

CASE STUDY: COLLABORATION FOR ADVANCED PROCESS AUTOMATION, GENERAL MOTORS & BETA CAE

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GENERAL MOTORS

PROCESS AUTOMATION COLLABORATION

Need: A efficient method for development of innovative process automation.

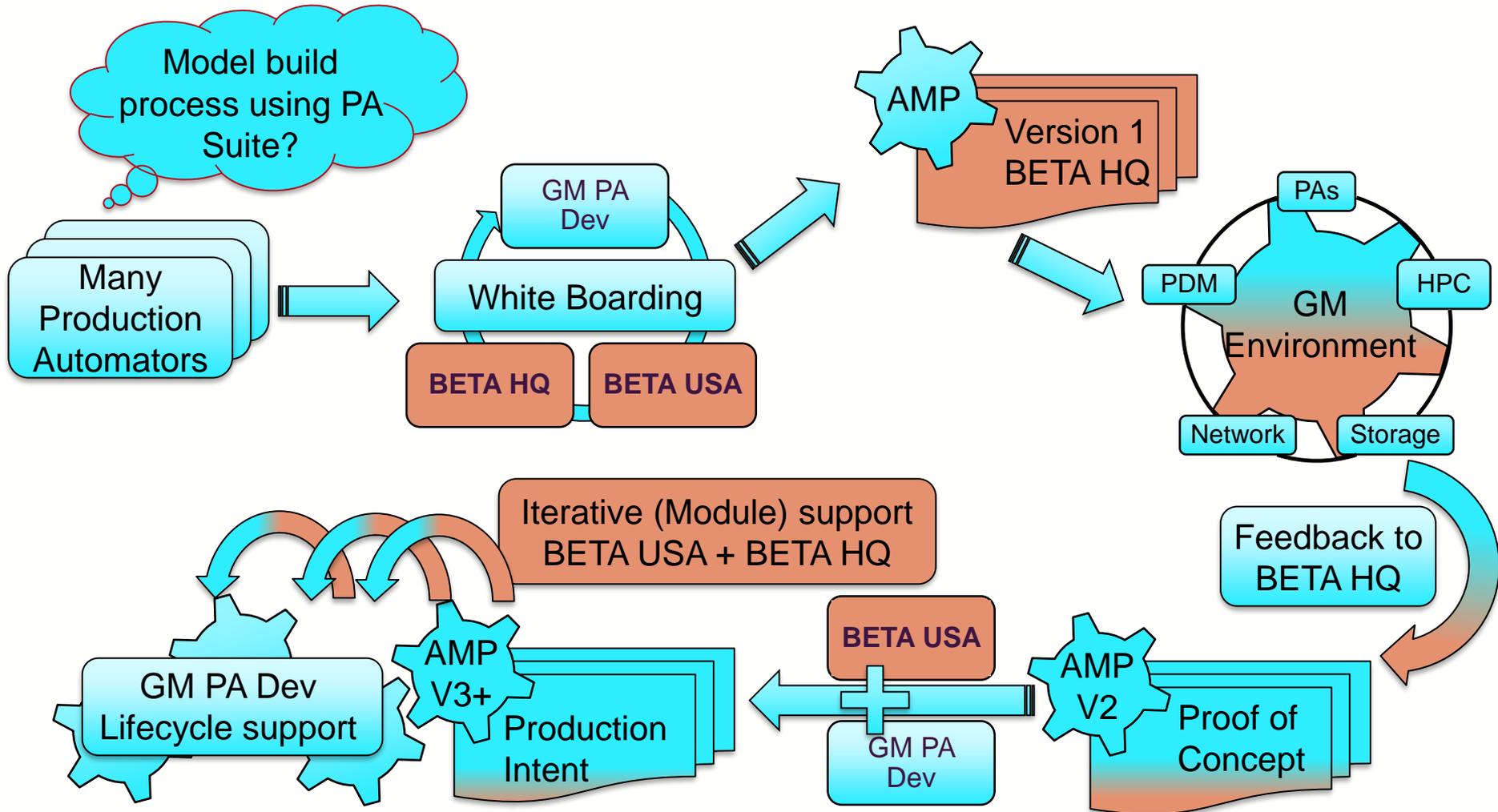
Considerations:

- Support for GM specific:
 - Methods/Process
 - GM Specific Meta Data
 - IT Infrastructure / Integration to several systems.
- Scripting capability levels.
- Experience levels.
- Innovation Ideas.
- Limited resource levels.

PROCESS AUTOMATION COLLABORATION

Solution:

- An informal partnership between GM and BETA CAE
- GM provides innovation ideas /process flow for a new tool
- GM provides a detailed use case
- BETA provides innovation on best practice methods and proof of concept scripts
- BETA provides expertise and a framework for a solution.
- BETA provides scripting for complex modules/framework.
- GM does custom scripting for many modules of the tool.



A MULTITUDE OF APPROACHES AND SOURCES FOR SCRIPTING

Author	Number of Scripts
BETA	1X
BETA+(GM modified)	1.5X
GM + (BETA modified)	1X
GM-Eng	7X
GM-IT	2X

OUTCOME AND BENEFITS

Integrated process automation

- Larger PA is Built from flexible modules
- PA functions as modules with these properties
 - Can be used in interactive mode as a set of toolbox items
 - Can be use in interactive mode as part of Task Manager process
 - Can be use fully batch as part of larger PA process (no GUI)
- Knowledge Based Engineering aspects that are external to the scripts.
 - Cookbooks/Rules
 - Templates
 - Conventions/policies (settings)
- Isolate GM Intellectual Property (IP)
- Fast and Functional, tools and also development
- Integrated into other external systems
- Supports GM guidelines/best practice

OUTCOME AND BENEFITS

Integrated process automation

Productivity improvement:

Interactive mode; Sample data set

Typical time to process is

1.0 X Hrs.

AMP

0.5 X Hrs.

ACKNOWLEDGEMENTS

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- Joshua Sims (BETA-USA)
- David Dang (BETA-USA)
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THANK YOU FOR YOUR TIME AND ATTENTION

Questions