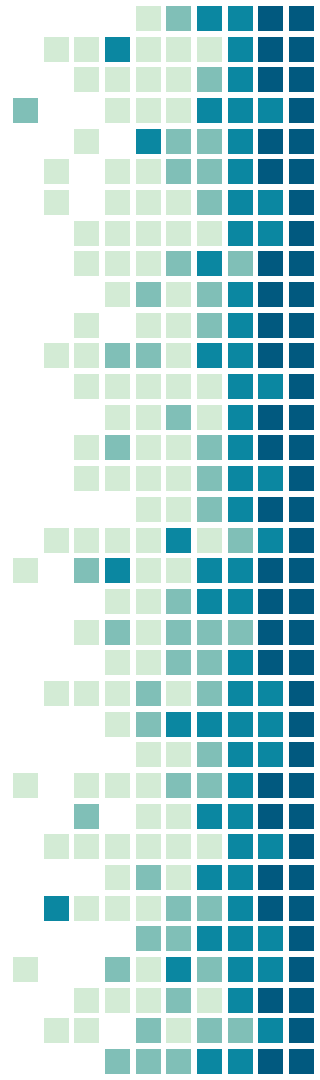


Forum della Ricerca Sperimentale e Tecnologica in INAF

Telescopio Nazionale Galileo

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Il team IT al TNG

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- Nauzet Hernández
- José San Juan
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Infrastrutture informatiche e rete

- Infrastruttura basata su Linux
- Firewall/Router/Analisi dei pacchetti
- File system distribuito
- Ottimizzazione delle risorse hardware (KVM / Docker)
- Backups (Dirvish / Timemachine)
- Software VoIP PBX
- Monitoraggio di computer e risorse di rete



Servizi per gli utenti

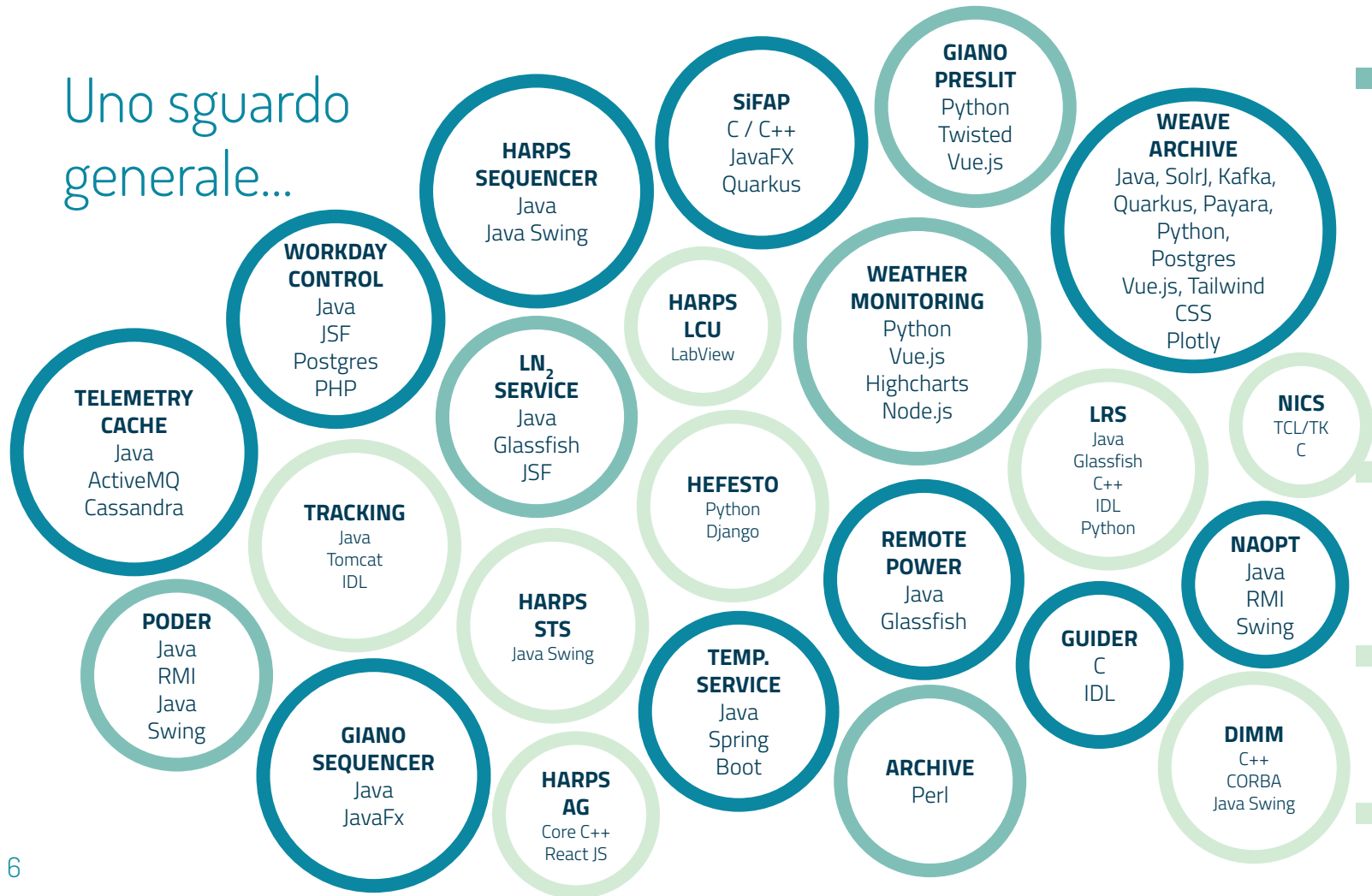
- Zimbra suite
- NextCloud
- Bugzilla
- Repository di codice
- Wiki
- Eduroam
- OpenVPN
- Controllo della giornata
- Gestione delle password
- Helpdesk



Cosa stiamo usando

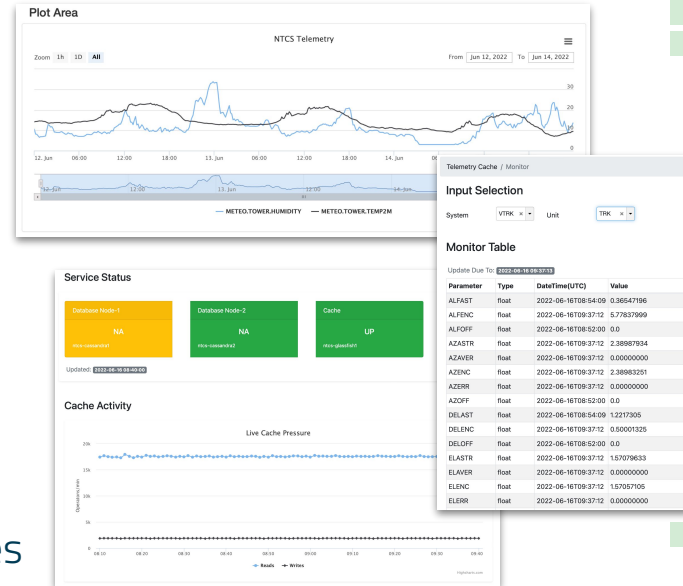


Uno sguardo generale...



Telemetria

- Basato su Java
- Application Server: Payara
 - Clustering: Load Balance / Failover
- API di accesso alla telemetria: HTTP/REST
- Database: Apache Cassandra
- Interfaccia Web utente: Java Server Faces
- Archivio dei dati di telemetria



Observing Control System

- Basato su Java EE
- Message Oriented Middleware: ActiveMQ
- Application Server: Glassfish / Payara
 - Clustering: Load Balance / Failover
- Web Interface: Java Server Faces



The screenshot displays the 'Main Panel' of the OCS Systems interface. It features a grid of system status buttons: OCS, VTRK, POWER, AOPT, HARPS, DOLORES, and GIANO. Most are 'ONLINE', while DOLORES is 'NA'. Below is the 'OCS Execution Table History' table, which is partially obscured by a modal window.

Date	Name	Status	Options
16/06/2022	OS_TRK_Stop	FINISHED	[P] [X]
16/06/2022	HARPS-BADF731	FINISHED	[P] [X]
16/06/2022	HARPS_SEQ	FINISHED	[P] [X]
16/06/2022	OS_TRK_Offset	FINISHED	[P] [X]
16/06/2022	OS_TRK_Offset	FINISHED	[P] [X]
16/06/2022	OS_TRK_Offset	FINISHED	[P] [X]
16/06/2022	OS_TRK_Offset	FINISHED	[P] [X]
16/06/2022	OS_TRK_Offset	FINISHED	[P] [X]

The modal window 'OCS Command Summary' provides details for the 'OS_TRK_Stop' command:
Name: OS_TRK_Stop
Parameters:
Status: FINISHED
Sequence: HARPS-BADF731
Source: HARPS_SEQ
Started at: 16/06/2022 05:26:16
Finished at: 16/06/2022 05:26:17
Summary: Command executed successfully.

Giano Pre-slit

- Backend:
 - Python
 - Twisted, asynchronous framework
- Frontend:
 - Vue.js
 - JS9



Axis	Status	Position	Encoder	Controls
Focusing Module (GL3)	IDLE	GIANO-B	9.99	Init Stop Move
Observing mode (GM2)	IDLE	CALIB_URANEON	-25.00	Init Stop Move
Reference star X-axis (GRSX)	IDLE	CENTER	2.85	Init Stop Move
Reference star Y-axis (GRSY)	IDLE	NONE	3.58	Init Stop Move
Slit viewer (GBS)	IDLE	CUT	0.00	Init Stop Move
Calibration stage (GCAL)	IDLE	NONE	0.00	Init Stop Move
AG Filters (GFILT)	IDLE	OPEN	99.00	Init Stop Move

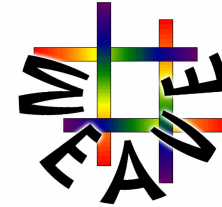
Name	Started	Finished	Status
Setting Observing mode to SLITVIEWER	1:24:09 PM	1:24:14 PM	EXECUTED ✓
Moving Slit viewer IN	1:24:09 PM	1:24:11 PM	EXECUTED ✓
Turning on Reference Star LED	1:24:09 PM	1:24:13 PM	EXECUTED ✓
Taking image from CMOS	1:24:15 PM	1:24:18 PM	EXECUTED ✓
Finding slit position on image	1:24:20 PM	1:24:21 PM	EXECUTED ✓

SiFAP4XP/SiFAP2

- C con compilazione incrociata: x86/ARM
- Protocollo di comunicazione: HTTP/REST
- Microservizi per ogni tipo di dispositivo: fotometri, PPS, file server, camerina di allineamento...
- UI Toolkit: JavaFX



WEAVE Archive System



- Backend:
 - Payara Microedition
 - Database: PostgreSQL
 - Indexer: SolarJ
- Frontend:
 - Vue.js
 - Django
 - Plot.ly

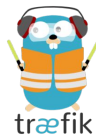
The screenshot displays the WEAVE Archive System interface. At the top, a 'Downloads' table lists recent jobs:

Type	Job	Started	Finished
myDownload	myDownload	6/10/2022, 8:29:00 AM	Installed Data
scp files	scp files	5/10/2022, 12:12:45 PM	5/10/2022, 12:13:38 PM
test	test	4/20/2022, 10:43:24 AM	4/20/2022, 10:43:24 AM
SCP	WVE-Job-Download	4/18/2022, 11:25:09 AM	4/18/2022, 11:25:09 AM

Below the table, the 'TEST (DC)' panel shows filters for 'TARGSRVY' and 'SCP-LR'. The 'Display' section includes options for 'Show', 'List', 'Keywords', 'Default', 'Select...', and 'Sort by' (set to 'CHANGE'). The 'Plat options' panel features a plot with two data series (blue and red) over time, with axes labeled 'Time' and 'Amplitude (L)'. The plot shows two overlapping curves, one blue and one red, with a red arrow pointing to a specific point on the blue curve.

At the bottom, a table lists products and their associated data:

id	products	CNAME	DATE-OBS	TARGSRVY	TARGRA	TARGDEC
1	WVE_21781459-4803271	20160908	SCP-LR	319.05	48.09	
1	WVE_21781453-4741353	20160908	SCP-LR	319.05	47.89	
1	WVE_21781551-4741908	20160908	SCP-LR	319.05	47.99	
1	WVE_21781559-4854320	20160908	SCP-LR	319.04	48.08	
1	WVE_21780970-4754308	20160908	SCP-LR	319.04	47.91	
1	WVE_21780733-4741166	20160908	SCP-LR	319.04	47.72	
1	WVE_21780733-4801016	20160908	SCP-LR	319.03	48.16	
1	WVE_21780831-4318868	20160908	SCP-LR	319.01	47.82	





Grazie!