An Agile Approach to Botball

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Figure 1: ASELCM Domain Model [1]

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We configured a simple version of the Agile Systems Engineering Life Cycle Pattern [1] to improve how the Maja Mataric Team from the Wabash Valley:

- Manages and communicates the team's tasks and issues, and
- Captures knowledge gained to enable improved reuse for future projects

We used the project management features of a team GitHub project [2] to implement weekly sprint cycles (Figure 2) with scrums at the beginning of each team development session. This is an example of a Life Cycle Manager of Target Systems in Figure 1.

The same GitHub project used the Systematica® Model-Based Systems Engineering Metamodel [3] as shown in Figure 3 to better document requirements and design patterns and categorize the tasks and issues. This is an example of a Learning & Knowledge Manager for Target Systems in Figure 1.

This entire project is an excellent example of a Life Cycle Manager of Life Cycle Managers in Figure 1.



Figure 2: ASELCM Scrum Model [1]



Figure 3: Systematica Summary Metamodel [3]

References (all web references are from June, 2019)

- [1] Schindel, Bill and Dove, Rick. *Introduction to the Agile Systems Engineering Life Cycle MBSE Pattern*. 26th Annual INCOSE International Symposium. July 2016.
- [2] GitHub Project Management Features, https://github.com/features#project-management.
- [3] ICTT System Sciences. Systematica High Level Process Models P3152 V2.0.7. May 2019.



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