

AUTOMATIC GENERATION OF XML FORMATS REPORT BY USING ANSA AND META POST

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ABSTRACT – Recently, reduction of development times by No Prototype Car has increased the importance of CAE. As a result, the number of evaluation components by using CAE analysis has increased. Therefore, an increase of the modelling and the reporting time becomes a big problem.

In addition, an increase of human error of the modelling and the reporting because of an increase of CAE analyst becomes a big problem.

To solve these problems, we developed an automatic report generator to generate the Power Point report by using ANSA and μ ETA Post.

This report generator outputs the PPTX report corresponding to Open XML Formats automatically.

This system automatically generates the report not only for the output of result but also for the output of the model information for checking model. As a result, a human error has been reduced.

In addition, the generating time of one report was shortened **from 720 minutes (Manual operation) to 20 minutes (Server execution)**.

In addition, the report generation that used the grid computing can be executed because the server execution is possible, and the resource can be used effectively.

In this presentation, we introduce the application experience to the durability evaluation analysis of the door model, and the development plan in the future.

TECHNICAL PAPER -

1. REPORTS CONCEPT

We developed an automatic report generator to make the Power Point report by using ANSA and μETA Post.

The development requirement is described as follows.

Development requirement

This system should be able to

- Check human errors when the CAE model was made easily
- Check the Assy construction easily
- Customize the script by the users easily
- Support Open XML format in order to use the key data on the other Database systems from the generated report later
- Generate reports automatically in a few minutes

THIS SLIDE SHOWS OUR REQUESTS OF REPORT FORMATS.

We requested not only the output of result but also the output of the model information for checking model.

2. AUTOMATIC GENERATION OF XML FORMATS REPORT

We developed an automatic report generator by using ANSA and μETA Post.

THIS REPORT GENERATOR OUTPUTS THE PPTX REPORT CORRESPONDING TO OPEN XML FORMATS AUTOMATICALLY.

3. REDUCTION OF HUMAN ERROR

The comparison between a manual report and an automatic report is shown as follows.

USING THIS SYSTEM, A HUMAN ERROR OF CAE MODELING HAS BEEN REDUCED.

4. REDUCTION OF REPORT MAKING TIME

WE APPLIED THIS SYSTEM TO THE DURABILITY EVALUATION ANALYSIS OF THE DOOR.

As a result, the generating time of one report was shortened from 720 minutes (Manual operation) to 20 minutes (Server execution).

5. APPLICATION TO VEHICLE DEVELOPMENT

Application parts have been expanded from the door model to glass position difference model and body in white model.

As a result, further efficiency improvement became possible.

6. EFFECTIVE USE OF DATA AND RESOURCE

In addition, the report generation that used the grid computing can be executed because the server execution is possible, and the resource can be used effectively.

7. CONCLUSIONS

We requested to make an Automatic generator of XML Formats report by using ANSA and μETA Post and Beta CAE completed it.

In the use of this generator, a considerable man-hour reduction was achieved, and short-term vehicle development became possible. Additionally a human error has been decreased.

The preparation for further efficiency improvement of CAE development system was completed by using Open XML Formats.

REFERENCES

- (1) <http://msdn.microsoft.com/en-us/library/aa338205%28v=office.12%29.aspx>.