Budget and Schedule

Hovanes Egiyan

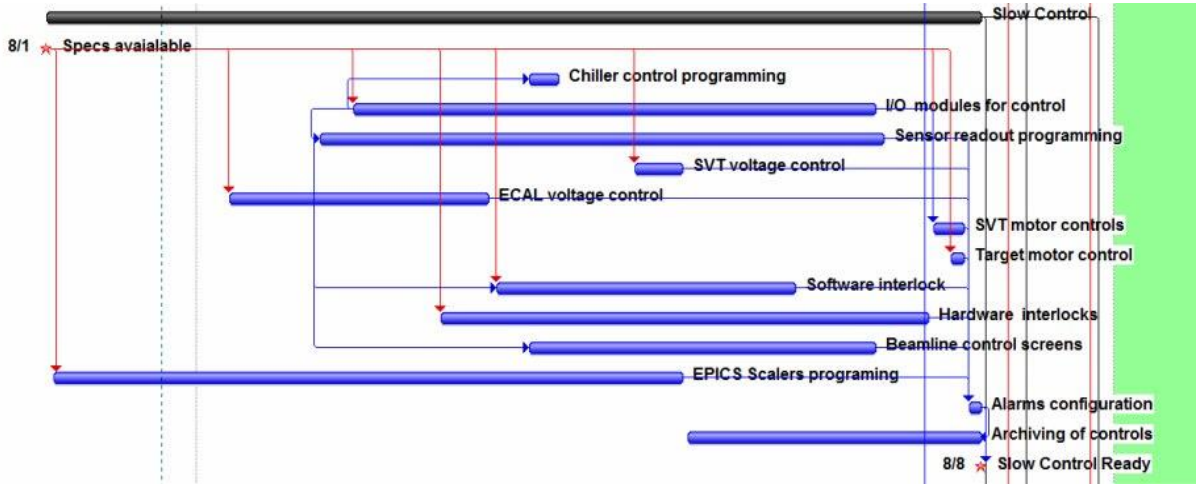
Baseline Project Budget

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		$8,885.60	$11,107.00	$0.00	$0.00	$11,107.00	$0.00	$0.00	$0.00	$0.00	$11,107.00
		EE Accelerator JLAB		*$8,885.60*	*$11,107.00*	*$0.00*	*$0.00*	*$11,107.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$11,107.00*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
128	1.6.2	1.6.2 I/O modules for control		$0.00	$0.00	$22,350.00	$27,937.50	$27,937.50	$0.00	$0.00	$0.00	$27,937.50	$0.00
		I/O Modules for controls	*INFRA*	*$0.00*	*$0.00*	*$22,350.00*	*$27,937.50*	*$27,937.50*	*$0.00*	*$0.00*	*$0.00*	*$27,937.50*	*$0.00*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
129	1.6.3	1.6.3 Sensor readout programming		$13,328.40	$16,660.50	$0.00	$0.00	$16,660.50	$0.00	$0.00	$0.00	$0.00	$16,660.50
		Nerses Gevorgyan (EE)		*$13,328.40*	*$16,660.50*	*$0.00*	*$0.00*	*$16,660.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$16,660.50*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
130	1.6.4	1.6.4 SVT voltage control		$13,328.40	$16,660.50	$0.00	$0.00	$16,660.50	$0.00	$0.00	$0.00	$0.00	$16,660.50
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
		Nerses Gevorgyan (EE)		*$13,328.40*	*$16,660.50*	*$0.00*	*$0.00*	*$16,660.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$16,660.50*
131	1.6.5	1.6.5 ECAL voltage control		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
		Nerses Gevorgyan (EE)		*$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		$8,885.60	$11,107.00	$0.00	$0.00	$11,107.00	$0.00	$0.00	$0.00	$0.00	$11,107.00
		EE Accelerator JLAB		*$8,885.60*	*$11,107.00*	*$0.00*	*$0.00*	*$11,107.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$11,107.00*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
133	1.6.7	1.6.7 Target motor control		$4,442.80	$5,553.50	$0.00	$0.00	$5,553.50	$0.00	$0.00	$0.00	$0.00	$5,553.50
		EE Accelerator JLAB		*$4,442.80*	*$5,553.50*	*$0.00*	*$0.00*	*$5,553.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$5,553.50*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
134	1.6.8	1.6.8 Software interlock		$4,442.80	$5,553.50	$0.00	$0.00	$5,553.50	$0.00	$0.00	$0.00	$0.00	$5,553.50
		EE Accelerator JLAB		*$4,442.80*	*$5,553.50*	*$0.00*	*$0.00*	*$5,553.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$5,553.50*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
135	1.6.9	1.6.9 Hardware interlocks		$0.00	$0.00	$8,940.00	$11,175.00	$11,175.00	$0.00	$0.00	$0.00	$0.00	$11,175.00
		Hardware Interlock Equipments		*$0.00*	*$0.00*	*$8,940.00*	*$11,175.00*	*$11,175.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$11,175.00*
		EE Hall-B JLAB		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
136	1.6.10	1.6.10 Beamline control screens		$4,442.80	$5,553.50	$0.00	$0.00	$5,553.50	$0.00	$0.00	$0.00	$0.00	$5,553.50
		Nerses Gevorgyan (EE)		*$4,442.80*	*$5,553.50*	*$0.00*	*$0.00*	*$5,553.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$5,553.50*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
137	1.6.11	1.6.11 EPICS Scalers programing		$8,885.60	$11,107.00	$0.00	$0.00	$11,107.00	$0.00	$0.00	$0.00	$0.00	$11,107.00
		Nerses Gevorgyan (EE)		*$8,885.60*	*$11,107.00*	*$0.00*	*$0.00*	*$11,107.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$11,107.00*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
138	1.6.12	1.6.12 Alarms configuration		$4,442.80	$5,553.50	$0.00	$0.00	$5,553.50	$0.00	$0.00	$0.00	$0.00	$5,553.50
		Nerses Gevorgyan (EE)		*$4,442.80*	*$5,553.50*	*$0.00*	*$0.00*	*$5,553.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$5,553.50*
		Hovanes Hegiyan (Phys)		*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
139	1.6.13	1.6.13 Archiving of controls		$4,442.80	$5,553.50	$0.00	$0.00	$5,553.50	$0.00	$0.00	$0.00	$0.00	$5,553.50
		EE Accelerator JLAB		*$4,442.80*	*$5,553.50*	*$0.00*	*$0.00*	*$5,553.50*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$5,553.50*

$106,817.6

Baseline Project Schedule

128	1.6	**Slow Control**	256 days	Thu 8/1/13	Fri 8/8/14
129	1.6.1	Specs avaialable	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

Total Cost Estimate:
$43500 + $13600 + $15000 = $72100

Total Labor Estimate: 57 man-weeks

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

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
Frascatti 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-Apr-14	30-Jul-14	8	$0
Chiller controls	Accelerator		14-May-14	30-Jun-14	4	$15,000
EPICS Controls GUIs	Student		1-Jun-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-Jun-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
Helicity and 60Hz	Student		1-Jul-14	1-Aug-14	2	$0
Total					57	$15,000

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.