

How Can You Tell If A Process Is Agile?

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As agile processes become more visible and popular, this is a key question since everyone and his brother will claim to be agile. I've long asserted that the difference between agile and non-agile comes from a theoretical difference in approach. These two approaches are defined in industrial process control as:

- The defined approach is when you plan what you expect to happen, enforce that what happens is the same as what is planned, and use change control to manage change. The defined approach can only be used when the problem domain is so well understood that you can repeatably use a definition of the process to create a product of adequate quality. You start the process, let the defined steps occur, and then use the result. "... by simply iterating ... the transition function determines the future fully and unambiguously. The only uncertainty resides in the appropriateness of the level of detail and in the ... model's interpretation, the mapping between the world and the model." *Emergence*, John Holland, Addison Wesley, 1998.

- The empirical approach is when you can't define things enough so that they run unattended and produce repeatable, acceptable quality output. •Empirical models are used when the activities are not predictable, are non-linear, and are too complex to define in repeatable detail. Control is through inspection and adaptation. "It is typical to adopt the defined (theoretical) modeling approach when the underlying mechanisms by which a process operates are reasonably well understood. When the process is too complicated for the defined approach, the empirical approach is the appropriate choice." *Process Dynamics, Modeling, and Control*, Ogunnaike and Ray, Oxford University Press, 1992.

The two approaches are diametrically different. If you are using a plan that you expect is good enough to control the project, you take a hands off approach and only respond to exceptions and changes. This is the defined approach. It smells defined because there are tasks, task descriptions, assignments, hours assigned, time reporting, and decomposable artifacts. The epitome of the defined approach is the ETVX model, where you fully define the task's Entry criteria, Transformation process, Validation techniques, and eXit criteria. I attempted to build such a process for IBM in the early 1990's and found all commercial methodologies too ill defined to work with ETVX processes.

If you use the empirical approach, constant inspection and adaptation to what you find when you inspect are the primary tools. To implement these measures, agile processes use some degree of the following practices:

- Emergent requirements, architecture and design;
- Teams self-organize and adapt;
- Frequent inspections of process at daily status meetings;
- Frequent inspections of work increments at end of iterations; and,

- Collaboration.

When you inspect the agile manifesto, it directly addresses the values and principles that are implemented by these practices.

RUP is a key test of this distinction. The underlying principles that Grady Booch set forth for it are agile. The implementation isn't agile. The "agile" customizations of RUP are in reality "lightweight" versions of RUP, not agile.