Question bank converter from AST-Test format in Microsoft Word to MoodleXML format and vice versa

Converter is attended to convert question banks, marked in AST-Test format in Microsoft Word into MoodleXML format. Resulting file in MoodleXML format then is imported directly into Moodle using Question bank Import command.

The next items are preserved on export:

* images, inserted into document in Inline mode;
* equation in formats Microsoft Equation, MathType, OMML (equations are converted to images);
* any changes of formatting relative to Normal style (font size, bold, italic, etc.).

## Installing converter

Run «Install converter.exe», and press “Close” after setup is finished. Restart Microsoft Word, if it is running.

For removing converter: Close Microsoft Word, run “AST-Test to MoodleXML converter for Word” – “Remove converter” in Start menu.

## Usage

### Export

After installing of converter, you will see Moodle tab on Microsoft Word’s ribbon.

For converting from AST-Test format to MoodleXML press “Prepare file for uploading to Moodle” button. Select name and location for resulting file.

Do not do anything until conversion is finished. You will see corresponding message when conversion finish.

If some error will occur while converting question, you will see corresponding message describing error.

### Import

For converting from MoodleXML to AST-Test format press “Create Word document based on file from Moodle” button. Select name and location of source file.

Do not do anything until conversion is finished. You will see corresponding message when conversion finish.

## AST-Test format specification

Special characters are used to mark questions in the AST-Test format. Special characters must start paragraphs. Paragraphs that do not begin with special characters are considered a continuation of the previous paragraphs.

### Special characters

|  |  |
| --- | --- |
| **Symbol** | **Meaning** |
| V1:  V2:  ...  V9: | Category for following questions. V1 – top level category, V2 – subcategory of top level category, and so on. (from le**V**el) |
| I: | Beginning of question, question name and mark. Each question must have “I” field. (from **I**nfo) |
| S: | Question text. Each question must have “S” field. (from **S**ubject) |
| +: | Right answer. Used for multichoice, shortanswer and numerical questions. |
| -: | Wrong answer. Used for multichoice questions. |
| L1:  L2:  ...  L10: | Subquestion in matching qestion. (from **L**eft) |
| R1:  R2:  ...  R10: | Answer for subquestion in matching question. (from **R**ight) |
| 1:  2:  ...  20: | Answer in ordering question. |
| TOL: | Tolerance for numerical questions. (from **Tol**erance) |
| F1:  F2:  F3:  F4:  Q: | Reserved by original format |

### Question categories

It’s not obligate to use categories when preparing question bank file. If category is not specified, Moodle will use category, specified on import.

Examples:

V1: Physics

*Questions of “Physics” category*

V2: Mechanics

*Questions of “Mechanics” category*

V3: Kinematics

*Questions of “Kinematics” category*

V3: Dynamics

*Questions of “Dynamics” category*

V2: Molecular physics and thermodynamics

*Questions of “Molecular physics and thermodynamics” category*

### Question name and default mark

Each question must start with “I” field. You may use this field to specify question name and it’s difficulty. If question name is not specified, “-“ (dash) is used as question name.

Mark is delimited from question with “;” (semicolon). Mark should be specified as “mt=mark”. Specified mark is multiplied by 10. For example, for mark of 2 units specify “mt=0.2”, for 10 units use “mt=1”, for 50 units use “mt=5”. Both period and comma can be used as decimal separator. If mark is not specified, default value is 1 unit (mt=0.1).

Examples:

I:

I: Geometry-1.

I: Question marked as 5 units; mt=0,5

I: ; mt=0.3

### Multichoice question

In multichoice question you should specify one “I” field, one “S” fields, at least one “+” field, at least one “-” field. If one right answer is specified, question will be converted to singlechoice question with radiobuttons. If multiple right answers is specified, question will be converted to multichoice question with checkboxes. Grade will be divided between right answers equally. Grade for incorrect answer is set to “0” in single choice question and to “-100” in multichoice question. Answers shuffle will be turned on and answer numbering will be turned off.

Examples:

I: multichoice with radiobuttons

S: What's between orange and green in the spectrum?

+: yellow

-: red

-: blue

I: multichoice with checkboxes

S: What two people are entombed in Grant's tomb?

-: No one

+: Grant

+: Grant's wife

-: Grant's father

### Short answer question

In shortanswer question you should specify one “I” field, one “S” fields, at least one “+” field. The answer may not contain images, questions, etc. You can use substitution “\*” representing any numbers of characters in answer. 100% grade is set for any answer

Example:

I: short answer 1

S: Who's buried in Grant's tomb?

+: Grant

+: Ulysses S. Grant

+: Ulysses Grant

I: short answer 2

S: Two plus two equals

+: four

+: 4

### Numerical question

In numerical question you should specify one “I” field, one “S” fields, one “+” field and one “TOL” field. Answer and tolerance must be numbers. Both period and comma can be used as decimal separator, using spaces in numbers is prohibited.

Examples:

I: numerical 1

S: When was Ulysses S. Grant born?

+: 1822

TOL:5

I: numerical 2

S: What is the value of pi (to 3 decimal places)?

+: 3.14159

TOL: 0.0005

Matching question

In matching question you should specify one “I” field, one “S” fields, at least two “L” fields, at least two “R” fields. You may specify more answers (“R” fields) then questions. You may specify some equal answers; in this case, repeats will not be shown when question will be displayed. If you use “match” (default) question type, answer may contain only text. If you use “ddmatch” (is set in settings) question type you may use images and equations in answers.

Examples:

I: Matching

S: Match the following countries with their corresponding capitals.

L1: Canada

R1: Ottawa

L2: Italy

R2: Rome

L3: Japan

R3: Tokyo

L4: India

R4: New Delhi

R5: Paris

R6: Moscow

I: Matching with equal answers

S: Mark true and false statements.

L1:Two is grater then five

R1:false

L2:Three is lower then seven

R2: true

L3:Five is greater than two

R3:true

L4:Ten is not equal to ten

R4: false

### Ordering question

In ordering question you should specify one “I” field, one “S” fields, at least three number fields. If you have installed Moodle question type plugin for ordering question (qtype\_order or qtype\_ordering), select corresponding question type in settings. Otherwise, matching question will be created, where list items are subquestions and corresponding numbers are answers.

Example:

I: ordering

S: Order the four oceans in size, with the largest first.

1: Pacific

2: Indian

3: Atlantic

4: Arctic

### Essay question

In essay question you should specify only one “I” field and one “S” fields

Example:

I: Essay

S: Write an essay about how it is important to be able to write an essay.

## Using equestion

If your Moodle installation is set up to use TeX or MathJax filter to represent equations, and you use MathType editor, it’s recommended to convert equations to TeX representation before converting questions. In this case, you will be able to edit equations later in Moodle. Otherwise, all equations will be converted into images.

For equation conversion you should run “Convert equations” MathType command and select “Moodle: Tex filter” or “MathJax: LaTeX” translator. If you use OMML equations (Word 2007 and higher), you should copy OMML2MML.XSL file from Microsoft Office installation to “Office Support” folder of MathType.

## Recommendations

Set all images in the document to use inline mode. Floating images may not be converted. If you do not want to convert text formatting (font size, boldness, italics, etc.), it is recommended to select the entire document and then clear formatting styles before converting. Do not clean format, if your document contains formulas with upper and lower indices, made without the use of equations editor.