



T_EX Live on a network

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September 1, 2001



Background



History

1991,...,1999	4T _E X
2004, 2005	MiK _T E _X 2.4 / TeXnicCenter
2006	MiK _T E _X 2.5 / TeXnicCenter
2008	T _E X Live 2008 / TeXnicCenter (current)

```

main TeX file      : test      .tex
include TeX file   :           .tex
TeX files path     : c:\docs
backup path        : c:\bak
TeX format         : big LaTeX 2e + Babel

```

main menu:

change M ain TeX file	choose TeX F ormat	check S pelling
change I nclude file	C ompile TeX file	run U tilities
change TeX files P ath	show L ogfile	execute D os command
change files eX tensions	manage O utput	B ackup TeX files
E dit file(s)	Q uit	

press highlighted key or
 press [F1] or [Alt] highlighted key for help
 press [?] for info on 4TeX

make your choice... _



The university network

- > Centrally managed
- > Applications via NAL (Novell Application Launcher)
- > Standard Windows workstation, staff and student editions
- > Roaming profiles: configure for the user rather the system
- > Limited rights for students
- > Standard and optional software



Tour



My Computer



Recycle Bin



JabRef 2.4.2



Salamander

Command Prompt

Pfe32

Windows Explorer

script56.chm

Emacs

MS Office

RUG Menu

Programs

Documents

Settings

Search

Help and Support

Run...

Log Off P133459...

Shut Down...

- Databases & Spreadsheets
- Development & Programming
- Dictionaries
- Drawing & Presentation
- Education & Practicals
- Internet & Communication
- Library Services
- Management & Organisation
- Mathematics & Statistics
- Miscellaneous
- Printers
- Text Processing**
- Geographical Information Systems
- Tools & Utilities

- Tex Live Rug 2008**
- Notepad_PlusPlus
- Scientific WorkPlace 5.5
- CutePDF 2.7
- Ghostscript
- GhostView

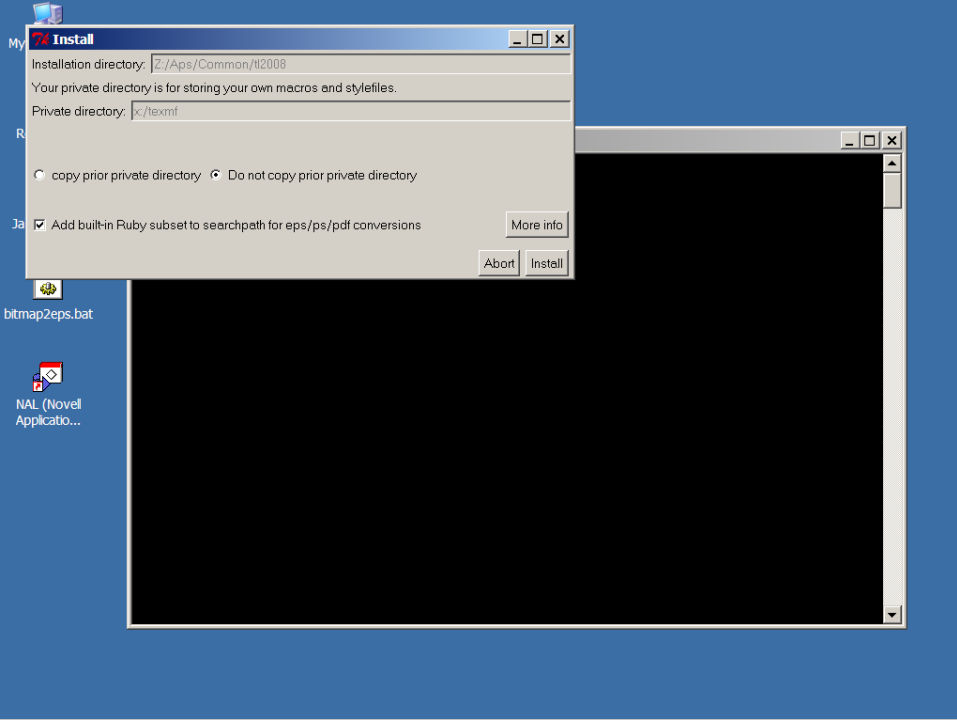
TeX Live RuG 2008

Start

Add or Remove Pr...

untitled - Paint

« # ! > 09:38





My Computer



Recycle Bin



JabRef 2.4.2



bitmap2eps.bat



NAL (Novell
Applicatio...



TeXnicCenter

```
C:\WINNT\system32\cmd.exe
Creating TEXMFHOME at x:/texmf
Copying Z:\Aps\Common\tl2008\bin\win32\conf to C:\Documents and Settings\P133459
\..texlive2008\texmf-var\fonts\conf...
27 File(s) copied
Copying Z:\Aps\Common\tl2008\bin\win32\cache to C:\Documents and Settings\P133459
\..texlive2008\texmf-var\fonts\cache...
1 File(s) copied

TeX and TeXnicCenter now are under Start / Programs / TeX Live 2008.
Press any key to continue . . .
```

My Documents

My Computer

My Network Places

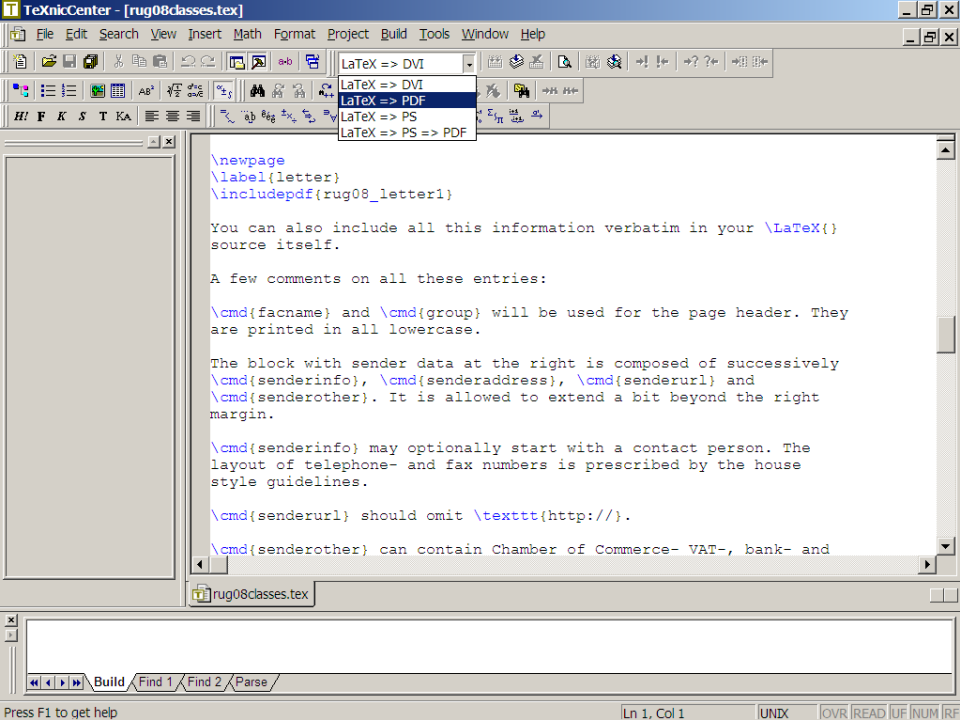
Recycle Bin

Start menu context menu:

- Notepad
- Windows Explorer
- Salamander
- Pfe32
- Command Prompt
- desktop.ini
- Programs
 - Documents
 - Settings
 - Search
 - Help and Support
 - Run...
 - Shut Down...

Programs list:

- Accessories
- Administrative Tools
- Games
- Startup
- desktop.ini
- MSN
- Windows Messenger
- Windows Movie Maker
- TeX Live 2008
 - LaTeX Documentation
 - Other Documentation
 - Utilities
 - Viewers
 - Release Notes
 - TeXnicCenter





My Computer



Recycle Bin



JabRef 2.4.2



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Start

Add or Remove

- Accessories
- Games
- Startup
- Administrative Tools
- NSIS
- PostScript support
- Internet Explorer
- Outlook Express
- Windows Media Player
- Ruby
- Ruby-184-17
- Wmf2eps
- QuickTime Player
- Windows Live Messenger
- Windows Media
- Windows Movie Maker
- FileZilla
- Novell (Common)
- TeX editors
- SPSS for Windows
- Novell iPrint
- Adobe Reader 8
- JabRef
- TeX Live 2008

- LaTeX Documentation
- Other Documentation
- Utilities
- Viewers
- Release Notes
- TeXnicCenter

- AmsMath User Guide
- Beamer User Guide
- CustomBib
- LaTeX Introduction
- LaTeX Reference
- NatBib Quick Reference
- NatBib User Guide
- Classes for house style
- House style presentations



My Computer



Recycle Bin



JabRef 2.4.2



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- Release Notes
- TeXnicCenter

- Find documentation for packages on CTAN
- Homepage
- SumatraPDF Manual
- TeX Live Manual (en)
- UK TeX FAQ



Rug TeX Pages

The 2008 RuG TeX installation

June 11 2009. The current RuG TeX installation, dating from september 2008, is based on TeX Live. *Users of the old MikTeX installation: please upgrade as soon as possible*, at least if you want to continue using the university TeX installation after August 1 2009. On that date, **the old MikTeX will be removed.**

Contact me (see [Contact Info](#)) if you run into trouble, e.g. with missing packages.

Installation

Students and old MikTeX users should have automatic access to the new TeX Live. Otherwise, ask the helpdesk for access. The LAN installer is under Start / RUG Menu / Text Processing / TeX Live 2008. The CD installer, see below, is install.bat in the root directory of the CD. In both cases, you end up with a menu Start / Programs / TeX Live 2008.

CD

The help desk will no longer supply CD's for home installation. Instead, there is an ISO image at the root of the installation.

You can burn the cd directly from your RuG PC: go to Start / RUG Menu / Miscellaneous / CDBurnerXP and select 'Burn ISO image'. On the Burn ISO Options tab, under 'Select ISO image to burn:', type or browse to the ISO image: z:\aps\common\tl2008\tl2008std.iso for students, z:\aps\common\tl2008\tl2008stf.iso for staff. Review the other options and finish with

[Main page](#)[News](#)[The 2008 RuG TeX](#)[installation](#)[House style](#)[LaTeX info session](#)[LaTeX course 2009](#)[Troubleshooting](#)[Tips and Tricks](#)[Downloads](#)[TeX aanhet.net](#)[Contact Info](#)

External links

[TeX Live](#)[MikTeX home](#)[Texmaker](#)[TeXnicCenter home](#)[NTG](#)[Dutch-language TeX Users](#)[Group](#)

My Computer

Recycle Bin

JabRef 2.4

bitmap2eps

TeXnicCenter

NAL (Novel Application)

Add or Remove Programs

Change or Remove Programs

Add New Programs




















Add/Remove Windows Components

Set Program Access and Defaults

Currently installed programs:

☐ Show updates

Sort by: Name

	S+ArrayAnalyzer 2.1	Size	13.57MB
	ScreenWatch Windows Media Player Plug-in	Size	13.59MB
	Security Update for Windows Media Encoder (KB954156)	Size	3.38MB
	SharpReader	Size	3.38MB
	S-PLUS 7.0		
	SPSS 14.0 for Windows	Size	335.00MB
	SPSS 14.0 for Windows (14.0.2 patch)	Size	202.00MB
	SPSS 16.0 for Windows	Size	439.00MB
	Symantec AntiVirus	Size	182.00MB
	TeXLive 2008	Size	<u>0.14MB</u>
	Click here for support information.		
	To change this program or remove it from your computer, click Change/Remove.		Change/Remove
	Thunderbird-20019-MULTI-R01	Size	34.17MB
	Windows Installer 3.1 (KB893803)		
	Windows Internet Explorer 8		
	Windows Live Messenger	Size	30.39MB
	Windows Media Encoder 9 Series	Size	13.57MB
	Windows Media Format 11 runtime	Size	7.95MB
	Windows Media Player 11	Size	7.95MB
	Windows XP Service Pack 3		
	ZENworks Desktop Management Agent	Size	16.56MB



The installation



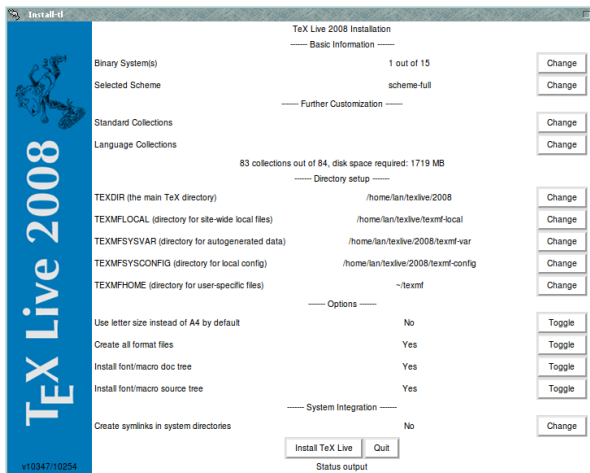
T_EX Live

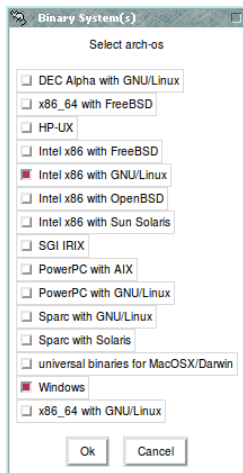
- > Configuration via text-mode configuration files and environment variables (*MiK_TE_X uses the registry*)
- > Includes private copies of Perl and Ghostscript
- > Includes PostScript viewer

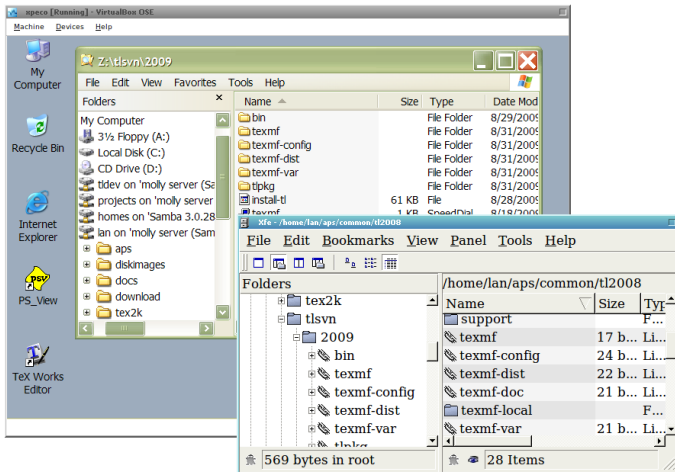


Building the installation

- > Install under Linux or Windows
- > Include Windows binaries
- > Incorporate local classfiles and macros under `texmf-local`
- > No hard-coded paths anywhere
- > Copy to LAN









Installer tasks

- > Modify searchpath
- > Create shortcuts
- > Optionally define file types
- > Configure XeTeX
- > Register uninstaller



Writing the installer

- > Use existing T_EX Live modules for installer
- > T_EX Live 2009: most installer functions via the high-level T_EX Live Manager interface
- > Sample installer at <http://www.tug.org/w32client/>



T_EX Live 2008, one shortcut and one filetype:

```
add_menu_shortcut(  
    $mainmenu,  
    'PS_View',  
    $texdir.'/tlpkg/tlpsv/psv.exe', # icon, not prog!  
    $texdir.'/bin/win32/psv.bat',  
    '', # no args  
    'batgui', # any non-null value to hide command-prompt  
);  
register_extension(".ps", "PostScript");  
register_extension(".eps", "PostScript");  
register_file_type("PostScript",  
    '$texdir.'/tlpkg/tlpsv/gswxlua.exe" -g '  
    '$texdir.'/tlpkg/tlgs/bin/gsdll32.dll" -l '  
    '$texdir.'/tlpkg/tlpsv/psv.wx.lua" -p '  
    '$texdir.'/tlpkg/tlpsv/psv_view.ps" -sINPUT="%1"');  
update_assocs();
```

See texmf-doc/source/texlive/texlive-common/w32client/ on DVD.



T_EX Live 2009, several shortcuts and filetypes:

```
unshift @ARGV, 'install', 'shortcut',  
  'dviout.win32', 'texworks', 'texlive-en', 'tlpsv.win32';  
action_postaction();
```

```
# File associations. 1: only new;  
# 2: always, overriding existing settings  
$opts{'fileassocmode'} = 1;  
unshift @ARGV, 'install', 'fileassoc',  
  'dviout.win32', 'tlpsv.win32', 'texworks.win32';  
action_postaction();  
TeXLive::TLWinGoo::update_assocs(); # optional
```

See <http://www.tug.org/texlive/w32client.html>.

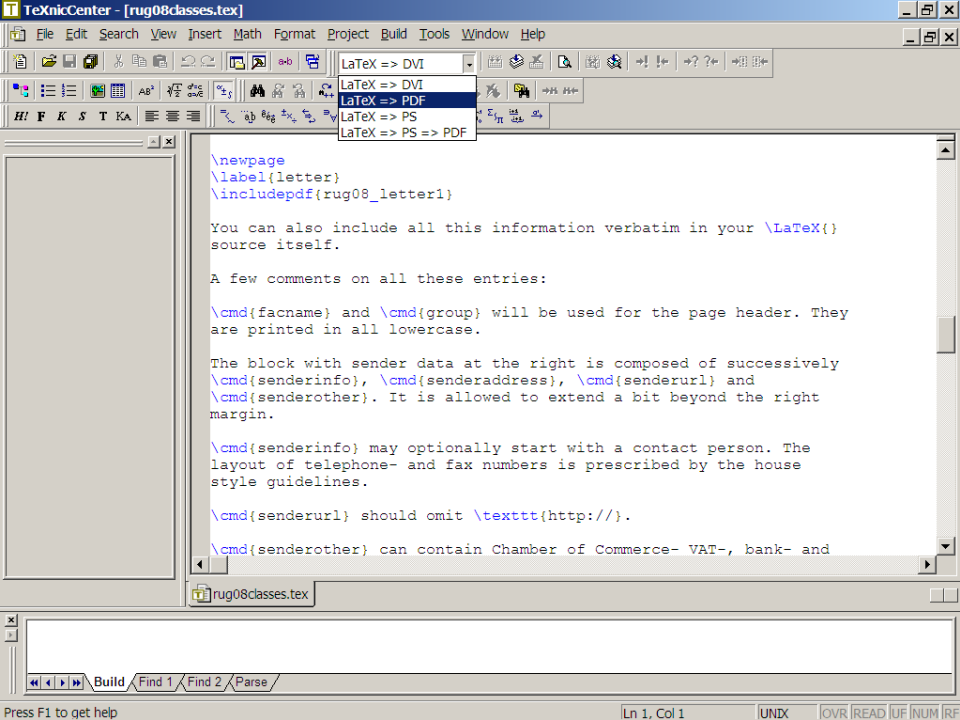


Editors



TeXnicCenter

- > MiKTeX-oriented
- > Configuration for T_EX Live awkward
- > Good functionality





Texmaker

- > Cross-platform
- > Latest versions good functionality
- > Simple configuration with ini file



part label tiny \mathcal{B} \mathcal{I} \mathcal{U} \mathcal{M} \mathcal{N} \mathcal{O} $f(x)$ x^2 x^3 $\frac{x}{y}$ \sqrt{x} left (right)

Structure

Structure

lin_regression.tex

LABELS

- ④ {Historical remarks}...
- ④ {The linear regressi...}
- ④ {Types of linear regr...}
- ④ {Assessing the least-...}

+ Relation symbols

⇒ Arrow symbols

∨ Miscellaneous symbols

{ } Delimiters

λ Greek letters

∞ Most used symbols

PS Pstricks Commands

MP MetaPost Commands

lin_regression.tex

```

\beta_pX_p+\varepsilon
31 \label{regression}
32 \end{equation}
33 where  $\beta_0$  is the intercept ('constant' term), the
34  $\beta_i$ 's are the respective parameters of independent
   variables,
35 and  $p$  is the number of parameters to be estimated in the linear
36 regression. Linear regression can be contrasted with nonlinear
37 regression.
38
39 \includegraphics[width=.7\linewidth]{figuur}
40
41 This method is called 'linear' because the relation of the
42 response (the dependent variable  $Y$ ) to the independent variables
43 is assumed to be a linear function of the parameters. It is often
44 erroneously thought that the reason the technique is called
   'linear
45 regression' is that the graph of  $Y = \beta_0 + \beta_1 x$  is a

```

Messages / Log File

	File	Type	Line	Message
1	lin_regression.tex	Error	line 45	! Undefined control sequence. regression" is that th
2	lin_regression.tex	Wa...	line 1	Label(s) may have changed. Rerun to get cross-refe

! Undefined control sequence.
 l.45 regression" is that the graph of $Y = \beta_0 + \beta_1 x$ is a
 The control sequence at the end of the top line
 of your error message was never defined. If you have

System

Ready

Normal Mode

1

2

3



TeXworks

- > Cross-platform
- > Bare-bones
- > Included in T_EX Live
- > Forward and backward search done right

```
artitest.tex - TeXworks
File Edit Search Format Typeset Window Help
pdfLaTeX
\documentclass{article}
\usepackage{mathpazo}
\bibliographystyle{plain}
\begin{document}

\title{An Article}
\author{Siep Kroonenberg \Rijksuniversiteit Groningen}
\maketitle
\thispagestyle{empty}

\begin{abstract}
This document demonstrates the title page for the articles class.
\end{abstract}

\section{A section}
Now we start with the real content of the paper. The
\texttt{mathpazo} package, which is loaded in the preamble of the
file, selects the Palatino font family, with accompanying math fonts.

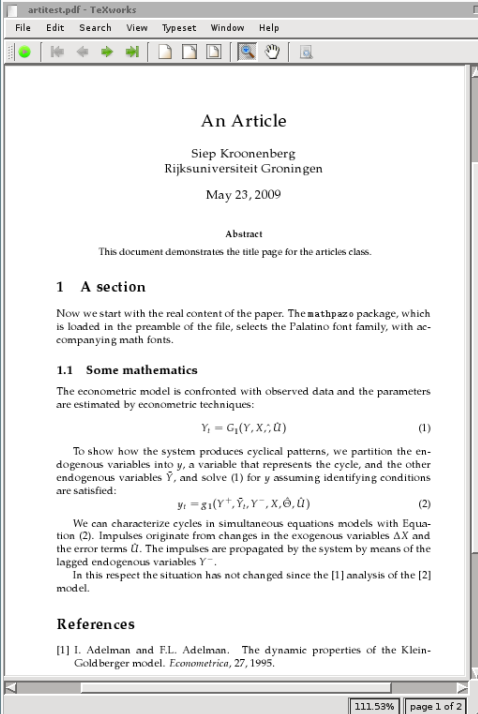
\subsection{Some mathematics}

The econometric model is confronted with observed data and the
parameters are estimated by econometric techniques:
\begin{equation}
Y_t = G_{-1}(Y, X, \hat{\Theta}, \hat{U})
\label{eq:smm}
\end{equation}

To show how the system produces cyclical patterns, we partition the
endogenous variables into  $y$ , a variable that represents the cycle,
and the other endogenous variables  $\bar{y}$ , and solve
(\ref{eq:smm}) for  $y$  assuming identifying conditions are
satisfied:
\begin{equation}
y_t = g_{-1}(y^+, \bar{y}_t, y^-, X, \hat{\Theta}, \hat{U})
\label{eq:smmsingle}
\end{equation}

We can characterize cycles in simultaneous equations models with
Equation-(\ref{eq:smmsingle}). Impulses originate from changes in
the exogenous variables  $\Delta X$  and the error terms
 $\hat{U}$ . The impulses are propagated by the system by
means of the lagged endogenous variables  $y^+ - y$ .

In this respect the situation has not changed since the
\cite{adelmanadelman95} analysis of the \cite{kleingoldberger55}
model.
```



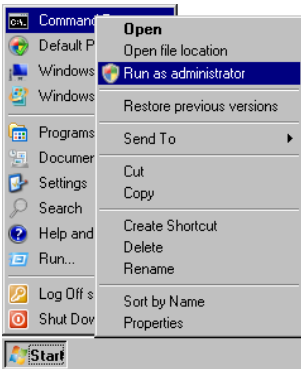


Vista



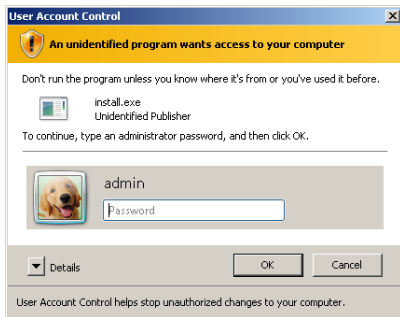
Vista UAC

Even an administrator has to ask for administrator privileges.





Privilege elevation





install.bat.manifest

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
  <assemblyIdentity
    version="1.0.0.0"
    processorArchitecture="*"
    name="install"
    type="win32"/>
  <trustInfo xmlns="urn:schemas-microsoft-com:asm.v3">
    <security>
      <requestedPrivileges>
        <requestedExecutionLevel level="asInvoker"/>
      </requestedPrivileges>
    </security>
  </trustInfo>
</assembly>
```



Virtualization

Without admin privileges, Vista might decide to fake an admin install:

- > Write to
 %userprofile%/appdata/local/virtualstore/Program
 Files instead of Program Files
- > Fake HKLM (system) registry entries with HKCU (user)
 registry entries

This is to be avoided at all cost!



- > LAN install: no Vista systems, therefore no problem
- > CD edition: manifest file
- > T_EX Live 2009: problems with T_EX Live Manager solved?