio
82 (\url{http://www.texstudio.org}).
83 \item 文件副檔名為 {\tt .tex}, 有分中文文件及英文文件。
84 \item 開啟範例檔案測試: {\tt C:\textbackslash Program Files
85 (x86)\textbackslash TeXstudio\textbackslash templates\textbackslash
86 template\_Article.tex}. Build \& View (F5).
87 \item 編譯過程: PDFLaTeX(英文文件), XeLaTeX(中英文文件)。
88 \item 編譯及預覽(英文): Tools {\Rightarrow} Build \& View, 或
89 Tools {\Rightarrow} Commands {\Rightarrow} PDFLaTeX.
90 \item 編譯及預覽(中英文)(F6): Tools {\Rightarrow} Commands {\Rightarrow} XeLaTeX.
91
92 \item 使用{\verb|\label{maker}|}和{\verb|\ref{maker}|}. 例如第{\ref{set:math}}節中的
93 式子{\ref{def:derivative}}是微分的定義。圖{\ref{fig:iris}}是一個散佈圖, 它在第
94 \pageref{fig:iris}頁。(要編譯兩次以上, 才可更新目錄或編號)。
95 \item 自行google這些巨集套件的用法: {\tt moreverb}, {\tt listings}, {\tt
96 fancybox}, {\tt hyperref}.
97 \item \% 是註解符號。用{\verb|\iffalse ... \fi|}註解一個段落。文字a、數式 $a^2$ 、程式
98 碼{\tt
```

The 'Configure TeXstudio' dialog box is open, showing the 'Syntax Highlighting' tab. A red arrow points from the 'Syntax Highlighting' section in the main window to the 'Syntax Highlighting' tab in the dialog box.

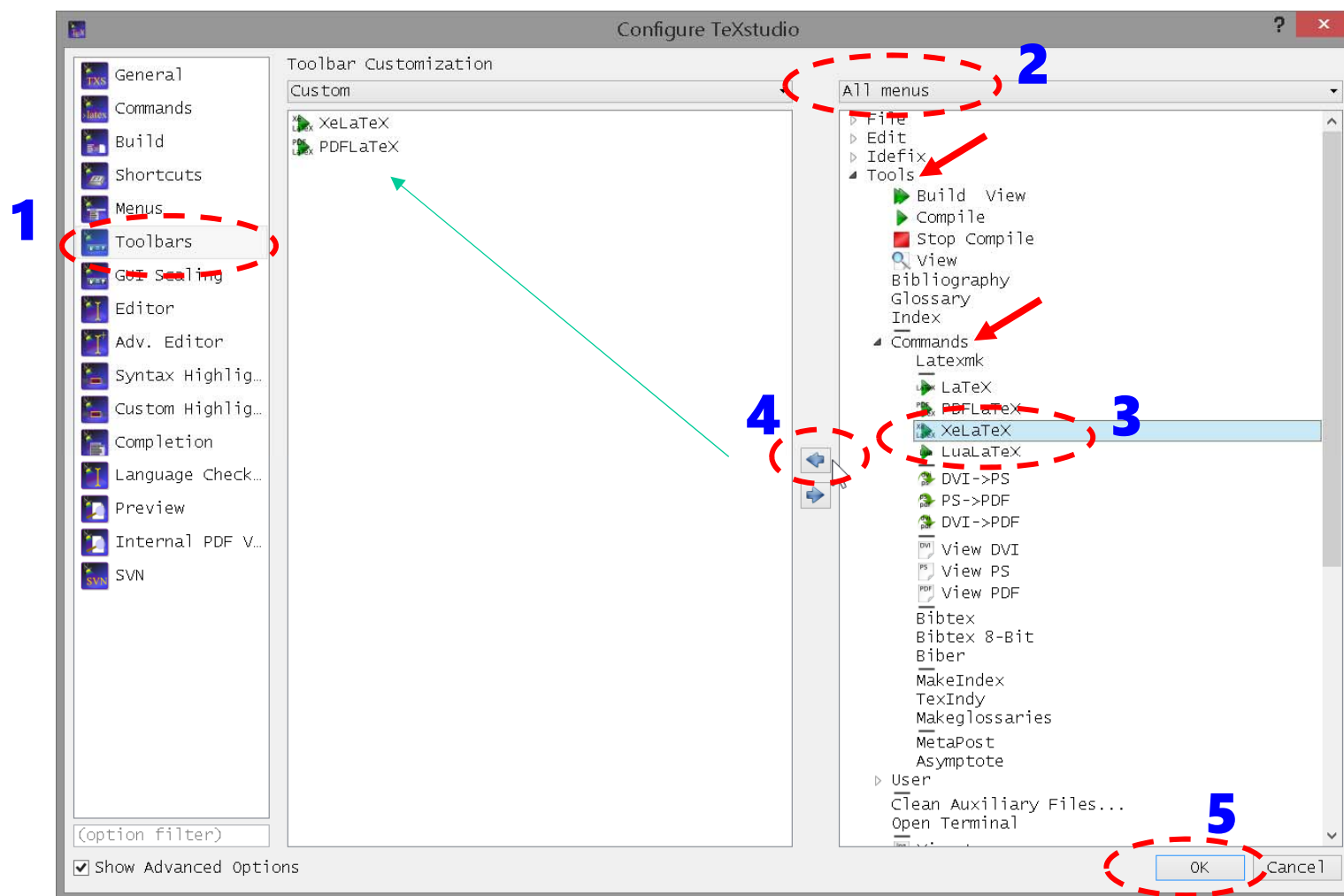
Identify	Font Family	Size	Pre
normal	-default-	100%	
background	-default-	100%	
comment	-default-	100%	
commentText	-default-	100%	
commentText2	-default-	100%	
keyword	-default-	100%	
extra-keyword	-default-	100%	
math-delimiter	-default-	100%	
math-keyword	-default-	100%	
numbers	-default-	100%	
text	-default-	100%	
align-superscript	-default-	100%	
environment	-default-	100%	
structure	-default-	130%	
link	-default-	100%	
escapeSeq	-default-	100%	
verbatim	-default-	100%	
picture	-default-	100%	
picture-keyword	-default-	100%	
poneds	-default-	100%	
LaTeX checking			
basicBlock	-default-	100%	
basicMatch	-default-	100%	
basicSystemMatch	-default-	100%	
referenceFront	-default-	100%	
referenceMissing	-default-	100%	
referenceMultiple	-default-	100%	
citationFront	Arial Black	100%	
citationMissing	-default-	100%	
packageFront	-default-	100%	
packageMissing	-default-	100%	
tempencyCodeCompletion	-default-	100%	

若要進一步改顏色: Options => Configure TeXstudio => **Syntax Highlighting**

TeXstudio設定: 快捷按鈕



Options => Configure TeXstudio



TeXstudio設定: 快捷按鈕

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1 滑鼠在工具列按右鍵，選單出現

The screenshot displays the TeXstudio application window. The main editor shows a LaTeX document with various commands and comments. A right-click context menu is open over the toolbar, with the 'Custom' option highlighted. A red circle is drawn around the 'Custom' option, and a blue '2' is placed next to it. The preview window on the right shows the rendered document content, including a section titled '1 簡介' and a list of bullet points. The status bar at the bottom indicates 'Pages 1 to 2 of 5' and '78%' zoom level.

CTAN: Comprehensive TeX Archive Network

<https://ctan.org>

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The screenshot shows the CTAN website homepage. At the top, there is a navigation bar with icons for Cover, Upload, Browse, and Search. Below this is a header section with the CTAN logo and a navigation menu. The main content area features a large heading "The Comprehensive TeX Archive Network" followed by a paragraph describing CTAN as the central place for TeX material, mentioning 5466 packages and 2491 contributors. There are two sidebars: "Announcements on CTAN-announce" with a list of recent updates and "Did you know?" with information about the LyX topic. At the bottom, there is a section for "Activity on CTAN" and a "TeX" section with an image of TeX documents and a description of the TeX typesetting program.

CTAN Comprehensive TeX Archive Network

Location: CTAN Comprehensive TeX Archive Network

The Comprehensive TeX Archive Network

The Comprehensive TeX Archive Network (CTAN) is the central place for all kinds of material around TeX. CTAN has currently [5466 packages](#). [2491 contributors](#) have contributed to it. Most of the packages are free and can be downloaded and used immediately.

Announcements on CTAN-announce

You can see what's new and even get informed about new or updated packages on CTAN.

- 2018-03-05 CTAN update: [BXjscls](#)
- 2018-03-05 CTAN Update: [adrconv](#)
- 2018-03-04 CTAN update: [biblatex-oxref](#)
- 2018-03-04 CTAN update: [AeB Pro](#)

[more](#)

Did you know?

The topic [LyX](#) in the TeX Catalogue has 1 package for adapted for use with lyx.

[more](#)

TeX

TeX is a typesetting program designed for high-quality composition of material that contains a lot of mathematical and technical expressions. It has

LaTeX Packages (.sty)



CTAN
Comprehensive \TeX Archive Network

Location: CTAN Packages fancybox

fancybox

Search

Extended search
File search

fancybox – Variants of fbox and other games with boxes

Provides variants of `\fbox`, `\shadowbox`, `\doublebox`, `\ovalbox`, `\Ovalbox`, with helpful tools for using box macros and flexible verbatim macros. You can box mathematics, floats, center, flushleft, and flushright, lists, and pages.

Announcement

Sources: [/macros/latex/contrib/fancybox](#)

Documentation: [README](#), [Documentation – Box tips and tricks](#)

Version: 1.4

Licenses: [The \$\LaTeX\$ Project Public License](#)

Copyright: 1993–2010 Timothy Van Zandt

Maintainer: [Timothy Van Zandt](#)

Contained in: [\$\TeX\$ Live as fancybox](#), [MIKTeX as fancybox](#)

Topics: [Boxing](#)

Download the contents of this package

Files

Name	Size	Date	Notes
Changes	2 kB	2010-05-15	
Makefile	2 kB	2010-05-15	
README	367	2010-05-15	
fancybox-doc.pdf	277 kB	2010-05-15	
fancybox-doc.tex	41 kB	2010-05-15	
fancybox.sty	27 kB	2010-05-15	

若所編輯之文件需要某些套件，請下載sty檔，放在與文件同一目錄。

Documentation for fancybox.sty: Box tips and tricks for \LaTeX *

Timothy Van Zandt
Timothy.VAN-ZANDT@inse

Version 1.4
May 15, 2010

Abstract

fancybox.sty, together with its documentation, provides answers to and solutions for many questions about boxing in \LaTeX . It also contains code for double and oval frames.

Here are examples:¹

`\shadowbox{\large\bf New Glarus Birdwatch}`

New Glarus Birdwatch

`\doublebox{\large\bf New Glarus Birdwatch}`

New Glarus Birdwatch

`\ovalbox{\large\bf New Glarus Birdwatch}`

New Glarus Birdwatch

`\Ovalbox{\large\bf New Glarus Birdwatch}`

New Glarus Birdwatch

fancybox.sty, Version 1.3 16

```

\thisfancybox(3.25in,-4.5in){%
\setlength{\unitlength}{1in}\fancyoval(7,9,5)}

You could also use \fancytext to add some kind of "watermark" or background image (e.g., a light gray "DRAFT").

There are other commands that directly frame or in some other way box the page of text:

\fancytext{emds}{emds}
\thisfancytext{emds}{emds}

Each finished page, before adding the headers and footers, (and thus having width and height \textwidth and \textheight, is boxed with

emds{pagebox}

Thus, emds should be, or should end with, a command whose argument can be a box, such as \vbox or \rotatoleft.

Then the headers and footers are added, using the new width of the page, and this is boxed with

emds{pagebox}

The same rules apply to emds as to emds.

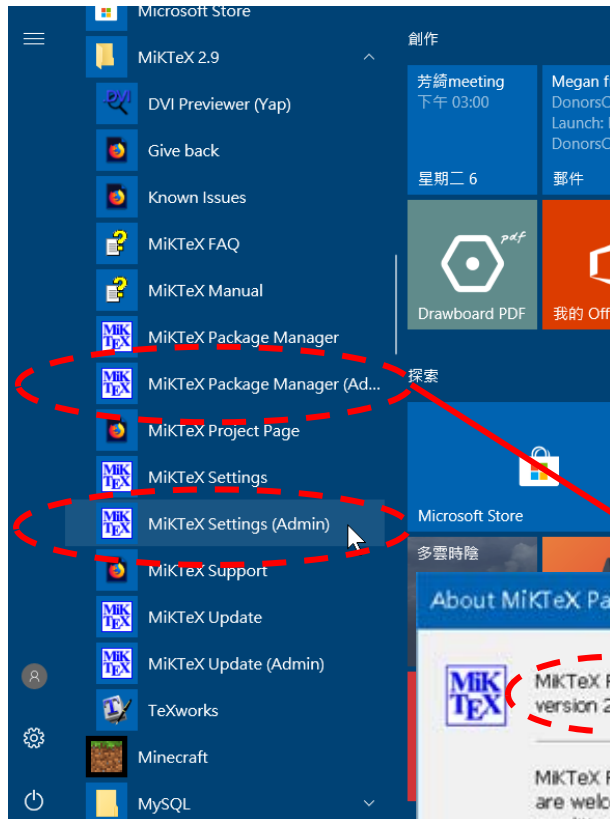
Here is an example:

\thisfancytext{
\setlength{\fboxsep}{0pt}
\setlength{\shadowsize}{0pt}
\shadowbox{}}

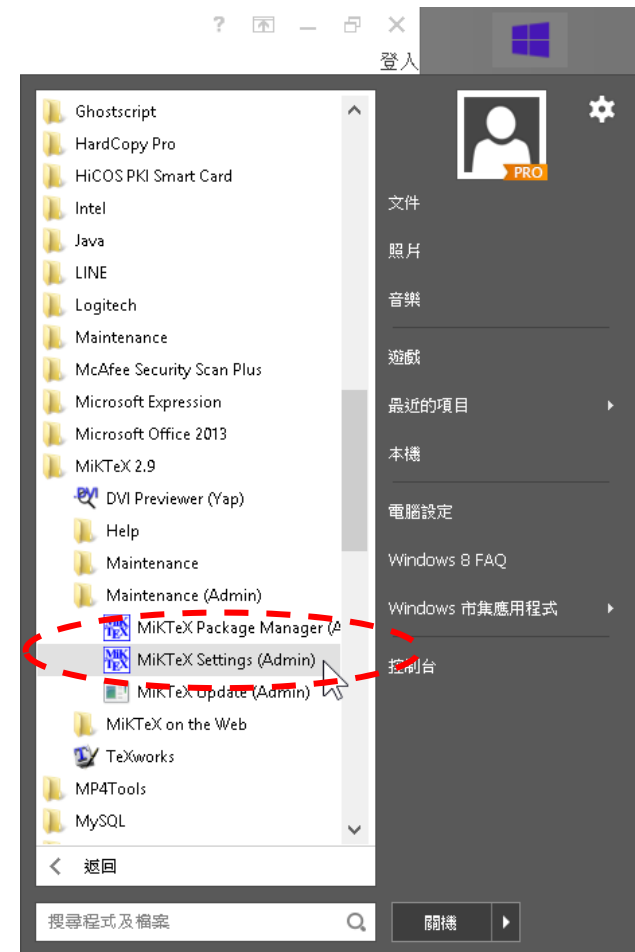
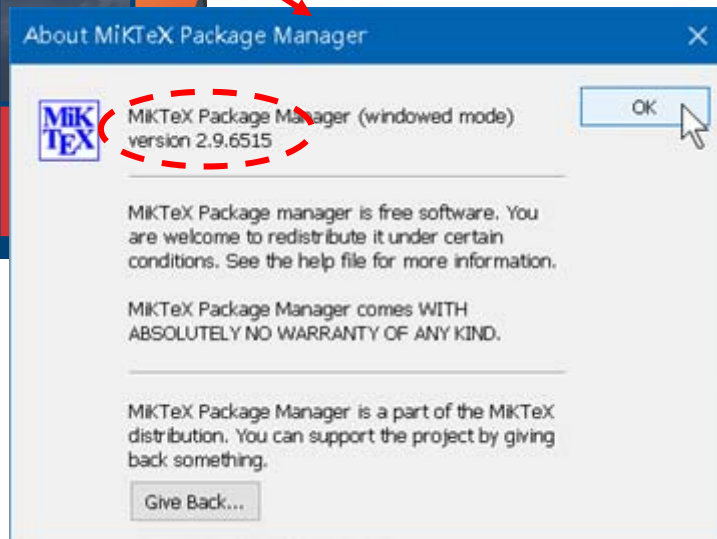
Warning: The commands described in this section change  $\LaTeX$ 's output routine, and may not work with document styles that do the same. Also, bad arguments can cause serious errors with uninformative error messages.
```

MiKTeX設定: 自動安裝sty套件 (版本一) 26/32

請依照自己軟體安裝狀況(版本一或版本二)，自行設定。



版本號碼!



MiKTeX設定: 自動安裝sty套件 (版本一)

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手動安裝套件:

MiKTeX Packages Manager (Admin)

Name	Category	Size	Packaged on	Installed on	Title
zjafont	\Uncategorized	4720	2012-12-20		Fallback CJK font support for xeCJK
zwgetfddate	\Formats\LaTeX\LaTeX contrib	274163	2008-06-26		Get package or file date
zlmtr	\Uncategorized	94144	2014-06-30		Use Latin Modern Typewriter font
ziffer	\Formats\LaTeX\LaTeX contrib	5647	2013-12-04		Conversion of punctuation in m
zhspacing	\Uncategorized	249134	2016-05-17		Spacing for mixed CJK-English
zhnumber	\Uncategorized	356001	2016-05-17		Typeset Chinese representation
zhmetrics	\Fonts\Font Support	5792777	2009-10-15	2016-11-28	TFM subfont files for using Chir
zefonts	\Fonts\Font Support	560595	2010-03-08		
zed-csp	\Formats\LaTeX\LaTeX contrib	305496	2005-09-02		Typesetting Z and CSP format s
ytableau	\Formats\LaTeX\LaTeX contrib	407083	2014-02-19		Many-featured Young tableaux
yt4pdf	\Formats\LaTeX\LaTeX contrib	960689	2010-10-16		Play YouTube videos in a PDF
yswab	\Uncategorized	109771	2016-07-28		Old German Schwabacher font
youngtab	\Formats\LaTeX\LaTeX contrib	189505	2016-07-18		Typeset Young-Tableaux
york-thesis	\Formats\LaTeX\LaTeX contrib	140533	2011-06-23		A thesis class file for York Unive
yinit-otf	\Uncategorized	700211	2016-07-28		OTF conversion of Yannis Haral
yhmath	\Applications\Math	378755	2013-07-09		Extended maths fonts for LaTeX
ygoth	\Uncategorized	153282	2016-07-28		Old German Gothic font
yfrak	\Uncategorized	149704	2016-07-28		Old German Fraktur font
ydoc	\Formats\LaTeX\LaTeX contrib	383811	2012-05-11		Macros for documentation of La
ycbook	\Uncategorized	76543	2016-07-06		A versatile book class
xtcpts	\Uncategorized	125956	2007-01-19		Defining language-dependent t
xskak	\Formats\LaTeX\LaTeX contrib	1002674	2015-01-13		An extension to the skak packag
xq	\Uncategorized	1499636	2014-09-29		Support for writing about xiang
xpunctuate	\Uncategorized	221099	2012-05-29		Process trailing punctuation wh
xpinyin	\Uncategorized	1464908	2016-05-17		Automatically add pinyin to Chi
xpiano	\Uncategorized	579820	2015-05-25		An extension of the piano packa
xpeek	\Uncategorized	618967	2012-08-21		Define commands that peek ah
xoptarg	\Formats\LaTeX\LaTeX contrib	393576	2007-05-12		Expandable macros that take an
xmpincl	\Formats\LaTeX\LaTeX contrib	128777	2008-05-14		Include "eXtensible Metadata Pl

自動安裝套件:

MiKTeX Setting (Admin)

Maintenance

Refresh the file name database whenever you install or remove files.

Update all format files when you have installed new packages.

Paper

Select your default paper format: A4

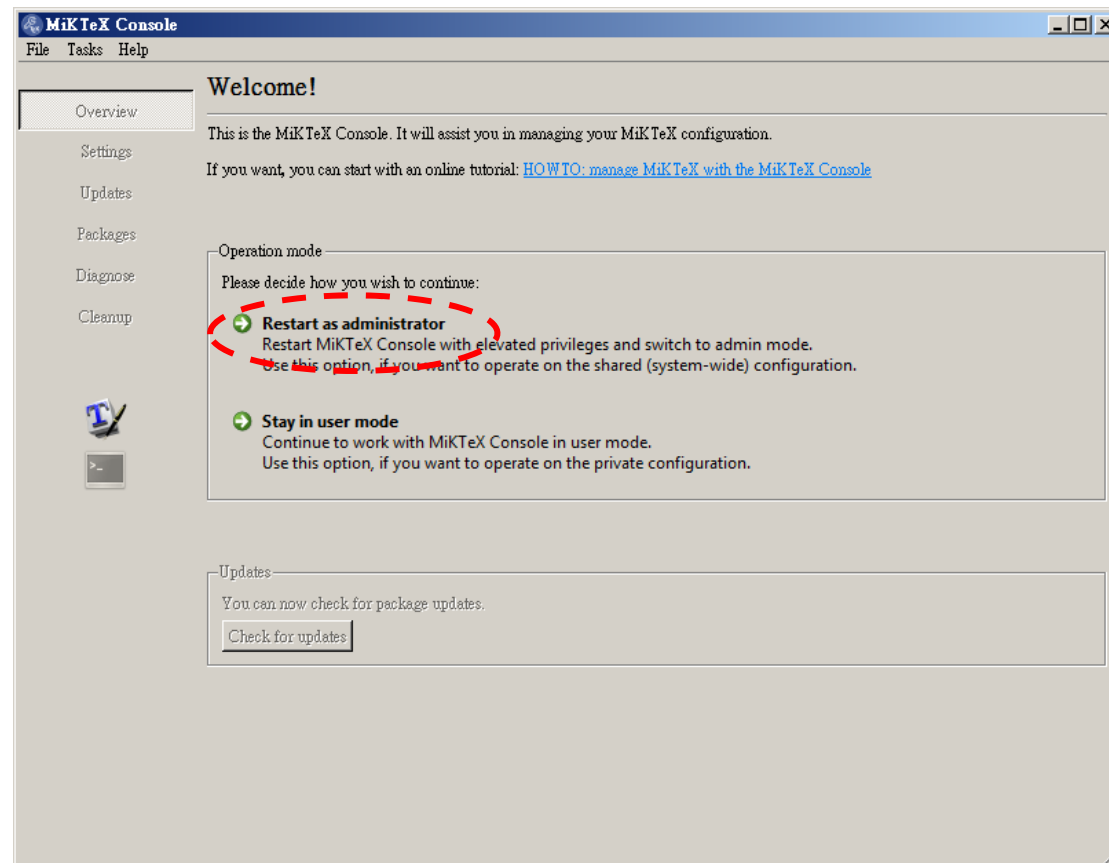
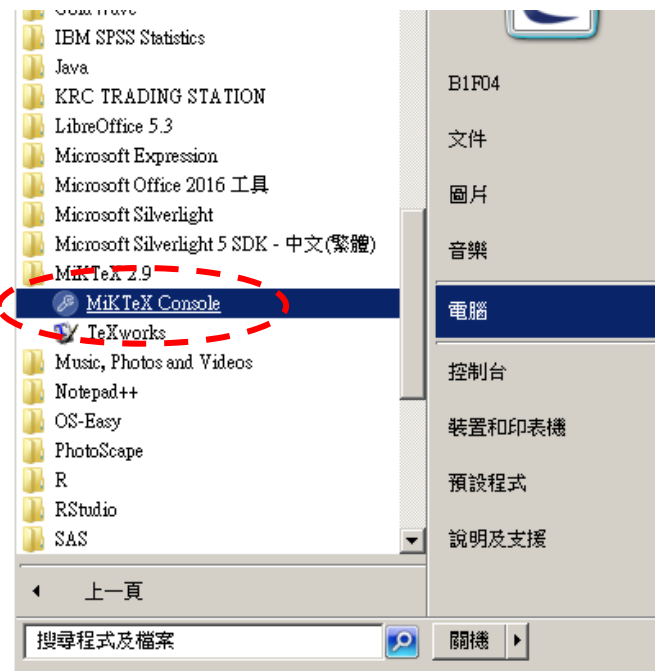
Package installation

You can choose whether missing packages are to be installed on-the-fly.

Install missing packages on-the-fly: Ask me first

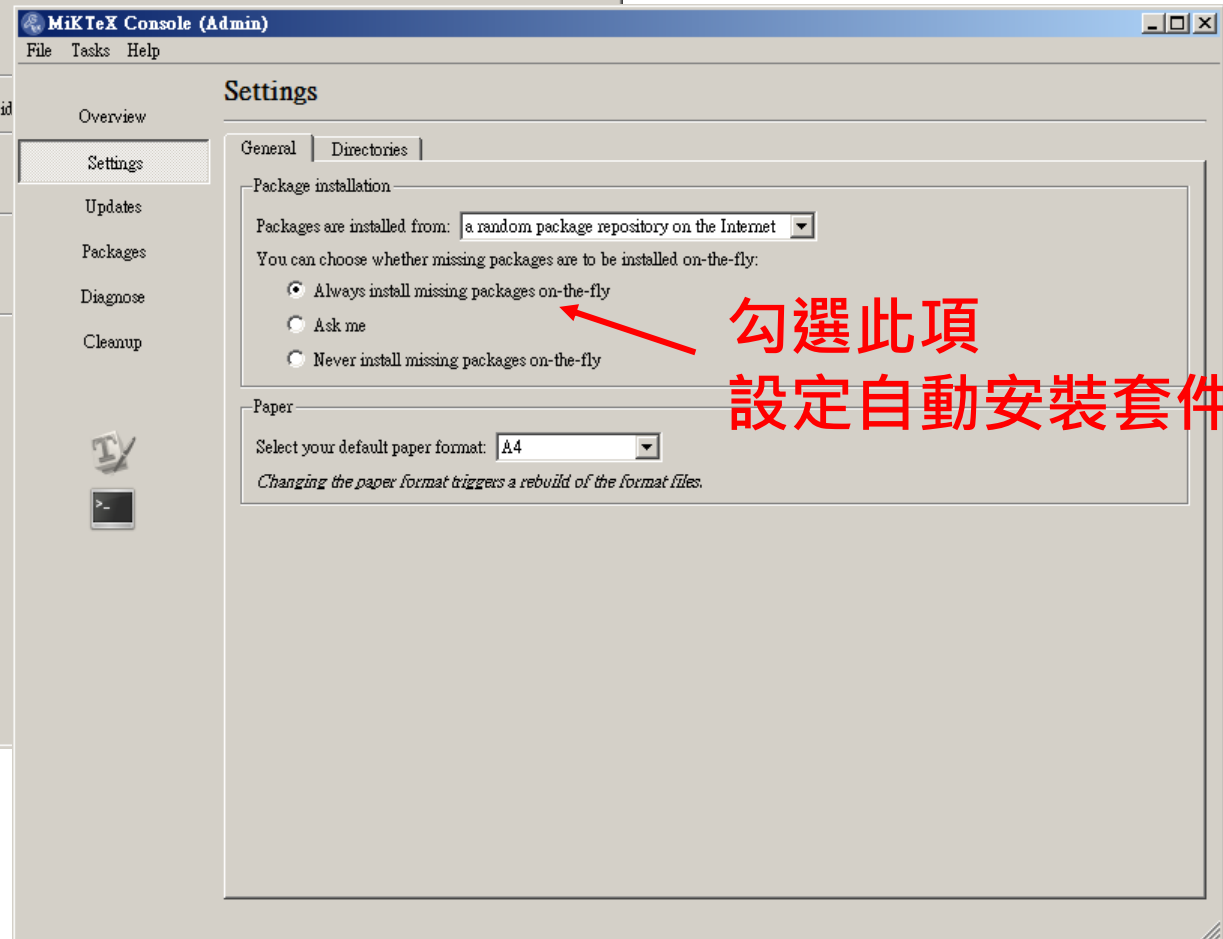
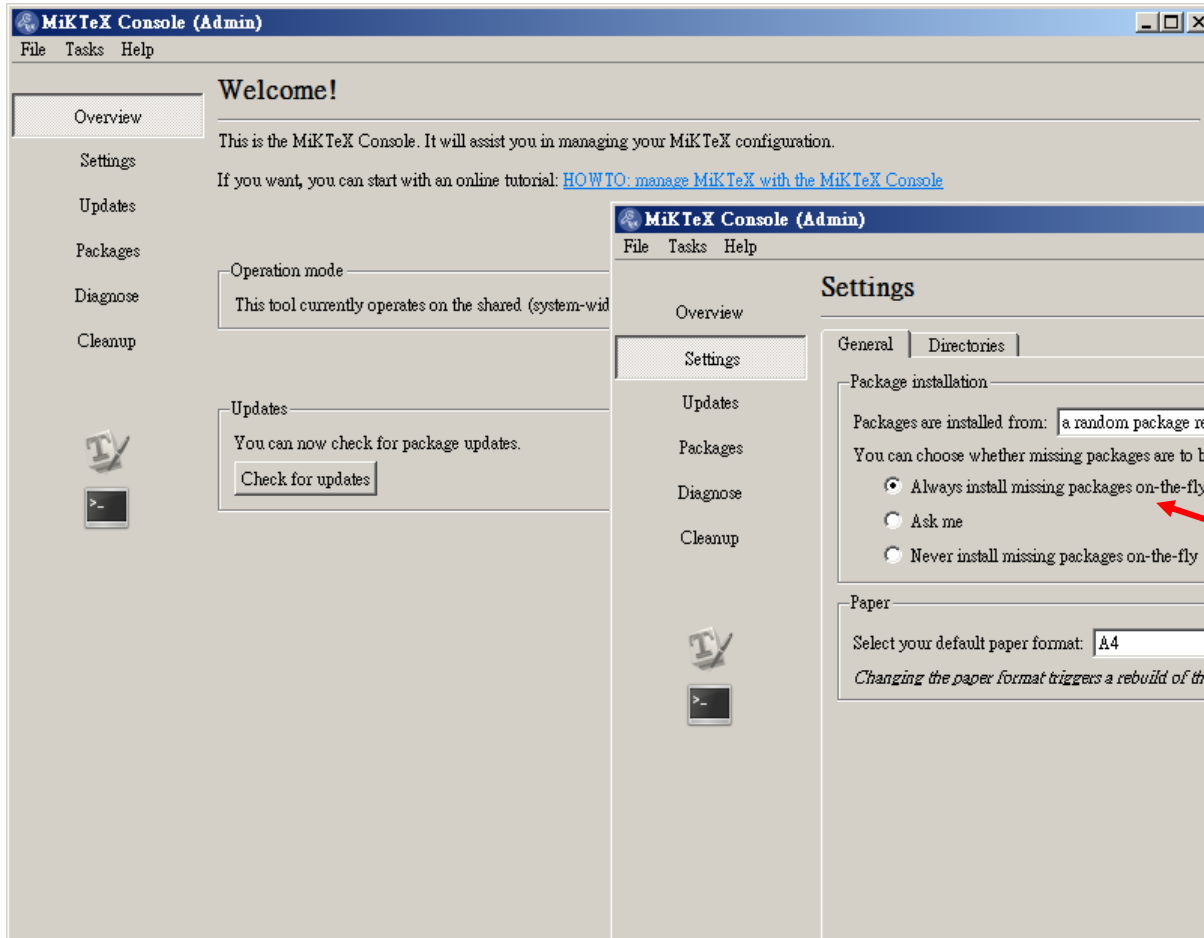
MiKTeX設定: 自動安裝sty套件 (版本二)

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MiKTeX設定: 自動安裝sty套件 (版本二)

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套件管理



MiKTeX Console (Admin)

File Tasks Help

Packages

Overview

Install from: a random package repository on the Internet

Settings

Install to: C:\Program Files\MiKTeX 2.9

Updates

Packages

Name	Category	Size
12many	\Formats\LaTeX\...	40626
a0poster	\Formats\LaTeX\...	21129
a4wide	\Formats\LaTeX\...	13719
a5comb	\Formats\LaTeX\...	10040
aastex	\Formats\LaTeX\...	14460
abc	\Formats\LaTeX\...	30357
abnt	\Formats\LaTeX\...	10289
abntex2	\Formats\LaTeX\...	74846
abraces	\Formats\LaTeX\...	20557
abstract	\Formats\LaTeX\...	18557
abstyles	\Uncategorized	29240
academicons	\Fonts\Outline fonts	14484
accanthis	\Fonts\Outline fonts	95058
accfonts	\Uncategorized	19160
achemso	\Formats\LaTeX\...	11650
acmart	\Formats\LaTeX\...	10764
acmconf	\Formats\LaTeX\...	13344
acro	\Formats\LaTeX\...	74664
acroflex	\Formats\LaTeX\...	16199
acromemory	\Formats\LaTeX\...	10087
acronym	\Formats\LaTeX\...	30490
acrosort	\Formats\LaTeX\...	43479
acroterm	\Formats\LaTeX\...	18184
acrotex	\Formats\LaTeX\...	48968
active-conf	\Formats\LaTeX\...	39498
actuarialangle	\Formats\LaTeX\...	11558
actuarialsymbol	\Formats\LaTeX\...	37941
addfont	\Formats\LaTeX\...	13837
addlines	\Formats\LaTeX\...	14738
adfstests	\Formats\LaTeX\...	26077
adform	\Fonts\Outline fonts	44724
adfsymbols	\Fonts\Outline fonts	46329

MiKTeX Console (Admin)

File Tasks Help

Packages

Overview

Install from: a random package repository on the Internet

Settings

Install to: C:\Program Files\MiKTeX 2.9

Updates

Packages

手動安裝套件

+

+

Name	Install	Category	Size	Packaged on	Installed on	Title	Files
xcolor		\Formats\LaTeX\...	969381	2016/5/16		Driver-independ...	xcolor.pd...
xcolor-material		\Formats\LaTeX\...	664556	2016/10/19		Defines the 256 c...	xcolor-ma...
xcolor-solarized		\Formats\LaTeX\...	478446	2016/8/10		Defines the 16 co...	xcolor-sol...

Installs the selected packages.

註解: % 或 \iffalse \fi

The screenshot shows the TeXstudio interface. The main editor window displays a LaTeX document with the following code:

```

% Section: Figure %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\section{圖形}\label{set:figure}
記得圖檔和tex檔要放在同一目錄，
可直接利用\verb|\includegraphics|引入圖形。圖形分兩種格式類型：
壓縮格式圖形(例如：JPEG/PNG檔，)和向量圖形(例如：
EPS/PDF檔，如圖\ref{fig:iris})。
\begin{center}
% \includegraphics[scale=0.3]{R_logo.svg.png}
\includegraphics[scale=0.6]{RStudio.jpg}
\end{center}

% 全文照印環境
\begin{verbatim}
\begin{center}

```

The line containing the commented-out `\includegraphics[scale=0.3]{R_logo.svg.png}` is highlighted in orange. A red arrow points from this line to the error message in the Messages window below.

The Messages window shows the following error:

File	Type	Line	Message
12345-hmwu-LaTeX-Example2.tex	error	line 157	Cannot determine size of graphic in R_logo.svg.png (no BoundingBox). ...ncludegrap
12345-hmwu-LaTeX-Example2.tex	bad box	line 81	Overfull \vbox (2.40729pt too wide) in paragraph
12345-hmwu-LaTeX-Example2.tex	bad box	line 84	Overfull \vbox (35.63722pt too wide) in paragraph
12345-hmwu-LaTeX-Example2.tex	bad box	line 138	Underfull \vbox (badness 10000) in paragraph
12345-hmwu-LaTeX-Example2.tex	bad box	line 185	Overfull \vbox (5.11604pt too wide) in paragraph
12345-hmwu-LaTeX-Example2.tex	bad box	line 185	Underfull \vbox (badness 10000) in paragraph
12345-hmwu-LaTeX-Example2.tex	bad box	line 188	Overfull \vbox (19.13091pt too wide) in paragraph

除錯時，可先利用註解%，找出可能錯誤的地方。

Cannot determine size of graphic in R_logo.svg.png (no BoundingBox). ...ncludegraphics[scale=0.3]{R_logo.svg.png}

Beamer: 用LaTeX做投影片

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<https://github.com/josephwright/beamer>



`\documentclass{beamer}`

§1: Multidimensional Data

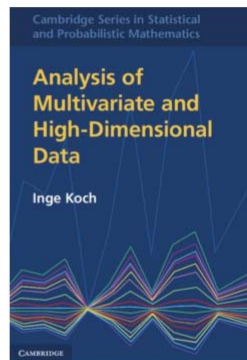
高維度資料分析

開課班級: 統碩 1, 2 · 統計系 4, 巨資學士學程

授課教師: 吳漢銘

教學網站: <http://www.hmwu.idv.tw>

上課用書: Inge Koch, 2013, Analysis of Multivariate and High-Dimensional Data, Cambridge University Press; 1 edition.



系級: _____ 學號: _____ 姓名: _____

軟體套件安裝
投影片 (slide) 頁面及內文設定
覆蓋特效 (overlays)
頁面 (frame) 結構
佈景主題 (theme)
其它技巧

使用 BEAMER 制作簡報

A L^AT_EX CLASS FOR CREATING SLIDES FOR PRESENTATIONS

吳漢銘

軟體套件安裝
投影片 (slide) 頁面及內文設定
覆蓋特效 (overlays)
頁面 (frame) 結構
佈景主題 (theme)
其它技巧

OVERLAY SPECIFICATIONS

使用 `\item<1->` 控制流程 + `alert`

L^AT_EX CODE (9)

```
\begin{enumerate}
  \item<1-> \alert<1>{第一項}。
  \item<2-> \alert<2>{第二項}。
  \item<3-> \alert<3>{第三項}。
  \item<1-> \alert<4>{第四項}。
\end{enumerate}
```

PREVIEW

- ❶ 第一項。
- ❷ 第二項。
- ❸ 第三項。
- ❹ 第四項。