

Michael DeVries

165 Guanonocque Street
Auburn Hills, MI 48326
(248)-495-6000
mwdevries@comcast.net

Dimensional Management Engineer with experience in dimensional management from early design through launch and manufacturing with a B.S. degree in Mechanical Engineering. I work with both upstream and downstream colleagues to develop standardized processes and methods to efficiently transfer information in an optimized workflow. I am an expert in the use of Microsoft Excel, Access, and advanced programming in VBA for processing large volumes of data and automating tedious tasks and generating standardized reports. I am looking to leverage my knowledge and experience to develop efficient and innovative solutions leveraging existing and new technologies to standardize processes and improve the efficiency, consistency, accuracy, and quality within an organization.

PROFESSIONAL EXPERIENCE

DIMENSIONAL CONTROL SYSTEMS, Troy, MI **Contract Employee to FIAT Chrysler Automobiles**

Dimensional Management Engineer, May 2010 – Current

- Developed control plans for all the current production programs.
- Developed the corporate Data Analysis workbook used for analyzing dimensional data, requesting tolerance dispositions, and also supporting the bluepoint(PPAP) process.
- Developed change management process for tolerance dispositions and bluepoint (Dimensional PPAP) for control plans.
- Developed standardized Master Workbook for all the BIW assembly and stamping control plans.
- Developed a Microsoft Excel Add-in application to update tolerances in PC-DMIS programs using VBA.
- Developed a Microsoft Excel workbook application to compare features from NX CAD to features in data files from the CMDANA database to identify changes to CAD.
- Developed Microsoft Workbook that pulls data from FCA CMDANA database and performs forensic analysis on the data in the system to identify data integrity issues.
- Developed Microsoft Access Database to pull data directly from CMDANA database and calculate the corporate scores to replace a labor intensive process.
- Took over the corporate reporting from 3 other people due to the efficiencies introduced into the process with the Microsoft Access database.
- Consulted on the development of a Sharepoint Site for users to upload disposition requests and get the required approvals using Sharepoint workflow. Updated Disposition workbook with Sharepoint Metadata fields and updated VBA code to automatically populate the fields.

More professional employment experience available upon request.

EDUCATION

MICHIGAN TECHNOLOGICAL UNIVERSITY, Houghton, MI

Bachelor of Science in Mechanical Engineering, May 1993

- Vibrations, noise control, automatic controls, robotics, and quality control.

Bachelor of Science, Engineering Administration, May 1993

- Quality, TQM, and Management of Teams

ADDITIONAL SKILLS

- Expert in Microsoft Excel and Access
- Expert in Visual Basic for Applications and automation of tasks in Excel
- Knowledgeable in all aspects of dimensional management from datum definition, GD&T tolerances, RSS Stack Studies, Variation Systems Analysis modeling, Gage design reviews, GR and GR&R studies, Capability Studies, Cp/Cpk, Pp/Ppk, run charts, PPAP, and control plans.
- Reputation of developing automated solutions within my job responsibilities and developing standardized documents, processes, and working with others to improve the efficiency of the organization.

Resume

Michael W. DeVries

MWDEVRIES@COMCAST.NET

Ph 248-844-2353 ♦ Cell 248-495-6000

- CAREER OBJECTIVE:** An engineering position where I can utilize my ability to develop efficient and innovative solutions leveraging existing and new technologies to standardize processes and improve the efficiency, consistency, accuracy, and quality within an organization.
- EXPERIENCE:** Bachelor of science degreed mechanical engineer dimensional management engineering experience in all aspects of dimensional management from datum definition, GD&T tolerances, RSS Stack Studies, Variation Systems Analysis modelling, Gage design reviews, GR and GR&R studies, Capability Studies, Cp/Cpk, Pp/Ppk, run charts, PPAP. Very strong data processing and analytical skills.
- EDUCATION:** **Michigan Technological University, Houghton, MI** - Cumulative GPA: 3.04
Bachelor of Science, Mechanical Engineering, May 1993
Special Emphasis: Vibrations, noise control, automatic controls, robotics, and quality control.
Bachelor of Science, Engineering Administration, May 1993
Special Emphasis: Quality, TQM, and Management of Teams.
- SOFTWARE SKILLS AND TRAINING:** **Microsoft Office:** Excel, Word, Powerpoint, Outlook , and Access
NX: Create GD&T drawings and measure features.
CATIA V4 & V5: Create GD&T drawings, measurement points. Cut sections, measure gaps and flushness, measure holes, slots and other features.
TeamCenter: Create new items, item revisions, release drawings and math models, importing and exporting models.
Six Sigma: Completed first portion of Six Sigma Training in 2006.
- EMPLOYMENT HISTORY:** **Dimensional Control Systems**, Troy, MI, Dimensional Management Engineer - (248) 269-9777
Contract to Chrysler Group LLC
May 2010 – Current
- DeVries & DeVries Software Solutions, LLC.** , Auburn Hills, MI – (248) 495-6000
Chief Executive Manager
February 2006 – May 2010
- Prestige Engineering**, MI, Dimensional Management Engineer - (586) 573-3070
Contract to International Automotive Components Group North America
July 2007 – January 2009; July 2009 – February 2010
- Collins & Aikman**, Southfield, MI, Dimensional Management Engineer (Bankrupt)
January 2007 – July 2007
- Orchard Design**, Metamora, MI, Dimensional Management Engineer – (810) 678-3608
Contract to Intier Automotive
July 2006 – January 2007
- Collins & Aikman**, Southfield, MI, Dimensional Management Engineer (Bankrupt)
August 2004 – July 2006
- Avatar Group**, Madison Heights, MI, Dimensional Management Engineer (Dissolved)
Contract to Collins & Aikman
May 2002 – July 2004
- EDS PLM Solutions, Inc**, Southfield, MI, Dimensional Management Engineer
Contract to many different companies, see project log.
March 1994 – May 2002

**May 2010 –
Current**

Dimensional Control Systems contract to Chrysler Group LLC – Dimensional Engineer:

Developed Microsoft Access database as a front end database to the Chrysler CMDANA database to pull all the CMM Data and Vision Data for generating the monthly corporate reports for the BIW Control plans and the Engineering build objectives. This allowed me to take over the corporate reporting and 3 other employees to move into different positions.

Developed control plans and processed template requests to have new templates created in Chryslers ECMM. Developed the Change Management system and process for the Chrysler control plan group. Developed the disposition request workbook used by all Chrysler's NAFTA plants to request tolerance changes. Manage all disposition requests and coordinate the required updates to the E-CMM templates and to the Corporate Scoring database.

Developed RSS workbook used by the Fiat Chrysler Interiors group and the Tier 1 interior trim suppliers. Developed macros to allow the user to build a single workbook with a summary worksheet showing the results of all of their RSS Stack studies.

Developed Microsoft Excel application to compare CMM data from the CMDANA database where the plants upload the CMM Data to the CMM Points as they were developed in NX. The application generates several worksheets showing differences in tolerances, nominal values, and also identifies points that are appear to the same feature with a different name.

Developed a Microsoft Excel Add-in application that reads a master workbook or a tolerance change request and uses the PC-DMIS type library to loop through the features in PC-DMIS and update any tolerances that do not match. A report is generated showing all the features that were updated or not found in the PC-DMIS program.

Developed an excel application that parses a folder structure and finds all the files of a specific type, reads them into memory, and generates a matrix showing all the filenames as columns and the features in the left most column. The table is populated with "X" to indicate the feature is in the file. This is used to identify where certain features are checked in the array of components, subassemblies, and assemblies.

**June 2009 –
February 2010**

Prestige Engineering Resources contract to IACNA – Dimensional Engineer:

2011 RT Door Trim – Developed and proposed initial Datum Schemes. Created GD&T Drawings in CATIA V5. Completed RSS Studies for all Chrysler Build Objectives.

2010 PM49 IP & Console – Reviewed dimensional data, marked up drawings for dimensional PPAP. Coordinated drawing updates with design group in Pune, India. Gave feedback to engineering team on dimensional data.

**July 2007 – January
2009**

Prestige Engineering Resources contract to IACNA – Dimensional Engineer:

2009 RM Door Trim – Updated existing GD&T in CATIA V4 and supported Engineering and Manufacturing through PPAP. Reviewed Data, marked up GD&T and reviewed with Chrysler for Dimensional PPAP Approval.

2009 MK49 Console – Completed RSS Studies for customer driven objectives. Created GD&T for all of the components and the end item assemblies in CATIA V5. Created Measurement Points in CATIA.

2009 MK49 Door Trim – Completed RSS Studies for customer driven objectives. Created GD&T for all of the components and the end item assemblies in CATIA V5.

Projects

Michael W. DeVries

MWDEVRIES@COMCAST.NET

Ph 248-844-2353 ♦ Cell 248-495-6000

February 2006 – May 2010

DeVries & DeVries Software Solutions, LLC (Dissolved May 2010) – Chief Executive Manager:

Data Importer – Collaborated on the development of software to read cmm data from several CMM formats including PC-DMIS, Datapage, Virtual DMIS, Tarus Spud, CAPPs, LK CAMIO, Tutor, Metrolog (English & Spanish), Polyworks, and Easy DMIS. The software would compile a report in Microsoft Excel with all the calculated statistics necessary for a thorough capability analysis.

CMM Converter – Collaborated on the development of software to read a csv file generated from macros in Catia V5 or a Datalog file generated from Catia V4 and generate several other CMM software friendly formats. The CMM formats generated included a Standard DMIS file, a PC-DMIS flavored DMIS file, an XYZ format file, a format read by Tarus Spud, a Polyworks format, and the Catia V4 Datalog format. The CMM Converter was capable of running in server mode where it could be setup to monitor a folder for input files. When a file was added to the folder the software would automatically convert the file and place the converted files in an output folder. CMM Converter could output files into a single zip archive file to make it simple for the dimensional engineer to e-mail all the formats to the measurement source. The CMM Converter would also read a DMIS file and compare the point coordinates with a csv file and generate a new DMIS file with the nominal values and vectors updated with the new values and generate a report showing the points that were modified.

September 2001- July 2007

EDS / Avatar contract to Collins & Aikman and Direct - Senior Dimensional Engineer:

2008 LX & LC23 IP – Responsible for dimensional management on Daimler Chrysler LX and LC23 IP programs. Created initial GD&T markups using DMU Software and Microsoft Powerpoint. Coordinated data transfers to India Design Center to create drawings in CATIA.

GMT966 Cockpit Assembly – Responsible for overseeing dimensional management issues pertaining to tier 2 suppliers and other partitions. Also assist in the dimensional management responsibilities of internal components.

GMX381 Door Trim – Created drawings in UG to GM drawing standards. Developed RSS studies to determine tolerance values necessary to meet GM DTS. Reviewed fixture designs and builds. Created CMM measurement point drawings. Reviewed CMM data and reported back to product engineering team.

GMT001 Door & Liftgate Trim – Created GM Drawings, RSS Studies, CMM Point Drawings. Coordinated fixture design and reviews.

May 2001- September 2001

EDS contract to Ford Motor Company – Dimensional Engineer:

Added I/P Assy, Console Assy, Valance Panels, CD/DJ Module, Door Trim, and A-Pillar Trim into existing visVSA model of U228 BIW. Investigated Fit and Finish between I/P and Console, I/P and A-Pillar Trim, I/P and Valance Panels, Console and Valance Panels, Valance Panel and CD/DJ Module, and I/P and Door Trim. Reviewed results with Lear, Visteon, and Ford. Investigated 2 different locating schemes for the A-Pillar Trim and 3 different locating schemes for the Console Assembly.

April 2001- May 2001

EDS contract to DOW Automotive – Dimensional Engineer:

Created model to analyze clearance between Windshield Wiper Module and Dash Insulator Pad on DEW98 utilizing previously created Vis-VSA model. Reviewed With DOW representatives to determine objectives of study and to determine tolerances to be applied to critical features. Reviewed results with DOW Automotive and Ford representatives.

January 2001- April 2001

EDS contract to Troy Design & Manufacturing – Dimensional Engineer:

Created variation model of DEW98 Underbody using Vis-VSA software.

Projects

Michael W. DeVries

MWDEVRIES@COMCAST.NET

Ph 248-844-2353 ♦ Cell 248-495-6000

**September 2000-
December 2000**

EDS contract to Becker Group – Dimensional Engineer:

Dimensional Management Engineer responsible for dimensional management on the following programs:

General Motors: GMX 367 Overhead System, Door Trim, Garnish, and I/P.

Daimler-Chrysler: 2004 WK Hard-trim, Viper – Cowl.

Ford: DEW98 Door Trim, Overhead System, and Console

Created MS Access Database to track all drawings, fixtures, and open issues for all programs. Developed RSS stack spreadsheet for use on 2004 WK Program. Attended meetings to represent Becker Group International's interest in the development of GD&T datum schemes. Attended design and build reviews of CMM fixtures. Represented Becker Group International at Gage Repeatability and Reproducibility studies. Updated GD&T drawings in CATIA. Participated on committee to update Daimler-Chrysler GD model standards to reflect the most current and agreed upon practices.

**September 1999-
September 2000**

EDS contract to Lear – Dimensional Management Engineer:

Documentation of GD&T of seat frame components in UG using the GM Toolkit. Developed VSA-3D models of seat frame assemblies to trouble shoot and root cause issues with the latching mechanism for the seats. Developed a VSA-3D model for an Air Diverter valve that calculated a torque factor to predict the torque input required at the motor that activated two valves in the system using a pair of cams.

**August 1998-
September 1999**

EDS contract to United Technologies Automotive - Dimensional Engineer:

GM Delta Cockpit Assembly – Lead engineer for the GM Delta Cockpit Assembly program. Managed two VSA 3D modelers and one detailer. Attended all meetings representing UTA dimensional management. Reviewed GD&T with GM dimensional management engineer and UTA product engineers.

**August 1996-
August 1998**

EDS contract to Textron Automotive - Dimensional Management Lead Engineer:

Chrysler Jeep Grand Cherokee I/P – Lead engineer for the dimensional management team on the 1999 WJ I/P, Console, and Hardtrim. Responsible for managing dimensional management activities of the three projects including the creation of the GD&T per the Chrysler standard format in CATIA. Modeled I/P Assembly with VSA-3D tolerance analysis software. Also created and documented measurement points to verify part compliance to the GD&T tolerance specifications. Reviewed CMM gages to ensure compliance to the GD&T. Reviewed CMM data to root cause build issues and identify components not complying to tolerance specifications.

**April 1996 -
July 1996**

EDS contract to Hewlett Packard, Disk Memory Division – Dimensional Engineer:

Developed a system level VSA-3D model based on current prints of new hard drive. The model included calculations of the net unbalance of the disk pack assembly if assembled using methods from the previously released hard drive, as well as several new approaches to improve the disk unbalance. Disk mapping calculations also predicted the resulting effective diametrical zones of the different areas of the disks.

March 1996

EDS contract to McDonnell Douglas Corporation – Dimensional Engineer:

Developed VSA-3D model of C-17 Radome, Radome Hinge, and Bulkhead. Created model based on blue prints of the components. Created iterative routine to open the radome and track the relationship of the radome to the bulkhead. This revealed interference by design between the radome and the bulkhead trim edge. The model was then modified to represent a proposed design change to the radome. The model proved the design change to be effective in relieving the interference between the radome and the bulkhead.

Projects

Michael W. DeVries

MWDEVRIES@COMCAST.NET

Ph 248-844-2353 ♦ Cell 248-495-6000

**January 1995-
February 1996**

EDS contract to Textron Automotive – Dimensional Engineer:

1997 TJ I/P & Console (1997 Jeep Wrangler) – Took responsibility of updating existing VSA-3D model of the Instrument Panel developed by a colleague and the model of the Console developed in a previous contract. Responsibilities included: Verifying the fixture builds against the GD&T for the components of the I/P and the Consoles as well as the fixtures for the assemblies, arranging for the fixtures to be certified by Chrysler, Developing inspection points for the components and assemblies, arranging for parts to be inspected by an independent inspection company, analyzing data from part inspections and advising project engineers on out of tolerance areas in a timely manner to allow for tooling tuning prior to production.

**September 1994-
December 1995**

EDS contract to Textron Automotive – Dimensional Engineer:

1997 ZG I/P (1997 Jeep Grand Cherokee RHD) – Developed VSA-3D model based on LHD GD&T. Oversaw the entry of the RHD GD&T into CATIA, reviewed GD&T for LHD & RHD and made corrections.

**March 1994-
August 1994**

EDS contract to Textron Automotive – Dimensional Engineer:

1997 TJ Console (1997 Jeep Wrangler) – Modeled center storage console and components as assembled in BIW for Textron design team using PC based VSA-3D software. Established functional Datum schemes and tolerances to achieve customer-based objectives.