Experiences with the use of Essence at the Federal Government in Brazil

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Agenda

- Digital Government
- Application Development Pillars
- The Solutions Delivery Process (PES)
- PES powered by Essence
- First Cases and Results
- Next Steps
Digital Government
Digital Government

- Engaging Citizens
- Connecting Agencies
- Resourcing Operations
Application Development Pillars
Application Development Pillars

- Business Relationship and Demand Management
- Consistent Work Practices
- Defined Roles and Responsibilities
- Skill Sets and Proficiency Levels
Solutions Delivery Process (PES)

Next Release

Inception | Construction | Transition
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Envision and Plan | Incrementally build a consumable solution | Release solution

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Scrum | Extreme Programming (XP) | Kanban | Agile Modeling (AM)
Outside-In Software Development | SAFe | Agile Data (AD) | Evo
Lean Software Development | Unified Process (UP) | Traditional Software Development | And more...

Disciplined Agile Delivery (DAD)
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PES 0.1 – The Tacit Approach

Challenges and Opportunities:

- Lack of a formal description
- Difficult to model and manage application development sourcing contracts
- Difficult to scale teaching and dissemination
- Difficult to establish a consistent governance model for internal and external actors
PES 1.0 – The SPEM/EPF Approach

Challenges and Opportunities:

- Activity oriented (not Practice oriented)
- Difficult to evolve iteratively
- Description too detailed and technical
- Software Process analysis paralysis
- Low engagement from non-software process engineers
PES 2.0 – The Semat/Essence Approach

Challenges:

- Current Public IT Acquisition Framework
- Paradigm shift to Goal Orientation
- Restricted Tool Support
- Semat and Essence not known in Brazil
PES powered by Essence

- PES Kernel Extensions
- PES Practices
- Method Publishing (PES 2.0 Portal)
- PES Physical Deck of Cards
- Gamified Training (Lego4Scrum + Essence Cards)
PES powered by Essence – Kernel Extensions and Practices

- Product Development
- Scrum
- Essence
- XP
- Continuous Integration
PES powered by Essence – Scrum Kernel Extension
PES powered by Essence – Scrum Kernel Extension

**Requirement Item**

- Conceived
- Bounded
- Coherent
- Acceptable
- Addressed
- Fulfilled

**Brief description**

**Characteristics**

**Essential content**

- N/A

**Described by**

- N/A

**Related alphas**

- [Product Backlog](#) (Parent)

**Scrum**
PES powered by Essence – Scrum Kernel Extension
PES powered by Essence – Continuous Integration Practice

Deploy the System

Take the tested system and make it available for use outside the development team.

Deploy the system to:
- Package the software system up for delivery to the live environment.
- Make the software system operational.

Completion Criteria
The completion criteria of this activity space includes the following alpha states to be achieved:
- Software System: Operational

Available activities
- Commit Changes
- Execute Unit Tests
- Execute Smoke Tests
- Compile Code
- Provision Environment
- Build Binaries
- Get External Binaries
- Communicate Results
- Analyse Code Statically
PES powered by Essence – Product Development Practice

**Implement the System**

Build a system by implementing, testing and integrating one or more system elements. This includes bug fixing and unit testing.

Implement the system to:
- Create a working system.
- Develop, integrate and test the system elements.
- Increase the number of requirements implemented.
- Fix defects.
- Improve the system.

**Completion Criteria**

The completion criteria of this activity space includes the following alpha states to be achieved:
- Software System: Demonstrable
- Software System: Usable
- Software System: Ready

**Available activities**
- Develop Requirement Item
PES powered by Essence – Product Development Practice

**Test the System**

Verify that the system produced meets the stakeholders’ requirements.

Test the system to:
- Verify that the software system matches the requirements
- Identify any defects in the software system

**Completion Criteria**

The completion criteria of this activity space includes the following alpha states to be achieved:
- **Requirements Acceptable**
- **Requirements Fulfilled**
- **Software System Demonstrable**
- **Software System Usable**
- **Software System Ready**

**Available activities**

- **Test Requirement Item**
PES powered by Essence – Product Development Practice

**Deploy the System**

Take the tested system and make it available for use outside the development team.

**Completion Criteria**

The completion criteria of this activity space includes the following alpha states to be achieved:

- **Software System: Operational**

**Available activities**

- Deploy Requirement Item
First Cases and Results

- PES 2.0 Healthy Indicators use by the Project Management Office
- PES 2.0 Training, Tailoring and Enactment in the Brazilian Army
- PES 2.0 Training for Outsourced Application Development Providers
- PES 2.0 review by the Software Engineering Department of the Federal University of Rio de Janeiro (UFRJ)
Next Steps

- Alignment with Public IT Regulation Authorities
- Public IT Acquisition Framework Refactoring
- Gradual Roll Out (internal and external)
Thank you!

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