

Software  
that understands  
the **satellite**  
industry.



Finished and pending Acquisitions

Quick Filter:

Acq. start from:  to:  Type: ANY Status: ANY Filter Reset

Acquisition name	Start	Stop	Type	Status	Ground station
SSP ESA MOCK	2017-11-24 T 19:08:41	2017-11-24 T 19:09:20	REPLAY	COMPLETED	KIRN
TC_08 CLEAN_SAMPLE_SAVINC_ID...	2017-11-24 T 19:07:06	2017-11-24 T 19:07:45	REPLAY	COMPLETED	KIRN
SYS_CONF_DESCRAMBLE_S1/S1_N...	2017-11-24 T 19:05:06	2017-11-24 T 19:05:50	REPLAY	COMPLETED	KIRN
SYS_CONF_DESCRAMBLE_S1/S1_N...	2017-11-24 T 19:01:19	2017-11-24 T 19:03:02	DIRECT	COMPLETED	KIRN
TC_08 S3_PACKET_TIME_SAMPLE	2017-11-24 T 18:58:28	2017-11-24 T 18:59:07	REPLAY	COMPLETED	KIRN
TC_08 DOUBLE_ERROR_ON_SINGL...	2017-11-24 T 18:56:52	2017-11-24 T 18:57:31	REPLAY	COMPLETED	KIRN
TC_08 CLEAN_SAMPLE	2017-11-24 T 18:55:16	2017-11-24 T 18:55:55	REPLAY	COMPLETED	KIRN

Reprocess

mplayer2

MnC GUI

https://10.28.14.12/ws/mnc-gui-core/#/schemas

monica

Instrument details for lego-antenna

Manufacturer: Amphinicy Technologies Type: RestWsBasedInstrument

Model: Lego satellite antenna Description: Antenna control unit

Address: 10.28.14.9 Connected: ✓

Parameter name	Value	Unit	Last update	Polling frequency (s)	Description
azimuth	24.03	°	28-11-17 16:01:43	1	Current azimuth position
elevation	21.29	°	28-11-17 16:01:43	1	Current elevation position

No acquisitions in postprocessing

SCHEDULE FILE	CHANNEL FILE	CURRENT BEAM	OVERRIDE
-	channel.xml	Beam ID: 6	-
-	channel.xml	Beam ID: 12	-
-	-	-	-
-	channel.xml	Beam ID: 11	-
5 CARIBBEAN USA_LIB_001 Liberty	channel.xml	Beam ID: 11	-
6 CARIBBEAN USA_HRN_001 Harmony	-	-	-
7 CARIBBEAN Test_Site T Site	schedule.xml channel.xml	-	-
8 CARIBBEAN rte ter	-	-	-
9 CARIBBEAN 1 ime	-	-	-

System Status

Error while getting Alarms

Unknown Server Error

Timestamp | Error while getting Alarms

Unknown Server Error

- while authenticating to modem API at http://localhost:8... 28-11-2017 09:59:53
- while authenticating to modem API at http://localhost:8... 28-11-2017 09:59:53
- while authenticating to modem API at http://localhost:8... 28-11-2017 09:57:53
- while authenticating to modem API at http://localhost:8... 28-11-2017 09:57:53
- while authenticating to modem API at http://localhost:8... 28-11-2017 09:55:53

UTC: 10:40:35

Y3\_brazil\_beam\_35

Y3\_brazil\_beam\_56

Trajectories Filter

From: 28-11-2017 10:21:46

November 2017

Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

5	CARIBBEAN	USA_LIB_001	Liberty	35	20	70	40	1	-	channel.xml	Beam ID: 11	-
6	CARIBBEAN	USA_HRN_001	Harmony	100	50	200	100	1	-	-	-	-
7	CARIBBEAN	Test_Site	T Site	23	23	34	44	1	schedule.xml	channel.xml	-	-
8	CARIBBEAN	rte	ter	345	435	54	534	1	-	-	-	-
9	CARIBBEAN	1	ime	12	11	12	12	1	-	-	-	-

## Intention vs. Accident



## Verification Configuration

Verification Configuration not saved ✕

Unknown Server Error

Create new Verification Configuration ?

Name

special characters: ~!@#\$\$%^&amp;(\*)(\*&amp;^%\$#

- Measure XPD
- Measure C/N0
- Measure Es/N0
- Measurement Only
- Use SatNet Calculator
- Change Certification State
- Use Nearby Terminals

✕ Discard ✓ Apply

# Date and Time

21-11-17 16:13:42

To date/time

28-11-17 16:12:00

28-11-17 16:11:42

28-11-17 16:09:27

↑ ↑ ↑

16 13 42

↓ ↓ ↓

Now Clear Date Apply

Acq. start from: 2017-11-16 to: 2017-11-30

Acquisition name	Start	End
SERESA MOCK	2017-11-24 T 19:08:41	20

yyyy-MM-dd

able the 'Schedulli

00 05 10 15

20 25 30 35

40 45 50 55

End Date

End Time 09:25

From

28-11-2017 10:21:46

November 2017

Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

## Master views, a.k.a. tables



Acquisition name	Start	Stop	Type	Status	Ground station
S5P ESA MOCK	2017-11-24 T 19:08:41	2017-11-24 T 19:09:20	REPLAY	COMPLETED	KIRN
TC_08 CLEAN_SAMPLE_SAVING_ID...	2017-11-24 T 19:07:06	2017-11-24 T 19:07:45	REPLAY	COMPLETED	KIRN
SYS_CONF_DESCRAMBLE_S1/S1_N...	2017-11-24 T 19:05:06	2017-11-24 T 19:05:50	REPLAY	COMPLETED	KIRN
SYS_CONF_DESCRAMBLE_S1/S1_N...	2017-11-24 T 19:03:10	2017-11-24 T 19:03:03	DIRECT	COMPLETED	KIRN

ooo	vno-1	Aborted	hrcmdma-tb	Immediate individual	17-10-2017 07:42:17
Not Nearby 1	vno-1	Aborted	hrcmdma-tb	Immediate individual	26-09-2017 14:15:38
Nearby4	vno-1	Scheduled	hrcmdma-tb	Recurring inividudal	26-09-2017 14:15:16
Nearby4	vno-1	Scheduled	hrcmdma-tb	Recurring inividudal	26-09-2017 14:15:16

REMOTE ID	SITE ID	BEAM ID	REGION	TRANSPONDER	START	END
1	USA_IND_001	-	-	-	-	-
2	USA_OAS_001	-	-	-	-	-
3	USA_FRE_001	-	-	-	-	-

--Access--	Parameter name	Value	Unit	Last update	Polling frequency (s)	Description	Chart
	azimuth	24.03	°	28-11-17 16:01:43	1	Current azimuth position	
	elevation	21.29	°	28-11-17 16:01:43	1	Current elevation position	

Beam ID	Description	Last sync time	Uplink Contour File	Downlink Contour File	Cost	Actions
Beam_1		28-11-2017 09:18:57			4432	
Beam_2		28-11-2017 09:18:57	guyC.gxt	guyC.gxt	3214	
Beam_3		28-11-2017 09:18:57	guyC.gxt	guyC.gxt	432	

Search

Beam ID:  Description:

Beam ID ↓	Description	Last sync time	Uplink Contour File	Downlink Contour File	Cost	Actions
Beam_1		28-11-2017 09:18:57			4432	<input type="button" value="🔍"/> <input type="button" value="✕"/>

--Access--	Parameter name	Value	Unit	Last update	Polling frequency (s)	Description	Chart
	azimuth	24.03	°	28-11-17 16:01:43	1	Current azimuth position	

**Menu** Any Validation Any Domain Terminal

ooo vno-1 Aborted hrcmdma-tb Immediate individual 17-10-2017 07:42:17

Quick Filter:

Acq. start from:  to:  Type: ANY Status: ANY

Acquisition name	Start	Stop	Type	Status	Ground station
SSP ESA MOCK	2017-11-24 T 19:08:41	2017-11-24 T 19:09:20	REPLAY	COMPLETED	KIRN
TC_08_CLEAN_SAMPLE_SAVING_ID	2017-11-24 T 19:07:06	2017-11-24 T 19:07:45	REPLAY	COMPLETED	KIRN

# Subset Selection

Group name:  ?

**Assigned roles**

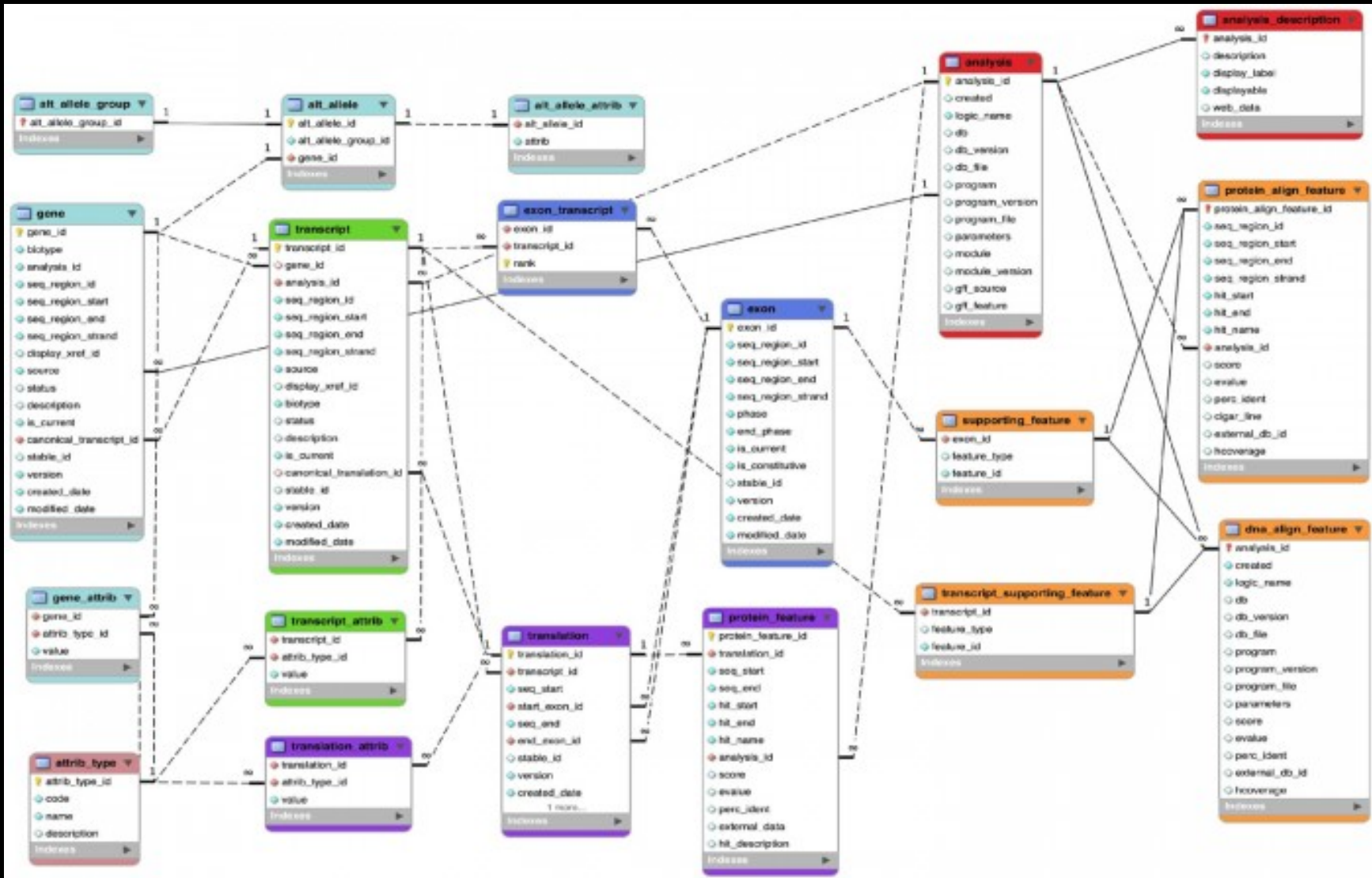
- TOKEN\_MANAGER\_ADMIN
- TOKEN\_MANAGER\_FORCE\_TAKE
- ALARM\_CONTROLLER\_ADMIN
- ALARM\_ACTION\_MANAGER\_ADMIN
- RULE\_MANAGER\_ADMIN
- SCHEMA\_CONTROLLER\_ADMIN
- USER\_MANAGER\_ADMIN
- SCHEDULER\_MANAGER\_ADMIN
- SNMP\_AGENT\_ADMIN
- SCRIPT\_ENGINE\_ADMIN
- SCRIPT\_ENGINE\_EXECUTOR
- CONFIGURATION\_ADMIN
- REPORT\_MANAGER\_ADMIN
- REPORT\_EXECUTOR

	Instrument name
<input checked="" type="checkbox"/>	acu
<input checked="" type="checkbox"/>	blink
<input type="checkbox"/>	eti-switch
<input type="checkbox"/>	Ettus
<input type="checkbox"/>	GnuRadio
<input type="checkbox"/>	lego-antenna
<input type="checkbox"/>	mdm6000
<input type="checkbox"/>	↕ Omnisat
<input type="checkbox"/>	Omnisat.hdrd-1
<input type="checkbox"/>	rs-fsl3

**Alarm assigning**

Assigned alarms:	Alarms not assigned:
Administrators	Admins+Operators Everyone Viewers SwitchAlarm
	
	

# Object Graph Navigation



## Edit Switching Policy

Name

Icon 

Ruleset





**Configure acquisition**

Configuration name:

Acquisition type:  Start (UTC)  Duration [minutes]

Visibility file:

Input CADU file:

Equipment configuration:

Output:  Full  Minimal

Start Rec. Manually:

# Intuitiveness

- Schema Panel >
- Alarms >
- Rule Manager
- Logging >
- Scripting
- Scheduler
- Instruments >
- Chart Creator
- Reporting >
- Configuration >

### Scripting

Search by name

Script name: antenna\_dance

- antenna\_dance
- antenna\_demo
- ibc\_demo
- ibc\_demo\_stop
- instrument\_counter

```
Code:
42     r = Random()
43     currentAz = r.nextInt(max - min + 1) + min
44     return
45
46     while 1==1:
47         sleep(5)
48         calculateNextAzimuth()
49         print 'Azimuth ' + str(currentAz)
50         schema.setParameterValue('lego-antenna', 'azimuth',
51                                 str(currentAz))
51         calculateNextElevation()
52         print 'Elevation ' + str(currentEL)
53         schema.setParameterValue('lego-antenna',
54                                 'elevation', str(currentEL))
```


1 / 1

### Script Executions

Script name	Start date/time	Stop date/time	Status	Started by
instrument_counter	21-11-17 09:46:52	21-11-17 09:46:53	SUCCESS	mncadmin

## Log Overview

Severity 
 Message 
 Source

From  
 To  

Severity	Message	Source ↓ <sub>A</sub>	Timestamp
Warning	Terminal[00:11:22:33:44:00] - Active Beam[Y3_brazil_beam_34]...	Terminal Service	25-11-2017 15:04:04
Warning	Terminal[00:11:22:33:44:00] - Active Beam[Y3_brazil_beam_34]...	Terminal Service	25-11-2017 15:22:48
Error	Terminal[00:00:00:00:00:06] - location of terminal ( 16.744916, -...	Terminal Service	25-11-2017 14:51:24
Warning	Terminal[00:11:22:33:44:00] - Active Beam[Y3_brazil_beam_34]...	Terminal Service	25-11-2017 15:03:49
Error	Terminal[00:00:00:00:00:06] - location of terminal ( 17.704473, -...	Terminal Service	25-11-2017 15:18:30
Warning	Terminal[00:11:22:33:44:00] - Active Beam[Y3_brazil_beam_34]...	Terminal Service	25-11-2017 15:22:48

Consistency. INconsistency.

**Terminal**

0 terminals selected ▼

Check All Check None

00

Clear Start

Source Search

Search Clear

Source Timestamp ↓<sup>Z</sup><sub>A</sub>

Menu



## Log Overview

Severity 
 Message 
 Source

From  
 To

Severity	Message	Source	Timestamp ↓
Info	Enabled configuration for beam 'bm1'	Beam Service	28-11-2017 10:52:41
Info	User admin logged in.	Synchronization Service	28-11-2017 10:31:21

Menu

Any Validation

Any Domain

Terminal

Search

Clear

System Status

ooo	vno-1	Aborted	hrcmdma-tb	Immediate individual	17-10-2017 07:42:17
Not Nearby 1	vno-1	Aborted	hrcmdma-tb	Immediate individual	26-09-2017 14:15:38



<input type="text" value="--State--"/>	<input type="text" value="IP address"/>	<input type="text" value="Port"/>	<input type="text" value="From date/time"/>
CONNECTED	127.0.0.1	2013	21-11-17 13:06:48
CONNECTED	10.28.14.10	1610	21-11-17 13:06:53
CONNECTED	10.28.14.15	4001	21-11-17 13:06:53

<input type="text" value="From date/time"/>	<input type="text" value="--Severity--"/>	<input type="text" value="Source"/>
21-11-17 13:07:08	<b>ERROR</b>	rs-fsl3

**Started:**  **Message:**

# Copy/Clone Object

<input type="checkbox"/>	Omniat		<b>READY</b>	<b>CONNECTED</b>	10.28.14.10	1011	21-11-17 13:06:54
<input type="checkbox"/>	lego-antenna		<b>READY</b>	<b>CONNECTED</b>	10.28.14.9	5000	21-11-17 13:06:54
<input type="checkbox"/>	mdm6000		<b>MAINTENANCE</b>	<b>CONNECTED</b>	10.28.14.32	161	21-11-17 13:06:55
<input type="checkbox"/>	↓ Omnisat		<b>STOPPED</b>	<b>STOPPED</b>	84.199.11.213	23080	21-11-17 13:06:49
<input type="checkbox"/>	Omnisat.hdrd-1	↑ Omnisat		<b>STOPPED</b>	84.199.11.213	23080	21-11-17 13:06:49
<input type="checkbox"/>	rs-fsl3		<b>RUNNING</b>	<b>DISCONNECTED</b>	10.28.14.11	5025	21-11-17 13:06:55

1 / 1

**Configure acquisition**

Configuration name:

Acquisition type: **REPLAY** Start (UTC)  Duration [minutes]

Visibility file:

Input CADU file:

Equipment configuration: **TC\_08 noCRC\_noRS\_RT-STPS**

Output:  Full  Minimal

Start Rec. Manually:

## In-field „Help“

**Site ID**

Site ID

**Name**

Name

**Forward Bandwidth (Msps)**

Forward Bandwidth



**Return Bandwidth (Msps)**

Return Bandwidth



Job name:

Job name

Start time:

start date



**Site ID**


**Name**

**Forward Bandwidth (Msps)**

**Return Bandwidth (Msps)**

**Job name:**

**Start time:**

**Beams Filter**

Under the hood:  
Good GUI library



## Ideal GUI library..?

- | table with:
  - | configurable columns
  - sorting
  - multiselect
  - data + controls
  - pagination or continuous auto-loading
- date, time, date-time, date-span, time span
- select M from N objects
- min-max number range
- visual + numeric progress indicator with optional "Cancel" button
- wizards?

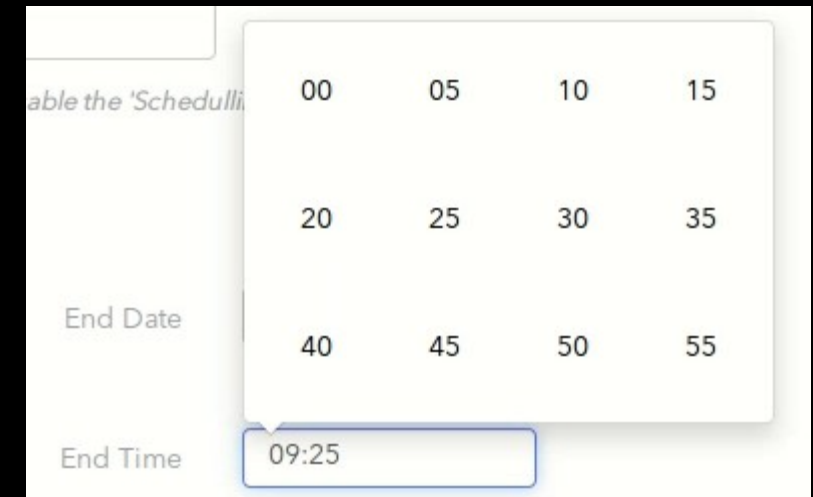


## UI Design Guidelines...?

- navigation between related objects
- overall organisation (menus, reaching one type of data or another...)
- key scenario/workflow identification
- long running actions
- ...?

## Component Design/Selection Guidelines..?

- mouse AND keyboard (arrows, <tab>, <Enter>, <esc>) interaction in mind
- practical?
- importance of numbers: displaying/finding/selecting 1 from 5, 500, 5M objects?
- ...?



able the 'Scheduli

	00	05	10	15
	20	25	30	35
End Date	40	45	50	55

End Time

## Key questions

- do you have a UI lib with standard components? if yes, what does it have? if no, why?
- is there a set of guidelines to design your UIs, a checklist? if yes, which? if no, why?
- what can you improve?
- how?

# Thanks!

