Expert Shift Meeting

March 14, 2016 IFO team & Shift managing team

Contents

- Current Status of the Michelson Interferometer
- What will happen this week?
- What will happen once the ifo starts working?
- Example of Interferometer Operation (IMC)
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Overview of iKAGRA (Simplified!)



Current Status of the IFO



Status of 3km Michelson Ifo

• Aligning the beam for 3 km



It took around 2 weeks.

What will happen this week?



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What will happen when the observation starts?

Expert shifts will make sure:

1. IFO is working

How? We don't have the concrete procedure yet. An example of IMC case will be shown to give some idea.

2. Data is properly sent to the data acquisition system

We have some idea.

How to check if IFO is working?

- IMC case is shown here, as the main IFO is not ready yet. Procedure will be similar.
- Detailed manual will be placed in the control room / on observation wiki.
- This should be monitored all the time during the shift. If any failure, call Kamioka people.

Example of IMC Operation

1. Sit on one of the workstations in the control room.



Example of IMC Operation

- 2. Click "medm" on Desktop to open sitemap.
- 3. Click Guardian on sitemap.
- 4. Make sure "IMC_LOCK" guardian screen is all green. (It will be "MICH_LOCK" for IFO)





Example of IMC Operation

4. Double check if IMC is really locked by camera. Camera images are shown in the control room's big monitor. They should look like:



It will be some other camera image for IFO.

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Is Data sent OK?

- 1. Click "medm" on Desktop to open sitemap.
- 2. Click CDS on sitemap.
- 3. All the GDS_TP screens shows 0x0.

This means that data is properly sent to DAQ from each real time software.



3	K1VISMC	CO_GDS_TP.adl	- • ×
SVN # exported FE STATE WORD	K1VISMCO TIM ADC DAC DAQ IPC AWG DK	_GDS_TP EXC OVF	Wed Feb 10 17:23:46 2016 GPS Time 1139127843 Diag Reset
TIMING STATUS	1/0 STATUS OVERFLOWS 2309006 PART NET STAT PaGuard (S/R) 1 0	DAQ STATUS 36 Status CPS SUM DC 0X0 0 27 FAST EPICS DRATE TRATE 8 1717 290 290	CONFIGURATION FILES BURT
CYC/USR 60 6 CPU Max 11 11	900 []] 900 []	Test Points 0 AWG 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Coeff Load Mon Feb 8 13:52:45 2016 DMQ Reload Mon Feb 8 13:52:45 2016

This procedure will be the same for observation shift

2								К1	CD	S-FE	_0	PU_STA	T.adl					-	
K1LSCO Bk1ioplscO Bk1lsc	FE	TIM	ADC	DAC	DAQ	IPC	ANG	DK	EXC	OVF		K1EX0	FE ex0	TIK	ADC				
K1100 Dk1iopiooC Dk1imc Dk1ps1	FE	M	ADC	DAC	DAQ	IPC	AWG	DK	EXC	OVF		K1EY0 Ekliop	FE ey0	TIM	ADC				
K1IMCO BkliopimcO Bklvismci	FE	IM	ADC	DAC	DAQ	IPC	AUG	DK	EXC	OVF									
Dk1vismce Dk1vismco K1PR0 Dk1ioppr0	FE	IM	ADC	DAC	DAQ	IPC	ANG	DK	EXC	OVF									
Qklvisprm Qklvispr3 K1PR2	FE	IM	ADC	DAC	DAQ	IPC	ANG	DK	EXC	OVF									
면k1ioppr2 면k1vispr2																			



Appendix: useful tools

Dataviewer

- Oscilloscope equivalent. It can display fast and slow channels (16kHz, 2kHz or 16Hz)
- Type "dv" to start



StripTool

- Also ocilloscope. Only for EPICS channels (16Hz slow channels)
- Type "StripTool" on terminal to start



Diaggui

- Software corresponding to a FFT analyzer
- Type "diaggui" to start



Tips

• You can check channel names by clicking the wheel of the mouse

 You can drag and drop the channel names for dataviewer and StripTool



CEESET

CLEAR HISTORY

FH3

FH4

LOAD COUFFICIEN