

Budget and Schedule

Hovanes Egiyan

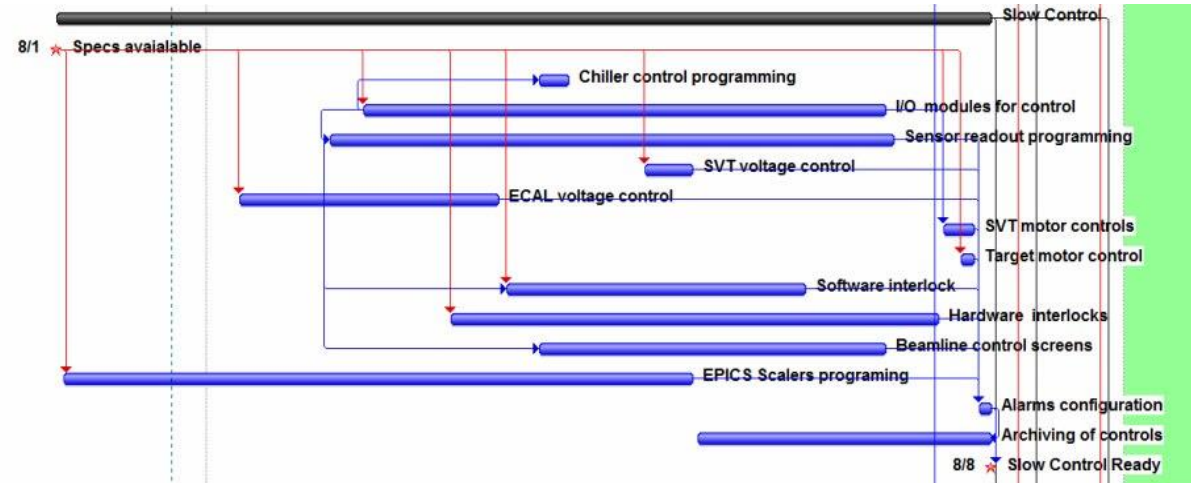
Baseline Project Budget

ID	WBS	Task Name	Type	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital Equipments
126	1.6	1.6 Slow Control		\$75,527.60	\$94,409.50	\$31,290.00	\$39,112.50	\$133,522.00	\$0.00	\$0.00	\$0.00	\$27,937.50	\$105,584.50
127	1.6.1	1.6.1 Chiller control programming EE Accelerator JLAB Hovanes Hegiyan (Phys)		\$8,885.60 \$8,885.60 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00
128	1.6.2	1.6.2 I/O modules for control I/O Modules for controls Hovanes Hegiyan (Phys)	INFRA	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$22,350.00 \$22,350.00 \$0.00	\$27,937.50 \$27,937.50 \$0.00	\$27,937.50 \$27,937.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$27,937.50 \$27,937.50 \$0.00	\$0.00 \$0.00 \$0.00
129	1.6.3	1.6.3 Sensor readout programming Nerses Gevorgyan (EE) Hovanes Hegiyan (Phys)		\$13,328.40 \$13,328.40 \$0.00	\$16,660.50 \$16,660.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$16,660.50 \$16,660.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$16,660.50 \$16,660.50 \$0.00
130	1.6.4	1.6.4 SVT voltage control Hovanes Hegiyan (Phys) Nerses Gevorgyan (EE)		\$13,328.40 \$0.00 \$13,328.40	\$16,660.50 \$0.00 \$16,660.50	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$16,660.50 \$0.00 \$16,660.50	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$16,660.50 \$0.00 \$16,660.50
131	1.6.5	1.6.5 ECAL voltage control Hovanes Hegiyan (Phys) Nerses Gevorgyan (EE)		\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00
132	1.6.6	1.6.6 SVT motor controls EE Accelerator JLAB Hovanes Hegiyan (Phys)		\$8,885.60 \$8,885.60 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00
133	1.6.7	1.6.7 Target motor control EE Accelerator JLAB Hovanes Hegiyan (Phys)		\$4,442.80 \$4,442.80 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00
134	1.6.8	1.6.8 Software interlock EE Accelerator JLAB Hovanes Hegiyan (Phys)		\$4,442.80 \$4,442.80 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00
135	1.6.9	1.6.9 Hardware interlocks Hardware Interlock Equipments EE Hall-B JLAB Hovanes Hegiyan (Phys)		\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$8,940.00 \$8,940.00 \$0.00 \$0.00	\$11,175.00 \$11,175.00 \$0.00 \$0.00	\$11,175.00 \$11,175.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$11,175.00 \$11,175.00 \$0.00 \$0.00
136	1.6.10	1.6.10 Beamline control screens Nerses Gevorgyan (EE) Hovanes Hegiyan (Phys)		\$4,442.80 \$4,442.80 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00
137	1.6.11	1.6.11 EPICS Scalers programing Nerses Gevorgyan (EE) Hovanes Hegiyan (Phys)		\$8,885.60 \$8,885.60 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$11,107.00 \$11,107.00 \$0.00
138	1.6.12	1.6.12 Alarms configuration Nerses Gevorgyan (EE) Hovanes Hegiyan (Phys)		\$4,442.80 \$4,442.80 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$5,553.50 \$5,553.50 \$0.00
139	1.6.13	1.6.13 Archiving of controls EE Accelerator JLAB		\$4,442.80 \$4,442.80	\$5,553.50 \$5,553.50	\$0.00 \$0.00	\$0.00 \$0.00	\$5,553.50 \$5,553.50	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$5,553.50 \$5,553.50

\$106,817.6

Baseline Project Schedule

			256 days	Thu 8/1/13	Fri 8/8/14
128	1.6	Slow Control			
129	1.6.1	Specs available	0 days	Thu 8/1/13	Thu 8/1/13
130	1.6.2	Chiller control programming	2 wks	Mon 2/10/14	Fri 2/21/14
131	1.6.3	I/O modules for control	7 mons	Mon 12/2/13	Fri 6/27/14
132	1.6.4	Sensor readout programming	30 wks	Tue 11/19/13	Tue 7/1/14
133	1.6.5	SVT voltage control	3 wks	Mon 3/24/14	Fri 4/11/14
134	1.6.6	ECAL voltage control	13 wks	Mon 10/14/13	Fri 1/24/14
135	1.6.7	SVT motor controls	2 wks	Mon 7/21/14	Fri 8/1/14
136	1.6.8	Target motor control	1 wk	Mon 7/28/14	Fri 8/1/14
137	1.6.9	Software interlock	17 wks	Tue 1/28/14	Mon 5/26/14
138	.6.10	Hardware interlocks	7 mons	Mon 1/6/14	Fri 7/18/14
139	.6.11	Beamline control screens	5 mons	Mon 2/10/14	Fri 6/27/14
140	6.12	EPICS Scalers programing	34 wks	Mon 8/5/13	Fri 4/11/14
141	6.13	Alarms configuration	1 wk	Mon 8/4/14	Fri 8/8/14
142	6.14	Archiving of controls	17 wks	Mon 4/14/14	Fri 8/8/14
143	6.15	Slow Control Ready	0 days	Fri 8/8/14	Fri 8/8/14



- We aim at completion of the requirements from the working groups within the budget in the proposal in May 2013.
 - Success depends on the resources (manpower) we allocate
- Produce new list of task with names assigned if possible.
 - Consider as a preliminary work plan with schedule
 - New tasks in the new list are within the scope of the baseline
- Milestones from working groups:
 - 15 May 2014 - Voltages for SVT test at SLAC
 - 28 Feb 2014 - Pair Spectrometer power supply controls are ready
 - 01 Feb 2014 - SVT motor setup sent to SLAC
 - 31 May 2014 - ECAL voltage control
 - 08 Aug 2014 - All controls are ready

Working Budget & Schedule

Travel

Person	Ticket	Per diem + Lodging	Total	Comments
Bryan	\$1,000	\$3,000	\$4,000	Trip to JLab in February 2014
Bryan	\$1,000	\$4,000	\$5,000	Trip to JLab for control integration in August
Bryan	\$1,000	\$2,000	\$3,000	Trip to JLab for SVT test in May
Bryan	\$500	\$3,000	\$3,500	Trip to SLAC for SVT test in May
Student	\$2,000	\$26,000	\$28,000	Trip to JLab for controls development
Total			\$43,500	

Material

Items	Cost estimate
PLC chassis for interlocks	\$6,000
Embedde PC for chiller controls	\$1,600
Additional I/O modules	\$3,000
Accessories	\$3,000
Total	\$13,600

Tasks and Labor

Activity	Person 1	Person 2	Start	End	Labor (man-weeks)	Project \$
SVT motors to SLAC	Krister	Hovanes	1-Dec-13	30-Jan-14	1	\$0
Fracatti magnets PS controls	Krister		1-Dec-13	30-Apr-14	3	\$0
Pair spectrometer PS controls	Krister		1-Dec-13	28-Feb-14	1	\$0
Moeller quads and Helmholtz coil	Krister		1-Feb-14	30-Jun-14	1	\$0
Gaussmeters controls	Hovanes	Student	1-Mar-14	30-Jun-14	1	\$0
Moeller, collimator, 2C21, 2C24, collimator motors	Krister	Hovanes	1-Apr-14	30-May-14	1	\$0
Target, blocker, 2H00 motors	Krister	Hovanes	1-Apr-14	30-May-14	1	\$0
SVT PLC connection and programming	Krister		1-May-14	30-Jul-14	3	\$0
SVT wire scan software	Student		1-May-14	30-Jul-14	8	\$0
Chiller controls	Accelerator		14-May-14	30-Jun-14	4	\$15,000
EPICS Controls GUIs	Student		1-Jul-14	30-Aug-14	6	\$0
ECAL voltage IOC	Nerses	Hovanes	10-Jan-14	30-Mar-14	1	\$0
SVT voltage IOC	Nerses	Hovanes	10-Jan-14	28-Feb-14	1	\$0
ECAL voltage GUIs	Bryan		1-Dec-13	30-Apr-14	4	\$0
SVT voltage GUIs	Bryan		1-Dec-13	30-Apr-14	4	\$0
SVT voltage integration at SLAC	Bryan		15-May-14	30-May-14	2	\$0
ECAL temperature monitoring	Krister	Hovanes	1-Jun-14	30-Jul-14	0.5	\$0
Alarm system	Student		1-Jul-14	30-Aug-14	6	\$0
ECAL integration	Bryan		15-Aug-14	15-Sep-14	1	\$0
SVT integration at JLAB	Pelle	Bryan	15-Aug-14	15-Sep-14	1	\$0
Interlock checkout	Krister		25-Aug-14	10-Sep-14	0.5	\$0
EPICS Archiving	Student		1-Aug-14	15-Sep-14	2	\$0
Scalers in EPICS	Hovanes	Student	10-Jan-14	30-May-14	2	\$0
Total					55	\$15,000

Total Cost Estimate:

$$\$43500 + \$13600 + \$15000 = \$72100$$

Total Labor Estimate: 55 man-weeks

- Approximately 1 FTE (if not counting student time x2 inflation)

Summary

- We collected enough information to start working
 - The corrections and new requirements should come as soon as possible
- Revised the schedule to assign dates and people to create a work schedule
 - Still need to determine the source of manpower
 - Current plan assumes significant contribution from visitors
 - Travel expenses
- If current plan realized and no new significant requirements are presented both labor and material costs will be well within the budget.
- Trying to assign manpower to the tasks
 - Additional people that we expect to contribute (Bryan from Galsgow, Ani from Yerevan)
 - Still need to negotiate with Accelerator Controls Group.
- The main work is still to be done.