

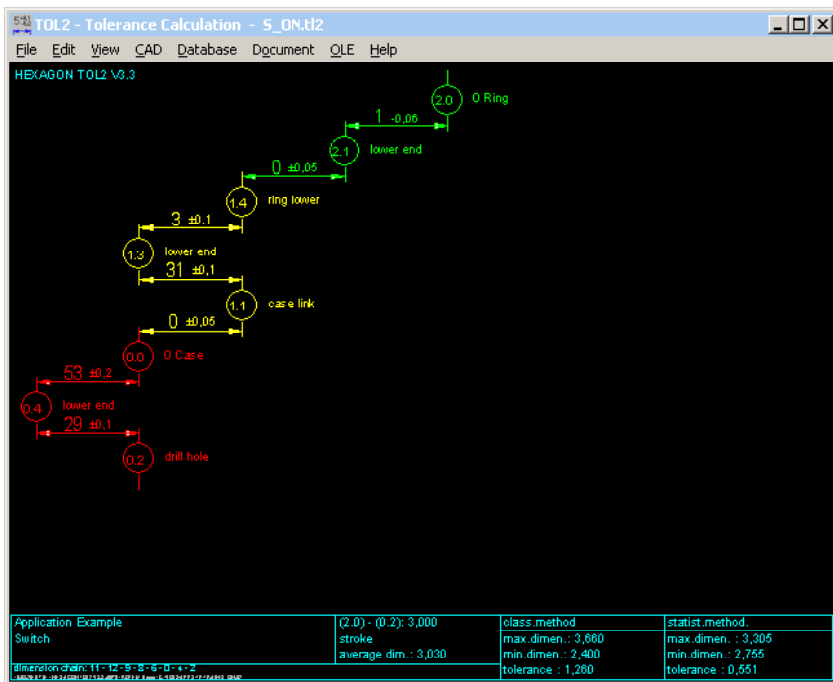
# TOL2



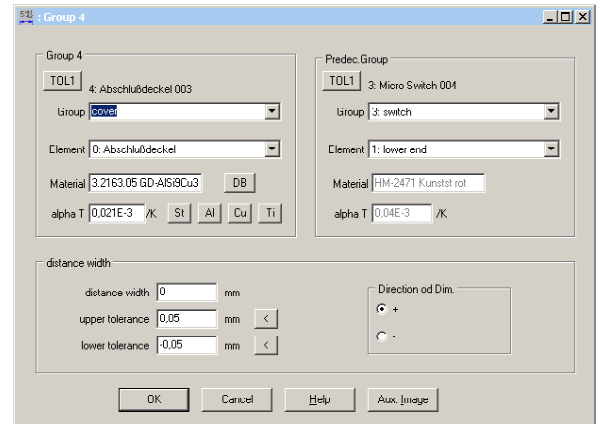
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## Tolerance Analysis Software for Windows

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TOL2 is used in combination with our TOL1 software. First use TOL1 to define parts and components. In the next step, use TOL2 to assemble the TOL1 components by clicking TOL1 files and defining connection elements and connection tolerances.

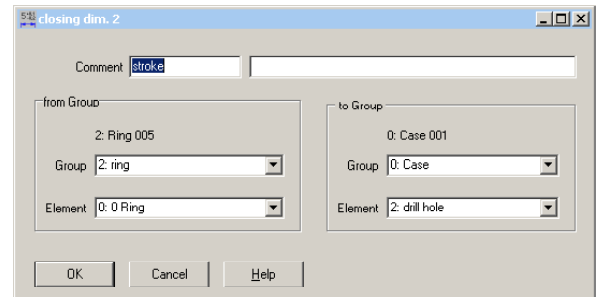


You can define several assembly conditions or switch positions and analyse the requested min/ max values of the closing dimensions.

El.	Pred.	±	Nom.dim.	Up.Dev.	Low.Dev.	ISO	Text
Group 0: Case 001 (Case)							
Material: GD-MgAl9 alphaT: 0,026E-3							
0.0	0.0	+	0,000	0,000	0,000	.....	0 Case
0.1	0.0	-	15,000	0,100	-0,100	.....	upper end
0.2	0.4	+	29,000	0,100	-0,100	.....	drill hole
0.3	0.4	+	21,000	0,100	-0,100	.....	switch mount
0.4	0.0	-	53,000	0,200	-0,200	.....	lower end
Group 1: tappet 002 (tappet)							
Material: 1.0037 S235JR (St 37-2) alphaT: 0,0115E-3							
Link: Element 1 with Element 0 in Group 0 (Case)							
dimension: + 0 ± 0,05							
1.0	1.3	+	39,000	0,200	-0,200	.....	0 tappet
1.1	0.0	+	0,000	0,050	-0,050	.....	case link
1.2	1.3	+	23,000	0,200	-0,200	.....	other
1.3	1.1	-	31,000	0,100	-0,100	.....	lower end
1.4	1.3	+	3,000	0,100	-0,100	.....	ring lower
1.5	1.4	+	1,100	0,100	0,000	.....	ring upper
Group 2: Ring 005 (ring)							
Material: 1.0050 E295 (St 50-2) alphaT: 0,0115E-3							
Link: Element 1 with Element 4 in Group 1 (tappet)							
dimension: + 0 ± 0,05							
2.0	2.1	+	1,000	0,000	-0,060	h11	0 Ring
2.1	1.4	+	0,000	0,050	-0,050	.....	lower end

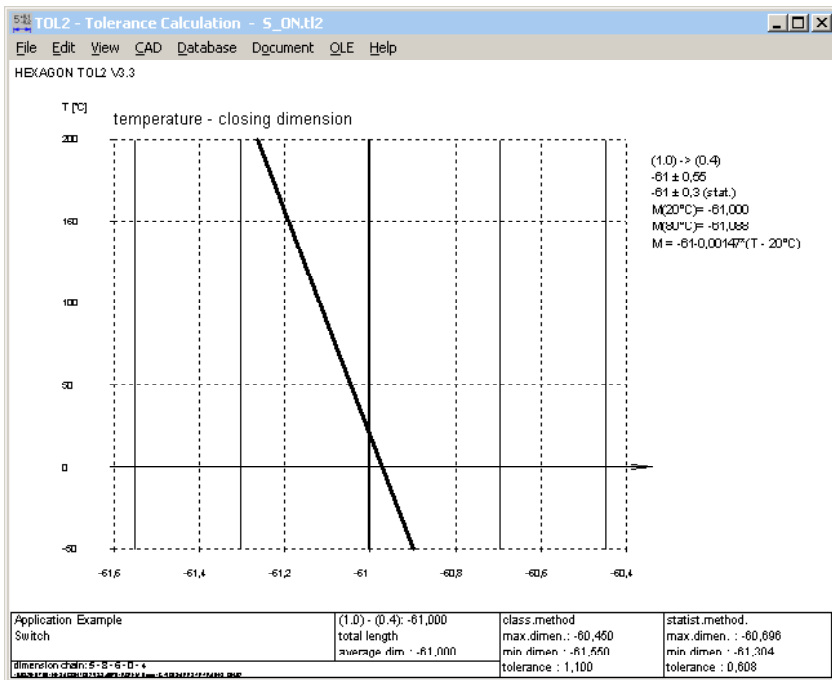
### Program Structure

Components from TOL1 are defined by file name and connection element, predecessor part and element, connection dimension and tolerance, in a table. In another table, you define the required closing dimensions.



### Calculation

TOL2 calculates the maximum and minimum closing dimensions between any desired distance within the dimension chain.



## Temperature Influence

Input temperature coefficients for the components, and TOL2 calculates temperature dependant closing dimensions as function of operating temperature. Even a formula to calculate temperature dependant closing dimension is given by TOL2.

## Cross Reference

You can select a dimension element, and TOL2 lists participated closing dimensions for the selected dimension element.

## Statistical distribution methods

The maximum and minimum dimensions in the dimension chain are calculated as the arithmetic sum (worst case), as well as from the square root of the tolerance squares (normal distribution).

## Printout

Input data and calculation results with spring travel, spring length, spring load and stresses for different spring positions may be printed, saved as text or HTML file, or exported to MS Excel.

## Production Drawing

TOL2 generates a production drawing with drawing elements and closing dimensions. Drawing name, date, users and modifications are described in TOL2.

## HEXAGON-Help System

Auxiliary text and images are available for all dialogue windows. If error messages occur, you can get description and remedy suggestion.

## CAD Interface

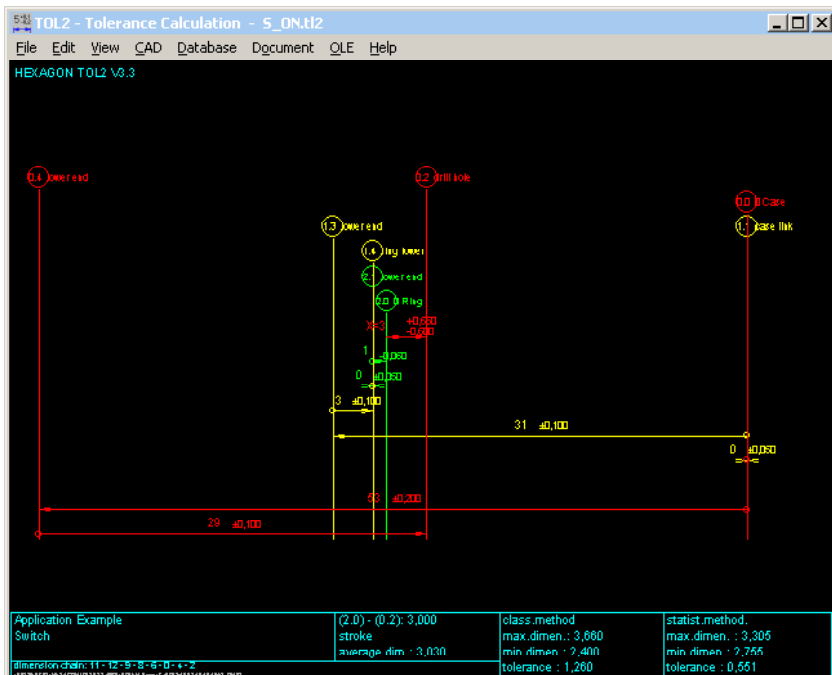
All drawings and diagrams can be saved as DXF or IGES file to be loaded with CAD programs.

## Export Formats

DXF, IGES, HTML, TXT, DBF, Excel, TL2.

## Import Formats

TXT, DBF, Excel, TL1, TL2.



## Hardware and Software Requirements

TOL2 is available as 32bit or 64bit application for Windows 7, Windows 8, Windows 10. TOL2 is used in combination with the HEXAGON TOL1 Software.

## Scope of Supply

TOL2 program with example applications and help images, input forms, user manual (pdf), license granting unrestricted rights of use.

## Software Maintenance

HEXAGON Software is continuously improved and updated. Registered users are regularly kept informed of updates and new editions.

## Guarantee

HEXAGON gives a 24 month guarantee on full functionality of the software.

