

KAGRA Detector Characterization

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進捗状況：システム、ツール

- **Glitch Monitor**
- **Line Finder**
- **Line Tracking**
- **Line Removal**
- **Rayleigh Monitor**
- **Non-Gaussianity Monitor**
- **RMS Monitor**
- **Noise Floor Monitor**
- **Time-Series Monitor**
- **Spectrum Monitor**
- **Spectrogram Monitor**
- **Sensitivity Monitor**
- **Range Monitor**
 - **Inspiral**
 - **Inspiral-Merger-Ringdown**
 - **Ringdown**
 - **Stochastic**
- **Coherence Finder**
- **Multiple-channel coherence finder (BruCo)**
- **Pearson correlation Finder**
- **NonLinear correlation Finder**
- **Realtime Quick look webpage**
- **Daily summary webpage**
- **GUI Interface**
- **Web-Base Interface**
- **Command-line Interface**
- **Health monitor**
- **Globally Correlated magnetic noise**
- **Violin mode**
- **Multi-channel analysis**
- **Newtonian noise**
 - **Effect of water inside the mountain**

進捗状況：システム、ツール

相関関係を
調べる

Glitch Monitor

非定常雑音モニタ

- Line Finder
- Line Tracking
- Line Removal

発振などの
ラインモニタ

- Rayleigh Monitor
- Non-Gaussianity Monitor
- RMS Monitor
- Noise Floor Monitor

ガウス性、定
常性、非ガウ
ス性

- Time-Series Monitor
- Spectrum Monitor
- Spectrogram Monitor

データの様子、
スペクトル

- Sensitivity Monitor
- Range Monitor

重力波への感度

- Inspiral
- Inspiral-Merger-Ringdown
- Ringdown
- Stochastic

Coherence Finder

- Multiple-channel coherence finder (BruCo)
- Pearson correlation Finder
- NonLinear correlation Finder

Realtime Quick look webpage

- Daily summary webpage
- GUI Interface
- Web-Base Interface
- Command-line Interface

インター
フェース

- Health monitor
- Globally Correlated magnetic noise
- Violin mode
- Multi-channel analysis
- Newtonian noise
 - Effect of water inside the mountain

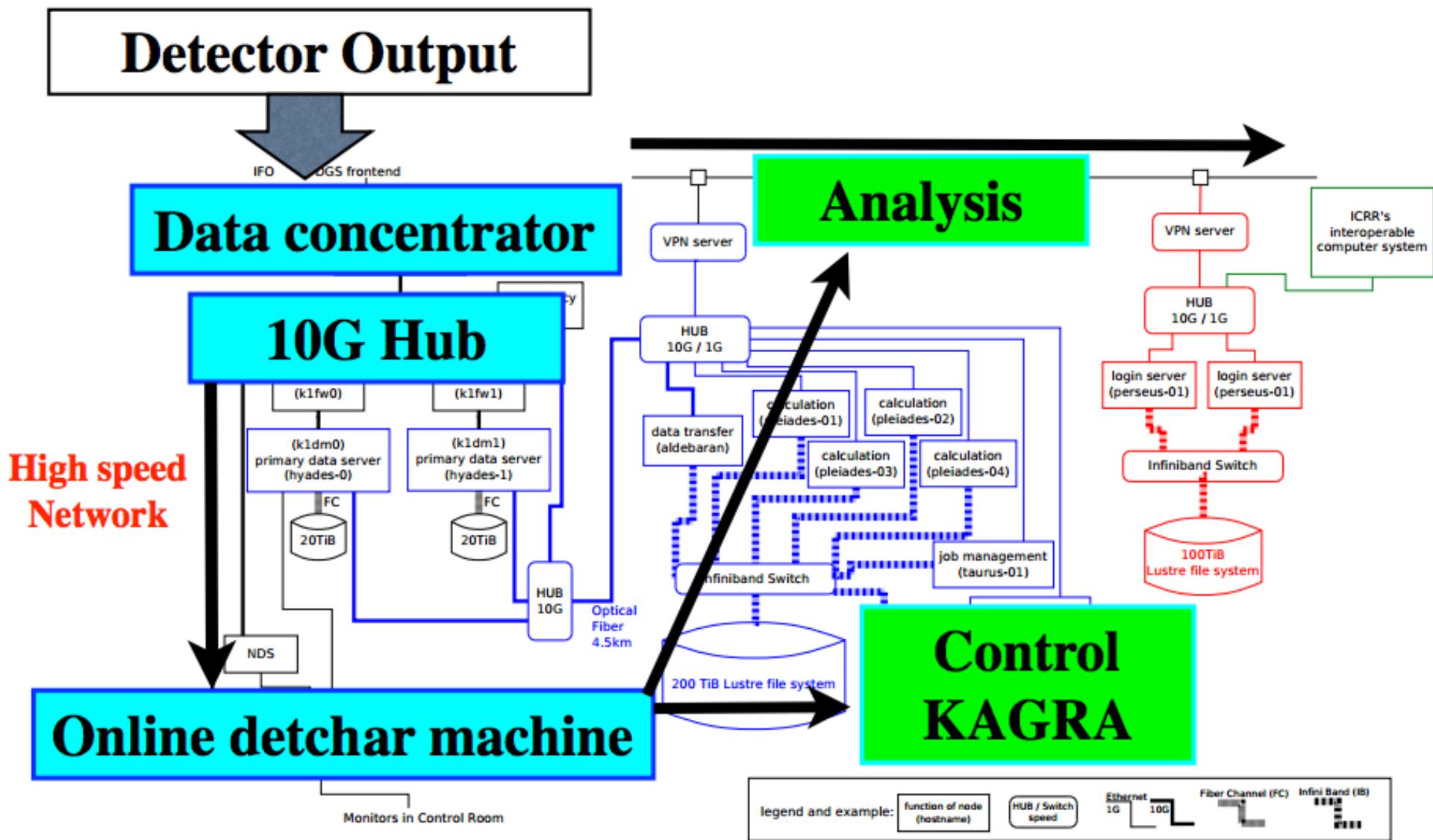
enoshima authored 18 hours ago latest commit df515b023e

HasKAL

..		
Constant	remove haddock header	2 months ago
DataBaseUtils	added function	2 months ago
DetectorUtils	small change	22 days ago
ExternalUtils	bug fixed in DKGLUtils.c	10 days ago
FrameUtils	remove haddock header	2 months ago
GUI_Utils	modified GUI for StochMon update	11 days ago
LineUtils/LineRemoval	modify a sample kagali code	26 days ago
MathUtils/LinearAlgebra	changed directory structure	3 days ago
Misc	remove haddock header	2 months ago
MonitorUtils	RMSMon : modify daily RMSMon and measure running time	9 days ago
PlotUtils	added new function for spectrogram plot	19 hours ago
SearchUtils	added SearchUtils	a year ago
SignalProcessingUtils	added function	18 hours ago
SimulationUtils	remove unnecessary comment	2 months ago
SpectrumUtils	remove function runmed and unnecessary comment	2 months ago
StatisticsUtils	change module name	a year ago
TimeUtils	added function for converting time	a month ago
WaveUtils	add dropWaveData, takeWaveData	a year ago
WebUtils	minor update	10 days ago
Constant.hs	remove haddock header	2 months ago
DataBaseUtils.hs	added DataBaseUtils related	3 months ago
DetectorUtils.hs	added module of modules	a year ago
TimeUtils.hs	added module-setting module	a year ago
WaveUtils.hs	added module-setting file	a year ago
WebUtils.hs	added blank	2 months ago

<https://github.com/gw-analysis/detector-characterization>

進捗状況：ネットワーク



Realtime Channel Monitor

Kanda

Web base interface

- Webから各種ツールが使える
- Webからデータをモニタできる
- スマホからも使える

Past Data Viewer

Date:

GPS Time: 1115097401

Local Time: 2015 Jan. 01 00:00:00 JST

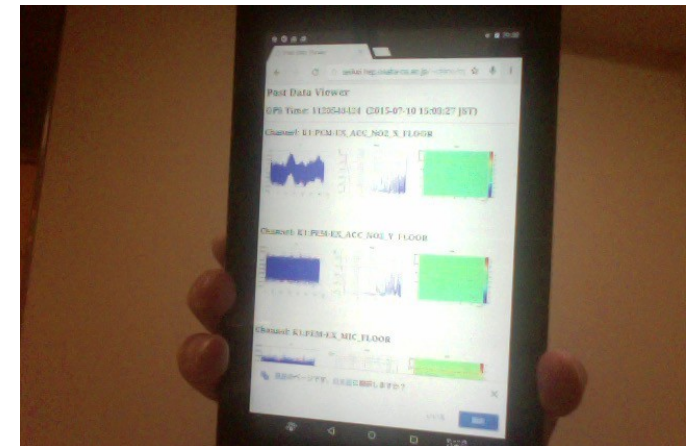
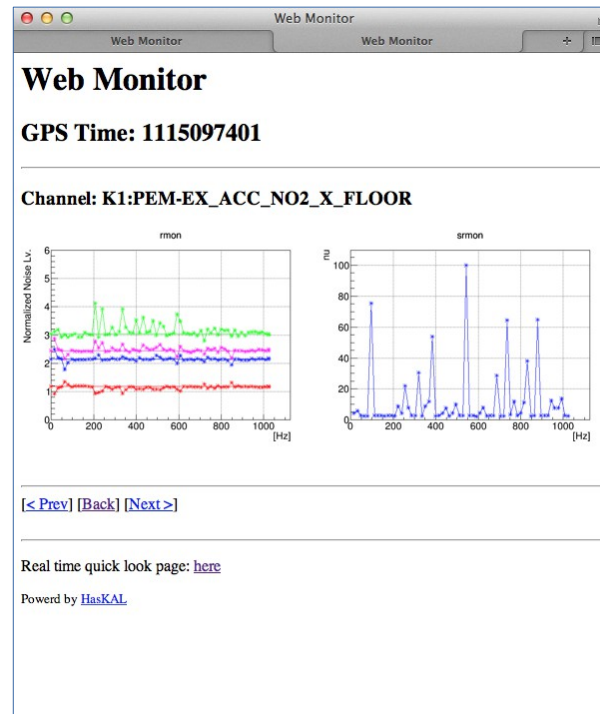
Duration: 32 sec.

Channel:

K1:PEM-EX_ACC_NO2_X_FLOOR
K1:PEM-EX_ACC_NO2_Y_FLOOR
K1:PEM-EX_ACC_NO2_Z_FLOOR
K1:PEM-EX_MAG_X_FLOOR
K1:PEM-EX_MAG_Y_FLOOR

Type:

Time Series
 Spectrum
 Spectrogram



Web base interface

User name : guest
Password : toyamakamioka

- Data Viewer

<http://seikai.hep.osaka-cu.ac.jp/~chino/cgi-bin/pastDataViewer.cgi>

- Multi-Channel Analysis (Bruco)

<http://seikai.hep.osaka-cu.ac.jp/~chino/cgi-bin/multiChannelViewer2.cgi>

- Correlation Analysis (Coherence, Peason)

<http://seikai.hep.osaka-cu.ac.jp/~chino/cgi-bin/multiChannelViewer.cgi>

Past Data Viewer

Date:

GPS Time:

Local Time: 2015 Jan 01 00:00:00 JST

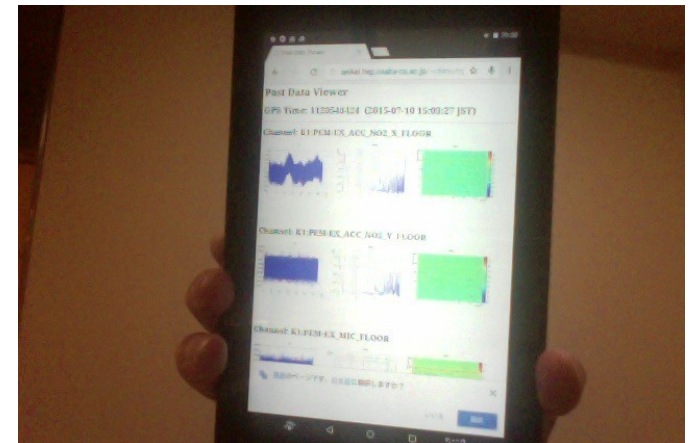
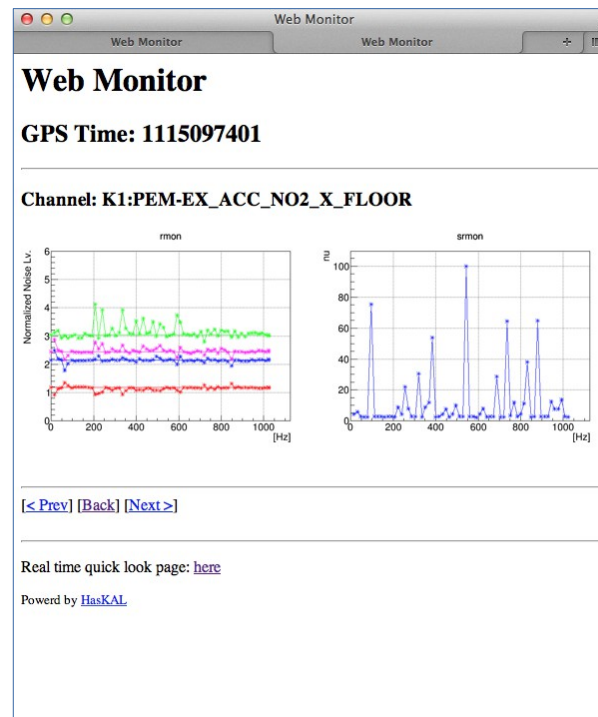
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Channel:

K1:PEM-EX_ACC_NO2_X_FLOOR
K1:PEM-EX_ACC_NO2_Y_FLOOR
K1:PEM-EX_ACC_NO2_Z_FLOOR
K1:PEM-EX_MAG_X_FLOOR
K1:PEM-EX_MAG_Y_FLOOR

Type:

Time Series
 Spectrum
 Spectrogram



Next

- **detcharシステムをonline-detchar計算機に組み込む。（現在その途中）**
- **サブシステムのdetector characterization**
 - 来週MCEのデータをdetcharでモニタからスタート
- **サブシステムDetchar結果をベースとしたシステムティックなデータ評価基準の定義**
 - ロック情報の取得から始める
- **環境雑音の測定**