

**The AcroTeX eDucation  
Bundle**

The University of  
Akron

D. P. Story



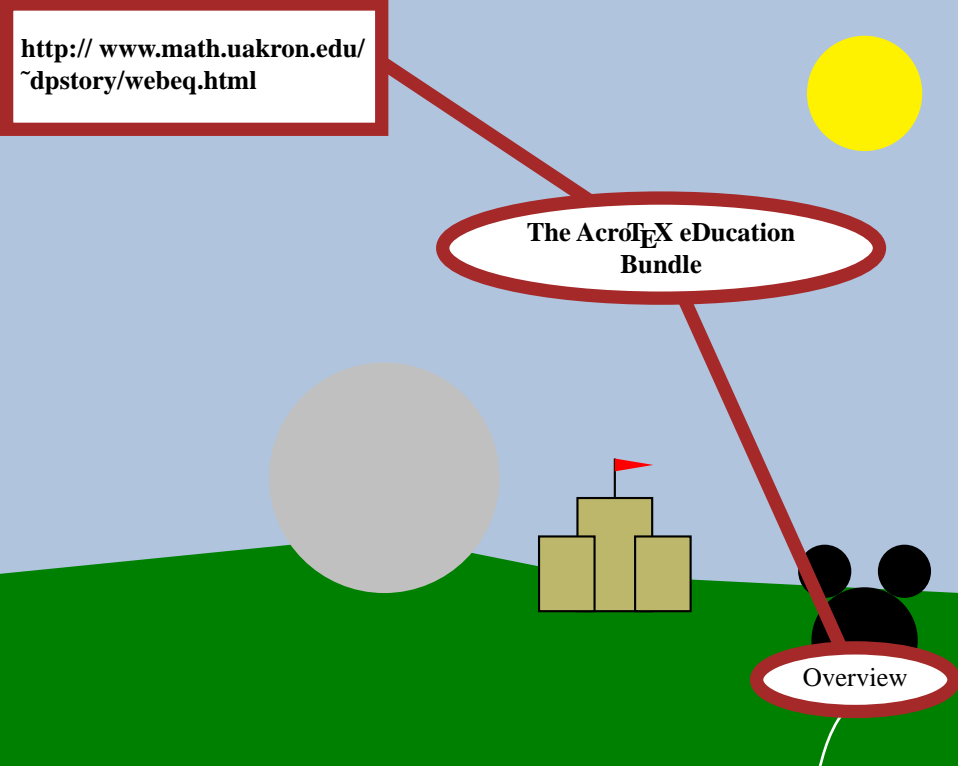
**The AcroT<sub>E</sub>X eDucation  
Bundle**

Overview

[http:// www.math.uakron.edu/  
~dpstory/webeq.html](http://www.math.uakron.edu/~dpstory/webeq.html)

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- Document authoring system

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- Document authoring system

- Source File:  $\text{\LaTeX}$  Markup

## The Acro $\text{\TeX}$ eEducation Bundle

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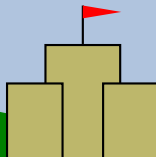
- Document authoring system

- Source File:  $\LaTeX$  Markup

- Final Form: PDF

## The $\text{AcroT}_{\text{E}}\text{X}$ eEducation Bundle

Overview



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- Source File:  $\LaTeX$  Markup

- Final Form: PDF

- **Bundle Packages**

Web, Exerquiz  
insDLJS, dljsLib

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- **Bundle Packages**

Web, Exerquiz  
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- Examples

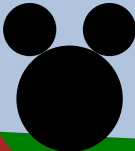
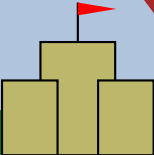
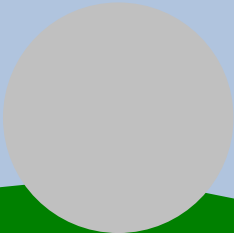


## The Acro $\TeX$ eEducation Bundle

Overview



Source File:  
L<sup>A</sup>T<sub>E</sub>X Markup

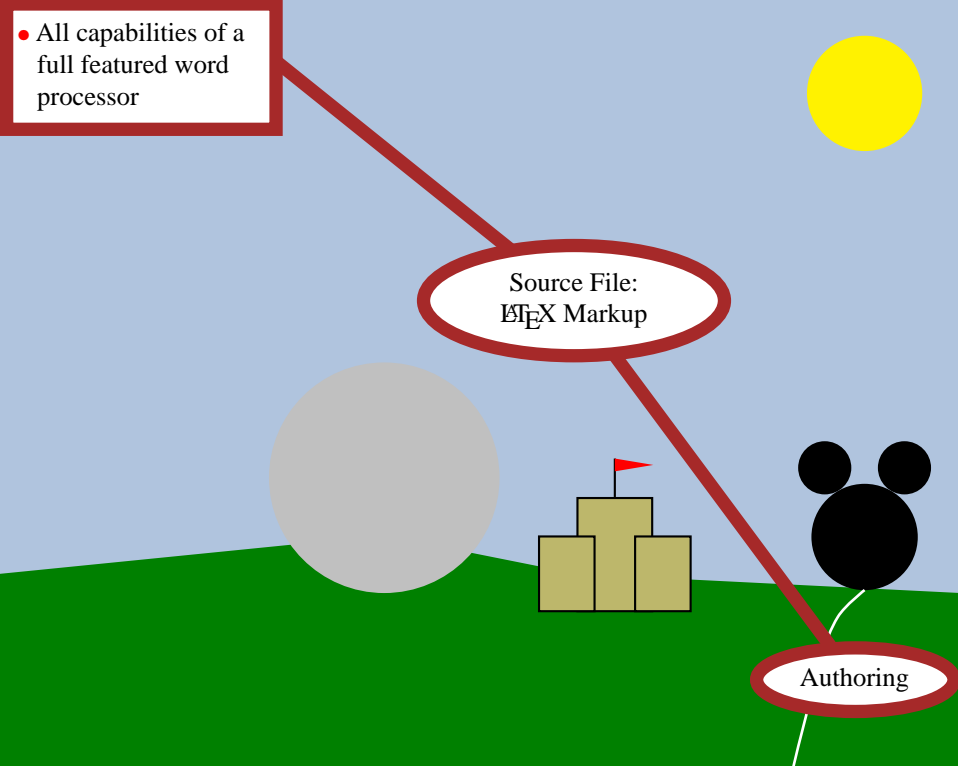


Authoring

- All capabilities of a full featured word processor

Source File:  
L<sup>A</sup>T<sub>E</sub>X Markup

Authoring

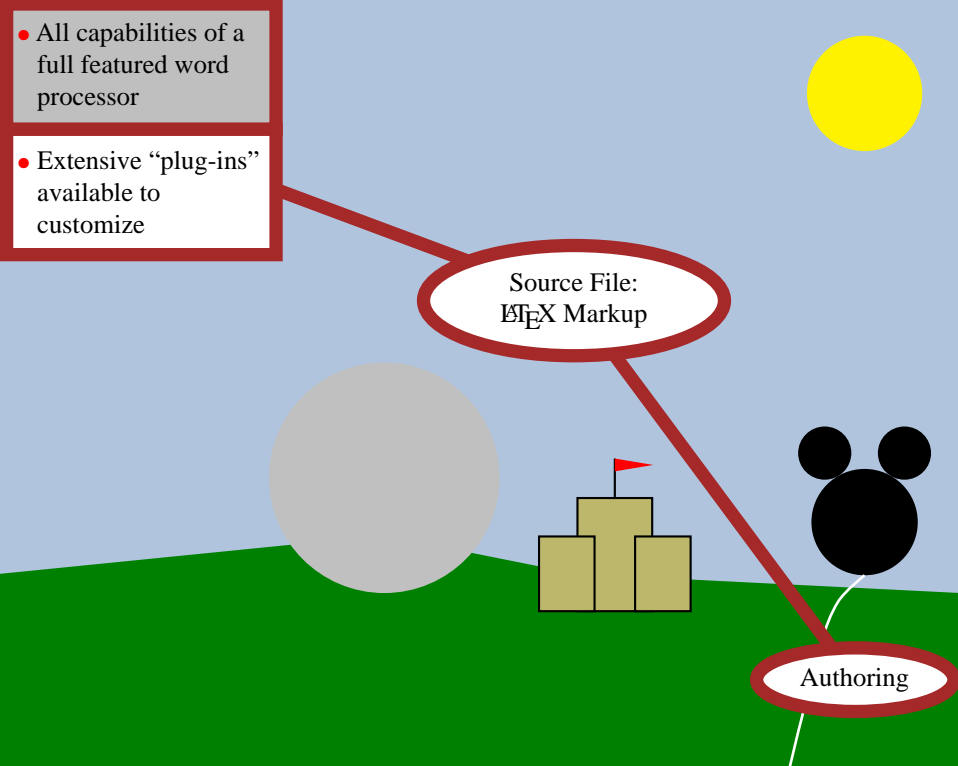


- All capabilities of a full featured word processor

- Extensive “plug-ins” available to customize

Source File:  
L<sup>A</sup>T<sub>E</sub>X Markup

Authoring



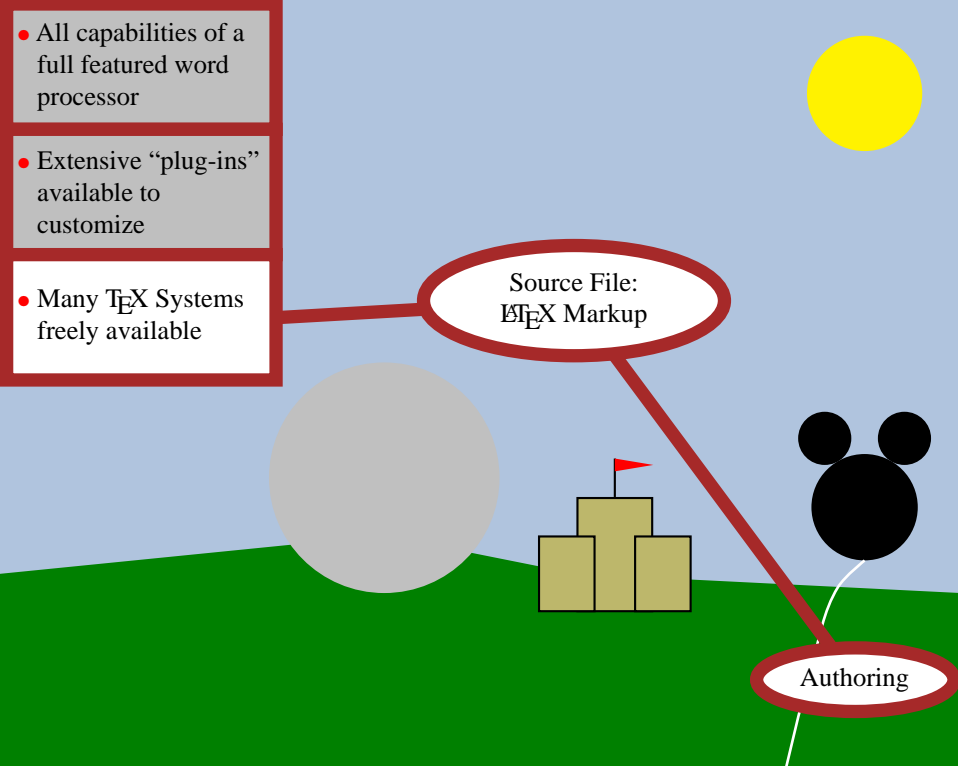
- All capabilities of a full featured word processor

- Extensive “plug-ins” available to customize

- Many  $\text{T}_{\text{E}}\text{X}$  Systems freely available

Source File:  
 $\text{\LaTeX}$  Markup

Authoring



- All capabilities of a full featured word processor

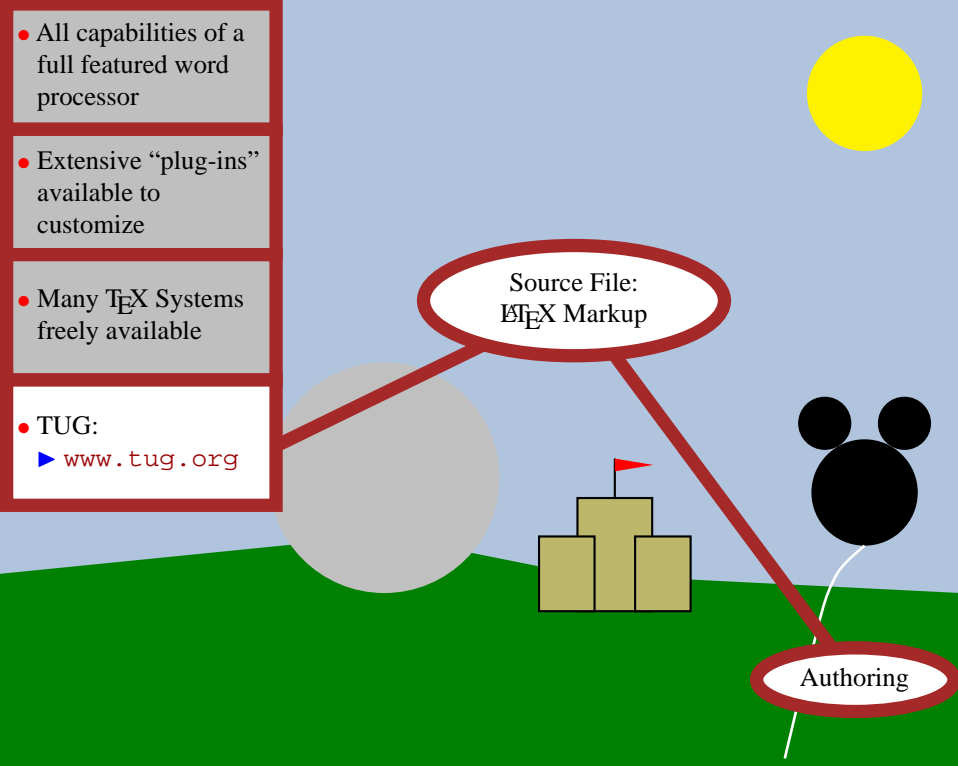
- Extensive “plug-ins” available to customize

- Many T<sub>E</sub>X Systems freely available

- TUG:  
▶ [www.tug.org](http://www.tug.org)

Source File:  
L<sup>A</sup>T<sub>E</sub>X Markup

Authoring



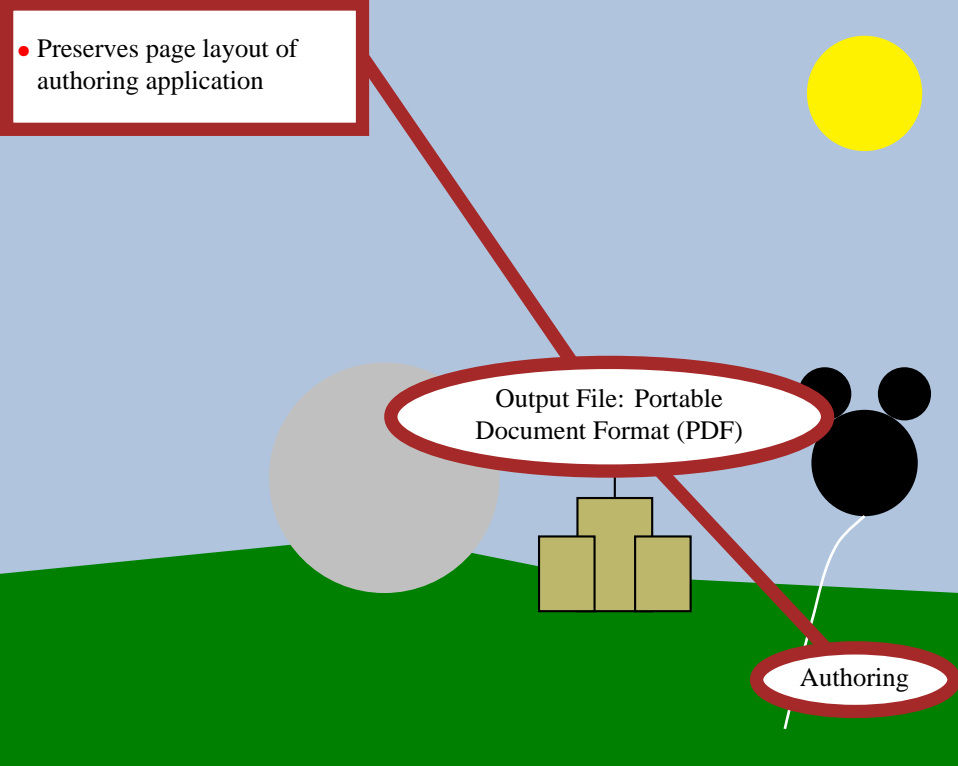
Output File: Portable Document Format (PDF)

Authoring

- Preserves page layout of authoring application

Output File: Portable Document Format (PDF)

Authoring



- Preserves page layout of authoring application

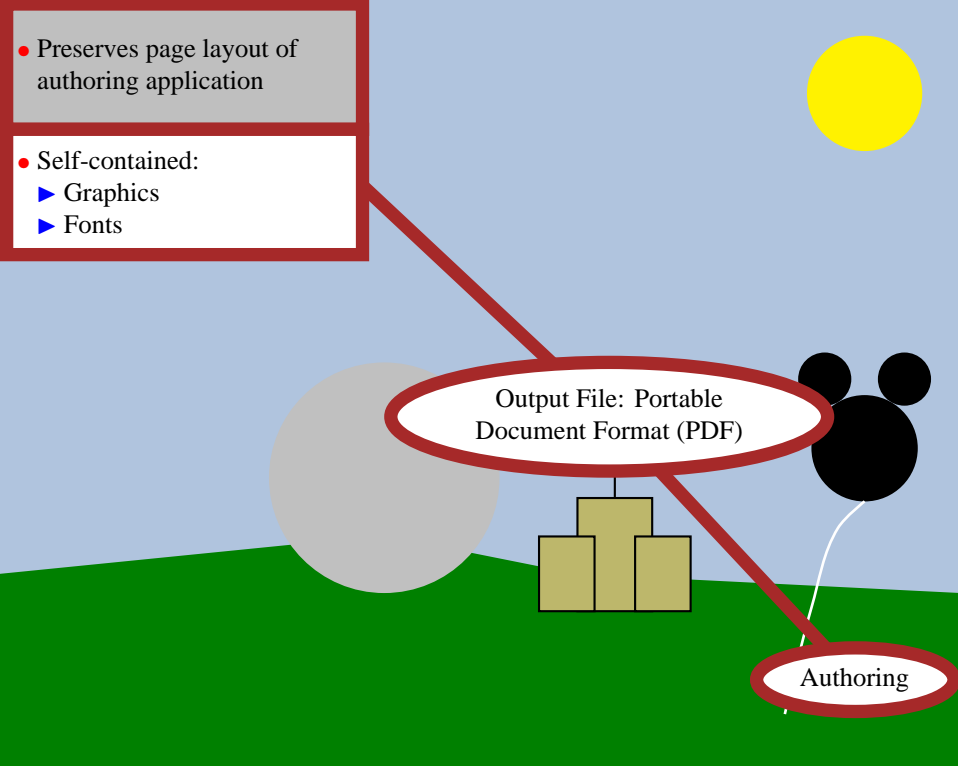
- Self-contained:

- ▶ Graphics

- ▶ Fonts

Output File: Portable Document Format (PDF)

Authoring



- Preserves page layout of authoring application

- Self-contained:

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- ▶ Fonts

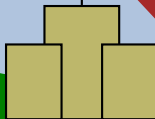
- Distribution

- ▶ Internet or Intranet

- ▶ CD

Output File: Portable Document Format (PDF)

Authoring



- Preserves page layout of authoring application

- Self-contained:

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- ▶ Fonts

- Distribution

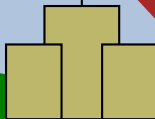
- ▶ Internet or Intranet
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- Interactivity:

- ▶ Hypertext links
- ▶ Form Elements

Output File: Portable Document Format (PDF)

Authoring



- Preserves page layout of authoring application

- Self-contained:

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- ▶ Fonts

- Distribution

- ▶ Internet or Intranet
- ▶ CD

- Interactivity:

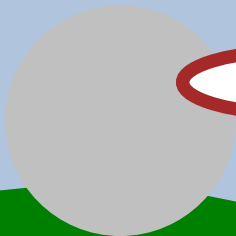
- ▶ Hypertext links
- ▶ Form Elements

- Scripting Language:

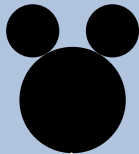
- ▶ JavaScript 1.5 Core
- ▶ Acrobat Extensions

Output File: Portable Document Format (PDF)

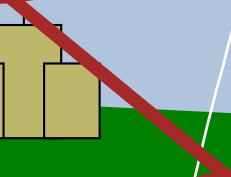
Authoring



Web Style



The Packages



- Page Design Package
  - ▶ Set page dimensions
- Background Design
  - ▶ Set Background color
  - ▶ Overlay graphics
  - ▶ Create left/right panel
- forpaper Option
- Language Localizations
  - French, German, Dutch, Danish, Spanish, Russian, Norwegian, Italian

The diagram features a light blue sky with a yellow sun in the top right and a grey sun in the middle left. A green ground line is at the bottom, with a tan bar chart in the center. A red-bordered box in the top left contains a list of design options. A red line connects the box to an oval labeled 'Web Style'. Another red line connects 'Web Style' to an oval labeled 'The Packages'. A white line connects 'The Packages' to a black Mickey Mouse head silhouette.

Web Style

The Packages

- Page Design Package

- PDF Creation Options

- ▶ dvips, dvipsone

- (.tex→.dvi→.ps→.pdf)

- ▶ pdftex (.tex→.pdf)

- ▶ dvi2pdf (.tex→.dvi→.pdf)

- Language Localizations

- French, German, Dutch, Danish,  
Spanish, Russian, Norwegian,  
Italian

Web Style

The Packages



Exerquiz

The Packages

- Exercises

- ▶ Questions and Solutions
- ▶ Links to solutions at end of file, or separate file
- ▶ `solutionsafter` option
- ▶ `nosolutions` option

Exerquiz

The Packages

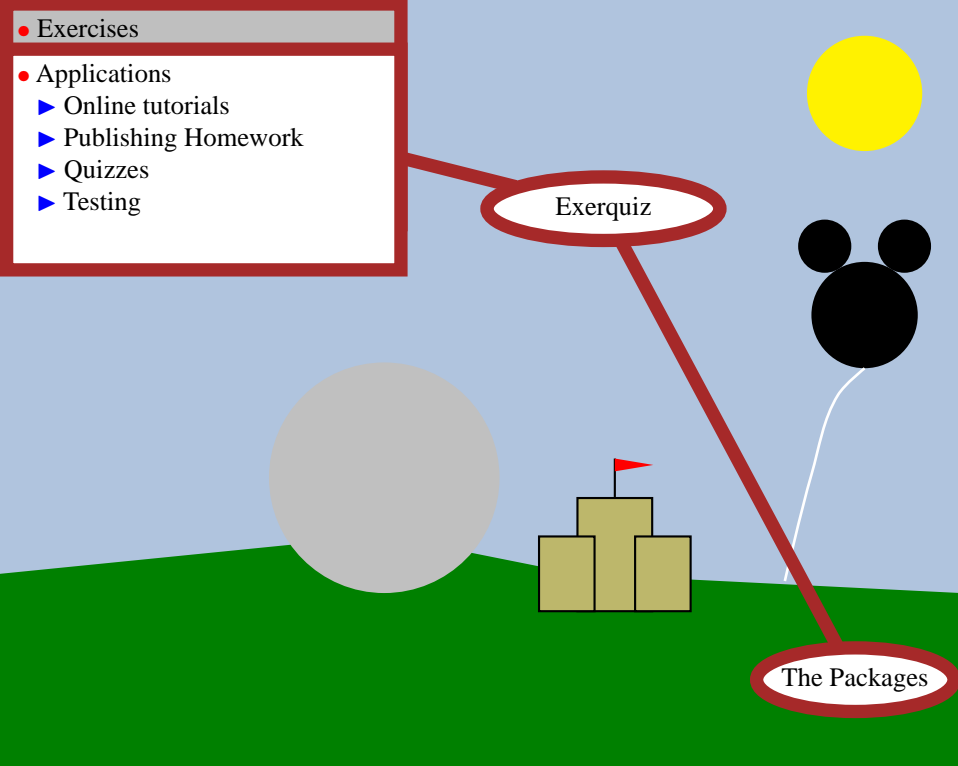
• Exercises

• Applications

- ▶ Online tutorials
- ▶ Publishing Homework
- ▶ Quizzes
- ▶ Testing

Exerquiz

The Packages



- Exercises

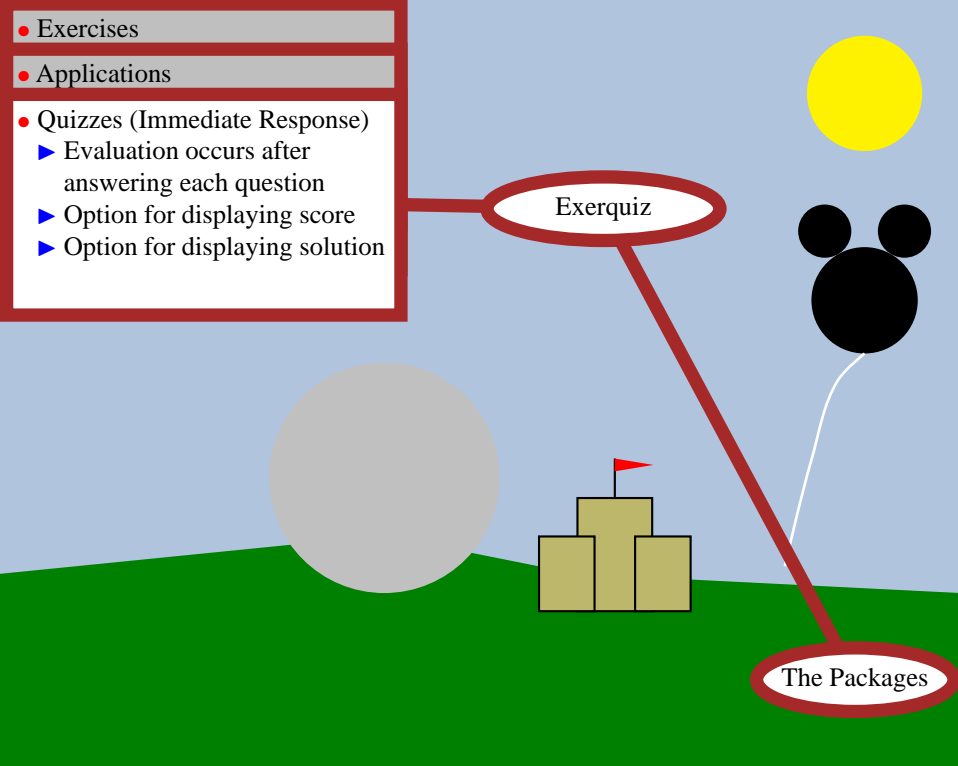
- Applications

- Quizzes (Immediate Response)

- ▶ Evaluation occurs after answering each question
- ▶ Option for displaying score
- ▶ Option for displaying solution

Exerquiz

The Packages



• Exercises

• Applications

• Quizzes (Immediate Response)

• Question Types

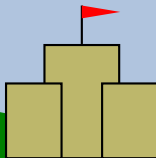
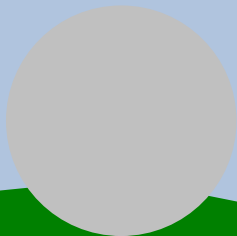
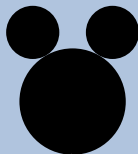
▶ Multiple Choice

▶ Text fill-in

▶ Math fill-in

Exerquiz

The Packages



- Exercises

- Applications

- Quizzes (Immediate Response)

- Question Types

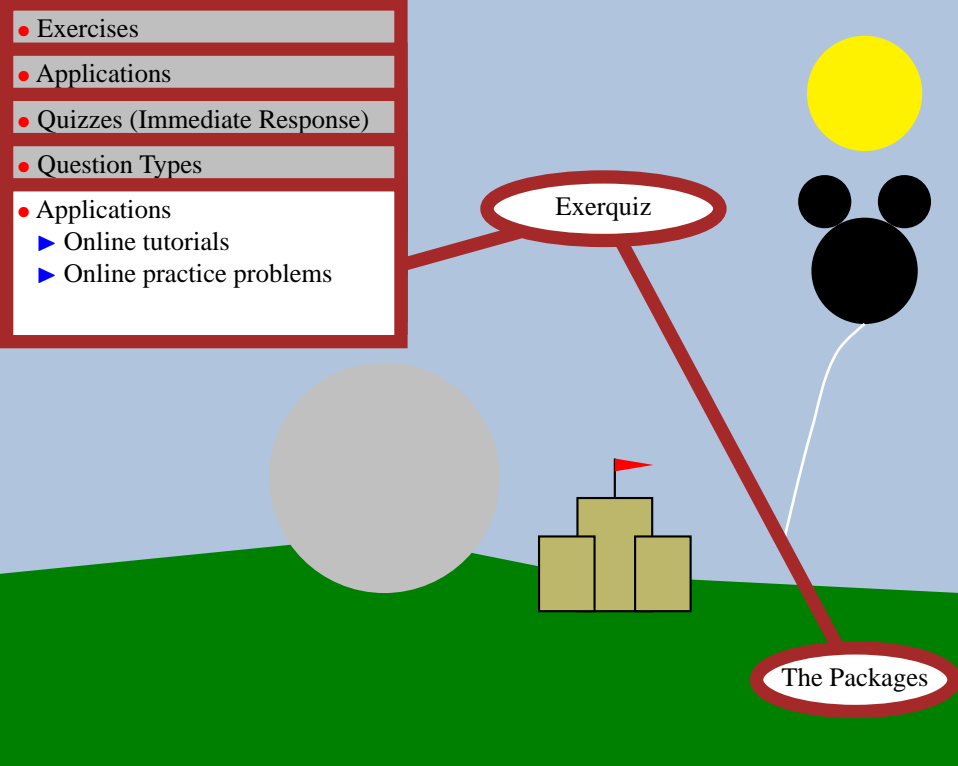
- Applications

- ▶ Online tutorials

- ▶ Online practice problems

Exerquiz

The Packages



- Exercises

- Applications

- Quizzes (Immediate Response)

- Question Types

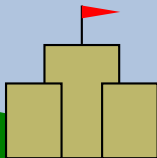
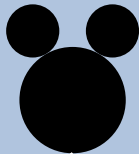
- Applications

- Quizzes (Delayed Response)

- ▶ Evaluation is delayed until student has completed the quiz
- ▶ Option for marking up the quiz
- ▶ Option for displaying score
- ▶ Option for displaying solution

Exerquiz

The Packages



- Exercises

- Applications

- Quizzes (Immediate Response)

- Question Types

- Applications

- Quizzes (Delayed Response)

- Question Types

- ▶ Multiple Choice

- ▶ Text fill-in

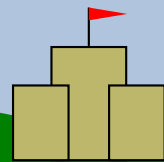
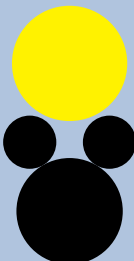
- ▶ Math fill-in

- ▶ Option for displaying score

- ▶ Option for displaying solution

Exerquiz

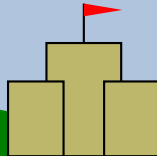
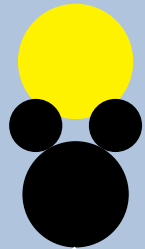
The Packages

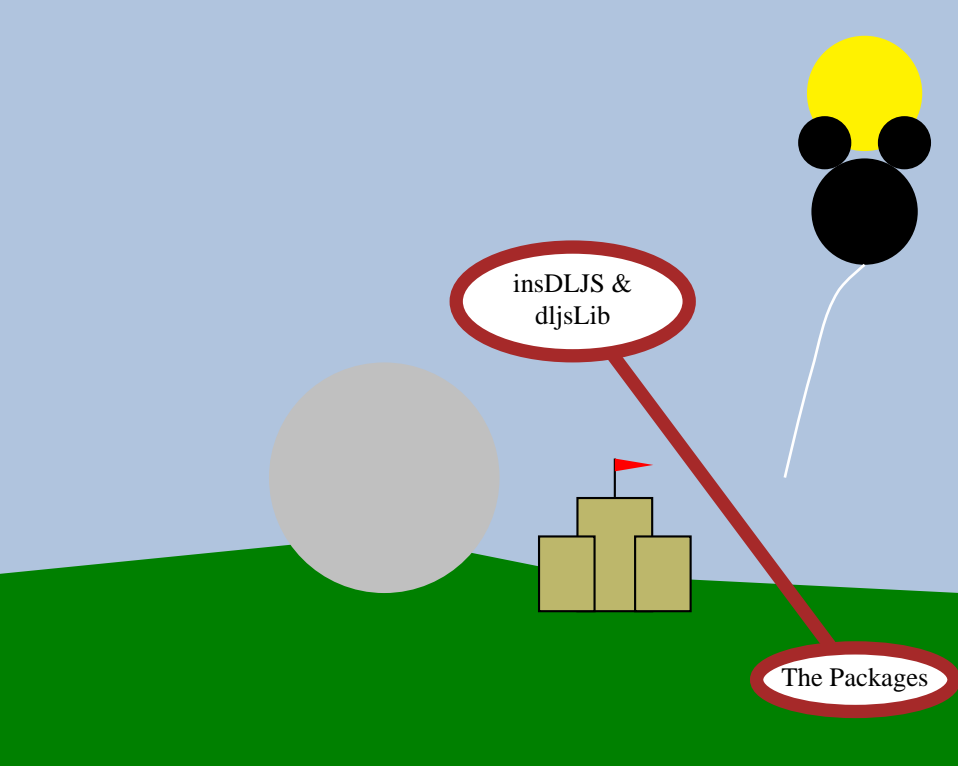


- Exercises
- Applications
- Quizzes (Immediate Response)
- Question Types
- Applications
- Quizzes (Delayed Response)
- Question Types
- Applications
  - ▶ Online tutorials
  - ▶ Online practice problems
  - ▶ **Online Assessment**

Exerquiz

The Packages





insDLJS &  
dljsLib

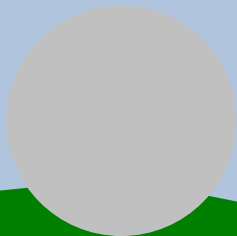
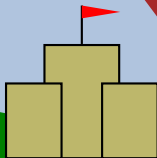
The Packages

- insDLJS:

Creates a  $\LaTeX$  environment for writing JavaScript to the document level of a PDF document.

insDLJS &  
dljsLib

The Packages



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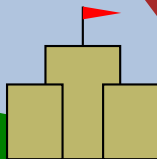
Creates a  $\LaTeX$  environment for writing JavaScript to the document level of a PDF document.

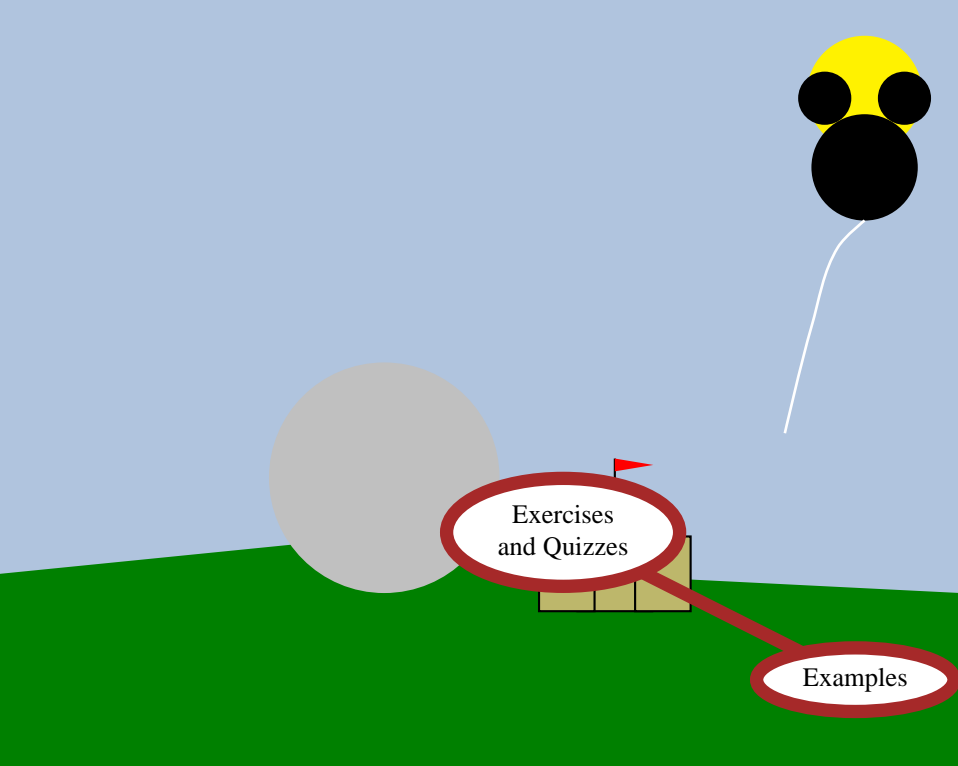
- dljsLib:

A library of JavaScript functions. These functions can be plugged in to Exerquiz to modify how questions are processed.

insDLJS &  
dljsLib

The Packages






Exercises  
and Quizzes

Examples


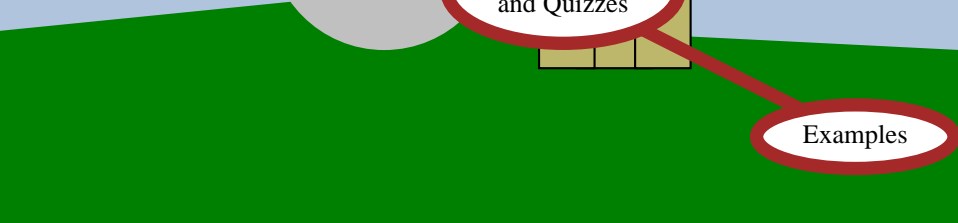
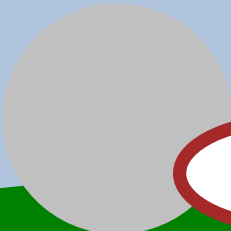

• Exercises





1 2 3



Exercises  
and Quizzes



Examples



- Exercises



- Quizzes (Immediate Response)



Exercises  
and Quizzes

Examples

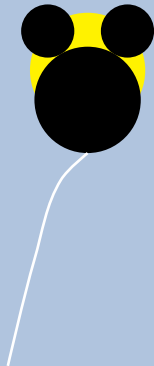
- Exercises



- Quizzes (Immediate Response)



- Quizzes (Delayed Response)



Exercises  
and Quizzes

Examples

- Exercises



- Quizzes (Immediate Response)



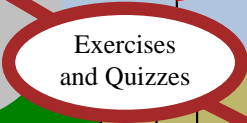
- Quizzes (Delayed Response)




- Online Assessment

Flat DB:  **1 2**

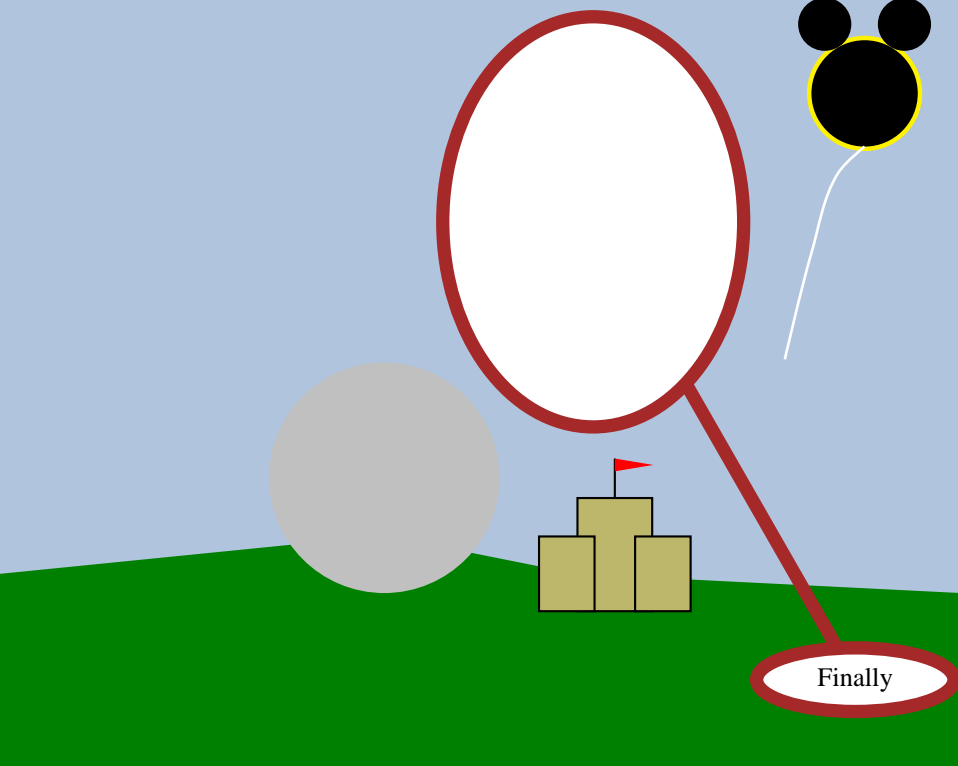
Relational DB:  **1 2**



Exercises  
and Quizzes



Examples



Finally