

# Velox™ 3.3 Highlights

## Probe Station Control Software

Velox 3.3 is the next big step in improving our probe station software for greater usability. The new Wafer Map comes with a modernized user interface and unique patented functions that make workflows more intuitive and logical. SubDie handling has been simplified in cooperation with some of our key customers. Additionally, the Velox Help has been completely re-designed for more intuitive navigation and problem-solving.

**A free upgrade is available for existing customers.\***

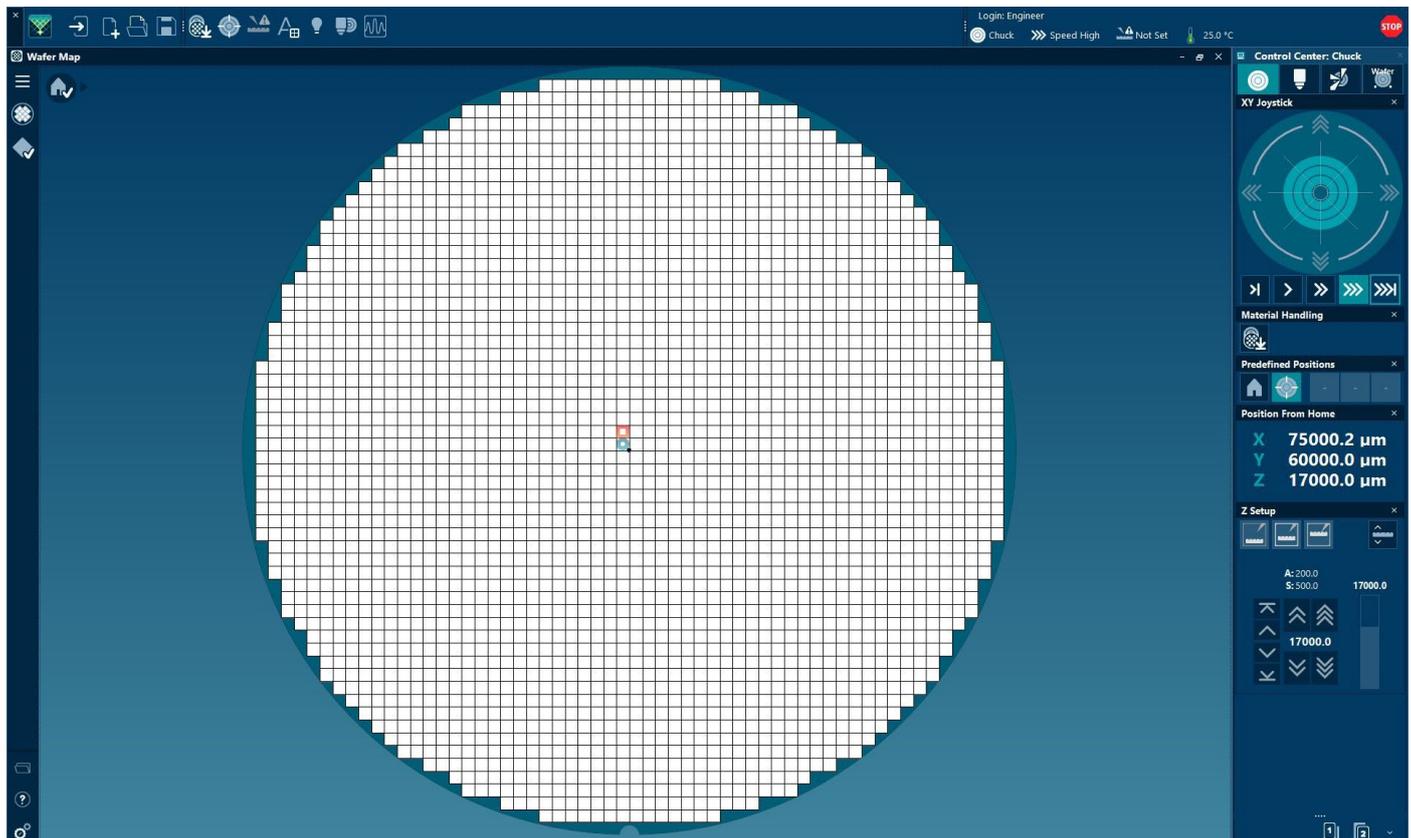


## New Wafer Map

- / New modern and intuitive user interface
- / **Floating action buttons** for faster access to most important functions like *Step Next Die* and *Set Home*
- / Logical, simplified **workflows**
- / Patented selective **Die Soaking** and **Die Alignment**
- / Optimized **SubDie handling**
- / **Z-profiling** has been simplified and is now integrated in Wafer Map
- / Support of **SEMI G85** wafer map files

### Benefit:

Intuitive, ergonomic operation with significantly less training needs.



### Die Soaking

Fixed  0 h 20 min 0 s

Dynamic  0 h 5 min 5 s

Use Selective Die Soaking

Die Selection Mode (i)

Invert Selected Dies

Add Selected Dies

Remove Selected Dies

Die Soaking Border Area (mm)

Soak Every N<sup>th</sup> Center Die

**Auto-Mark Dies**

Dies for soaking: 20  
 Dies for probing: 52  
 Soak time savings at 80 °C: 9587 Minutes

## Selective Die Soaking

- ✓ New level of wafer testing efficiency for non-ambient probing
- ✓ User can define soak times for each die
- ✓ Easy-to-use graphical interface



### Benefit:

Significantly faster time to data through smarter automation.

### Die Alignment

Use Vision Assisted Stepping

XYZ Theta alignment using eVue/Scope.

**Train Alignment Tool**

Use Selective Die Alignment

Die Selection Mode (i)

Invert Selected Dies

Add Selected Dies

Remove Selected Dies

Align Every N<sup>th</sup> Die

**Mark Every N<sup>th</sup> Die**

Dies for alignment: 26  
 Dies for probing: 52

## Selective Die Alignment

- ✓ User can define which dies need alignment
- ✓ No complex adaptations of the Test Executive necessary



### Benefit:

Significantly faster time to data through smarter automation.

### Subdie Canvas

Add Subdie Using Grid

Column Width (µm) 3000

Row Height (µm) 3000

### Subdie Definition Table

Use Motorized Positioners

Filter **Rosso** Local

# On	X	Y	Label
<input checked="" type="checkbox"/>	-3000.0	0.0	Rosso
<input checked="" type="checkbox"/>	-3000.0	6000.0	Rosso
<input checked="" type="checkbox"/>	-12000.0	6000.0	Rosso
<input checked="" type="checkbox"/>	-18000.0	9000.0	Rosso
<input checked="" type="checkbox"/>	-18000.0	15000.0	Rosso
<input checked="" type="checkbox"/>	-27000.0	15000.0	Rosso
<input checked="" type="checkbox"/>	-18000.0	21000.0	Rosso
<input checked="" type="checkbox"/>	-21000.0	24000.0	Rosso

## Sub Die Handling

- Sub Dies can be labeled with different colors for better differentiation
- Drag/drop Sub Dies to different positions in table
- Select multiple Sub Dies in table
- Filter by labels

**Benefit:**  
Easier handling of multiple Sub Dies.

## Z-Profiling

- Z-Profiling tool integrated in Wafer Map
- No additional application necessary

### Z-Profiling

Z-Profile Die Selection

Points Along Radius 2

Auto-Mark Dies

Dies for Z-Profiling: 7

Perform Z-Profiling

Detection Method Find Focus

Success Ratio (%) 75

Offset X (µm) 0

Offset Y (µm) 0

Start Z-Profiling

### Z-Profile Table

Load Z-Profile from Map File

Num	Col	Row	Delta
1	1	5	
2	1	8	
3	-2	6	
4	-2	3	
5	1	1	
6	5	3	
7	5	6	



## Initialization Tool

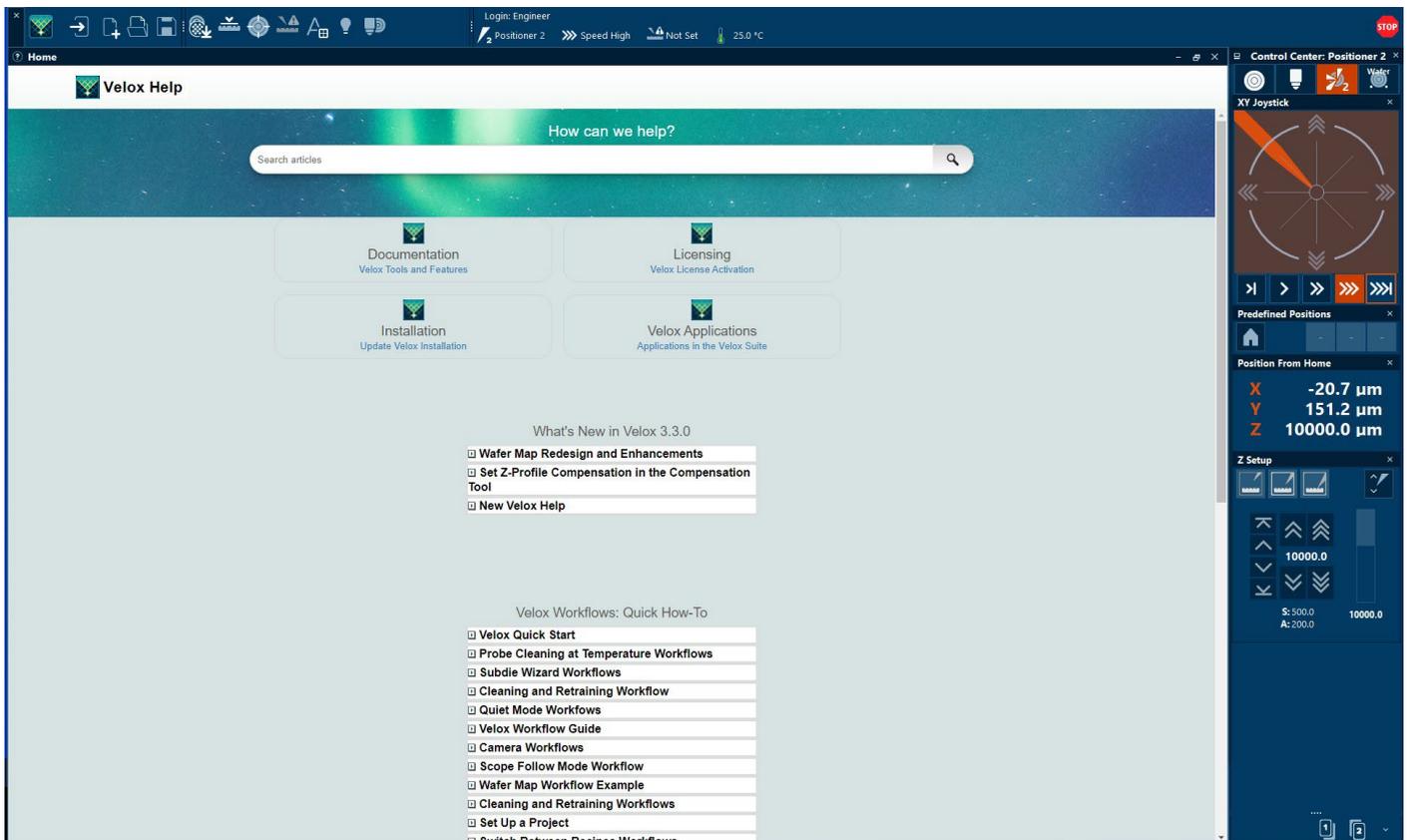
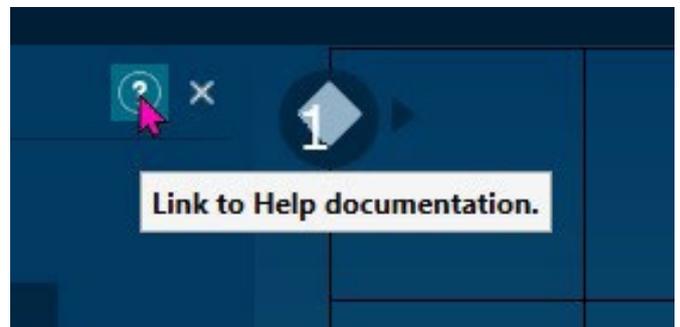
- / Calibration of chuck stage, microscope stage and motorized positioners
- / Can be done by the user, no FormFactor service needed
- / Self-explaining user interface

### Benefit:

Less training needed. Faster setup times.

## New Velox Help

- / Velox Help has been re-designed to provide easier access
- / Improved search function
- / Access help directly from Velox
- / Workflows, Quick How-To, Frequently Asked Questions and more



\* Requires Service visit. Please contact your local sales person for more information.