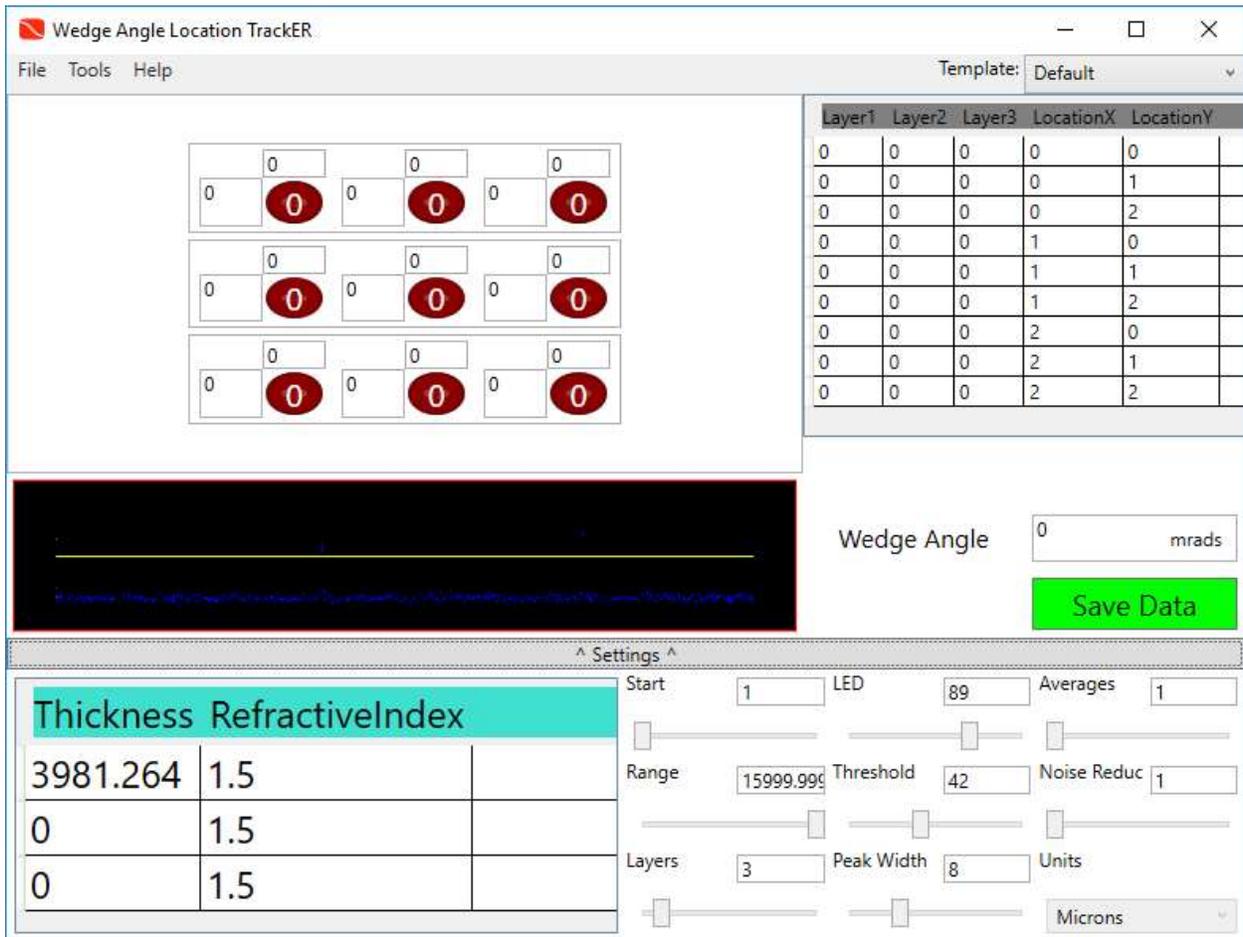# WALTER v1.0

User Manual

Revision: B

The WALTER application is designed to calculate the Wedge Angle of a surface on a field measureable by the Lumetrics OptiGauge.

The WALTER application consists of several sections to customize the measurement conditions.

File Menu	The File menu offers selections for overall software control.
Measurement Field representation	The Measurement Field representation shows the configuration of trackable measurement locations.
OptiGauge Waveform	The OptiGauge Waveform shows the real-time measurement of the material at the probe location.
Data Output Control	The Data output control shows the record of values at each measurement location and the current average Wedge Angle according to locations measured.
OCC Settings panel	The OCC Settings panel is a collapsible control that shows real time layer values with Refractive index values and allows OptiGauge settings to be adjusted for optimal measurement quality

Under the Tools menu is an Add Template option. Selecting this will show and hide a data grid that will summarize available templates for configurations of the Measurement Field.

Each Template will specify the following:
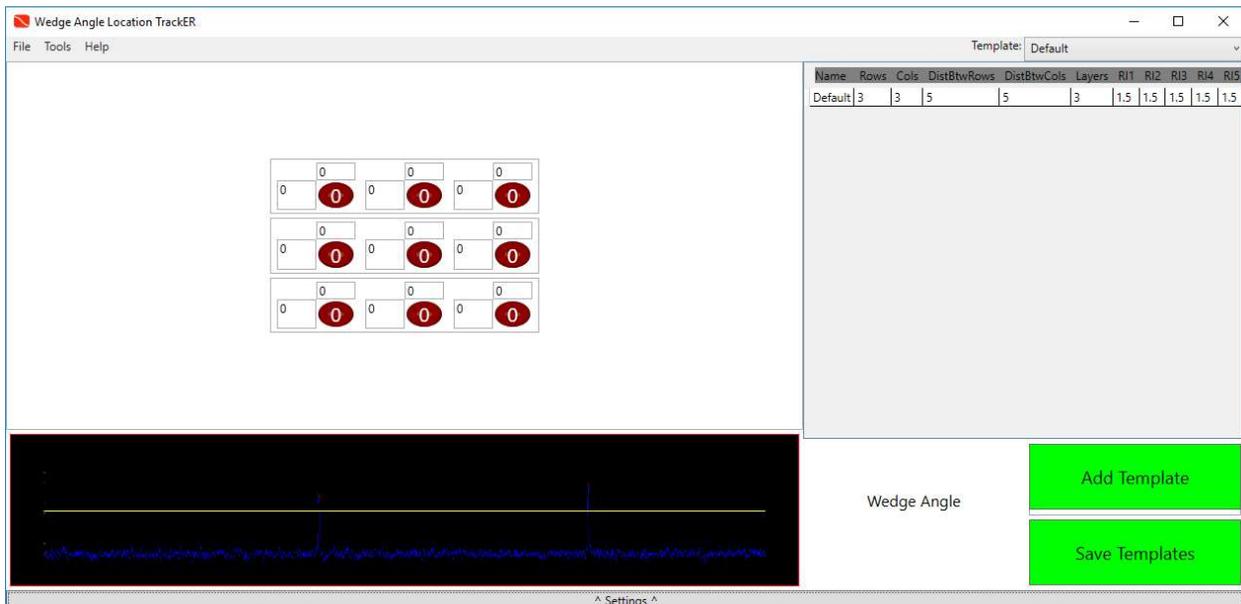
Rows of Measurement locations
Columns of Measurement locations
Distance between rows
Distance between columns
Layers in the material
Refractive indexes for each layer (up to 5)

Clicking 'Add Template' will append a new Row to the data grid.

Each field in the Data Grid may be edited, including those of previously saved templates.

Changes will not be saved until 'Save Templates' is clicked.

The current template is selected in a drop down menu embedded on the right side of the File menu.

On selecting a template, several changes can be noted

In the OCC Settings Layer quantity and Refractive Index of each layer

Layout of trackable measurement locations

Rows in the data output grid. Each row location is denoted by its X and Y location.

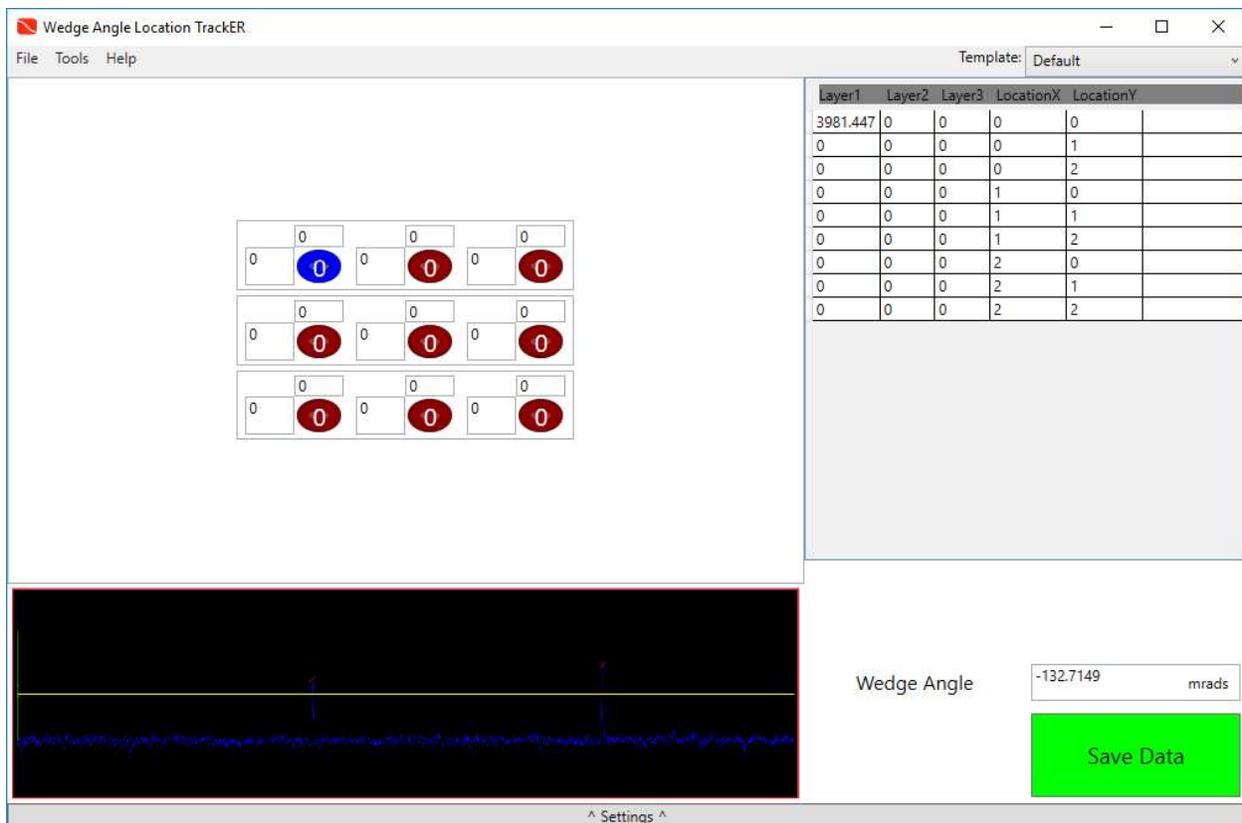Unmeasured locations will appear as red fields. The Measurement Field control allows the user to select the location to be measured. This selection should correspond to the position of the probe.

Layer1	Layer2	Layer3	LocationX	LocationY
3981.447	0	0	0	0
0	0	0	0	1
0	0	0	0	2
0	0	0	1	0
0	0	0	1	1
0	0	0	1	2
0	0	0	2	0
0	0	0	2	1
0	0	0	2	2

Wedge Angle   -132.7149   mrads

Save Data

^ Settings ^

Once clicked, the spot location will turn green while data is collected. Once a measurement is taken the data for the location is added to the data grid and the spot turns blue. The software will calculate individual wedge angles between each adjacent spot location. This is constantly updated as new measurements are taken. The Wedge Angle value in the Data Output section, measured in mrads, is the average wedge angle for the locations in the vertical orientation. The horizontal wedge angle is only calculated and represented in the Measurement Field.

A measured blue spot may be clicked and measured again at any time the probe is positioned at the corresponding location.

Any time a spot is clicked while the probe is not at the corresponding location, the data measured will be in error.

Clicking 'Save Data' will output a .csv file in this location

C:\Lumetrics\Walter\Data\

The name of the file will have the format <TemplateName><YYYY><MM><DD>-<HH>_<mm>.csv

The file will have this Configuration

Template Definition

Default	3	3	5	5	3	1.5	1.5	1.5	1.5	1.5

Measurement Data

0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	0	2
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	0	1	2
0	0	0	0	2	0
0	0	0	0	2	1
0	0	0	0	2	2

WedgeAngle: 0

Wedges by column

0
0
0
0
0
0
0
0
0

Wedges by row

0
0
0
0
0
0
0
0
0

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