

# LCLS Data Management Needs

SCA Planning Meeting

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# Introduction

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- **Photon Controls and Data Systems (PCDS) group provides all computing capabilities needed to:**
  - operate the LCLS instruments (controls)
  - acquire the science data (DAQ)
  - process the science data (analysis)
- **Most of the people in the controls and DAQ group come from REG**
- **Most of the people in the analysis group come from SCA**
  - Two people are currently part of LCLS (not REG), but that should probably be changed

# PCDS Effort Breakdown FY12

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Area	FTEs	
Management	1	Transitioning to operation model where each instrument has one dedicated PCDS engineer
Controls	10	Partially reallocating people from construction projects (eg LUSI, MEC) to operations
DAQ	6	
Analysis	3.7	
IT & Networking	2.5	
Instrument Engineers	8	
Infrastructure	2.8	
Total	34	

# Analysis Effort Breakdown FY12

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Person	FTEs	Depending on the budget, may be able to get an additional FTE to replace Marc Messerschmidt
Igor Gaponenko	0.8	
Andy Salnikov	0.5	
Wilko Kroeger	0.4	
Ingrid Ofte	1.0	
Mikhail Dubrovin	1.0	
Total	3.7	

# Analysis Tasks FY12-13

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- **Data Handling**

- Moving data from online to offline, copying data to tape, restoring data from tape, translation to HDF5, compression
- 0.6 FTE

- **Analysis framework**

- Data parsing, data structures (C++ and python), explorer
- 1+ FTEs

- **Instrument scientists and users interface**

- 1 FTE (→ 1.5 FY14)

- **Metadata integration and infrastructure**

- Elog, database, file systems, tools
- 0.2 FTE

- **Algorithms**

- Generic (Matlab like), specific to instrument and/or experiment
- 1 FTE (→ 1.5 FY14)