

KOSMOS Interface Control Documents

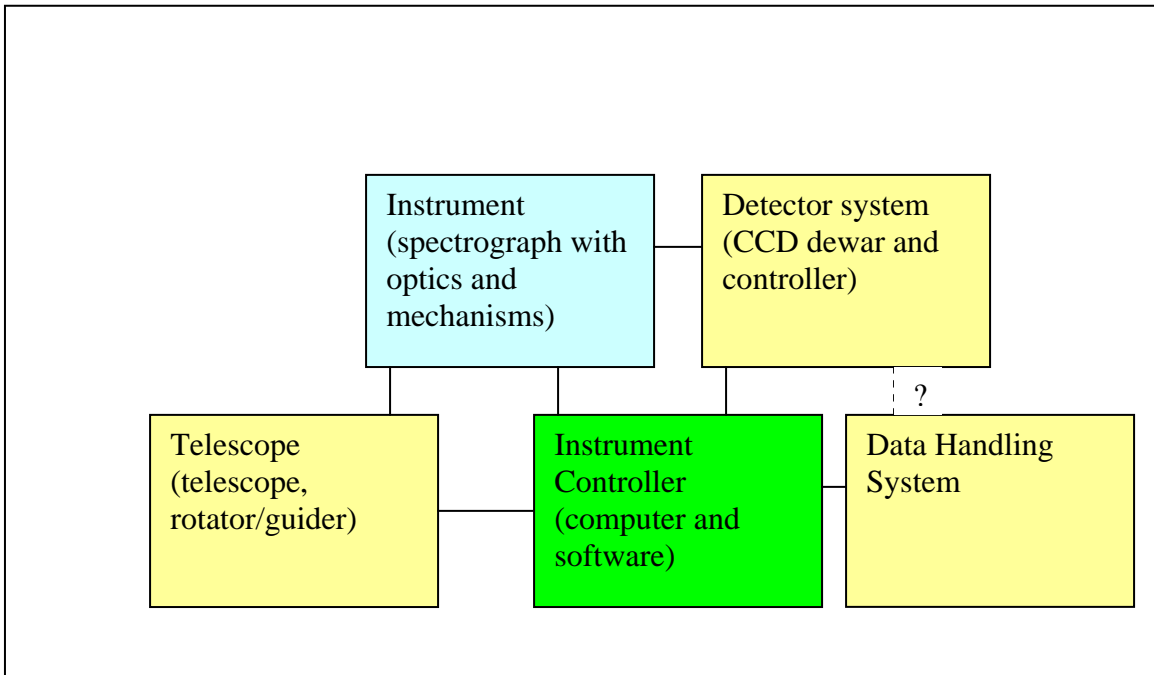
Title: Interface Control Document Listing
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Introduction

This document is intended to provide a listing of the interface control documents (ICDs) associated with KOSMOS. Status is provided. The emphasis is on interfaces between sub-systems provided by different institutions or organizations; “internal” interfaces are not generally included. The list includes a column identifying the institution and individual responsible for leading the ICD.

ICDs are numbered as ICD X.Y where “X” is defined for a specific interface and “Y” is a particular engineering area or sub-category. In some cases the top-level ICD may consist of more than one document.

The overall system architecture is shown below:



KOSMOS System Block Diagram. The presence of a line indicates that an interface is present, though it may be restricted to certain categories (e.g., only software). The boxes in yellow are NOAO-supplied (mostly existing already); the blue box is OSU-supplied and the green box is hybrid.

ICD List

ICD #	Interface	Lead	Status
<i>1</i>	<i>Telescope to Instrument</i>	NOAO (Elias)	<i>Incomplete</i>
1.1	Optical		Optical prescription provided
1.2	Mechanical		Rotator/guider drawings provided
1.3	Software		No direct interface
1.4	Electronic		Need write-up of cable patch panels; power; grounds
1.5	Handling and Installation		Needs write-up
1.6	CTIO deltas		Optical prescription provided; BFD TBC; TCS interface to be defined
<i>2</i>	<i>Detector System to Instrument</i>	NOAO (Elias)	<i>Incomplete</i>
2.1	Optical		Document distance to detector (TBC)
2.2	Mechanical		KP dewar mechanical model available; some details missing; adapter plate TBD (including electrical isolation)
2.3	Software		No direct interface
2.4	Electronic		Need definition of grounding requirements; shutter control
2.5	Handling		Installation; cryogenic requirements
2.6	CTIO deltas		CTIO standard dewar is different from KPNO standard dewar
<i>3</i>	<i>Instrument Controller to Instrument</i>	OSU (Pogge?)	
3.1	Mechanical		Mounting of instrument control computer
3.2	Software		User software to instrument software (IEB); preliminary description exists
3.3	Electronic		Mainly cabling for communications
<i>4</i>	<i>Instrument Controller to Detector System</i>	NOAO (Daly or Hunten)	
4.1	Software		User software to Monsoon/Torrent; should exist via NEWFIRM
4.2	Electronic		Mainly cabling for communications

ICD #	Interface	Lead	Status
5	<i>Instrument Controller to Telescope</i>	NOAO (Daly)	
5.1	Software		User software to TCS; should exist via NEWFIRM
5.2	Electronics		Mainly cabling for communications
5.3	CTIO deltas		TCS differences and how they are dealt with
6	<i>Instrument Controller to Data Handling System</i>	NOAO (Daly)	
6.1	Software		User software to DHS; is there a DHS to detector system ICD as well? Should follow NEWFIRM/Mosaic
6.2	Electronic		Mainly cabling for communications

Versions

Version	Date	Changes
1	May 20, 2010	First draft
2	June 25, 2010	Lead institution/individuals identified in table