

Activities

XP contains four basic activities: coding, testing, listening and designing.

Coding. The code is central to XP (versus requirements documents or other specifications). XP attempts to get working code out as soon as possible, even if the code has limited scope. Programmers pair up to produce the code.

Besides its functional role, code also serves as a communication and experimentation medium.

Testing. XP advocates test-driven development: before and while implementing a feature, write down and implement automated test cases (unit tests) for that feature. Run the test cases, ensure that the feature doesn't work, then implement the simplest possible thing that implements the feature. Code must always pass all of the unit tests.

XP also advocates acceptance tests. More on that below.

Listening. As part of ensuring that the system does the right thing, XP includes acceptance tests, which are created by the on-site customer. These tests help ensure that the system does the right thing.

More generally, the developers need to listen to the business side of the organization about their areas of expertise, and vice-versa.

Designing. XP does not advocate a big up-front design. Instead, developers are supposed to create a design incrementally by constantly re-factoring the code (more later) as it is written.

There are a number of practices which constitute extreme programming, alluded to above.

XP Advantages

XP can help avoid getting caught in bureaucratic tar pits. When you have a good team, XP should be able to deliver good results, creating simpler designs that solve the appropriate problems, and responding well to changes in requirements.

XP Disadvantages and Controversies

Kent Beck says that XP works best when one uses all of the practices together. Some of the practices can work alone, like test-driven development. Others may not work as well in isolation¹. (“... ring of poisonous snakes, daisy-chained together.”) XP tends to work best with smaller-sized groups, i.e. less than a dozen members. The lack of up-front design and requirements specifications can be worrisome.

¹http://www.softwarereality.com/lifecycle/xp/safety_net.jsp