

CS555: Agile Methods for Software Development

Homework 10

For each different color of the Crystal family of methods there are different assumptions about the project and different expectations of the project team. In general the process becomes more formal as the risks of the project increase.

1. Describe how project risks increase as the colors change from Clear to Red.

As the color changes from clear to red, the number of people involved in project can be viewed as increasing from few 1-5 to many 90-200. As the number of team members increase, the communication among the team gets more complex and it gets difficult to keep track of everyone else's work. The larger the team, more difficult it is to manage it and hence it may cause the delay in the completion of the project.

The larger team works on more complex product hence the product has significant impact on the users. The risk factor of the product increases as well as the product will have direct impact on the users. Due to lack of communication, the exchange of ideas seems difficult and focus between team members is also decreased. Thus, the risk increases as color change from clear to red.

2. Describe how the process becomes more formal as the colors change from Clear to Red.

As the color changes from clear to red, the team size increases. In the smaller teams, the communication is informal and the members can walk up to anyone with their questions and issues. The daily meetings include all the team members. As the team size increases, it becomes more difficult to have informal communication due to increases in the hierarchy.

As the team size increases, more money is being invested in the team and problems are more complex, thus it is necessary to create documentation for the product. There is hierarchy of people with defined roles, defined flow of communication, defined guidelines for the implementation, defined infrastructure.

3. Explain why the process must become more formal as the risks increase. That is, justify each new formalism with its mitigation effect on risks.

As the risk increases, the process need to be more defined to work with more team members. Due to increase in number of members, it is necessary to have dedicated roles for some responsibilities to ease the communication as informal communication is not possible.

Understanding of project and all features is necessary hence proper documentation needs to be done. This helps in keeping track of status of features. When the risk increases, the processes are formalized in order to maintain smooth flow of ideas and to maintain the discipline and proper communication among the team.

4. Describe how agility is sacrificed as the colors change from Clear to Red.

Agility is designed for teams with few people. As color changes from clear to red, the number of people increases from 5 to 200. Agility cannot be implemented for such a large team as the vital process of informal communication cannot occur and the frequent releases are not possible due to the complexity of the problem. Crystal Red uses blitz planning rather than simple sprint planning. Moreover, more time is spent on documentation for features which are not in agile.