

# refdes-update

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February 16, 2007

## 1 Overview

The script `refdes-update` is designed to change the reference resignator (refdes) attributes of schematic symbols in gschem schematics. The program is called with the command-line —

`refdes-update` *<option>*\* *<schematic filename>*\*

The command-line options and default values are listed in [Table 1](#). If `refdes-update` is called without schematic filename arguments all of the schematic filenames in the current directory will be parsed.

**N.B.** This script may not work for all gschem schematics. I wrote sufficient code to work with my schematics not for all possible schematics.

### Conventions

<i>&lt;parameter&gt;</i>	Replace with the value of <i>parameter</i>
<code>verbatim text</code>	
refdes	Reference designator. Character string used to identify a schematic component. Each refdes consists of a prefix, an ordinal and an optional suffix.
prefix	Alphabetic string at the beginning of the refdes.
ordinal	Cardinal number that follows the prefix in a refdes. An undefined ordinal is represented by the ? character.
suffix	Character string that follows the ordinal in a refdes.

## 2 Running the Program

`refdes-update` *<option>*\* *<schematic filename>*\*

Schematics may be updated as individual pages or as a collection of pages. For a collection of pages there is a `pageoffset` added to each refdes ordinal. The options are listed in [Table 1](#).

### 2.1 Notes

- Prior to changing the schematic file a backup file will be created. The name of the file will be *<schematic filename>.bak<n>*.
- The alphabetic suffix on a refdes is ignored when determining the new refdes ordinal. It is also ignored when creating the refdes list.

## 2.2 Options

Option	Default	Description
<code>--clear</code>	0	Resets all refdes ordinals to the undefined value.
<code>--list</code>	1	Outputs a list, to <b>STDOUT</b> , of refdes's that were found in each schematic. Suffixes are ignored.
<code>--verbose</code>	1	Sundry annoying messages.
<code>--dryrun</code>	0	Outputs a list of actions to be taken without performing them.
<code>--reuse</code>	0	Reuses refdes ordinals that were skipped in each schematic.
<code>--update</code>	0	Only change refdes's where the ordinal is undefined.
<code>--renum</code>	0	Change all refdes's.
<code>--nopageoffset</code>	0	Do not add an offset to subsequent schematic pages. The default sets a pageoffset.
<code>--pageoffset</code> <i>&lt;value&gt;</i>	100	The offset value added to the refdes ordinal is $(pagenumber - 1) \cdot pageoffset$ . The default value is set to 100. Each schematic specified on the command-line is considered a page.

Table 1: refdes-update command-line options

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