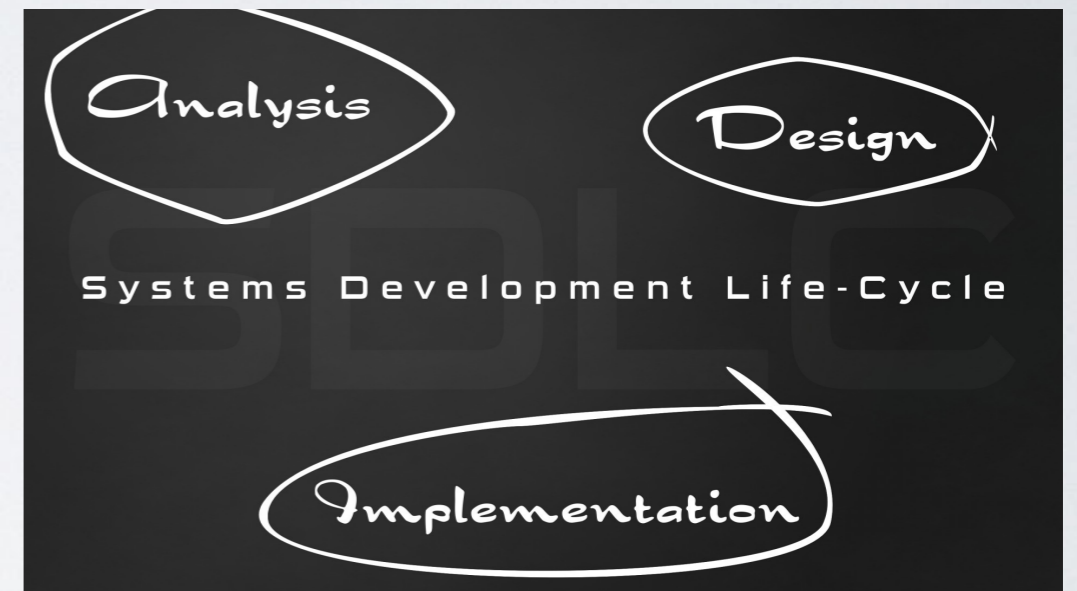


AGILE DEVELOPMENT WITH IMS

Christopher Bell
LASiGMA

SOFTWARE DEVELOPMENT



WHAT IS SOFTWARE DEVELOPMENT?

- Software Development(SD) is the idea that there should be some process when creating software.
- The cycle of SD usually consist of the following:
 - Specifications
 - Requirements
 - Design
 - Implementation
 - Testing
 - Maintenance

CHALLENGES OF SOFTWARE DEVELOPMENT

- Deadlines
- Low levels of productivity for developers
- Low satisfaction levels for clients

AGILE DEVELOPMENT

Agile Development

WHAT IS AGILE DEVELOPMENT?

- Popular software development methodology
- Goes through the normal software development cycle but, does so in iterations.
- Typical Agile life cycle looks like the following:
 - Normal Development Life Cycle
 - Release
 - Review
 - Accept?
 - Yes
 - Release to Market
 - No
 - Repeat

WHY IS THIS BETTER?

- Better quality software due to test driven development.
- More productivity from developers.
- More involvement with clients.

IMS

The screenshot displays the 'Slot Layout & Current WorkOrders' interface. At the top, a black header contains the text 'WELCOME TO ISO MANAGEMENT SYSTEM' on the left, and navigation links for 'Staff Management', 'Iso Management', and a user profile 'box' on the right. Below the header, a grey bar contains the title 'Slot Layout & Current WorkOrders'. On the left side, a vertical sidebar contains several buttons: 'Create Workorder', 'Search Workorder', 'Update WorkOrder', 'Cancel WorkOrder', 'Search WorkOrder', and 'Overview' (highlighted in red). The main content area shows a grid of six slots. Slots 1 and 6 are blue buttons, while slots 2, 3, 4, and 5 are green buttons. Each slot contains a technical ID. The footer of the interface includes the copyright notice '@copy right Team Iso Management' on the left and a red button labeled 'Chemtura home page' on the right.

Slot	Technical ID
SLOT 1	TECHNICAL ID TEST15T
TECHNICAL ID BOBU-0003010	TECHNICAL ID GLBU-0002136
SLOT 5	SLOT 6
TECHNICAL ID BOBU-0001824	TECHNICAL ID GLBU-0002795

IMS

- Workflow management system for Chemura.
- Helps with the flow of tanks coming in and out.

EquipmentId ==>TEST15T ConatinerSize ==>15 MT SlotNumber ==>2 WorkorderId ==>75

Staff Management Iso Management box

Great Lakes SOLUTIONS a Chemura business Issue:F02.23 Page 1 of 2 REVISION

14T/18T ISO Container Inspection Record Vessel ID: BOBU000

MANWAY MANLID(FACE) MANLID(TOP)

64 Fill Valve Flange
65 Air/N2 Valve Flange
66 Vent Valve Flange
67 Relief Valve Flange
68 Blank Flange

Front of Vessel Neck

Home Close On Repair

MY CONTRIBUTIONS

- Workflow management
 - Jira
 - Github
 - Testing

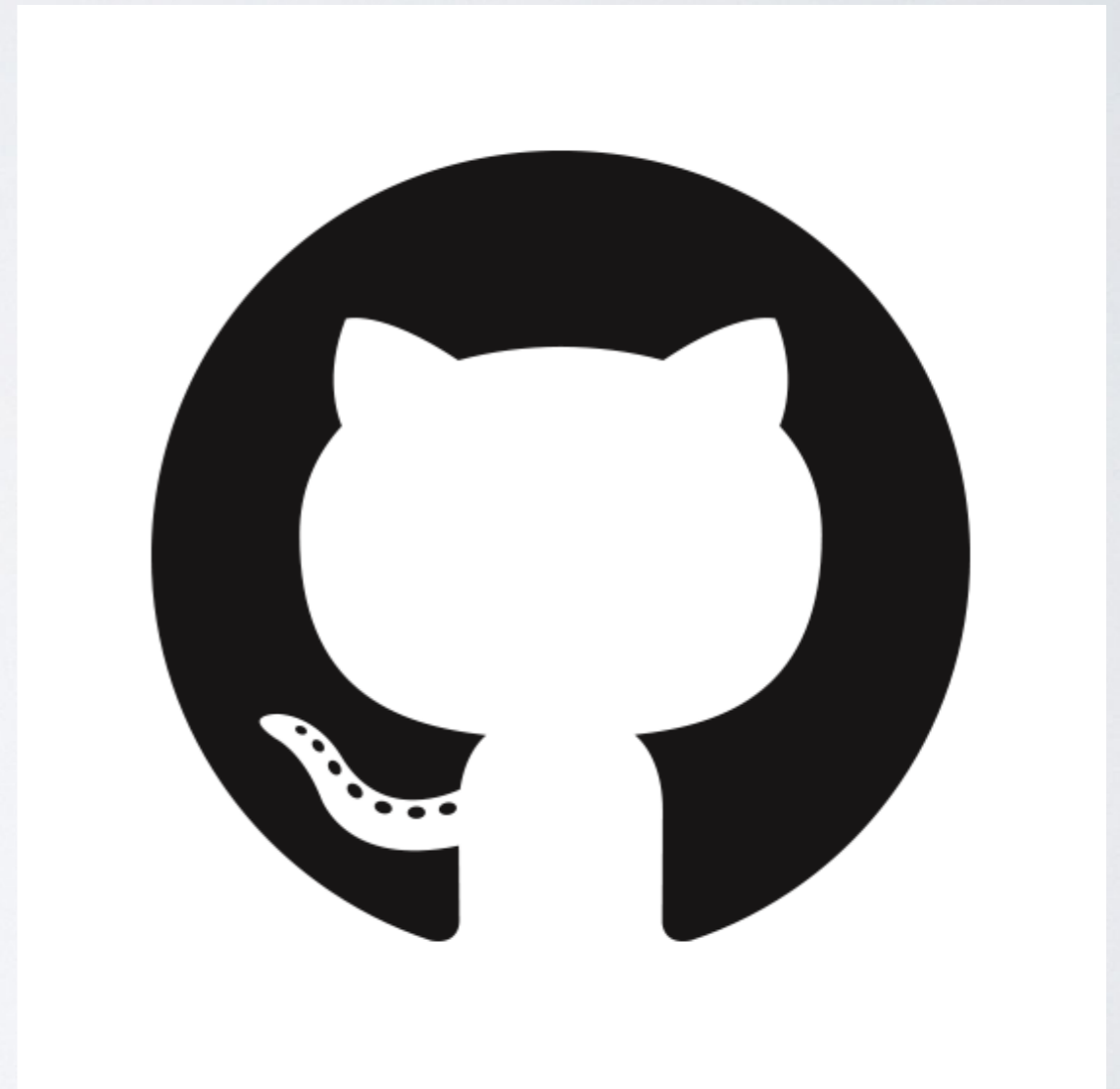
JIRA

- Software used for the following:
 - Tracking Issues
 - Assigning work to developers
 - Create reports on issues and speed of development



GITHUB

- Software used to do the following:
 - Reduce source code conflicts
 - Make sure each developer has the latest version of code
 - Offsite location for backups of code



TESTING

Please Keep Quiet
While Testing!

TESTING

- Testing is the process of finding bugs in a project.
- Needed to assure the quality of a project.
- Requires its own planning to make sure important bugs are caught.

Order	Test Case/Scenario	Test Steps	Expected Behavior	Actual Behavior	Test Result
1	Basic Test - 1	Go to website.	Website should appear.		Not Tested
2	Add New Container - Valid Input Values - 1	Click Add Container button	A form should appear for the user to enter the new container's information.		Not Tested
3	Add New Container - Valid Input Values - 2	Enter new container information and press the Add button.	The container details are stored in the database.		Not Tested
4	Add New Container - Invalid Input Values - No Values Entered - 1	Click Add Container button	A form should appear for the user to enter the new container's information.		Not Tested
5	Add New Container - Invalid Input Values - No Values Entered - 2	Enter no information.	A warning should appear stating that the user needs to provide the needed details about the container.		Not Tested
6	Deactivate Container - 1	Click Deactivate Container button	The user should be able to select from a list of containers that should no longer be active.		Not Tested
7	Deactivate Container - 2	Select Container	That container should no longer be active.		Not Tested
8	Edit Container - Valid Input Values - 1	Click Edit Container Button	A screen should appear to allow the user to edit the details of the container.		Not Tested
9	Edit Container - Valid Input Values - 2	Enter new information about container and press the Edit button.	This new information should be stored in the database.		Not Tested
10	Edit Container - Invalid Input Values - No Values Entered - 1	Click Edit Container Button	A screen should appear to allow the user to edit the details of the container.		Not Tested
11	Edit Container - Invalid Input Values - No Values Entered - 2	Enter no information and press the Edit button.	A warning should appear stating that the user needs to provide the needed details about the container.		Not Tested
12	Search - Valid Input Values - 1	Click Search button.	A form should appear with the needed input values.		Not Tested
13	Search - Valid Input Values - 2	Enter details of a container in the database.	The details of that container should be displayed on the page.		Not Tested
14	Search - Invalid Input Values - Values Don't Exist - 1	Click Search button.	A page should appear with an error message explaining that no container of those details exist.		Not Tested
15	Search - Invalid Input Values - Values Don't Exist - 2	Enter details of a container not in the database.	A page should appear displaying that no such container exist.		Not Tested
16	Add Staff - Valid Input Values - 1				Not Tested
17	Add Staff - Valid Input Values - 2				Not Tested
18	Add Staff - Invalid Input Values - No Values Entered - 1				Not Tested
19					Not Tested

CONCLUSION

- IMS was a learning experience to better understand:
 - The Software Development process
 - Agile Development
 - Why testing is important
 - Workflow management tools for developers
 - Dealing with real world situations when developing software