

CAL Calibration Action Items					
		Last Modified:		2/11/08	
Action Item No.	Description	Assigned to	Date Assigned	Date due	Notes
1	Write CAL calibration procedure doc	Mark			
2	Organize weekly CAL calibration EVO meeting schedule	Mark			
3	Produce model quenching curves vs energy, Z; Normalized to dL/dE electron/dL/dE proton/muon=Qmu/e = 1.07 (beam test results); Note that due to normalization to electron equiv. MeV, we need a curve for protons/muons (a constant "curve") as well as heavier ions.	Fred			This follows Benoit's proposed remediation for the beamtest discrepancy. The MC deposited energy will be multiplied by a "quenching" factor as a function of Eincident and Z that will include the correction to electron equivalent energy. This takes place in CALdigi. Fred: what was resolution of quest to get individual particle type, Eincident and energy deposits included in integrating hits?
4	Create new calibration data type for quenching curves	Zach			
5	Verify with beamtest analysis that 1.07 is correct value for Qmu/e	Sasha			
6	Change muon/proton MIP peak energy in calibGenCAL to correct for Qmu/e	Zach			Results in muon/proton derived MevperDAC being computed in electron equivalent MeV units
7	Remove muon-centric assumptions in calibGenCAL to allow best range proton calibrations	Zach			
8	Create proton selection code for use with MIP and DGN filter data				
9	Create code in calibGenCAL to produce FSW peds and gains				Needs to be available ~L=21 days
10	Complete calibGenCAL modifications for GCR calibration	Zach			Code to handle multiple MevperDAC estimates, consistency checks, output to xml, etc
11	Incorporate mods to integrating hits to allow quenching in CALdigi to be incorporated in GLEAM	Zach			
12	Modify CALdigi to include quenching effects	Zach, Fred			Note that this process starts with muon/proton derived MevperDAC in electron equivalent units, and with quenching curves for muons, protons, and heavier ions. The result of runs with this version of CALdigi will be orbit-integrated estimates of the MPV for each ion, in electron equivalent units
13	Perform and analyze GLEAM runs to using new CALdigi in order to produce MPV for each ion	Fred, Andrey, Mark			Result will be MPVs for each ion to feed back into calibGenCAL
14	Review GCRselect treatment of interacting ions	Zach, Fred, Mark			This is required in order to determine in how much detail we apply quenching corrections in CALdigi i.e. how many particles are we likely to see in a given xtal, how do we deal with charge exchange interactions, etc.
15	Implement heavy ion TKRrecon mods	Johann, Fred			
16	Evaluate implications of ground software freeze on 16 March for calibration software	Eric, Zach, Sasha, Mark			GPO wants a SW freeze on 16 Mar. We're still arguing over what is contained in that freeze, but it's reasonable to assume that anything having to do with config build and verification might be frozen on that date. That means we need all of the threshold DAC calibration code done, configured, and packaged by that date.
17	Finalize Threshold DAC calibration code	Eric, Sasha, Zach			Needs to analyze the threshold scans defined by the attached configs. Needs to create LAC, FLE, FHE, and ULD calibration ancillary files in XML. Needs to be packaged and configured. Needs to run overnight without babysitting. Needs to work!