

# **Sandia Advanced MEMS Design Tools 2.2.6.1 Update**

## **INTRODUCTION**

This update is intended for use with the Sandia Advanced MEMS Design Tools 2.2, 2.2.2, 2.2.3, 2.2.4, 2.2.5, or 2.2.6. This update is inclusive and may be used for a fresh install. Your serial number, supplied with the V 2.2, V 2.2.2, V 2.2.3, V 2.2.4, V2.2.5, or V2.2.6 Tools CD is required. This update must be installed before the Sandia Visualization Tools 2.2.6 update.

This update includes all changes made since V2.2.

## **CONTACTS**

For information regarding this update, please send email to [drt@drc.sandia.gov](mailto:drt@drc.sandia.gov).

## **SYSTEM REQUIREMENTS**

The following minimum system requirements must be met to effectively run this update:

CPU:	Pentium IV or better
Clock Speed:	3.0 GHZ or faster
Memory:	2 GB
Hard Drive:	2 GB free disk space (512MB page file recommended)
Operating System:	Windows XP, XP x64, or Windows 7
Monitor Resolution:	1280 X 1024 128MB OpenGL-capable workstation class graphics card
Software:	AutoCAD 2010 - 2013 Microsoft Internet Explorer 7.0 Sandia Advanced MEMS Design Tools 2.2, 2.2.2, 2.2.3, 2.2.4, 2.2.5, or 2.2.6. These specifications are the same as those recommended for AutoCAD 2013. Some portions of the software will run on systems with lesser specifications but with reduced performance.

## **COPYRIGHT**

Copyright (2012) Sandia Corporation. Under the terms of Contract DE-AC04-94AL85000, there is a non-exclusive license for use of this work by or on behalf of the U.S. Government. Export of this program may require a license from the United States Government.

## **RELEASE NOTES**

Version 2.2.2 09/27/05

Updated for use with AutoCAD 2006.

Enhanced snl\_chkent to display errors using the DRC interface.

Fixed unit errors in standard components.

Removed metal layers.

Fixed unclosed polygons in DIAGNOSTIC TRA.

Added support for Poly0\_Cut layer.

Updated P0C and P1 icons.

Added "Sandia MEMS Design Tools" icon to desktop.

Updated Design Guide.

Updated documentation.

#### Version 2.2.3 01/26/07

Revised to support Metal bond pads.

Updated menu for use with AutoCAD 2007.

Updated DRC documentation.

Fixed problem with TextGenerator that was creating non-uniformly scaled blocks.

Fixed bug in SafeExpode with non-uniformly scaled blocks.

Fixed problem with the GearGenerator that was ignoring non-visible parts out of the block definition.

Revised the installation to avoid locating an AutoCAD Trial version temporary storage.

Added tolerances to the Difference utility.

#### Version 2.2.4 04/16/2008

Removed references to VBcore.dll in the Difference Utility for compatibility with XP x64 and Vista.

Updated VBA interfaces for use with AutoCAD 2008/2009 x64.

Revised Gear Generator to allow dimple cuts to be turned off when etch release holes are selected.

Updated menus to support large icons.

Fixed problem in the Trace Generator that generated a straight line segment when an arc segment was used to close a polygon. Added support for standalone arc segments.

Revised components:

SNL\_SNL\_12X\_DISP40UM\_A00

SNL\_DIAG\_TRA\_A01

SNL\_HPCD\_ACTUATOR\_A01

SNL\_HPCD\_PUSH\_HEAD\_A01

SNL\_SUBMICRON\_VERNIER\_A00

SNL\_SYMDR\_ACTUATOR\_C00

SNL\_SYMDR\_MICROENGINE\_C00

to reduce false DRC errors when rotated.

Updated the Design Guide to correct typo in MMPOLY2 layer name.

Added DRC support for TEXT, DTEXT, and MTEXT using ROMANS,

ROMAND, or STANDARD fonts only.

Version 2.2.5 09/25/09

Updated AutoCAD macros to work with Microsoft Update KB960715.

Added support for AutoCAD 2010.

Added VBA files for 64-bit AutoCAD 2010.

Added Hyperlinks to DRC result geometry.

Added 48-pin module to CompLib.

Changed FirstDRC to display error count and description.

Updated lower case "x" char to eliminate false DRC errors.

Version 2.2.5.1 12/03/2009

Updated VB6 files included signed DLLs released by Microsoft under KB957924 R3.1 to support Windows 7.

Fixed problem with "Test Configuration" button in DRC.

Version 2.2.6 01/11/2012

Removed the Springback TRA, SNL\_TRA\_A01 from the Standard Parts library because of performance problems with the device.

Added support for AutoCAD 2011 and 2012.

Updated snl\_chkent to fix zero area polyline bug introduced by AutoCAD 2011 and 2012.

Revised the following bond pads to eliminate false DRC error when connecting using the Trace Generator:

SNL\_ELECSTC\_BOND\_PAD\_A02

SNL\_ELECSTC\_BOND\_PAD\_METAL\_A03

SNL\_ELECSTC\_BOND\_PAD\_SUB\_A02

SNL\_ELECSTC\_BOND\_PAD\_SUB\_MET\_A01

SNL\_PandP\_METAL\_BONDPAD42\_B01

SNL\_PandP\_METAL\_BONDPAD48\_A01

Revised the bond pads with a double wall and added metal to:

SNL\_DIAG\_TRA\_A01

SNL\_SYMDR\_ACTUATOR\_C00

SNL\_SYMDR\_MICROENGINE\_C00

Added a thermal actuator, SNL\_TA\_P123\_300x3p5\_2i4x2.

Updated SA XFile libraries to eliminate an ActiveX vulnerability.

Changed reference from vlax-product-key to vlax-machine-product-key.

Version 2.2.6.1 10/31/12

Dropped support for AutoCAD 2009 and Windows Vista.

Revised SNL\_TRA\_RULER\_A02 for compatibility with SNL\_DIAG\_TRA\_A01.

Updated Remote DRC to fix false username validation error generated

when tested using "Test Client Configuration" button under "Client Configuration" tab.

Updated example DRC file, CompLib\_DRC\_A06a.dwg, with new components.

Added support for AutoCAD 2013.

Changed DRC to avoid Automation Error.

Updated snl\_chkent to report embedded DRC error geometry.

Updated mscomctl.ocx and comctl32.ocx per Microsoft KB2687441.

Revised SNLRemoteServicesMonitor to handle more than 100 active jobs.

Added the GDSII layer numbers for the “drawing only” and descriptions of the “annotation” layers in the Design Guide.

Fixed "Automation error. Failed to run VBA macro error" invoking SNL\_safeexplode AutoCAD 2013 32-bit.