```
ConfigManager
|- CONFIG_FILE: str |
| - DEFAULTS: dict
| + load_config(): dict
| + save_config(cfg: dict): None |
       uses
    UVSimGUI
| - root: Tk
| - sim: UVSim
| - config: dict
| - output_lines: list |
| - run_button
| - mem_tree
| + __init__(Tk)
| + build_widgets()
| + apply_colors()
| + load_file()
| + save_file()
| + run_program()
| + edit_memory_cell(event)
| + pick_colors()
| + show_read_popup(operand)
| + populate_tree()
      | has-a
     UVSim
| - cpu: CPU
| - memory: Memory
| - output_callback
| + __init__()
| + load_program(file)
```

```
| + reset()
| + step(): int
     \blacktriangle
has-a
            has-a
   CPU | | Memory |
| - accumulator | | - memory[100] |
|-pc | |-waiting_for_input: bool |
| - halted: bool | | - read_callback
+----+ +-----+
| + execute(instr, mem)
| + reset()
+----+
    uses (input validation and type conversion)
              Convert
          +----+
          | + convert_to_int(s: str): int/False |
          +----+
```