

# Handout Class Users Guide

Roger Cortesi

August 10, 2007

## 1 Introduction

The handout document class is an extension of the article document class. It is designed to make producing course handouts easier. This class uses the *lastpage* package to display page numbers a 1 of 2 or 2 of 5 etc. This means that the document must be generated **twice** so the *lastpage* package can get an accurate page count.

The class does the following things:

1. Increases the printable area by making the margins smaller. Instructors do seem to like to cram more information on a page than LaTeX considers to be aesthetically pleasing.
2. Make the section, subsection and subsubsection font and space smaller. Again so one can fit more information on a page.
3. Defines a *questions* environment which is an enumerated list that maintains a running count of question numbers even if it is ended and began again later in the document.
4. Defines a page header with fields for course title, handout title, due date, semester and name blanks. Along with the command to fill these fields.
5. Defines a *soln* command to specify the solution to the questions and commands to tell the calls to print the solutions. Solutions are not printed by default. By having the solutions stored in the same document as the questions, you don't have to keep two or more documents synchronized.

```
\documentclass{handout}
```

## 2 Commands For Setting Page Header Fields

The page header contains the following fields:

1. Course Title
2. Handout Title

3. Semester

4. Due Date

All the above fields are blank by default.

Additionally, the header may contain a couple of blanks for students to write their name, section number and date.

The commands below set these fields.

```
\SetCourseTitle{My Course Title}  
\SetHandoutTitle{My Handout Title}  
\SetDueDate{My Due Date}  
\SetInstructor{My Instructor Name}  
\SetSemester{My Semester}  
\ShowNameBlack  
\ShowNameDateBlanks  
\ShowAllBlanks
```

The fields above can be displayed in other places in the document using the commands:

```
\CourseTitle  
\HandoutTitle  
\DueDate  
\Instructor  
\Semester  
\Blank
```

### 3 The Questions Environment

The questions environment can be used for automatic numbering of questions. The question environment maintains a running count of the question numbers even if the environment is stopped and started.

```
\begin{questions}  
\item This is question 1.  
\item This is question 2.  
\end{questions}
```

blaa blaa blaa...

```
\begin{questions}  
\item This is question 3.  
\item This is question 4.  
\end{questions}
```

## 4 Solutions

You can specify solutions to the questions in the same documents. By default the handout class will not print the solutions in the documents.

### 4.1 Specifying Solutions

Solutions are specified using the command:

```
\soln{length}{text}
```

The *length* parameter specifies how much vertical whitespace should be displayed when the solution is *not* printed. The *text* argument specifies the text of the solution. For example:

```
\soln{2in}{This is the to the question:  $2+2=4$ }
```

### 4.2 Printing Solutions

There are three methods to tell the handout class to print the solutions.

1. The command *ShowSoln*: Any solutions specified after this command will be printed.

```
\ShowSoln
```

2. As an option in the document class.

```
\documentclass[solution]{handout}
```

3. From the command line when latex is invoked:

```
>latex "\newcommand{\MakeSoln}{}\input{filename.tex}"
```

This method is particular useful for regenerating the course documents with a batch script, when called with the *-jobname* option to rename the output files. For example:

```
>latex -jobname=soln_filename "\newcommand{\MakeSoln}{}\input{filename.tex}"
```

Prints the solution of *filename* as *soln\_filename*.

### 4.3 Misc. Solution Commands

By default the solutions are printed in blue. The color of the solutions can be specified with the command:

```
\setsolncolor{red}
```

Solutions can be hidden beyond a point in the document with the command:

```
\HideSoln
```

## 5 Examples

Here is a minimal example of a document that is an assignment with a due date.

```
\documentclass{handout}

\SetInstructor{Roger Cortesi}
\SetCourseTitle{Latex 101}
\SetSemester{Fall 2007}
\SetHandoutTitle{Performing Engineering Calculations}
\SetDueDate{10 Aug 2007}
\ShowAllBlanks

\begin{document}
\maketitle

\begin{questions}
\item What is the meaning of life?

\soln{1in}{42}

\item What is Euler's Equation?

\soln{2in}{ $e^{i\pi} - 1 = 0$ }

\newpage
\item Are the page headers different on the pages which are not the title page?

\soln{1in}{Yes}

\end{questions}

\end{document}
```