Tutorial: Creating an item with WeiDU

This tutorial shows how to create a very simple mod that adds an item to a game. This mod creates a sword +5.

What you need:

1. An installed copy of Baldur's Gate 2.
2. NearInfinity.
3. A text editor. You can use Notepad, but I recommend Notepad++ with Weidu syntax highlighters.
4. The latest version of the WeiDU executable.

Preparing the system

- Create a new game installation to do your modding. This will prevent you from messing up the installation you use for playing. Enable the debug mode in this installation.
- Download the latest version of NearInfinity to the main game folder.
- Download the latest version of weidu.exe to the main game folder. Rename it to setup-MagicSword.exe. This is the program that will take care of the internal details of installing the mod.
- In the main game folder create a folder named MagicSword: `<game_path>\MagicSword`. Inside this folder create another folder called English: `<game_path>\MagicSword\English`.

Creating the sword file

Game items are stored in item files. The easiest way to create a new item is to make a copy of a similar item and modify it. In this tutorial you'll use the file for swords +1 as the base item to create a sword +5:

1. Open Near Infinity.
2. In the folder ITM click SW1H05.itm. This is the file for long swords +1.
3. Click File → Export and export this file to the `MagicSword` folder with the name `MagicSword.itm`.
4. Click Game → Open file and open the file you just created, `MagicSword.itm`.
5. In the Abilities panel make sure Melee (1) is selected and click View/Edit.
6. Select the Edit tab.
7. Set Bonus to hit and Damage bonus to 5.
8. Close this window, close the main item window, click Save changes, Overwrite, OK.

Preparing the text for the sword

Items use some bits of text, in the case of magical swords these are: unidentified name, identified name, unidentified description and identified description. Item files can't store text, so you need to store the text in another file. The files used to store the text of a mod are called language files. Language files contain text strings. Each string has an associated identifier. The syntax of each line in a language file is:

```
string_identifier = ~text~
```

I. e., each line contains a string identifier followed by an equals sign (=) and a text string enclosed in ~ characters. String identifiers use the syntax `@#`, i. e., they are an `@` character followed by a number. A simple example of a line in a language file:

```
@1 = ~Long Sword~
```

You need four text strings for the sword item: unidentified name, identified name, unidentified description, and identified description:

```
@1 = ~Long Sword~

@2 = ~Sword +5~

@3 = ~These swords are usually referred to as doubled-edged swords, war
swords, or military swords. In many cases, the long sword has a single-edged
blade. There is no single version of the long sword; the design and length
vary from culture to culture, and may vary within the same culture depending
on the era. Among the most common characteristics of all long swords is their
length, which ranges from 35 inches to 47 inches. In the latter case, the
blade is known to take up 40 inches of the total length. Most long swords have
a double-edged blade and a sharp point at the tip. Despite the tip, the long
sword is designed for slashing, not thrusting.

STATISTICS:

Damage: 1D8

Damage type: slashing

Weight: 4

Speed Factor: 5

Proficiency Type: Long Sword

Type: 1-handed

Requires: 6 Strength

Not Usable By:

 Druid

 Cleric

 Mage~

@4 = ~Sword +5

Swords +5 are some of the most powerful swords you can find in the realms.

STATISTICS:

THAC0: +5 bonus

Damage: 1D8 +5

Damage type: Slashing

Weight: 2

Speed Factor: 2

Proficiency Type: Long Sword

Type: 1-handed

Requires: 11 Strength

Not usable by:
 Druid
 Mage
 Beast Master~
```

In this mod you'll use the language file english.tra.

Steps:

1. Create a new text file in your text editor and copy the four text strings above.
2. Save this file as english.tra in the English folder.

Main mod file

The core of a mod is a tp2 file. A tp2 file is a little program that tells the computer what to do with the other files in the mod. tp2 files are written in WeiDU, which is the programming language used in Infinity Engine mods. The WeiDU language is quite complex. This tutorial just shows a little example of what the WeiDU language can do. Here I give a very brief overview of what this little program does without going into the details.

The tp2 file used in this mod is divided into three parts. Part 1 is a header that contains general setup for the mod. Part 2 assigns the string identifiers you created in english.tra to the sword. Part 3 puts the sword in the game, giving it to a dragon:

```
//Sword +5 Mod
//Part 1: Header
BACKUP ~MagicSword/backup~
AUTHOR ~myemail~
LANGUAGE ~English~ ~MagicSword/english~ ~MagicSword/english/english.tra~
BEGIN ~MagicSword~
//Part 2: Add the sword to the game)
COPY ~MagicSword/MagicSword.itm~ ~override/MagicSword.itm~
  SAY NAME1 @1
  SAY NAME2 @2
  SAY UNIDENTIFIED_DESC @3
  SAY DESC @4
//Part 3: Give the sword to the otyugh in Irenicus' dungeon
COPY_EXISTING ~IOTYUGH.cre~ ~override/IOTYUGH.cre~
  ADD_CRE_ITEM ~MagicSword~ #0 #0 #0 ~NONE~ ~inv11~
```

Steps:

1. Create a new file with this code.
2. Save it as MagicSword.tp2 in the `MagicSword` folder.

Testing

1. Run setup-MagicSword.exe (the file you created at the beginning).
2. Start a new game. Use the console to move your character to the otyugh room in Irenicus' dungeon. Kill the otyugh and… Voila! There is your magic sword +5.

Packaging

If you want to distribute your mod, just make a zip archive that contains the file setup-MagicSword.exe and the MagicSword folder.