LASER GAUGE

PRODUCT DATASHEET

LGWorks

OVERVIEW

The LGWorks software program is used to develop multi-point inspection routines that run directly on all past and present LaserGauge® controllers or wirelessly from a computer to the LG4101 controller and DSP sensors. Graphic and text instructions in the routine guide the operator through each measurement point. Calculations utilizing measured values can be programmed into the routine and, the user can define the format for the generated data file.

DEVELOP ROUTINES

ORGANIZE ROUTINES

Routines are built in a tree-view hierarchy so that points and groups of points can easily be cut, copied, and pasted, or moved using drag and drop functionality.

More than one measurement may be needed at each inspection point, such as gap and flush. Routine commands tell the LaserGauge® what methodology to use to make the measurements and one pull of the trigger completes all the measurements at that location.

OPERATOR INSTRUCTIONS

Photos or images of the part being inspected can be copied into LGWorks and the individual points marked by drawing an arrow on the image at the exact location for the measurement. The images are displayed on the graphical controllers with arrows advancing automatically as each measurement is taken.
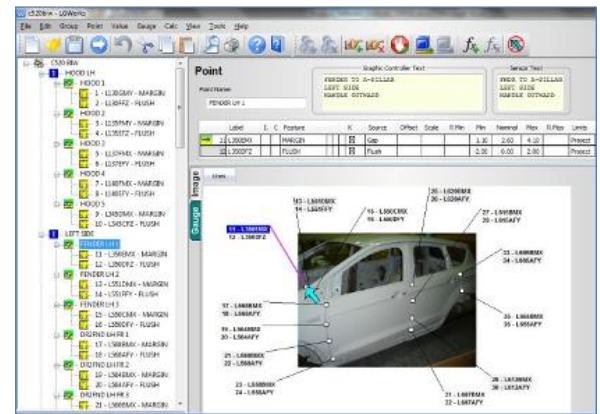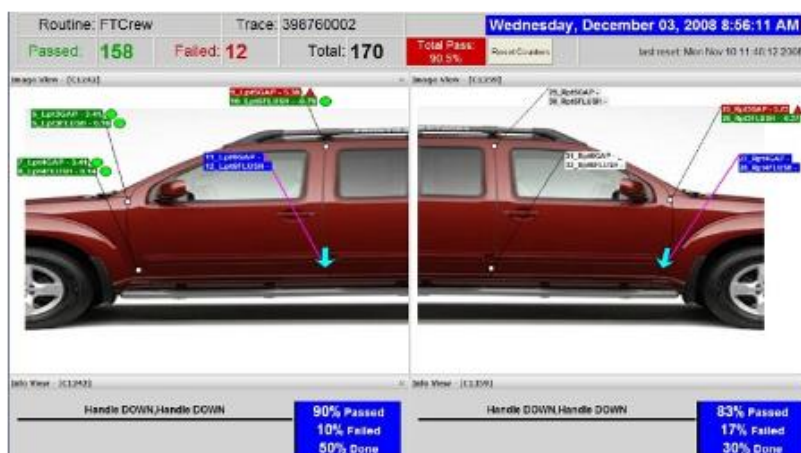
MEASURED POINTS & CALCULATIONS

Formulas that use the results from measured points can be added to the routine for calculations such as A/V gaps, parallelism, max gap, range, etc.

SPEC LIMITS

Specification limits can be entered in the routine and used by the LaserGauge® to flag out-of-spec conditions. A second set of limits, called reasonable limits, can also be entered to help filter errant measurements and identify measurements taken at the wrong location.

RUN ROUTINES WITH WIRELESS SYSTEMS

ONE OR TWO OPERATORS

Routines can be run by one operator or by two operators working simultaneously using LG4101 wireless controllers or handheld DSP sensors.

100% INSPECTION

Two wireless systems can be used to measure each vehicle or every part on a moving assembly line. The measurement results are displayed on a large screen mounted over the line, and out-of-spec conditions are color-coded for easy identification.
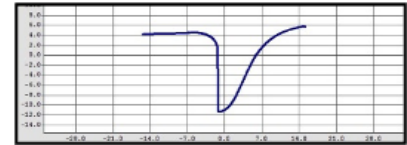
TEST GAUGES ON SAVED SCANS

The LaserGauge® can be used to capture raw scans of a surface feature, such as a weld or a gap. Retrieved to the PC, the scan can be opened in LGWorks and used to test virtual gauge settings. The selected gauge and settings are then incorporated into the routine.
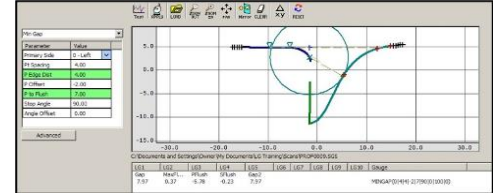
Plotted Scans – Plots showing virtual gauge tests on scans can be saved as graphic images. These images can be used in reports to document the measurement methodology.

On-screen Measurements – Measurements can also be made on-screen in LGWorks using point and click tools.

Raw Scan Saved from LaserGauge®

Scan Tested with Virtual Gauge in LGWorks

DATA & DOCUMENTATION

ROADMAP

Routines can be documented with a printable roadmap showing each measurement point on the vehicle image and user-selectable information specific to the points in a table. Measurement data from the running of a routine can be imported into the roadmap and values color coded as in-spec or out-of-spec.

DATA FILES

Data files are formatted by the user and can vary by routine. The user has a choice of delimiters and the file can include information contained in the routine or found on the controller. Operator input fields and LaserGauge® generated information can also be included in the data file, such as date, time, shift, operator, VIN, feature label, description, etc.

SPECIFICATIONS

Functions	Used to develop inspection routines, define data file formats, view scans, test gauge settings
System Compatibility	LG1102, LG1200, LG4101, LG5000, LG7000 controllers and all DSP Sensors
Communication to LaserGauge® from Computer	LG1102-null modem serial cable; LG1200-USB null modem cable and Ethernet; LG4101-null modem cable and wireless RF; LGX000 and DSP sensors-USB cable or wireless ZigBee
Operating Systems	Windows™ 10
Requirements	64MB hard disk space, 512MB RAM

101 North Alloy Drive, Fenton, MI 48430 USA
Sales@lmicorporation.com
810.714.5811
www.lmicorporation.com
Our commitment to quality may mean a change in specifications without notice.