

MANTECH Nudge Tool Documentation

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Glossary of Terms

.GTY: File extension for tray file type used with Gilson robots (AM73, AM122, AM197).

.CSV: File extension for tray file type used with MANTECH robots (AM354, AM372, AM390, AM108).

X Axis: Left/right direction.

Y Axis: Backwards/forwards direction.

Z Axis: Upwards/downwards direction.

Bed: Visual representation of the available X/Y travel of a robot.

Rack: A grouping of zones, typically representing a physical rack. Used for MANTECH robots only.

Zone: A group of vessels, typically of the same type, numbered 1,2,3,...

Vessel: An individual target location for the robot probe. Given a diameter to visually represent the physical vessel, *e.g.* tube, beaker, cup *etc.*

Program Description

The *MANTECH Nudge Tool* is a stand-alone program intended for adjusting tray files for Gilson or MANTECH robots. Gilson robots use .GTY tray files and MANTECH robots use .csv tray files. These files are not interchangeable between robots.

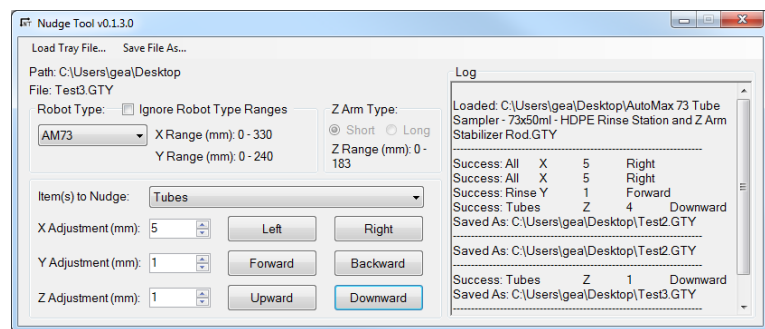
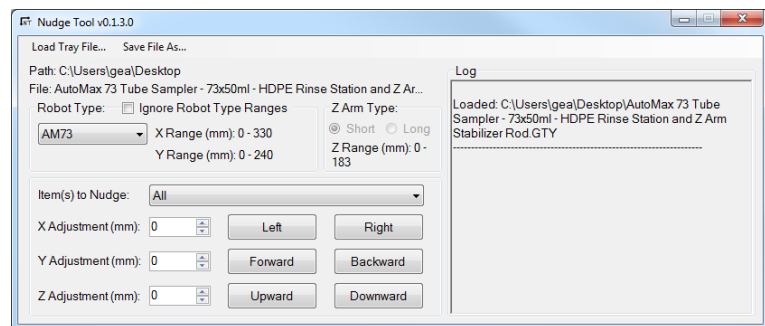
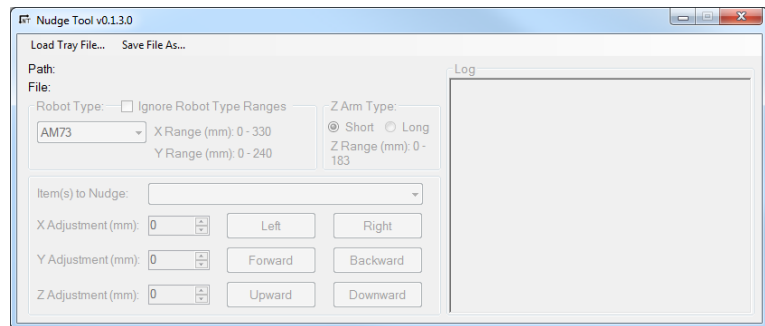
Installation

Requirements

- Compatible with Windows: XP, Vista, 7, 8, 10 and both 32/64-Bit Systems.
- Requires: .NET Framework 3.5 or later.
 - Typically already installed as part of base Windows installation.
- The utility is a stand-alone program that can be launched directly, and requires no additional installation steps.

Adjusting a Gilson or MANTEH Tray File

1. Launch the *Nudge Tool.exe*.
2. Click the *Load Tray File...* button. Find and select the file to adjust.
3. In the *Item(s) to Nudge* drop down select either:
 - a. "All": Will adjust all vessels.
 - b. The name of the specific zone to adjust.
4. Next to the appropriate axis, enter the magnitude of the desired adjustment.
5. Click on the button next to the value in the desired direction.
6. Take note of the "SUCCESS" or "FAILURE" of the adjustment, as indicated in the log. Typically, a failure occurs if the movement would put a vessel out of range (e.g. a value less than zero).
7. Repeat 3-6, to make any other adjustments.
8. Click the *Save File As...* button.
 - a. If you do not want to create a new file, simply overwrite the originally selected file.
9. Test the file in PC-Titrate or PC-BOD manual control (you do not need to close the nudge tool).
 - a. If further adjustments are required, follow steps 3-7, and save the file again, as in step 8.



If the desired nudges result in failures, re-examine the tray file in the MANTECH *Tray Editor*, which includes a visual representation, and may aid in diagnosing the adjustment issue.