

CESAR Instrumentation Users Guide

version 0.1

Document Change Record

<i>document title:</i> CESAR Instrumentation Database Users Guide		
<i>version</i>	<i>date</i>	<i>reason for change</i>
0.1	05-06-2013	initial version

Contents

1. Introduction.....	4
3. Measurement Setup.....	6
3.1 Create a new Measurement Setup.....	6
3.2 Edit a Measurement Setup.....	6
3.3 Adding a deployable instrument to a Measurement Setup.....	7
3.4 Show active instruments for a Measurement Setup.....	7
4. Master Instruments.....	8
4.1 Add a new Master Instrument.....	8
4.2 Edit a Master Instrument.....	8
4.3 List deployable Instruments for a Master Instrument.....	8
5. Locations.....	9
5.1 Add a new Location.....	9
5.2 Edit a Location.....	9
6. Deployable Instruments.....	10
6.1 Add a new deployable Instrument to a Master Instrument.....	10
Figures.....	11

1. Introduction

The CESAR Observatory is used by researchers, students and others amongst others for executing long term, continuous atmospheric measurements, experiments, intensive observation periods, intercomparisons, and instrument testing. For the management and safety of the Observatory it is essential and of foremost importance to have an up-to-date and complete overview of the instruments operated on site and in the tower. To this end the CESAR Instrumentation database was developed by KNMI. The User Interface to this database is available for registered users on the CESAR Observatory website (www.cesar-observatory.nl). This User Guide presents the basic functionality of the User Interface and outlines the set up of the Instrumentation database.

In this Guide we explain the set up of the database in section 2, instructions for the different forms in the User Interface are presented in sections 3 to 6.

2. General description of the Measurement Setup database

The basic element of the database is the Measurement Setup. The Measurement Setup is the top-level element to which instruments can be added. The extend of a single Measurement Setup can be chosen by the PI (owner) of the Setup, and could range from a single instrument up to an Intensive Observation Campaign, some examples are "Microwave Radiometry", "BSRN", "CINDI" or "IDRA". The PI (owner) of the Measurement Setup can add co-owners to the Setup. Co-owners share the same rights with the PI for editing the Setup.

The second important element is the Predefined Common Instrument or Master Instrument. Master Instrument forms contain the generic description of a Type of Instrument, for example the "KNMI-vane" or "CM11". The Master Instrument form includes details about dimensions, power consumption and safety of a specific type of instrument. Once a Master Instrument has been added to the database, the PI or co-owner can add a specific deployable instrument of that specific Master type to the database. For each Instrument of a certain Master type that is or will be deployed at the Observatory a record needs to be added, e.g. if a PI deploys 11 KNMI-vanes he needs to add 11 deployable KNMI-vane instrument records. A deployable instrument can be added to one and only one Measurement Setup. Once added to a Measurement Setup the status of a deployable Instrument will change from "deployable" to "in use".

A third element in the database is the Location. Each deployable instrument is operated at a specific Location. New Locations can be added in the User Interface characterised by a unique name, and the 3-D coordinates of the instrument location.

The User Interface is integrated in the CESAR Observatory webportal: www.cesar-observatory.nl. Go to the "agenda/planner" page, log in and select "Instrumentation". The pop-up screen ([figure 1](#)) is also the starting point of the instructions described in the following sections.

It is important to fill in the Measurement Setup and Instruments details as accurate as possible. Especially if any safety issues or possible interference to other observations are at play.

3. Measurement Setup

3.1 Create a new Measurement Setup

- 1) **click on "Setups" tab** ([figure 1](#))

- 2) **click**  (at right hand top corner of the screen)

>>> *the "New measurement setup form" appears* ([figure 2](#))

- 3) **fill in the fields** (all mandatory fields are marked with *)
- 4) **submit the form**

3.2 Edit a Measurement Setup

- 1) **click on "Setups" tab** ([figure 1](#))

- 2) **click**  (on the line of the "Measurement Setup" you want to edit)

>>> *the "Edit measurement setup form" appears* ([figure 3](#))

- 3) **edit the fields if needed**

- 4) **to add a co-owner:**

- a. **click** 
- b. **select a co-owner from the pop-up list**

- 5) **submit the form**

3.3 Adding a deployable instrument to a Measurement Setup

1) click on "Setups" tab ([figure 1](#))

2) click  (on the line of the "Measurement Setup" you want to edit)

>>> the "Instrument Allocation form" appears ([figure 4](#))

3) click 

4) select an available deployable instrument from the pop-up list

5) click 

6) select a location from the pop-up list

7) add the (anticipated) start date of the instrument deployment

8) optional select a LAN network connection

9) submit the form

3.4 Show active instruments for a Measurement Setup

1) click on "Setups" tab ([figure 1](#))

2) click on the name of the "Measurement Setup" for which you want to view the active Instruments list

>>> the "active Instrument list" appears under the tab "Instruments"

4. Master Instruments

4.1 Add a new Master Instrument

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Master Instruments" tab**
- 3) **check if the Master Instrument is listed already, if not continue with 4)**
- 4) **click**  (at right hand top corner of the screen)
>>> the "New Master instrument" form appears ([figure 6](#))
- 5) **fill in the fields** (all mandatory fields are marked with *)
- 6) **if safety issues are applicable:**
 - a) **tick the applicable 'safety icon' box(es)**
 - b) **describe the safety issue in the text box 'safety'**
- 7) **submit the form**

4.2 Edit a Master Instrument

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Master Instruments" tab**
- 3) **find the Master Instrument in the column "type"** (you can use the search box)
- 4) **click**  **at the left of the Instrument Type Name**
>>> the "Edit Master instrument" form appears (is similar to [figure 6](#))
- 8) **edit the fields** (all mandatory fields are marked with *)
- 9) **submit the form**

4.3 List deployable Instruments for a Master Instrument

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Master Instruments" tab**
- 3) **find the Master Instrument in the column "type"** (you can use the search box)
- 4) **click on the Master Instrument type name**
>>> a list of deployable Instruments of the Master type is shown
on bottom part of the screen ([figure 5](#))

5. Locations

5.1 Add a new Location

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Locations" tab**
- 3) **click**  (at right hand top corner of the screen)
>>> the "New Predefined CESAR location" form appears ([figure 7](#))
- 4) **use the Google map and cursor to move the marker to the new location**
- 5) **fill in the fields** (all mandatory fields are marked with *)
- 6) **submit the form**

5.2 Edit a Location

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Locations" tab**
- 5) **find the Location in the column "Name"** (you can use the search box)
- 6) **click**  **at the left of the Location Name**
>>> the "Edit Predefined CESAR location" form appears (similar to [figure 7](#))
- 3) **if applicable: use the Google map and cursor to move the marker to new location**
- 4) **edit the fields** (all mandatory fields are marked with *)
- 5) **submit the form**

6. Deployable Instruments

6.1 Add a new deployable Instrument to a Master Instrument

- 1) **click on "Predefined" tab** ([figure 5](#))
- 2) **click on "Master Instruments" tab**
- 3) **find the Master Instrument in the column "type"** (you can use the search box)
- 4) **click on the Master Instrument type name**
>>> a list of deployable Instruments of the Master Instrument type is shown on bottom part of the screen ([figure 5](#))
- 5) **click  at the right hand side above the table of deployable instruments**
>>> the "new CESAR instrument" form appears ([figure 8](#))
- 6) **fill in the fields** (all mandatory fields are marked with *)
- 7) **submit the form**

Figures

- Figure 1. CESAR Instrumentation main page
- Figure 2. New Measurement Setup Form
- Figure 3. Edit Measurement Setup form
- Figure 4. New Instrument Allocation Form
- Figure 5. Predefined Tab window
- Figure 6. New Master Instrument form
- Figure 7. New Predefined Location form
- Figure 8. New CESAR Instrument form

Figure 1. CESAR Instrumentation main page

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Measurement Setups

Show 15 entries Search all columns:

name	PI	aff.	power	date started	date stopped	info	action
BSRN	Wouter Knap	KNMI	1847	2005-02-01		1	
CAELI	Arnoud Apituley	KNMI	12500	2008-05-01		1	
CIA	Laslo Evers	KNMI		2011-01-01		1	
CloudImaging	Henk Klein Baltink	KNMI	5	2001-08-01		1	
Cloudradar	Henk Klein Baltink	KNMI		2001-08-01		1	
CT75	Henk Klein Baltink	KNMI		2004-03-23		1	
DPGA	Hans van der Marel	TUD		2001-08-06		1	
EKO-TSI	Alexander Los	EKO	102	2012-08-28		1	
GAW-PFR	Wouter Knap	KNMI	40	2009-01-01		1	
IDRA	Herman Russchenberg	TUD		2010-11-01		1	
LAP3000	Henk Klein Baltink	KNMI		1994-07-01		1	
LD40	Henk Klein Baltink	KNMI	-1	2004-01-01		1	
MFRI	Wouter Knap	KNMI		2005-03-01		1	
MWR	Henk Klein Baltink	KNMI	350	2006-04-01		1	
NUBISCOPE	Henk Klein Baltink	KNMI	30	2008-05-01		1	

Showing 1 to 15 of 22 entries

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 2. New Measurement Setup Form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Measurement Setup

Owner: Henk Klein Baltink, KNMI

*Longname

*Acronym

*Short description of the measurement

URL

DATES (yyyy-mm-dd)

measurement *Start End

Submit

new mode

New measurement setup form

name	PI	aff.	power	date started	date stopped	info	action
Showing 1 to 15 of 22 entries							

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 3. Edit Measurement Setup form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Measurement Setup

Owner: Henk Klein Baltink, KNMI

*Longname
35GHz cloudradar KNMI

*Acronym
Cloudradar Acronym no special characters allowed

*Short description of the measurement
The 35 GHz cloudradar is a pulsed vertical pointing Doppler radar. Vertical profiles of Doppler spectra, radar backscatter, Doppler velocity and spectral width are acquired.

URL
http://www.cesar-observatory.nl Internet link for more info

DATES (yyyy-mm-dd)
fill in the dates you expect

measurement
*Start 2001-08-01 End

Submit

edit mode

name PI aff. power date started date stopped info action

Showing 1 to 15 of 22 entries

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 4. New Instrument Allocation Form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Measurement Setup

Cesar Instrument allocation - new

*Setup LAP3000 *instrument

*location

*Start

Additional information
Extra instrument information specific for the setup. Only single quotations are allowed in the text.

network facilities 1

Submit

name PI aff. power date started date stopped info action

Showing 1 to 15 of 22 entries

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 5. Predefined Tab window

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network **Predefined** Reporting

Master Instruments Locations

Specifications

Show **5** entries Search:

type	manufacturer	dim: LxWxH	weight	power	info
ZAP	Kipp & Zonen	26x42x38	30.1	100	i
ALS450	LeoSphere	28x20x70	20	700	i
ANSTO	ANSTO	-1x-1x-1	-1	-1	i
APS	TSI	-1x-1x-1	-1	-1	i
ATPROP	RPG	-1x-1x-1	-1	-1	i

Showing 1 to 5 of 99 entries

First Previous **1** 2 3 4 5 Next Last

Show **All** entries

Available instruments of master type - 2AP

serial nr	deployable	PI	setup	acquired	retired	co_pi
2ap01	YES	Cor van Oort, KNMI		2000-04-07		i

Showing 1 to 1 of 1 entries (filtered from 82 total entries)

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 6. New Master Instrument form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Instrument common Locations

Master-Instrument

*Shortname: length [cm]:

*Longname: width [cm]: safety:

*Manufacturer: height [cm]:

url: weight [kg]:

peakpower [W]:

new mode

New Master instrument

Measurement Setup and Instrument registration are only available for users that are logged in!

Figure 7. New Predefined Location form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network **Predefined** Reporting

	LATITUDE	LONGITUDE
marker	51.97029834757181	4.926334110450739
cursor	51.97009658490929	4.9263060092926025

Kaart Satelliet

*Longname:

*Shortname:

*LAT:

*LON:

*height:

Submit

new mode

New predefined Cesar location

name	info	latitude	longitude	height
Showing 1 to 14 of 79 entries				

First Previous 1 2 3 4 5 Next Last

Figure 8. New CESAR Instrument form

Cesar OBSERVATORY INSTRUMENTATION

Setups Instruments Network Predefined Reporting

Master Instruments Locations

Cesar Instrument LAP3000 Owner: Henk Klein Baltink, KNMI

*serial nr. Factory serial number, may also be affiliation identifier

deployable: NO, in USE by LAP3000 Depends on other fields

DATES (yyyy-mm-dd) Fill in the dates, this instrument will not be deployable when the retired date is in the past. The instrument cannot retire while it is in use!

*Acquired

Submit

edit mode

Edit Cesar instrument of type LAP3000

Measurement Setup and Instrument registration are only available for users that are logged in!