



Dimensional Engineering Virtual Analysis Reports

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Scope. This standard establishes Virtual Analysis Report requirements including format, configuration, and content specifications. This standard covers all global regions.

1.2 Mission/Theme.

1.2.1 The Virtual Analysis Report. The purpose of the Virtual Analysis Report is to provide a means of documenting virtual analysis results (both variation analysis and flexible assembly analysis) in a consistent manner.

This report is intended to be global and used in all regions as applicable.

1.2.2 Global Standardization. The use of this GM worldwide standard will standardize communication of analysis results. Regardless of the designated homeroom region, the reports can be utilized at other regions to predict analysis results for similar products without having to initiate new studies. When work is shared between regions, the report will contain all necessary information.

1.3 Classification. Not applicable.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3059

2.3 Additional References.

- Dimensional Engineering website.
- EN-8.4-D-VPDM0008 Modeling/Statistical Standards.
- EN-8.4-D-VPDM0027 Modeling and Analysis Standards for EAVS/VATS.
- Flexible Analysis Technical Reference Guide.
- Flexible Assembly Training Manual.
- Variation Analysis Technical Reference Guide.
- Variation Analysis Training Manual.
- Virtual Analysis Report Template.

3 Requirements

3.1 Develop Analysis.

3.1.1 Variation Analysis. Perform the required analysis per local work instructions. This includes procuring data, developing the model, and verifying the model. Follow the appropriate standards/references listed in 2.3.

GM Confidential

© Copyright 2012 General Motors Company All Rights Reserved

November 2012

Originating Department: North American Engineering Standards

Page 1 of 3

The work instructions can be found on the Dimensional Engineering website. Additional information is found in the Variation Analysis Technical Reference Guide and the Variation Analysis Training Manual.

3.1.2 Flexible Assembly Analysis. Perform the required analysis per local work instructions. This includes obtaining technical requirements and supporting data, obtaining synthesis and analysis method documentation as needed, receiving and confirming design representation of the synthesis and analysis model, setting up and performing the analytical model and verifying the model. Follow the appropriate standards/references listed in 2.3. The work instructions can be found on the Dimensional Engineering website. Additional information is found in the Variation Analysis Technical Reference Guide and the Variation Analysis Training Manual.

3.2 Prepare Preliminary Report.

3.2.1 Virtual Analysis Report Template. Use the global report template in the Global Document Management (GDM) system. Add the appropriate regional logo. (The template link to GDM can be found on the Dimensional Engineering website).

3.2.2 Preliminary Report. Complete the various sections of the report per the instructions in the Virtual Analysis Report template. Use appropriate standards/references from 2.3.

3.3 Preliminary Report Review.

3.3.1 Report Review. The preliminary report is reviewed by a report reviewer. The reviewer is listed in the Performance Quality Management System (PQMS) - Dimensional Management. Reviewers are designated by the Engineering Group Manager (EGM) or equivalent.

3.3.2 Preliminary Report Revision. The preliminary report is reviewed and revised as necessary.

3.4 Final Report.

3.4.1 A report number is issued after the preliminary report is approved.

3.4.2 Complete the report by adding report number, report date, and file name as appropriate.

3.4.3 Send report to the appropriate personnel.

3.5 Store Model.

3.5.1 Complete the information required in the various tabs of the Dimensional Engineering PQMS system.

3.5.2 Create a zip file with the appropriate files.

3.5.3 Archive the information to the PQMS system.

4 Validation

4.1 General. Not applicable.

4.2 Validation Cross Reference Index. Not applicable.

4.3 Supporting Paragraphs. Not applicable.

5 Provisions for Shipping

Not applicable.

6 Notes

6.1 Glossary. Not applicable.

6.2 Acronyms, Abbreviations, and Symbols.

EGM	Engineering Group Manager
GDM	Global Document Management
PQMS	Performance Quality Management System

7 Additional Paragraphs

7.1 All parts or systems supplied to this standard must comply with the requirements of GMW3059, **Restricted and Reportable Substances for Parts**.

GM Confidential

© Copyright 2012 General Motors Company All Rights Reserved

November 2012

Page 2 of 3