

# INCOSE/OMG MBSE Initiative PBSE Patterns Challenge Team



Meeting: Jan. 12, 2015

(Schedule adjustable as needed)

**Meeting Agenda: INCOSE PBSE Patterns Challenge Team (of MBSE Initiative)**

Web Conference Meeting: Monday, January 12, 2015, 4:00 – 5:30 PM EST

|   |                    |
|---|--------------------|
| <b>Pre-reading and Background:</b> Team web site: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns</a><br>Minutes of meeting of Dec 17, 2014: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_12.17.14">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_12.17.14</a>  |                    |
| <b>Meeting start up:</b> <ul style="list-style-type: none"> <li>Review of meeting objectives and agenda</li> </ul>  | 4:00 – 4:05 PM EST |
| <b>Challenge Team Current Projects, Reports, Discussion:</b> <ul style="list-style-type: none"> <li><b>Wave 1:</b> IS2015 papers were submitted by team members that have S*Pattern content--             <ul style="list-style-type: none"> <li>IS2015 paper <u>abstracts</u> from this team may be found at: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_11.10.14">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_11.10.14</a></li> <li>Can the IS2015 authors now agree to allow their <u>papers</u> to be read by the other members of this team?</li> <li>Paper drafts were submitted by Nov 9; acceptance responses due from INCOSE Feb 2015; final papers Mar 2015</li> <li>Continuing activity in progress with the sub-team project members – requests on timing, other needs?</li> </ul> </li> <li><b>Wave 2:</b> Newer join-up interests of other individuals, working groups:             <ul style="list-style-type: none"> <li>Health Care (regional WG and MBSE challenge team; Vijay Thukral, Cientive Group) – Expect collaboration opportunity with Pattern Challenge Team after IW. How is this connected to content of the Health Care track at the IW2015 MBSE Workshop?</li> <li>SE Social Network Pattern (Chris Hoffman, Cummins)—Work starting around the time of IW. Providing some collaborative assistance starting in January.</li> <li>Agile Systems Pattern (jointly with Agile Systems WG, chaired by Rick Dove, Paradigm Shift, International)—second Patterns Team review (in today’s meeting) of our break out session objectives, outline, plans for ASELCM Project, and some of Agile System Pattern. Note that the ASELCM Project will report its results in S*PBSE form.</li> <li>Our challenge team is providing S*PBSE methodology summary for updated INCOSE list. First Patterns Team review (in today’s meeting) of intended topical outline and content, plans for IW second review, submission.</li> <li>The Case for a Stronger MBSE Semantic Model—Parts I and II (B. Schindel)—INCOSE contacts on this to date; feedback and coaching from Dave Long; your thoughts and advice.</li> </ul> </li> </ul> | 4:05 – 4:30        |
| <b>Walk-through of next segments of S*Pattern(s):</b> <ul style="list-style-type: none"> <li>If you are newer to this S*Patterns team: Where to find information. (Do you need catch up session/sessions?)</li> <li>Walk-through of an S*Patterns topic: More about Configuration Rules.</li> </ul>   | 4:30 – 5:00        |
| <b>Planning Next Activities:</b> <ul style="list-style-type: none"> <li>Planning dates, agenda for next meeting:             <ul style="list-style-type: none"> <li>At / during IW2015 (with web conferencing): Jan 26, 1-3 PM, Mtn Time + Jan 27, 9-11 AM, Mtn Time</li> </ul> </li> <li>Outreach: Who else should be involved? Example—other INCOSE WGs that are natural Patterns applications. Ideas?</li> </ul>   | 5:00 – 5:15        |
| <b>Closing:</b> <ul style="list-style-type: none"> <li>Adjourn</li> </ul>   | 5:15               |

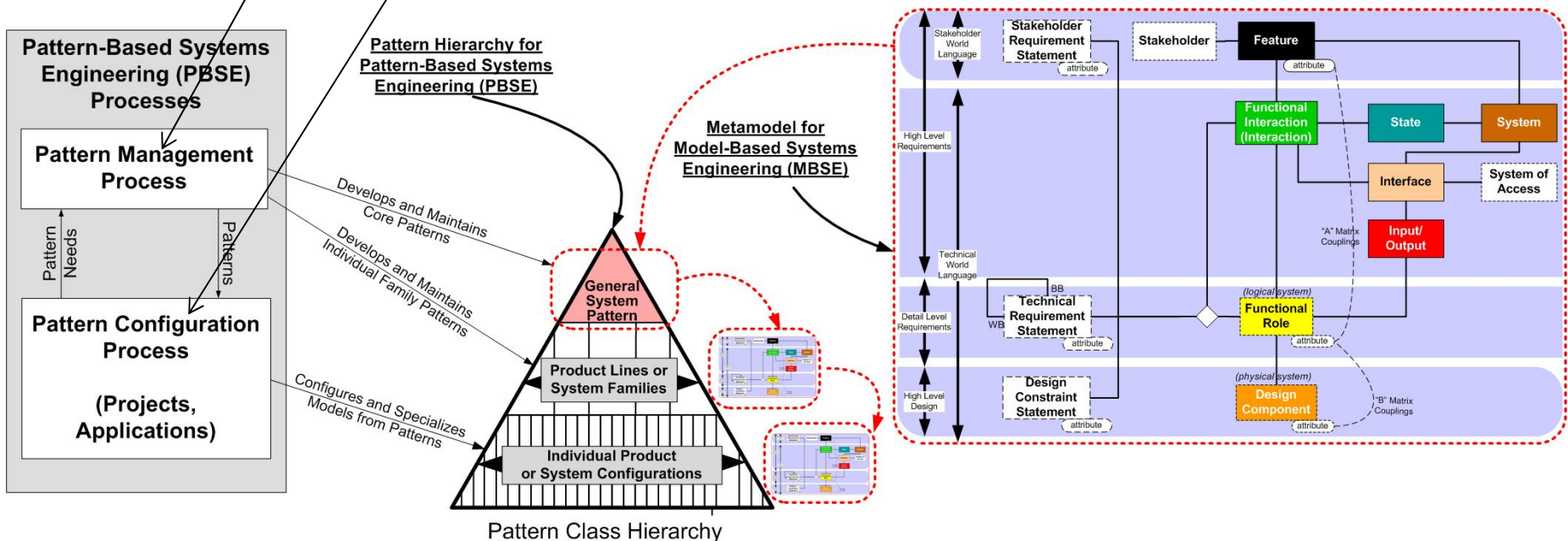
For more information, contact-- Bill Schindel [schindel@ictt.com](mailto:schindel@ictt.com) Troy Peterson [peterston\\_troy@bah.com](mailto:peterston_troy@bah.com)

Agenda--Jan 12, 2015 Mtg of PBSE Challenge Team of MBSE Initiative V1.1.4

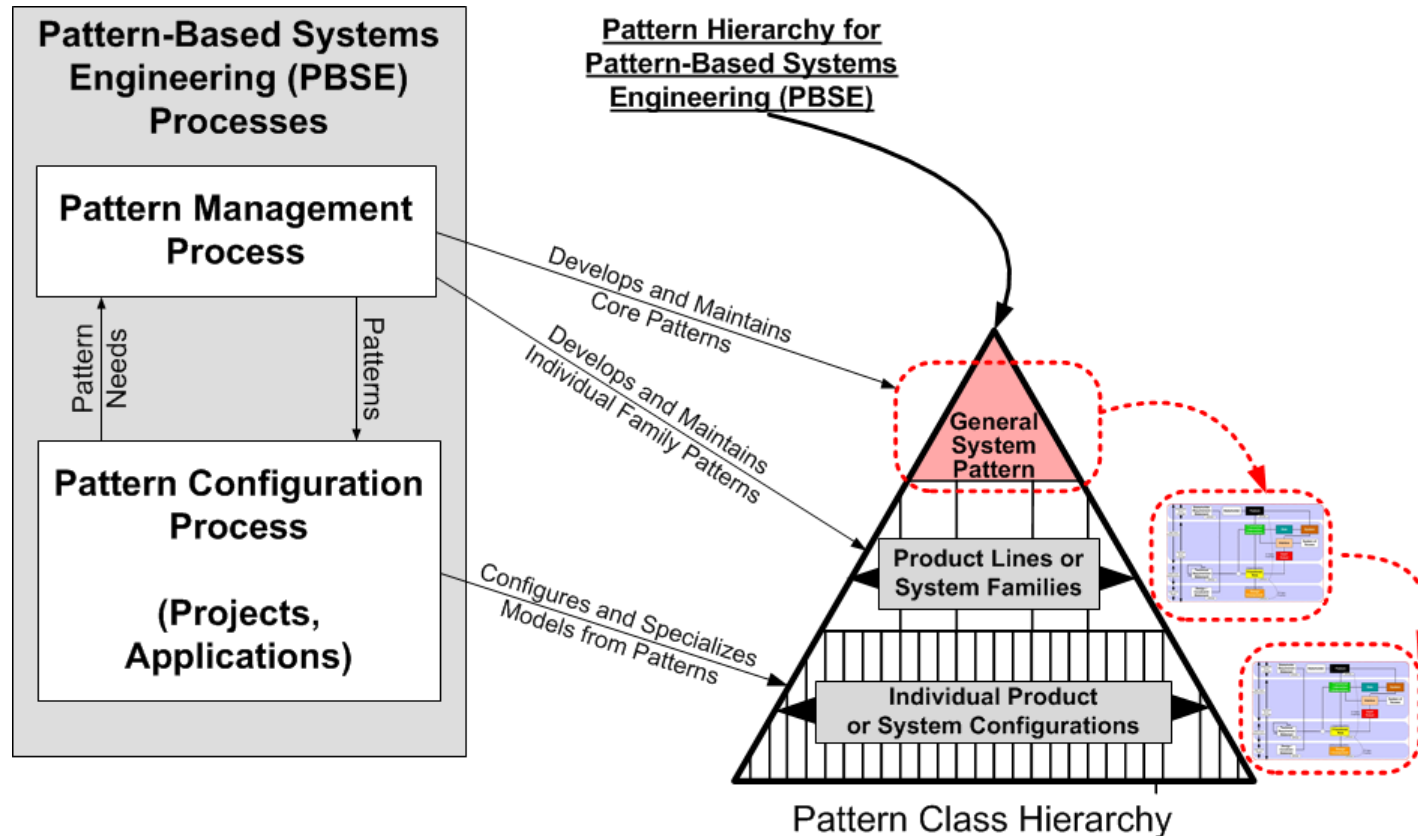
- **This Challenge Team is concerned with configurable, re-usable system models, called “S\*Patterns”:**
  - Models containing a certain minimal set of elements are called S\*Models
  - May be expressed in any modeling language (e.g., SysML, or other)
  - Re-usable, configurable S\*Models are called S\*Patterns
  - By “Pattern-Based Systems Engineering” (PBSE) we mean MBSE enhanced by these generalized assets
  - These are system-level patterns (models of whole managed platforms), not just smaller-scale component design patterns

# Pattern-Based Systems Engineering (PBSE)

- Pattern-Based Systems Engineering (PBSE) has two overall processes:
  - **Pattern Management Process**: Generates the general pattern, and periodically updates it based on application project discovery and learning;
  - **Pattern Configuration Process**: Configures the pattern into a specific model for application in a project.



Business process optimized for PBSE fulfill a different vision:



Why do most representations of the systems engineering process appear to assume starting from no formal knowledge about the system of interest & its domain?

## Wave 1 Projects from the Patterns Challenge Team:

- The six draft IS2015 paper submissions from members of our Patterns Challenge Team that have S\*Patterns connections are now available for other members of the team to review, at:

[http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns\\_challenge\\_team\\_mtg\\_01.26-27.15](http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_01.26-27.15)

- Time has been tentatively allocated during the team's meeting at IW2015 (Jan 26-27, 2015) for a brief discussion of these papers.
- They were submitted in November; INCOSE notification of whether they are accepted is scheduled for February, 2015.
- Final versions of accepted papers are due by March, 2015.

## Submitted Papers

- **S\*Patterns:**
  - ☑ Multi-domain product/manufacturing process example (Oil Filter Family) (Bill Schindel, Stephen Lewis, Jason Sherey, Saumya Sanyal)
  - ☑ Automated Test Systems, Using MBSE/PBSE (David Cook)
  - ☑ Verification Review System Patterns (Andy Pickard & colleagues)
  - ☑ Automated Ground Vehicle System Pattern (Troy Peterson)
- **S\*Pattern Infrastructure, Methods, and Agile Systems Workshop Prep:**
  - ☑ Maps or Itineraries? (configuration space versus process, procedure)
  - ☑ Tracking System Trajectories (movement in configuration space)
- **This working group is continuing to support the efforts of the same Wave 1 project sub-teams:**
  - Support for update to their patterns, related questions, etc.
  - Support for application of their patterns, related questions, etc.
  - Support for update of their papers, related questions, etc.
- **Any related requests, as to timing, other needs?**

## “Wave 2” Projects: More recent join-ups with this team, on newer / future projects:

- Health Care (regional WG and MBSE challenge team; Vijay Thukral, Cientive Group) – Expect collaboration opportunity with Pattern Challenge Team after IW. *How is this connected to content of the Health Care track at the IW2015 MBSE Workshop?*
- SE Social Network Pattern (Chris Hoffman, Cummins)—Work starting around the time of IW. Providing some collaborative assistance starting in January.
- Agile Systems Pattern (jointly with Agile Systems WG, chaired by Rick Dove, Paradigm Shift, International)—second Patterns Team review (in today’s meeting) of our break out session objectives, outline, plans for ASELCM Project, and some of Agile System Pattern. Note that the ASELCM Project will report its results in S\*PBSE form.
- Our challenge team is providing S\*PBSE methodology summary for updated INCOSE list. First Patterns Team review (in today’s meeting) of intended topical outline and content, plans for IW second review, submission.
- The Case for a Stronger MBSE Semantic Model—Parts I and II (B. Schindel)—INCOSE contacts on this to date; feedback and coaching from Dave Long; your thoughts and advice.



# Approach to Agile Systems w/Rick Dove & Agile Systems WG

- Last summer, Bill agreed with Rick Dove and Sandy Friedenthal that Rick and Bill would produce a joint break-out session during the IW2015 MBSE Workshop:
  - Title: “Agile Modeling and Modeling Agile Systems”
- In September, visited Rick in New Mexico and began work on this together, continuing since that time.
- General approach:
  - Combining Rick’s pioneering history in Agile Systems with MBSE/PBSE representations and methods, formalizing the Agile System Pattern.
  - For Agile Systems background, see Rick’s Agile Systems Part 1 and Part 2 papers from IS2014:
    - Copies are on our team’s 11.10.2014 meeting web site
  - Our S\*Patterns contributions:
    - Agile System Architectural S\*Pattern (including ISO15288)
    - And, the key additional internal role of Patterns within Agile Systems: **PBSE as Agile Modeling. *This is important!***
    - As preparation, see two IS2015 papers on our team’s 11.10.2014 meeting web site (“Maps and Itineraries”; “System Trajectories”)

# IW2015: Jan 24-28, 2015

## IW 2015 MBSE Workshop Schedule, Sat-Sun, Jan. 24-25, 2015

You must pre-register specifically for the MBSE Workshop to attend that part.  
At IW2014, there were 150+ attendees at the MBSE Workshop.  
2015 won't be smaller: *INCOSE has made move of SE to MBSE a Strategic Objective.*

[http://www.omgwiki.org/MBSE/doku.php?id=mbse:incose\\_mbse\\_iw\\_2015](http://www.omgwiki.org/MBSE/doku.php?id=mbse:incose_mbse_iw_2015)

### INCOSE IW 2015 MBSE Workshop

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**Workshop Objectives and Agenda.** The Model-based Systems Engineering (MBSE) Workshop will be held on Saturday and Sunday, January 24-25, 2015 as part of the INCOSE International Workshop in Torrance, California. This 2 day workshop provides an opportunity to learn about the latest MBSE activities and applications, and to network with others involved in MBSE.

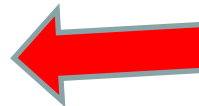
The workshop includes breakout sessions that are intended to inform and engage the participants in a broad range of MBSE related topics. The breakout session topics include both emerging modeling technologies and standards, modeling practices, and modeling approaches used in particular application domains. Each breakout session includes a combination of informative presentations, demonstrations where applicable, and group discussions on the potential impacts on the state of MBSE practice, and the associated challenges and future directions. The specific breakout session topics include:

#### Model Technologies and Standards

- Functional Mockup Interface (FMI) – current status and how can it be integrated into System Engineering - Frank Popielas/Roger Burkhart
- Open Services for Lifecycle Collaboration (OSLC): Enabling model and tool integration - Axel Reichwein
- Hybrid Manufacturing and 3D Printing: Enabling virtual engineering from requirements to manufacturing - Andreas Saar
- Model Lifecycle Management - Amit Fisher/Gavin Arthurs

#### Modeling Practices

- MBSE for System of Systems (SoS) - Judith Dahmann
- Agile Modeling and Modeling Agile Systems - Bill Schindel/Rick Dove



#### Domain Specific Modeling Applications

- MBSE for Automotive - George Walley
- MBSE for Biomedical and Healthcare - Steve Corns/Jack Stein/Bob Malins
- MBSE for Transportation & Rail - Marco Ferrogali
- MBSE and Space Systems – Application Across the “Vee” - Chris Schreiber

The workshop agenda structure is included below. The detailed agenda will be provided as we get closer to the event. Some of the breakout sessions will be repeated to give opportunities to participate in multiple breakouts. We look forward to your participation and contribution to this event.

# IW2015: Jan 24-38, 2015

## IW 2015 MBSE Workshop Schedule, Sat-Sun, Jan. 24-25, 2015

### MBSE Workshop Agenda

#### Saturday, January 24, 2015

| Time        | Topic               |
|-------------|---------------------|
| 10:30-11:00 | Introduction        |
| 11:00-12:00 | Keynote             |
| 12:00-13:00 | Lunch               |
| 13:00-16:00 | Breakout Sessions   |
| 16:00-16:45 | Day 1 Outbriefs     |
| 16:45-17:30 | MBSE Survey Results |

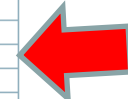


#### Sunday, January 25, 2015

| Time        | Topic             |
|-------------|-------------------|
| 09:00-12:00 | Breakout Sessions |
| 12:00-13:00 | Lunch             |
| 13:00-16:00 | Breakout Sessions |
| 16:00-17:00 | Day 2 Outbriefs   |
| 17:30-18:30 | MBSE Reception    |

#### Breakout Sessions (tentative)

| Breakout Session                 | Saturday PM | Sunday AM | Sunday PM |
|----------------------------------|-------------|-----------|-----------|
| FMI                              | -           | X         | Repeat    |
| OSLC                             | X           | Repeat    | -         |
| Hybrid Mfg/3D Printing           | -           | X         | Repeat    |
| Model Lifecycle Management       | X           | -         | Repeat    |
| MBSE for SoS                     | -           | X         | Repeat    |
| Agile Modeling                   | X           | -         | -         |
| MBSE for Automotive              | X           | -         | X         |
| MBSE for Biomedical & Healthcare | X           | X         | X         |
| MBSE for Transportation & Rail   | -           | X         | Repeat    |
| MBSE for Space                   | X           | -         | X         |



Saturday PM: Agile Modeling and Modeling Agile Systems — 3 Hour Breakout Session of MBSE Workshop, Presented Jointly by Rick Dove & Bill Schindel

### Related MBSE Meetings on Monday and Tuesday

**Monday, January 26, 2015**

**Tuesday, January 27, 2015**



Patterns Team Working Meeting: Monday PM, Tuesday AM

[Back To MBSE Wiki](#)

25<sup>th</sup> anniversary  
annual INCOSE  
international workshop  
Los Angeles, CA  
January 24 - 27, 2015



LIMITED SAMPLE FROM  
DRAFT SESSION SLIDES—  
SEE ATTACHMENT 1

# The Agile Systems Pattern

An MBSE-Based System Pattern,  
with Implications for Agile Modeling

Bill Schindel, ICTT System Sciences  
[schindel@icct.com](mailto:schindel@icct.com)

IW2015 MBSE Workshop Breakout Session:  
Agile Modeling and Modeling Agile Systems, Jan 24, 2015

wds 1.2.1

Discussion of Plans for Input to  
INCOSE MBSE Methodologies Summary . . .

Estefan, Jeff A., “[Survey of Model-Based Systems Engineering \(MBSE\) Methodologies](#),” Rev. B, INCOSE Technical Publication, Document No.: INCOSE-TD-2007-003-01, International Council on Systems Engineering, San Diego, CA, June 10, 2008.

[http://www.incose.org/ProductsPubs/pdf/techdata/MTTC/MBSE\\_Methodology\\_Survey\\_2008-0610\\_RevB-JAE2.pdf](http://www.incose.org/ProductsPubs/pdf/techdata/MTTC/MBSE_Methodology_Survey_2008-0610_RevB-JAE2.pdf)

[http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse\\_benchmarking\\_survey](http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse_benchmarking_survey)

The screenshot shows a web browser window with the URL [http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse\\_benchmarking\\_survey](http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse_benchmarking_survey). The page content is as follows:

**Milestones**

| Date | Milestone  | Status   | Point of Contact |
|------|--|----------|------------------|
| IW11 | Summary of Current MBSE Methodologies Listed & References Provided | Complete | Jeff             |

**Team Members**

| Name                 | Organization    | Contact Information  |
|----------------------|-----------------|--|
| Jeff A. Estefan      | NASA/JPL        | <a href="mailto:Jeffrey.A.Estefan@jpl.nasa.gov">Jeffrey.A.Estefan@jpl.nasa.gov</a> |
| Michelle Sprecht     | IBM             | <a href="mailto:michelle.specht@us.ibm.com">michelle.specht@us.ibm.com</a>         |
| John C Watson (Lead) | Lockheed Martin | <a href="mailto:john.watson@lmco.com">john.watson@lmco.com</a>                     |
| J.D. Baker           | No Magic        | <a href="mailto:james.baker@incose.org">james.baker@incose.org</a>                 |

**MBSE Methodology**

**Definitions**

- Process - A logical sequence of tasks performed to achieve a particular objective. A process defines the "WHAT" is to be done, without specifying the "HOW" each task is to be performed.
- Method - Consists of techniques for performing a task, the "HOW" of each task. The terms "method," "technique," "practice," and "procedure" can be used interchangeably in this context.
- Tool - An instrument that, when applied to a particular method, can enhance the efficiency of a task. Thus, methods help bridge the gap between process and tools. The purpose of the tool should be to facilitate the accomplishment of the "HOWs".
- Methodology - Defined as a collection of related processes, methods, and tools.

**List of Methodologies and Methods**

**Methodologies Surveyed in INCOSE 2008 Report**

| Name   | Primary Point of Contact   |
|--|--|
| <a href="#">INCOSE Object-Oriented Systems Engineering Method (OOSEM)</a>        | <a href="mailto:safriedenthal@gmail.com">safriedenthal@gmail.com</a>                 |
| <a href="#">IBM Rational Telelogic Harmony-SE</a>                                | <a href="mailto:peter.hoffmann@telelogic.com">peter.hoffmann@telelogic.com</a>       |
| <a href="#">IBM Rational Unified Process for Systems Engineering (RUP-SE)</a>    | <a href="mailto:mcantor@us.ibm.com">mcantor@us.ibm.com</a>                           |
| <a href="#">Vitech Model-Based Systems Engineering (MBSE) Methodology Vitech</a> | <a href="mailto:jjong@vitechcorp.com">jjong@vitechcorp.com</a>                       |
| <a href="#">JPL State Analysis (SA) Methodology JPL State Analysis (SA)</a>      | <a href="mailto:Robert.D.Rasmussen@jpl.nasa.gov">Robert.D.Rasmussen@jpl.nasa.gov</a> |
| <a href="#">Dori Object-Process Methodology (OPM)</a>                            | <a href="mailto:dori@ie.technion.ac.il">dori@ie.technion.ac.il</a>                   |

**Additional Methodologies Identified as Gaps Since 2008 INCOSE Survey**

|  |  |
|--|--|
| <a href="#">Weillkiens Systems Modeling Process (SYSMOD)</a>                     | <a href="mailto:Tim.Weillkiens@oose.de">Tim.Weillkiens@oose.de</a>                             |
| <a href="#">Fernandez Process Pipelines in OO Architectures (PPOOA)</a>          | <a href="mailto:joselfernandez@telefonica.net">joselfernandez@telefonica.net</a>               |
| <a href="#">An Ontology for State Analysis: Formalizing the Mapping to SysML</a> | <a href="mailto:nicolas.f.rouquette@jpl.nasa.gov">nicolas.f.rouquette@jpl.nasa.gov</a>         |
| <a href="#">ISO-15288, OOSEM and Model-Based Submarine Design</a>                | <a href="mailto:Paul.Pearce@deepbluetech.com.au">Paul.Pearce@deepbluetech.com.au</a>           |
| <a href="#">Alstom ASAP methodology</a>  | <a href="mailto:marco.ferrogali@transport.alstom.com">marco.ferrogali@transport.alstom.com</a> |

**Existing INCOSE MBSE Methodologies Summary**

Estefan, Jeff A., “[Survey of Model-Based Systems Engineering \(MBSE\) Methodologies](#),” Rev. B, INCOSE Technical Publication, Document No.: INCOSE-TD-2007-003-01, International Council on Systems Engineering, San Diego, CA, June 10, 2008.

[http://www.incose.org/ProductsPubs/pdf/techdata/MTTC/MBSE\\_Methodology\\_Survey\\_2008-0610\\_RevB-JAE2.pdf](http://www.incose.org/ProductsPubs/pdf/techdata/MTTC/MBSE_Methodology_Survey_2008-0610_RevB-JAE2.pdf)

[http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse\\_benchmarking\\_survey](http://www.omgwiki.org/MBSE/doku.php?id=mbse:methodology#mbse_benchmarking_survey)

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**Team Members**

| Name                 | Organization    | Contact Information            |
|----------------------|-----------------|--------------------------------|
| Jeff A. Estefan      | NASA/JPL        | Jeffrey.A.Estefan@jpl.nasa.gov |
| Michelle Sprecht     | IBM             | michelle.sprecht@us.ibm.com    |
| John C Watson (Lead) | Lockheed Martin | john.watson@lmco.com           |
| J.D. Baker           | No Magic        | james.baker@incose.org         |

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**Methodologies Surveyed in INCOSE 2008 Report**

| Name   | Primary Point of Contact        |
|--|---------------------------------|
| INCOSE Object-Oriented Systems Engineering Method (OOSEM)        | safriedenthal@gmail.com         |
| IBM Rational Telelogic Harmony-SE                                | peter.hoffmann@telelogic.com    |
| IBM Rational Unified Process for Systems Engineering (RUP-SE)    | mcantor@us.ibm.com              |
| Vitech Model-Based Systems Engineering (MBSE) Methodology Vitech | jlong@vitechcorp.com            |
| JPL State Analysis (SA) Methodology JPL State Analysis (SA)      | Robert.D.Rasmussen@jpl.nasa.gov |
| Dori Object-Process Methodology (OPM)                            | dori@ie.technion.ac.il          |

**Additional Methodologies Identified as Gaps Since 2008 INCOSE Survey**

|  |  |
|--|--|
| Weillkiens Systems Modeling Process (SYSMOD)                     | Tim.Weillkiens@oose.de                 |
| Fernandez Process Pipelines in OO Architectures (PPOOA)          | joselfernandez@telefonica.net          |
| An Ontology for State Analysis: Formalizing the Mapping to SysML | nicolas.f.rouquette@jpl.nasa.gov       |
| ISO-15288, OOSEM and Model-Based Submarine Design                | Paul.Pearce@deepbluetech.com.au        |
| Alstom ASAP methodology  | marco.ferrogolini@transport.alstom.com |

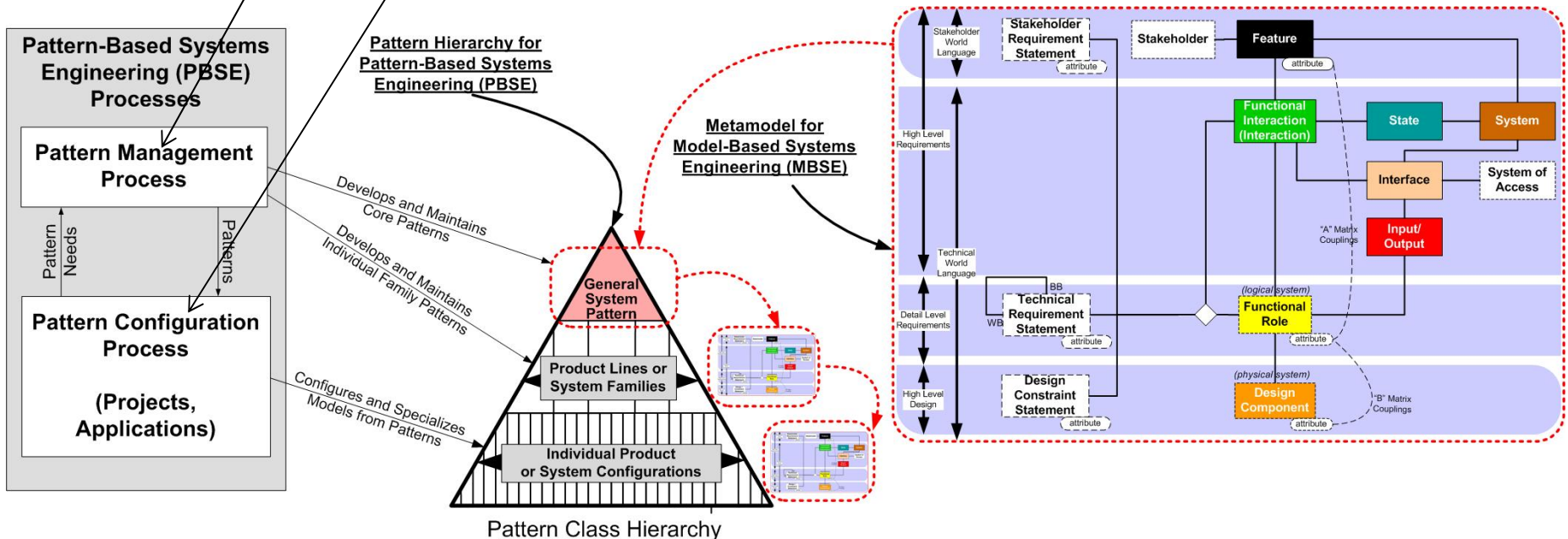
**Also related to: The Case for a Stronger MBSE Underlying Semantic Model— Parts I and II**

- In format of template used by INCOSE for the other MBSE Methodologies in this same directory.
- Approximately 3-5 pages in length, including a few diagrams.
- The standard topical headings to be used are:
  - Title ( *“Pattern-Based Systems Engineering (PBSE)—Leveraging S\*MBSE Models and ISO15288 Processes”* )
  - Overview
  - Tool Support
  - Offering / Availability
  - Resources
- Content review at IW2015 meeting.

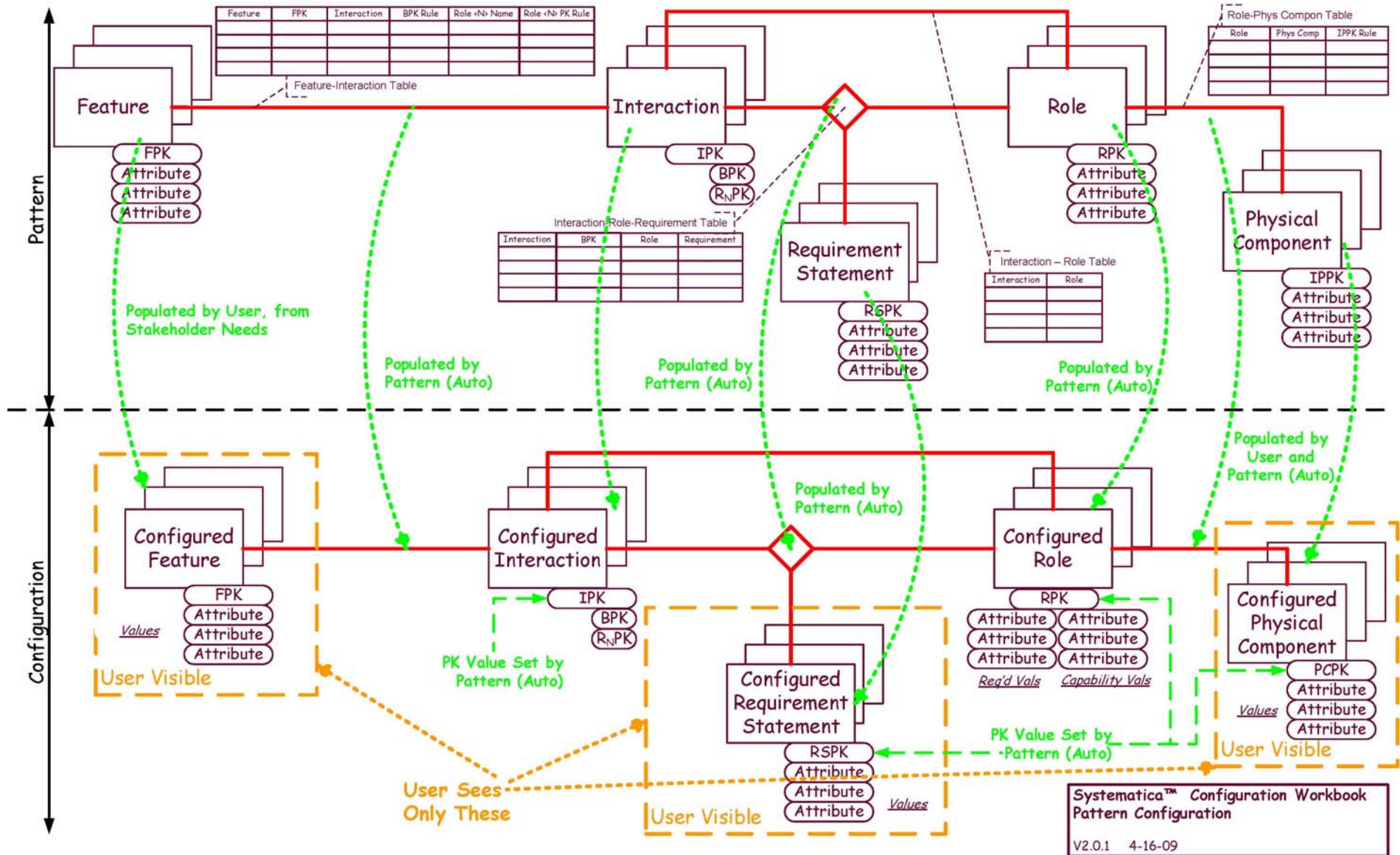


# Pattern Configuration Rules: Discussion

- Pattern-Based Systems Engineering (PBSE) has two overall processes:
  - **Pattern Management Process**: Generates the general pattern, and periodically updates it based on application project discovery and learning;
  - **Pattern Configuration Process**: Configures the pattern into a specific model for application in a project. Configuration Rules get used here.



# Pattern Configuration Rules: Discussion



- **Planning Agenda for our team meetings at IW2015:**
  - January 26-27, 2015
  - The following is a draft agenda for discussion today . . .

**Meeting Agenda: INCOSE PBSE Patterns Challenge Team (of MBSE Initiative) at INCOSE IW2015 (Web conferenced)**

Monday, January 26, 2015, 1:00 – 3:00 PM Pacific Time;

Tuesday, January 27, 2015, 09:00 AM – 12:00 PM Pacific Time

|   |                         |
|---|-------------------------|
| <b>Pre-reading and Background:</b> Team web site: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns</a><br>Minutes of meeting of Jan 12, 2014: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_01.12.15">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_01.12.15</a>  |                         |
| <b>Monday, Jan 26, 2015</b> (starts immediately after IW lunch break)   | <b>13:00 – 15:00 PT</b> |
| <b>Meeting start up:</b> <ul style="list-style-type: none"> <li>Review of meeting objectives and agenda</li> <li>Introduction of participants (on site at IW and remotely participating)</li> </ul>   | 13:00 – 13:15 PT        |
| <b>First Wave Projects:</b> <ul style="list-style-type: none"> <li>Why the Patterns Challenge Team Exists: Goals and approach; comments from around the table on progress or concerns</li> <li><b>Wave 1 Projects:</b> Results so far, projects undertaken in 2014--             <ul style="list-style-type: none"> <li>Brief discussion of six papers from the team, submitted to IS2015, preferably by authors; abstracts may be found at: <a href="http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_11.10.14">http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_11.10.14</a></li> <li>Continuing activity in progress with the sub-team project members – requests on timing, other needs?</li> </ul> </li> </ul> | 13:15 – 14:15           |
| <b>Second Wave Projects:</b> <ul style="list-style-type: none"> <li><b>Wave 2 Projects:</b> Starting up in late 2014 or early 2015--             <ul style="list-style-type: none"> <li>Pattern-Based Systems Engineering (PBSE): INCOSE MBSE Methodologies Submission -- Team review of draft</li> <li>The Case for Stronger Model Semantics – Team discussion of INCOSE, its MBSE ambitions, and current foundations</li> <li>(Others to be discussed Tuesday: Agile SE Life Cycle Pattern, SE Social Network Pattern, Health Care Delivery Pattern)</li> </ul> </li> </ul>   | 14:15 – 15:00           |
| <b>Tuesday, Jan 27, 2015</b> (starts immediately after IW Town Hall Meeting on ASELCM Project)  | <b>09:00 – 12:00 PT</b> |
| <b>Second Wave Projects: (continued)</b> <ul style="list-style-type: none"> <li>Agile SE Life Cycle Pattern and ASELCM Project (Schindel)</li> <li>SE Social Network Pattern Project (Hoffman)</li> <li>Health Care Delivery Pattern Project (Thukral)</li> <li>Pattern-Based Systems Engineering (PBSE): INCOSE MBSE Methodologies Submission -- Team second review of draft</li> </ul>  | <b>09:00 – 10:00</b>    |
| <b>Break</b>  | <b>10:00 – 10:30</b>    |
| <b>Planning (future) Third Wave Projects:</b> <ul style="list-style-type: none"> <li>Processes vs. Data (Maps vs. Itineraries): Mapping to ISO 15288</li> <li>Mapping to COTS Tools</li> <li>Implementation Strategies</li> <li>Other interests from team members</li> <li>Future meetings schedule: Pace, rate, calendar</li> <li>Outreach: Who else should be involved? Example—other INCOSE WGs that are natural Patterns applications. Ideas?</li> </ul>  | <b>10:30 – 12:00</b>    |

**Draft Agenda for Comment**

For more information, contact--

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