

# WBIT 4030

## Senior Project and Portfolio

Name:	Johnathan D. McDonald
Project/Internship Name:	Athena Electronic Imaging Orders Implementation
Client:	Phoebe Putney Health System (PPHS)

### Time Log / Status Report

<u>Date</u>	<u>Hours</u>	<u>Hours total</u>	<u>Work Description</u>
8/19/19	3	3	<ul style="list-style-type: none"><li>Meeting with Phoebe Putney project team to discuss what the patient matching logic is for Phoebe's Meditech EHR and what potential changes we will need to make in AthenaNet for Meditech to accept an HL7 Order message (ORM).</li></ul>
8/20/19	3 2.5	5.5	<ul style="list-style-type: none"><li>Webex call with the Athena integration project resource and Phoebe Interface Analyst to discuss the current Meditech interface specification and exchange IP/Port numbers used for connectivity.</li><li>Meeting with key stakeholders from the compliance and HR departments to discuss what information is legally required to be on the Meditech Patient Order Summary Report.</li></ul>
8/21/19	1 2	3	<ul style="list-style-type: none"><li>Meeting with key stake holders from the Central Wide Scheduling (CWS) and Registration departments to discuss current state workflow process for imaging orders.</li><li>Worked with Project Manager to map out a workflow diagram for the current state registration process for X-ray orders.</li></ul>
8/22/19	4	4	<ul style="list-style-type: none"><li>Worked with Phoebe interface analyst project team member to generate current state AthenaNet ORM message and discuss changes needed.</li></ul>

## WBIT 2030 – Time Logs and Status Reports

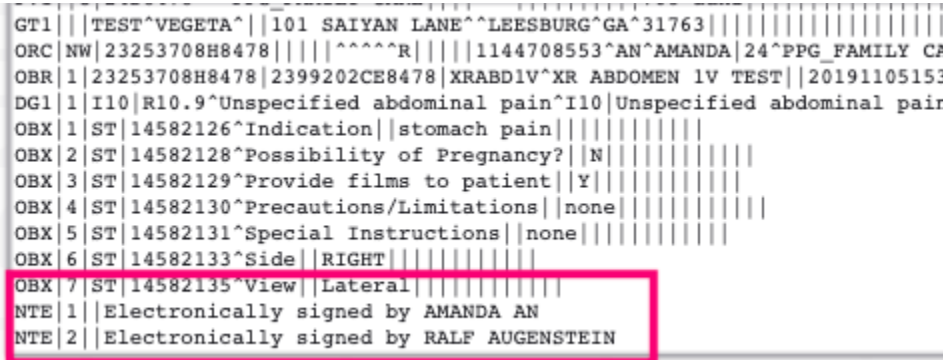
8/23/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
8/24/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
8/25/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
8/26/19	2	2	<ul style="list-style-type: none"> <li>• Continued to work on X-rays compendium build. Mostly creating order descriptions and order type mappings. No CPT code mappings done today.</li> </ul>
8/27/19	1 1	2	<ul style="list-style-type: none"> <li>• Weekly webex call with Athena resources for status updates on compendium build and interface configurations.</li> <li>• Continued to work on X-rays compendium build order descriptions and order type mappings. No CPT code mappings done yet.</li> </ul>
8/28/19	2	2	<ul style="list-style-type: none"> <li>• Worked on mapping out current state workflow for registration department.</li> </ul>
8/29/19	0.5	0.5	<ul style="list-style-type: none"> <li>• Created an order in the Athena Test environment to generate an HL7 message for an example.</li> </ul>
8/30/19	0	0	<ul style="list-style-type: none"> <li>• Zero day. Got to leave at 12, woohoo!</li> </ul>
8/31/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
9/1/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
9/2/19	0	0	<ul style="list-style-type: none"> <li>• Zero day (Off for Labor Day)</li> </ul>
9/3/19	0	0	<ul style="list-style-type: none"> <li>• Zero day (Much needed personal day off)</li> </ul>
9/4/19	.5 1 1	2.5	<ul style="list-style-type: none"> <li>• Met with registration team member to review preliminary workflow mapping.</li> <li>• Worked on workflow process mapping for registration X-ray orders. (Corrections and additions)</li> <li>• Phone meeting with PACS administrator to discuss what the process of creating new Imaging procedures in Meditech system consists of.</li> </ul>
9/5/19	1	1	<ul style="list-style-type: none"> <li>• Weekly webex call with Athena for status updates on compendium build and interface configurations. (Need Athena Inbound results interface working in test environment)</li> </ul>

9/6/19	0	0	<ul style="list-style-type: none"> <li>Zero day</li> </ul>
9/7/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/8/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/9/19	1.5 0.5	2	<ul style="list-style-type: none"> <li>Built/registered multiple new test patients in Meditech and Athena test environments. (Test, Thanos... Test, Pennywise... Test, Godzilla... McAwesome, Drock... hehe)</li> <li>Quick improv meeting with my PM and interface analyst for progress updates.</li> </ul>
9/10/19	2 2	4	<ul style="list-style-type: none"> <li>Worked on X-rays compendium build order descriptions and order type mappings. Started mapping CPT codes again. (Almost done! Hopefully...)</li> <li>Worked with PPMH interface analyst to test sending X-ray (XR) orders so we can verify which HL7 segments the compendium data crosses over in.</li> </ul>
9/11/19	1	1	<ul style="list-style-type: none"> <li>Worked on 2<sup>nd</sup> draft of the registration workflow process mapping.</li> </ul>
9/12/19	1	1	<ul style="list-style-type: none"> <li>Weekly webex call with Athena.</li> </ul>
9/13/19	1	1	<ul style="list-style-type: none"> <li>Created and entered data for an "Outbound Orders Issue Tracker" in our Smartsheet cloud service application. (<a href="https://www.smartsheet.com/customers-home">https://www.smartsheet.com/customers-home</a>)</li> </ul>
9/14/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/15/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/16/19	1 4	5	<ul style="list-style-type: none"> <li>Team meeting to catch my Manager/PM up to speed. She was in Colorado all last week... must be nice!</li> <li>Worked with Athena support. Athena Errors for inbound Meditech HL7 ADT A08 (Patient Information Update) messages started populating. Lasted all dang day and didn't get it fixed....</li> </ul> <div data-bbox="566 1581 1523 1646"> <p>ATHENAERROR 09/16/2019 12:29:59 IN A08 PHOEBE::MEDITECH::ADT • INVALID RULE: DBD::Oracle::st execute failed: ORA-01722 • <a href="#">delete this message</a></p> </div>
9/17/19	2	2	<ul style="list-style-type: none"> <li>Worked on going through ordering scenarios with my interface analyst to generate HL7 ORM data. Examples: multiple x-ray</li> </ul>

			orders, ones that include medication, ones that include diagnosis codes, etc.
9/18/19	1	1	<ul style="list-style-type: none"> <li>Meeting with PACS Administrator to gather how order results are processed through their part of Meditech.</li> </ul>
9/19/19	0	0	<ul style="list-style-type: none"> <li>Zero day</li> </ul>
9/20/19	1.5	1.5	<ul style="list-style-type: none"> <li>Weekly webex call with Athena. They were able to resolve the Athena ADT errors the day before... just didn't tell us....</li> </ul>
9/21/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/22/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/23/19	4	4	<ul style="list-style-type: none"> <li>Worked with interface analyst on getting Meditech to accept and process ORM (HL7 Orders message) from Athena by creating multiple orders. Managed/monitored Athena IMQM (interface message queue manager) and the Meditech interface manager for errors.... This did not work out in our favor.</li> </ul>
9/24/19	2	2	<ul style="list-style-type: none"> <li>Worked on X-rays compendium build order type mappings and CPT codes. Finished descriptions!</li> </ul>
9/25/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/26/19	0.5	0.5	<ul style="list-style-type: none"> <li>Weekly webex call with Athena. Just status updates.</li> </ul>
9/27/19	1 2	3	<ul style="list-style-type: none"> <li>Finished Registration workflow process mapping.</li> <li>Worked on current state DFD for interface messages. Don't think this will take me too long, ha!</li> </ul>
9/28/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/29/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
9/30/19	2 0.5	2.5	<ul style="list-style-type: none"> <li>Finished remaining CPT code mappings for the X-ray compendium build. FINALLY!</li> <li>Created a few test orders to make sure they were still crossing into Meditech properly.</li> </ul>
10/1/19	1 3	4	<ul style="list-style-type: none"> <li>Created and registered brand-new test patients in Meditech for testing.</li> </ul>

			<ul style="list-style-type: none"> <li>• Worked through ordering and results testing with Interface Analyst and PACS administrator to get a full work through. Sadly, the results coming back into Athena were not linking to the order.</li> </ul>
10/2/19	4	4	<ul style="list-style-type: none"> <li>• Continued working with interface analyst and PACS orders/results testing scenarios. Pulled in medical records resource to make sure they see what they need to in MT on patient record.</li> <li>• Worked with Athena analyst to resolve the order/results linking issue in Athena.</li> </ul>
10/3/19	2	2	<ul style="list-style-type: none"> <li>• Weekly Webex call with Athena. Discussed timeline on tasks completion and if there are things causing hold ups on moving forward.</li> </ul>
10/4/19	3	3	<ul style="list-style-type: none"> <li>• Project meeting with key stakeholders to communicate where we are on the project, if there are any concerns, expected roadblocks, etc.</li> </ul>
10/5/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
10/6/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
10/7/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day (off work)</li> </ul>
10/8/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day (off work)</li> </ul>
10/9/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day (off work)</li> </ul>
10/10/19	1 1	2	<ul style="list-style-type: none"> <li>• Created new test patient and placed Athena orders to verify everything was still working before weekly Athena call.</li> <li>• Weekly webex call with Athena</li> </ul>
10/11/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
10/12/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
10/13/19	0	0	<ul style="list-style-type: none"> <li>• Zero Day</li> </ul>
10/14/19	2.5 1	3.5	<ul style="list-style-type: none"> <li>• Placed orders for testing inbound results. Worked with PACs Admin testing inbound results from Meditech. Found that results are not tying to orders properly... go figure...BUT they are processing into the correct Athena patient chart at least.</li> <li>• Started investigating why the results are not tying to the order.</li> </ul>

10/15/19	4	4	<ul style="list-style-type: none"><li>Continued investigating why the results are not tying to the orders in Athena. Found out that the MT result mnemonic in the HL7 ORU is not the same as what is in the HL7 ORM coming out of Athena</li></ul>																		
10/16/19	1 4	5	<ul style="list-style-type: none"><li>Met with Clinical Analyst and found that there are two different mnemonic types for each order in Meditech... an order mnemonic and a "Connection" mnemonic, which is what is in the ORU.... Yayyyy....</li><li>Started moving the current ordering mnemonics that are in the Athena "Order type" compendium field to the "Foreign Namespace ID" field and putting the connection mnemonic in the "Order Type" field.</li></ul>																		
10/17/19	1	1	<ul style="list-style-type: none"><li>Weekly call with Athena vendor</li></ul>																		
10/18/19	2	2	<ul style="list-style-type: none"><li>Continued working on the compendium changes... this will be quick. 😊</li></ul>																		
10/19/19	0	0	<ul style="list-style-type: none"><li>Zero Day</li></ul>																		
10/20/19	0	0	<ul style="list-style-type: none"><li>Zero Day</li></ul>																		
10/21/19	3.5 1	4.5	<ul style="list-style-type: none"><li>Finished making the compendium changes needed to tie results to orders. This took way longer than I wanted it to...</li></ul> <table><tr><th>Order Type</th><th>Display Name</th><th>Orderable</th><th>Paper Order Code</th><th>Order Code</th><th>Foreign Namespace ID</th></tr><tr><td>XR, ABDOMEN, 1 VIEW</td><td>XR ABDOMEN 1V</td><td>Yes</td><td>74018</td><td>XRABD1V</td><td>ABD1V/RAD</td></tr><tr><td>XR, ABDOMEN, 2 VIEW</td><td>XR ABDOMEN 2V</td><td>Yes</td><td>74019</td><td>XRKUB2</td><td>KUB2/RAD</td></tr></table> <ul style="list-style-type: none"><li>Exported the compendium to excel sheet and compared it to the MT mnemonic spreadsheet the clinical analyst provided.</li></ul>	Order Type	Display Name	Orderable	Paper Order Code	Order Code	Foreign Namespace ID	XR, ABDOMEN, 1 VIEW	XR ABDOMEN 1V	Yes	74018	XRABD1V	ABD1V/RAD	XR, ABDOMEN, 2 VIEW	XR ABDOMEN 2V	Yes	74019	XRKUB2	KUB2/RAD
Order Type	Display Name	Orderable	Paper Order Code	Order Code	Foreign Namespace ID																
XR, ABDOMEN, 1 VIEW	XR ABDOMEN 1V	Yes	74018	XRABD1V	ABD1V/RAD																
XR, ABDOMEN, 2 VIEW	XR ABDOMEN 2V	Yes	74019	XRKUB2	KUB2/RAD																
10/22/19	1	1	<ul style="list-style-type: none"><li>Created new test patients in MT for a fresh start after the compendium changes.</li></ul>																		
10/23/19	2	2	<ul style="list-style-type: none"><li>Worked with PACS Admin. Placed orders and tested results mapping with the compendium changes. Working!! Woot woot!</li></ul>																		
10/24/19	1.5	1.5	<ul style="list-style-type: none"><li>Weekly webex call with Athena.</li></ul>																		
10/24/19	1	1	<ul style="list-style-type: none"><li>Worked with our Interface analyst spot checking ORM messages for orders we have not done yet. Got to work from home too!!</li></ul>																		
10/26/19	0	0	<ul style="list-style-type: none"><li>Zero Day</li></ul>																		
10/27/19	0	0	<ul style="list-style-type: none"><li>Zero Day</li></ul>																		

10/28/19	2 1.5 1 2	6.5	<ul style="list-style-type: none"> <li>IS Project Team meeting to catch up on where we are (pending tasks, roadblocks, status updates)</li> <li>Meeting with Registration and Central Scheduling to review current project status and pull them in for testing.</li> <li>Meeting with Compliance/HR</li> <li>Worked with some registration staff and PACS resource to test orders, having reg. staff activate orders in MT, and results mappings.</li> </ul>
10/29/19	2	2	<ul style="list-style-type: none"> <li>Continued testing with registration staff and PACS resource</li> </ul>
10/30/19	2	2	<ul style="list-style-type: none"> <li>Weekly webex with Athena. Still waiting for their developers to put "Supervising Provider Signature" Segment in the ORM...</li> </ul>
10/31/19	.5 2	2.5	<b>Halloween!!</b> <ul style="list-style-type: none"> <li>Brief improv meeting with interface teammate to discuss working down the entire compendium list to test every order.</li> <li>Started working down the compendium list sending each order to verify it processes into MT.</li> </ul>
11/1/19	1 1	2	<ul style="list-style-type: none"> <li>Continued working down compendium list testing each order.</li> <li>Individual meeting with my Team Lead/PM to go over Athena related project tasks statuses.</li> </ul>
11/2/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/3/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
			I believe we are actually ahead of schedule for Go Live now....
11/4/19	1	1	<ul style="list-style-type: none"> <li>Webex meeting with Athena. The dev. team has implemented the "Supervising Provider Signature" in the ORM finally!</li> </ul> 

11/5/19	1 3	4	<ul style="list-style-type: none"> <li>Built new test patients in the system.</li> <li>Tested orders with the new ORM segment in place. Worked with my interface analyst to adjust the programming logic so that the "Supervising" signature would be placed in the appropriate MT fields, specifically the patient order summary.</li> </ul>
11/6/19	2.5	2.5	<ul style="list-style-type: none"> <li>Worked with PACS resource to test order results with new ORM segment to verify it is in the ORU messages and that it populates on the documentation.</li> </ul>
11/7/19	1	1	<ul style="list-style-type: none"> <li>Meet with compliance/HR to verify they need no other information on the patient order summary.</li> </ul>
11/8/19	3	3	<ul style="list-style-type: none"> <li>Started working through Athena provided test plan requiring sign off so we can move forward with Go live.</li> </ul>
11/9/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/10/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/11/19	2.5 2 .5	5	<ul style="list-style-type: none"> <li>Continued working through Athena test plan for sign off.</li> <li>IS project team meeting with PM and our interface resource to walk through the entire workflow process together.</li> <li>Quick improv phone meeting with PACS admin.</li> </ul>
11/12/19	4	4	<ul style="list-style-type: none"> <li>MAJOR meeting with managers, directors, and staff from the IS, Scheduling, Radiology, Compliance, &amp; Financial departments regarding the Protecting Access to Medicare Act (PAMA) and appropriate use criteria (AUC) for advanced diagnostic imaging services (ADIS) that is starting Jan. 1 2020. Involved discussion on Athena orders project... among 10,000 other things... <b>This is a BIG freaking deal.</b></li> </ul>
11/13/19	1	1	<ul style="list-style-type: none"> <li>Finished up Athena test plan</li> </ul>
11/14/19	1.5	1.5	<ul style="list-style-type: none"> <li>Weekly webex call with Athena.</li> </ul>
11/15/19	2	2	<ul style="list-style-type: none"> <li>One on One meeting with PM to discuss pending tasks, roadblocks, any concerns I may have, and PAMA/AUC future impact of Athena orders.</li> </ul>
11/16/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/17/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>



11/18/19	2 1	3	<ul style="list-style-type: none"> <li>Athena integrated an Appropriate Use Scoring feature on their orders menu on 11/13 (we were unaware of). Tested orders using the new feature to see if the ORM contained this data in it and if it impacted our current configurations. The ORM didn't have the data and the new feature had no effect on our configurations.</li> </ul> <div> <div>Description</div> <div>XR DEXA FOREARM</div> </div> <div> <div>Diagnosis</div> <div>Pain in forearm</div> </div> <div> <div>ICD-10</div> <div>M79.639 Pain in unspecified forearm</div> </div> <div> <div>Appropriateness Score</div> <div>Adheres</div> <div>HCPCS modifier: ME</div> </div> <div> <div>Scored by</div> <div>MedCurrent (G1002)</div> </div> <div> <div>Consultation ID</div> <div>1645872</div> </div> <div>CANCEL</div>
11/19/19	2	2	<ul style="list-style-type: none"> <li>PAMA/AUC meeting to update stakeholders on the impact the new Athena feature has on the current orders project and the potential future impact it may have.</li> </ul>
11/20/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/21/19	2 1	3	<ul style="list-style-type: none"> <li>Weekly webex call with Athena. Main focus discussed was the new AUC feature, where the data will be located in the ORM, and when it will be implemented.</li> <li>Continued doing some minor testing with PACs admin on order/results mappings</li> </ul>
11/22/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/23/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/24/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/25/19	2.5 2	4.5	<ul style="list-style-type: none"> <li>Meeting with key project stakeholders from Compliance &amp; HR, Central Wide Scheduling (CWS), Registration, and the Central Business Office for any final questions and/or concerns before moving forward with Go Live (<b>Now 12/19</b>)</li> </ul>

			<ul style="list-style-type: none"> <li>Webex call with Athena to go over their completed testing plan and verify we are still planned for 12/19 to Go Live.</li> </ul>
11/26/19	1.5 3	4.5	<ul style="list-style-type: none"> <li>Built a quite a few new test patients in MT for fresh testing</li> <li>Went through Athena's provided testing plan once more as well as our own testing scenarios just to be sure nothing was missed.</li> </ul>
11/27/19	2	2	<ul style="list-style-type: none"> <li>Continued testing from the prior day. Got to leave at 12 for Thanksgiving Holiday break!</li> </ul>
11/28/19		0	<ul style="list-style-type: none"> <li>Zero Day <b>Happy Thanksgiving!</b></li> </ul>
11/29/19		0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
11/30/19		0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
12/1/19		0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
12/2/19	2.5	2.5	<ul style="list-style-type: none"> <li>Finished testing that I started last week</li> </ul>
12/3/19	2	2	<ul style="list-style-type: none"> <li>Project Team meeting to discuss Go Live plan and Roll back plan. Decided Go Live an addition week earlier!! Go Live is now <b>12/12</b></li> </ul>
12/4/19	0	0	<ul style="list-style-type: none"> <li>Zero day</li> </ul>
12/5/19	1	1	<ul style="list-style-type: none"> <li>Weekly webex call with Athena.</li> </ul>
12/6/19	1.5	1.5	<ul style="list-style-type: none"> <li>Checked interface engine logs, verified compendium mappings were still correct, and did a couple of quick tests before the day was done!</li> </ul>
12/7/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
12/8/19	0	0	<ul style="list-style-type: none"> <li>Zero Day</li> </ul>
<b>Total hours</b>		<b>162</b>	

Please add rows as required.