

```

+-----+
|   Convert   |
+-----+
| +convert_to_int(word):int|
+-----+

```

▲ used by

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|
+-----+
|   UVSimGUI   |
+-----+
| - root: Tk      |
| - sim: UVSim    |
| - accumulator_var: StringVar |
| - run_button: Button |
| - memory_entries: list[Entry]|
| - output_lines: list[str]|
| - colors: ColorConfig |
+-----+
| +build_widgets() |
| +load_file()      |
| +save_file()      |
| +run_program()    |
| +step_through_program() |
| +show_read_popup(operand)|
| +update_memory_display() |
| +update_output()   |
| +clear_output()    |
+-----+

```

▲

▲

```

uses |   | uses
    |   |

```

```

+-----+ +-----+
| UVSim  || ColorConfig |
+-----+ +-----+
| - cpu: CPU || - filename: str |
| - memory: Memory | - primary: str |
+-----+ | - off: str |
| +load_program()| + load_colors(): void |
| +run()        | + get_primary(): str |
+-----+ +-----+

```

▲

has-a| has-a

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|
+-----+
|   CPU   |
+-----+
| - accumulator: int |
| - program_counter: int |

```

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| - halted: bool      |
+-----+
| +execute(instr, mem) |
+-----+
      ▲
    uses |
      |
+-----+
|  Memory  |
+-----+
| - memory: list[int]  |
| - read_callback      |
| - waiting_for_input: bool |
+-----+
| +write(addr, val):void |
| +read(addr): int      |
+-----+

```