# **Senior Project Interim Self-Assessment**

**Team: Team MESSE**

**Project: Museum Experience Survey**

**Sponsor: Lockheed Martin**

## Product

Did the team prepare all the documentation artifacts requested by your faculty coach and sponsor? Were these documents carefully inspected prior to delivery? How would you assess the quality of the document artifacts?

**Yes all artifacts were prepared and reviewed. In fact the team went beyond the required documents, producing extra documents that proved very useful (risk assessment, wireframes, requirements, and architecture. The artifacts have been reviewed by the project sponsor as well as the faculty coach to assure optimum quality. Overall the team is very happy with each document and considers them complete, though we understand the documents may be edited over time. A live copy of all documents are kept on the team website.**

How well did the team elicit the requirements? Are the requirements fully specified at this point? What approaches were used to elicit the requirements? Were key requirements missed? What methodology was used to document and validate the project requirements?

**The requirements are fully specified. The evolutionary delivery methodology was used so that architecture could be worked on concurrently. Making the architecture document helped bring about more questions for requirement elicitation.**

Did the team explore the entire design space before arriving at a final design? Have there been many errors found in the design? Was it necessary to make major changes to any part of the design? What were the reasons for the change? Do you have a complete design at this point?

**Design started at a high level where different solutions choices were explored. Once a solution was chosen, then technologies were chosen to fulfill the solution. Multiple technologies were explored and weighed. No design changes have been needed yet because development has not started, but this may change. The design is complete.**

How has the development and implementation progressed? What percentage of the product do you estimate is complete at this point? Is the team providing the documentation within the implementation artifacts?

**We’ve been following the evolutionary delivery model pretty exactly so far and consider the requirements and architecture phases done. We plan to start our first development cycle as our next step. Overall completion of the product, including all the documentation work we’ve done, is right around 50%. The actual coding of the project is only minimally started. We have models and some database work done for the project but of implementation are only around 5% complete.**

What is the team’s testing strategy? Has the team developed a test plan? Is the team performing unit testing? Is the team using any test frameworks, such as JUnit? What are the testing results to date? Were any major defects found during system test?

**So far the testing strategy is to do unit testing on any functionality that has been changed (not automated testing through code). Then at the end of each cycle we will do system testing before demonstrating it to the museum staff. Testing frameworks are built into ASP.net, but aren’t necessary for our project because they will take a lot of time while not offering much benefit. Most functionality will be isolated so that once it is implemented, there won’t be a need to run regression tests. We will also have several children and adults test the application so that we can record error rates for interacting with the UI. In the end, an acceptance test list will be made to distribute test tasks without redundant tests to provide better test coverage.**

Products need to be designed within guidelines and constraints appropriate for each project. It is also important to consider the impacts of the products that are designed. In the following categories discuss the constraints and impacts that have a bearing on your project. Note that there may be one or two categories that have no bearing on your project but your project is probably affected by almost all of these.

**Economic issues - The biggest economic issue found within this project is out of scope for the team ourselves, but has an impact on our design. The constraint given to us was that the application must run on hardware that can either be purchased for an inexpensive fee or is already available at the children’s museum, such as cheap Android tablets or Windows 7 computers.**

**Environmental issues - n/a**

**Social issues - n/a**

**Political issues - n/a**

**Ethical issues - n/a**

**Health and safety - n/a**

**Manufacturability - n/a**

**Sustainability - n/a**

What industry and engineering standards must your project adhere to? Were these new standards that the team had to learn? Did your sponsor provide you support for understanding these standards? Did you have to educate your sponsor about these standards?

**Though our sponsor was Lockheed Martin, the real customers were the staff at the Discover Center. Lockheed Martin didn’t enforce any engineering standards and were there more for support in the project. There were things like security concerns that the team addressed and will enforce (preventing public access for example)**

## Process

What is your process methodology? Has this been clearly outlined to your sponsor and received the sponsor’s approval? How is the process documented?

**For this project we chose the evolutionary delivery process methodology. We outlined it in our project plan which received positive feedback from the sponsors, essentially ensuring its approval.**

Was there a large requirement to learn the problem domain? What approach was used to gain domain expertise? Did your sponsor provide adequately support? What forms of support did you receive?

**In some major parts of the project, there were domains that we were unfamiliar with, such as the usability aspects of an online survey to be taken by both adults and children who visit the museum, and how to engage them in order to collect usable and worthwhile data. To learn these portions of the problem domain, we used our initial requirements elicitation process of weekly sponsor meetings to learn as much as we could about the museum, its exhibits, and other data about the museum. In addition to this, the sponsor sent out other surveys from other museums and usability surveys that specifically discuss museum engagement. Outside of the sponsor, we were put in touch with Dr. Juilee Decker of the College of Liberal Arts here at RIT, who teaches museum studies. She gave us great insights as to how we should approach surveying museum visitors.**

What mechanisms is the team using to track project progress? How well has the team tracked its project progress? How often do these artifacts get updated on the department project website?

**We use a website called AceProject that tracks many aspects of a project for you and is free for small teams. We currently only use the time tracking part of it as we didn’t want to induce too much overhead, though we may extend to more features as we get more into development. We try to update this when we first start tasks and when we complete tasks. So far it’s been working well but could perhaps be updated more frequently.**

**Currently the tracking is not saved anywhere else and therefore is not part of the website. This was perhaps and oversight and we could periodically export the data to a form that could be hosted on the team’s website.**

Is the team conducting effective meetings? What can be changed to make the team meetings more productive?

**Our meets have been effective thus far. We have weekly meetings with the sponsor on Tuesdays that have been a huge help in getting work done, especially with requirements. The team has good communication skills overall and everyone is aware of where we are in the schedule. We also have been keeping meeting notes for each meeting, which is very useful when starting a meeting to see what was done and where we left off in the last one.**

**A change that could be made, and perhaps will be, is meeting more often, especially getting into implementation.**

Has the team met all project milestones to date? Which milestones, if any, were missed or were met ahead of schedule? What contributed to this schedule changes? What will the team do differently to ensure that future milestones are met?

**All milestones have been met. This includes completing the requirements, architecture, and wireframe documents, as well as the required project plan. Nothing was done ahead of schedule though we finished the architecture document a little late. This was due to a late start after project sponsor scheduling issues, and just poor estimation. Next semester focuses more on implementation and completing features so the team will have to be sure to pay extra attention to scheduling. We have been coming up with a more well defined schedule for the second semester so it will be a matter of monitoring our progress well and making changes as we go along.**

Was the team required to adopt new technologies? What were these technologies? What approach did the team use for selecting the appropriate technology for the project? Did the sponsor provide any support for learning these technologies? How well did the team ramp up on the new technologies and begin to apply them effectively?

**There are plenty of new technologies that team is not completely familiar with. Most of our technologies were partially chosen because one or two members had experience with them, but almost none of them were things everyone had experience with. This includes ASP .NET MVC, Entity framework, MS SQL Server, Javascript/JQuery, and Visual Studio.**

**Like previously mentioned, many were chosen because there was a small amount of familiarity, but also because these technologies provide everything the team believes we need. Also we chose Microsoft products that all work in the .NET family very well, and believe this will ease development.**

**The sponsor did not provide any of these technologies or recommend any, but supports our decisions.**

**These new technologies have been one of the biggest hurdle so far though, as the members with little experience are having to go through extra work trying to learn them. This includes online tutorials and other resources to try and catch up. We hope that winter break will provide an opportunity for everyone to get on the same level of knowledge.**

How well has the team maintained quality control over the project artifacts? Have all artifacts been reviewed for adherence to quality standards? What is the review process used by the team?

**Quality control over project artifacts has taken the form of individual contributions to the project artifact, a team review, a faculty coach review, and finally a review from the project sponsors. After each review, feedback is discussed and implemented into the artifact. Once an artifact has been reviewed through this process and feedback has been implemented, the reviews start over and the document is passed around for one final look before being sent out as a final version to the project sponsor. Using this process has proven to be a great success, as even in our rough draft stages not a lot of negative feedback is given for the documents from the project sponsors.**

Has the team had any issues with configuration management? How were these problems solved? What percentage of project artifacts is under configuration control?

**There will be two main configurations for the project, Debug and Release. So far there are no issues involving these configurations.**

What is the set of metrics that the team is tracking? Has the team gathered these metrics on a consistent basis? What has the team learned from the review of these metrics?

**No metrics have been gathered yet. The metrics are only applicable during development (Bug fix velocity, cyclomatic complexity, error rate for UI interaction).**

## Communication and Interaction

How well has the team been communicating project progress to the sponsor? What regular communication does the team have with the sponsor? Has the team been maintaining this communication to the satisfaction of the sponsor? Were any adjustments needed in the communication over time? Were these changes initiated by the team or the sponsor?

**Progress has been communicated effectively to our teams sponsors and stake-holders the the use of the team website, weekly phone calls, and various document communications via email. Our sponsor and client seem to be very pleased and look forward to the development phase of the project. Adjustments to communication were needed in the beginning as our original sponsor did not have time to meet with the team. One slight improvement the team could implement in the next semester is to notify the sponsor ahead of time if the meeting will not have much content. There were a couple “we have nothing for you” meetings.**

Did the team need to provide technical input to the sponsor? How well did the team educate the customer in these areas? What mechanism did the team use?

**In educating the client, we used wireframe diagrams to show possible layouts for the surveys. The Discovery Center responded by sending their own diagrams of the building layout. The most difficult part about educating the client is convincing them that they can ask for anything and it is our job to limit the scope. Often, feature requests were preceded by the phrase “Is it possible to…?”.**

Is this an effective team? What has been contributing to and detracting from the team’s effectiveness? What are the team’s weak points? What are the team’s strong points? What changes can the team make for next term that will make it more effective?

**Team Messe is an effective team. Our strong points include breaking up tasks evenly amongst the members, writing clear documentation, and almost always conducting effective meetings. Our weakest point would be a double edge sword. Though our documentation is clear, we are heavy in documentation which did slow down the timeline for development. Hopefully, as we move into the full blown development phase, the timeline should pick up again.**

What mechanism does the team use to communicate with the faculty coach? Has communication with the coach been effective? Are there any trouble spots with the faculty coach communications? What can the team change for next term to make their communication to the faculty coach more effective? What can the faculty coach change to make his or her interaction with the team more effective?

**Larry Kiser, the faculty coach, sat in on almost every meeting we had. He was very supportive to the team and was always available by email or simply talking to him in his office. There have been no communication issues with the faculty coach.**

Has the team needed to interact with department staff personnel, i.e. the office staff or Kurt? Has this been handled in a professional manner? Were there any problems with these interactions?

**So far the team has only interacted with Kurt for the website and getting a VM. The website has been set up and the team has been using it. The only problem so far is that there was no response to the VM request. This isn’t a huge deal as the team will be doing development on their personal computers, and the VM will come into play later when we try to deploy/install. The team will be following up with kurt soon.**

Does the team have a complete website with all project artifacts stored and up-to-date on the software engineering department webserver, i.e. linus.se.rit.edu? How often are entries on the webserver updated?

**The team currently has a website on the software engineering webserver, located at** [**http://www.se.rit.edu/~messe**](http://www.se.rit.edu/~messe)**. New entries on the website are added whenever a new artifact has been completed, either a rough draft or a final draft. Through integration with Google Docs, the documents themselves update automatically on the website as changes are made to them within the document itself.**

How well has the team made presentations to the sponsor and faculty coach? Was the interim project presentation done in a professional manner? What can be done to improve the team’s presentations?

**The team has shown both the sponsor and faculty coach all of the documents at every step of the way, and it has gone well. Valuable feedback has been gained and integrated into the project.**

**We feel the interim presentation was done in a very professional manner and are very happy with the result.**

**The only improvement is that we should prepare a little earlier because we had scheduling issues with teammates trying to prepare which may have been resolved if we did it much sooner.**

How well has the team worked with other senior project teams, coordinating access to lab space and equipment, sharing experiences and ideas, etc.?

**Coordination between other teams in terms of shared lab access, experience, and ideas has not really come up outside of sharing access to the team rooms. Rarely have we come across a situation where we couldn’t get a team room, especially not for a project sponsor meeting, but when those situations did occur, we were able to either meet outside of the team rooms for a quick meeting or have access to a conference room that would meet our needs.**

## Achieving Customer Satisfaction

In the team’s opinion has the work accomplished to date satisfied the project sponsor? Were there any weak spots in this regard?

**The sponsor seemed very pleased with the progress so far. There have been no comments that suggest otherwise. There have been minor remarks involving some of the artifacts reviewed, but most have been fixed shortly afterward.**