

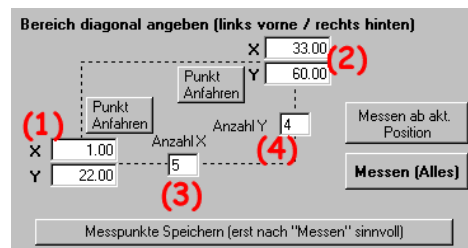
## Z - level correction with EdiTasc

This option allows the engraving of bent areas such as printed circuit boards.

Execution: **File -- Programming Help -- Z-Level Correction**

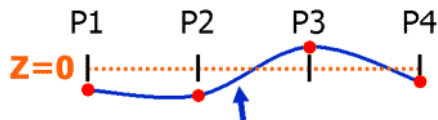
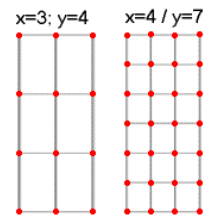
1. First a rectangular area in which the test points are taken must be defined Important: The height correction is used only within this rectangular area. It should therefore be chosen larger than the actual engraving area.

- a. Drive the tool to the corner point (**AltGr+ cursor keys**), which will define the the lower left corner of the testing area.
- b. Enter the X and the Y coordinates in the menu **(1)**
- c. Drive to the corner, which defines the upper right corner of the testing area.
- d. Enter the X and the Y coordinates in the menu **(2)**



2. Enter the desired number of test points along the X axis **(3)** and along the Y axis **(4)**. A measuring grid arises so (see illustration, test points in red ●).

The deviation of every test point from the standard height ( $Z = 0$ ) (●) is measured. From these deviations a "deviation-area" is computed (see below) which EdiTasc can use as the new zero height (Z).



3. **Starting the measuring sequence:** Start the measuring sequence with the button "Measure (All)". The point grid is displayed. The course of the sequence is saved in the file **GetZlevDat.ts** as a MTASC program. The measuring mode is also defined there:

The section starting with

**If (1) {**

is active (the others must be deactivated with 0!)

3 measuring modes are provided

- manually
- automatic probe
- with a jog-wheel (like manually, only with an electronic jog-wheel)

In the **manual mode** the tool (which should be inserted already) drives on the **height = Zup** to the 1st position, and waits there for the operator to drive it manually (**AltGr+ PAGE keys**) to the material height. This continues with the

next point. With the Escape key you can stop the process any time. A corresponding message appears in the status line.

In the mode with keyboard must be a corresponding Messtaster as well as its offset (distance of the tool) established so that the measuring can take place automatically.

4. After the measuring sequence one should click on "**Save test points**" (otherwise they are lost when exiting EdiTasc).

It is possible any time to resume with the sequence with "**Measure from current position**", or re-measure individual points. For this option display the measuring grid by activating the "**Z-Level**" in the window Inputs/Outputs.

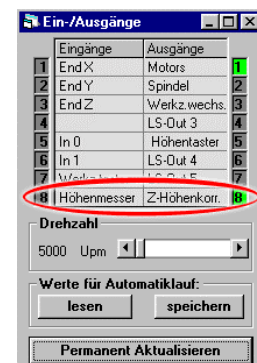
This facilitates to re-visit the point to be measured (e.g. by pressing the right mouse button in the graphic window and selecting – **Drive to Position**).

Drive the tool to the point from which you want to resume the measuring. The point doesn't have to be met exactly. The software automaticall drives to the closest point.

With "**Measure from Current Position**" the measuring row is continued. The tool drives first to the starting position to measure the original height once more, thereafter it continues from the chosen point.

The **grid data** and heights measured are saved in the file **Data.t** in the subdirectory **Zlevel** of the EdiTasc folder, where experienced users can edit the data.

5. To ensure that EdiTasc uses the calculated area as its zero height, the height correction must be activated in the window **Inputs/Outputs** (see screenshot).



## Adjustments of the parameters for the Z-Level Correction

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It is necessary for the Z –Level correction with an automatic measuring tool that the following values are entered correctly in the file **TOOLPOS.TS**:

**\_PrbOfs [0]:**

Offset of the milling tool to the measuring unit in X

**\_PrbOfs [1]:**

Offset of the milling tool to the measuring unit in Y

**\_PrbZup0:**

Maximum height difference between the milling tool and the measuring unit.

As of this Z height the search area starts with the first probe. The value has to be smaller than `_PrbZup0` but must be positive, otherwise the milling tool might collide with the material's surface.

**\_PrbZdn0:**

Minimum height difference between milling tool and measuring unit.

The search area for the first probing goes up to this height. The value must be smaller than `_PrbZup0`, but should be positive, otherwise the milling tool might collide with the material's surface.

**\_PrbZup:**

Upper height limit for all further measurements, relative to the first calibrating measurement. The value must be positive.

**\_PrbZdn:**

Lower measuring area limit for all further measurements, relative to the 1st calibrating measurement. The value must be negative.