# Train Project

Oct 4, 2013

## On Track Trainwreck

http://

| | |
|---|---|
| Project managers: | |
| Dates: | Aug 30, 2013 - Dec 13, 2013 |
| Complete: | 0% |
| Tasks: | 112 |
| People: | 6 |

Transit System

# Tasks

| Name | Begin date | End date | Coordinator |
|---|---|---|---|
| Work Package 1 | 10/4/13 | 10/4/13 | |
| STP Template | 8/30/13 | 9/6/13 | |
| DD Template | 8/30/13 | 9/6/13 | |
| CM Template | 8/30/13 | 9/6/13 | |
| Code Conventions | 9/5/13 | 9/8/13 | |
| SRS Template | 8/30/13 | 9/19/13 | |
| Review Bid Package | 9/12/13 | 9/19/13 | |
| SRS | 9/20/13 | 10/4/13 | |
| Create Work Schedule | 9/20/13 | 9/27/13 | |
| Work Package 2 | 11/7/13 | 11/7/13 | |
| Work Package 3 | 12/12/13 | 12/12/13 | |
| Track Model | 10/7/13 | 12/2/13 | Sarah Bunke |
| Track Model- design main interface | 10/7/13 | 10/11/13 | Sarah Bunke |
| Track Model - design Create New Track interface | 10/9/13 | 10/11/13 | Sarah Bunke |
| Track Model - Status Indicators | 10/14/13 | 10/18/13 | Sarah Bunke |
| Track Model - logic for fixing failure modes | 10/16/13 | 10/18/13 | Sarah Bunke |
| Track Model - logic for inputting track | 10/21/13 | 10/22/13 | Sarah Bunke |
| Track Model - set up MySQL for track | 10/23/13 | 10/25/13 | Sarah Bunke |
| Track Model- work on display of UI | 10/28/13 | 10/29/13 | Sarah Bunke |
| Track Model - logic for train detection circuit | 10/29/13 | 11/2/13 | Sarah Bunke, Catherine Nalesnik |
| Track Model - logic for track heater | 11/4/13 | 11/8/13 | Sarah Bunke |
| Track Model - logic for broken track | 11/6/13 | 11/8/13 | Sarah Bunke |
| Track Model - logic for power failure | 11/11/13 | 11/13/13 | Sarah Bunke |
| Track Model - logic for broken track detection circuit | 11/12/13 | 11/15/13 | Sarah Bunke |

# Tasks

| Name | Begin date | End date | Coordinator |
|---|---|---|---|
| Track Model - logic for signals and switch machines | 11/18/13 | 11/20/13 | Sarah Bunke |
| Track Model- make blocks configurable | 11/20/13 | 11/22/13 | Sarah Bunke |
| Track Model - logic for railway crossings | 11/25/13 | 11/28/13 | Sarah Bunke |
| Track Model - logic for power limitations | 11/27/13 | 11/29/13 | Sarah Bunke |
| Track Model - Integrate with Track Controller | 12/2/13 | 12/2/13 | Sarah Bunke |
| Train Controller | 10/10/13 | 11/26/13 | Brandon Bock |
| Create test plan and software | 10/10/13 | 10/10/13 | |
| Logic for Speed Control | 10/10/13 | 10/10/13 | |
| Logic for Receiving varying speed limits | 10/13/13 | 10/14/13 | |
| Logic for authority | 10/16/13 | 10/16/13 | |
| Logic for receiving/updating authority | 10/20/13 | 10/20/13 | |
| Design UI elements | 10/23/13 | 10/23/13 | |
| Begin coding UI; integrate implemented features | 10/27/13 | 10/27/13 | |
| Logic for opening/closing doors; auto mode | 10/27/13 | 10/27/13 | |
| Logic for turning lights on/off; auto mode | 10/30/13 | 10/30/13 | |
| Logic for GPS | 11/3/13 | 11/3/13 | |
| Logic for monitoring the train for faults | 11/6/13 | 11/6/13 | |
| Logic for station announcement | 11/10/13 | 11/10/13 | |
| Test/Debug | 11/20/13 | 11/26/13 | |
| Track Controller | 10/7/13 | 12/9/13 | Nicholas Schnur |
| Build Gui Shell | 10/7/13 | 10/14/13 | |
| Create Basic Class Structure | 10/7/13 | 10/14/13 | |
| Create Basic Class Structure | 10/14/13 | 10/21/13 | |
| Set-up test kit/ plan | 10/14/13 | 10/21/13 | |

# Tasks

| Name | Begin date | End date | Coordinator |
|---|---|---|---|
| Build test harness | 10/21/13 | 10/28/13 | |
| Start in Depth Component Design | 10/21/13 | 10/28/13 | |
| Design major track controller logic | 10/28/13 | 11/4/13 | |
| Connect Logic to GUI | 10/28/13 | 11/4/13 | |
| Think of Possible Test Cases | 11/4/13 | 11/11/13 | |
| Implement Test Cases | 11/4/13 | 11/11/13 | |
| Work on messages | 11/11/13 | 11/18/13 | |
| Work on interfaces for communication | 11/11/13 | 11/18/13 | |
| Continue with inter module communication | 11/18/13 | 11/25/13 | |
| Test Messages | 11/18/13 | 11/25/13 | |
| Test full system | 12/2/13 | 12/9/13 | |
| Package Simulation for Installation | 12/2/13 | 12/9/13 | |
| Train Model | 10/7/13 | 12/12/13 | Keith Payne |
| Create GUI controls | 10/7/13 | 10/10/13 | Keith Payne |
| Plan out necessary Interfacing requirements | 10/9/13 | 10/11/13 | Keith Payne |
| Design train model | 10/9/13 | 10/11/13 | Keith Payne |
| Design train manager | 10/10/13 | 10/17/13 | Keith Payne |
| Design passenger class | 10/17/13 | 10/18/13 | Keith Payne |
| Design passenger manager | 10/17/13 | 10/20/13 | Keith Payne |
| Create test plan | 10/22/13 | 10/26/13 | Keith Payne |
| Connect UI controls to classes | 10/23/13 | 11/24/13 | Keith Payne |
| Create logic for simulating passenger flow | 10/28/13 | 10/31/13 | Keith Payne |
| Create control logic for temperature | 10/28/13 | 10/30/13 | Keith Payne |
| Create logic for speed control | 10/28/13 | 10/31/13 | Keith Payne |

# Tasks

| Name | Begin date | End date | Coordinator |
|---|---|---|---|
| Implement classes | 11/3/13 | 11/24/13 | Keith Payne |
| Integrate with other modules | 11/22/13 | 11/29/13 | Keith Payne |
| Test and debug code | 11/25/13 | 12/12/13 | Keith Payne |
| Moving Block Overlay | 9/27/13 | 12/12/13 | Catherine Nalesnik |
| Design MBO GUI | 9/27/13 | 10/3/13 | |
| Create individual work schedule | 9/27/13 | 10/3/13 | |
| Create GUI shell | 10/7/13 | 10/10/13 | |
| Create use cases | 10/7/13 | 10/10/13 | |
| Create basic class structure | 10/10/13 | 10/17/13 | |
| Figure out control algorithms | 10/10/13 | 10/17/13 | |
| Determine Scheduler logic | 10/17/13 | 10/24/13 | |
| Write MBO Test Plan | 10/17/13 | 10/24/13 | |
| Start Component Design | 10/24/13 | 10/31/13 | |
| Review Design | 10/24/13 | 10/31/13 | |
| Implement Test Cases | 10/31/13 | 11/7/13 | |
| Work package 2 individual deliverables | 10/31/13 | 11/7/13 | |
| Finish Coding MBO | 11/7/13 | 11/11/13 | |
| Test Module | 11/7/13 | 11/14/13 | |
| Work on Interfacing with other modules | 11/14/13 | 11/20/13 | |
| Work on System Integration | 11/14/13 | 11/20/13 | |
| System Testing | 11/21/13 | 11/28/13 | |
| Fix Bugs | 11/21/13 | 11/28/13 | |
| Continue System Testing | 11/28/13 | 12/5/13 | |
| Package system for installation | 12/6/13 | 12/12/13 | |

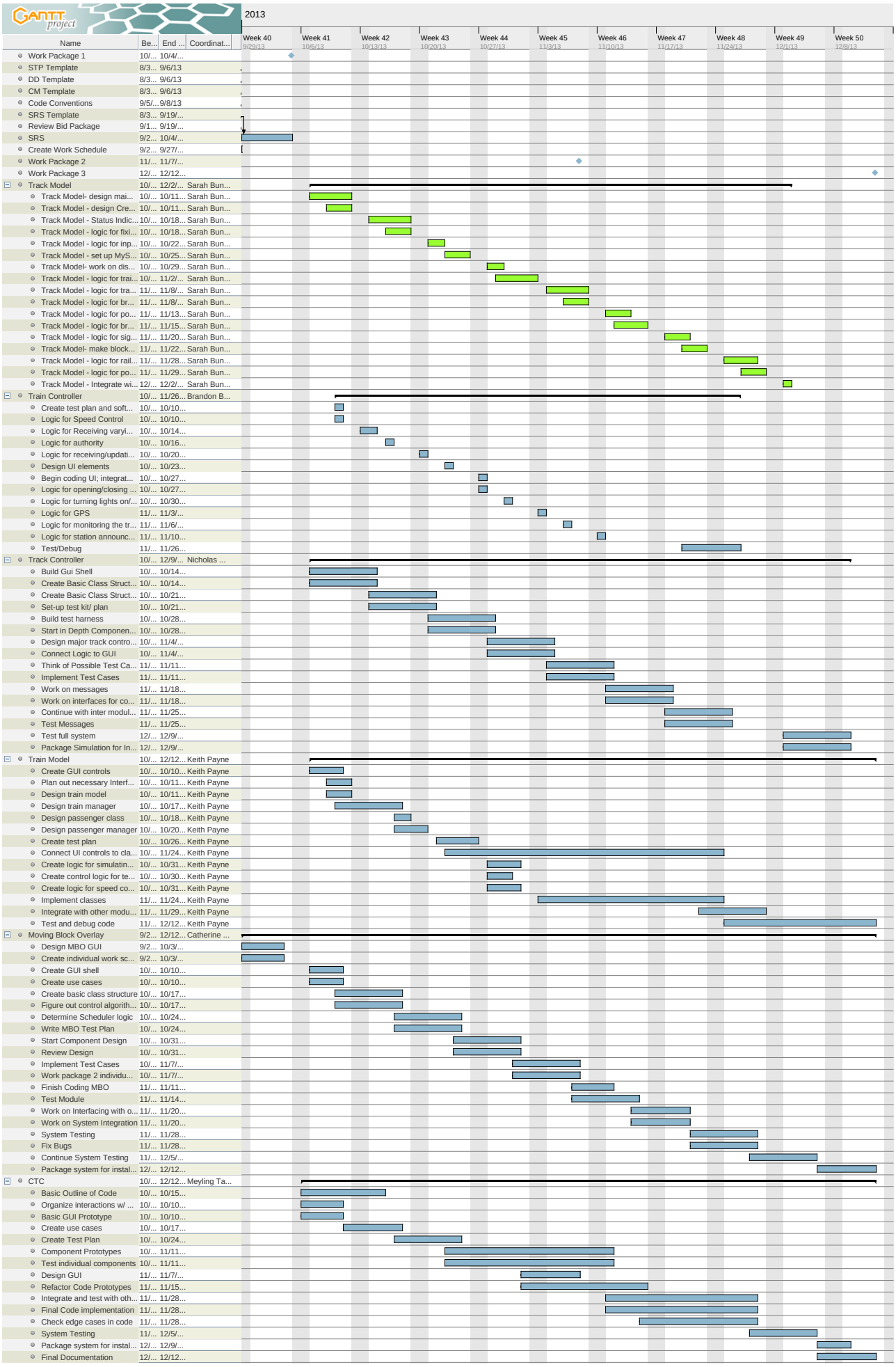
# Tasks

| Name | Begin date | End date | Coordinator |
|---|---|---|---|
| CTC | 10/6/13 | 12/12/13 | Meyling Taing |
| Basic Outline of Code | 10/6/13 | 10/15/13 | |
| Organize interactions w/ other modules | 10/6/13 | 10/10/13 | |
| Basic GUI Prototype | 10/6/13 | 10/10/13 | |
| Create use cases | 10/11/13 | 10/17/13 | |
| Create Test Plan | 10/17/13 | 10/24/13 | |
| Component Prototypes | 10/23/13 | 11/11/13 | |
| Test individual components | 10/23/13 | 11/11/13 | |
| Design GUI | 11/1/13 | 11/7/13 | |
| Refactor Code Prototypes | 11/1/13 | 11/15/13 | |
| Integrate and test with other modules | 11/11/13 | 11/28/13 | |
| Final Code implementation | 11/11/13 | 11/28/13 | |
| Check edge cases in code | 11/15/13 | 11/28/13 | |
| System Testing | 11/28/13 | 12/5/13 | |
| Package system for installation | 12/6/13 | 12/9/13 | |
| Final Documentation | 12/6/13 | 12/12/13 | |

# Resources

| Name | Module |
|---|---|
| Brandon Bock | Train Controller |
| Sarah Bunke | Track Model |
| Catherine Nalesnik | Moving Block Overlay |
| Keith Payne | Train Model |
| Nicholas Schnur | Track Controller |
| Meyling Taing | CTC Office |

# Gantt Chart

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|---|---|---|---|
| Work Package 1 | 10/... | 10/4/... | |
| STP Template | 8/3... | 9/6/13 | |
| DD Template | 8/3... | 9/6/13 | |
| CM Template | 8/3... | 9/6/13 | |
| Code Conventions | 9/5/... | 9/8/13 | |
| SRS Template | 8/3... | 9/19/... | |
| Review Bid Package | 9/1... | 9/19/... | |
| SRS | 9/2... | 10/4/... | |
| Create Work Schedule | 9/2... | 9/27/... | |
| Work Package 2 | 11/... | 11/7/... | |
| Work Package 3 | 12/... | 12/12... | |
| Track Model | 10/... | 12/2/... | Sarah Bun... |
| Track Model- design mai... | 10/... | 10/11... | Sarah Bun... |
| Track Model - design Cre... | 10/... | 10/11... | Sarah Bun... |
| Track Model - Status Indic... | 10/... | 10/18... | Sarah Bun... |
| Track Model - logic for fixi... | 10/... | 10/18... | Sarah Bun... |
| Track Model - logic for inp... | 10/... | 10/22... | Sarah Bun... |
| Track Model - set up MyS... | 10/... | 10/25... | Sarah Bun... |
| Track Model- work on dis... | 10/... | 10/29... | Sarah Bun... |
| Track Model - logic for trai... | 10/... | 11/2/... | Sarah Bun... |
| Track Model - logic for tra... | 11/... | 11/8/... | Sarah Bun... |
| Track Model - logic for br... | 11/... | 11/8/... | Sarah Bun... |
| Track Model - logic for po... | 11/... | 11/13... | Sarah Bun... |
| Track Model - logic for br... | 11/... | 11/15... | Sarah Bun... |
| Track Model - logic for sig... | 11/... | 11/20... | Sarah Bun... |
| Track Model- make block... | 11/... | 11/22... | Sarah Bun... |
| Track Model - logic for rail... | 11/... | 11/28... | Sarah Bun... |
| Track Model - logic for po... | 11/... | 11/29... | Sarah Bun... |
| Track Model - Integrate wi... | 12/... | 12/2/... | Sarah Bun... |
| Train Controller | 10/... | 11/26... | Brandon B... |
| Create test plan and soft... | 10/... | 10/10... | |
| Logic for Speed Control | 10/... | 10/10... | |
| Logic for Receiving varyi... | 10/... | 10/14... | |
| Logic for authority | 10/... | 10/16... | |
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| Design UI elements | 10/... | 10/23... | |
| Begin coding UI; integrat... | 10/... | 10/27... | |
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| Fix Bugs | 11/... | 11/28... | |
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