



Local Operator Manual  
for  
Instrument Log Book (ILB)  
and  
Live Instrument Monitoring(LIM)

Version 1, Dec 2017

	<b>Name</b>	<b>Company</b>	<b>Date</b>
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# 1 Introduction

## 1.1 What are ILB and LIM?

The ILB and LIM web tools are implemented as web services. They allow local operators to participate in the Pandonia network by viewing and editing the operation and calibration history of Pandora instruments assigned to them.

LIM stand for Live Instrument Monitoring and allows the local operator to see, if the data upload to the network is operational and if the data could be processed on the servers of the Pandonia network.

ILB stands for Instrument Log Book and is used to record issues or changes in the deployment status of an instrument and also serves as a central point to keep records about an instrument's history. Local operators are encouraged to use these tools to keep the instrument history accessible at a centralized location.

## 1.2 Getting access to ILB and LIM:

Users can connect to the ILB and LIM web service at the address <http://pandonia.net>. In order to log in to the ILB a user needs credentials. These will be distributed when a new Station/Instrument joins the network.

## 1.3 Questions and Contact

Please send questions regarding this manual to <christian.posch@luftblick.at>.



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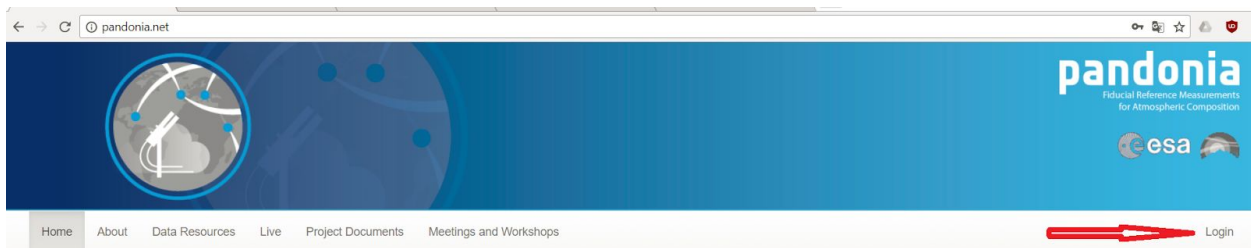
## 2 ILB/LIM Usage

### 2.1 Management of User Credentials

A user must request login credential at office@luftblick.at. Any change of the username, email etc. can only be done by office@luftblick.at. Password changes can be done by the user.

### 2.2 Login

To login the user has to point a web browser to <http://pandonia.net> and press the login button near the top right corner of the webpage. Login credentials will be provided by the Pandonia Network when a station joins the network.



Location of the login button on the pandonia.net webpage.

### 2.3 LIM Overview

After login the LIM and ILB buttons are available to the user in the top menu bar. To enter a tool the user has to press the respective button. LIM shows an overview of the status of every spectrometer connected to a user.



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## Live Instrument Monitoring

Pan-ID/Spec-ID	Current location	Comb-Stat	L0 last seen	Health status	L2 last seen	Deployment	Issue	stm-log	L2 live data
106/1	Innsbruck Atmospheric Observatory (Innsbruck)	✔	2017-11-22 12:24	2017-11-22 12:24	2017-11-22 12:09	operational	✔	<a href="#">View STM-Log</a>	<a href="#">Live</a>
110/1	Innsbruck Atmospheric Observatory (Innsbruck)	⚠	2017-11-22 12:23	2017-11-22 12:23	2017-11-22 11:57	operational	✔	<a href="#">View STM-Log</a>	<a href="#">Live</a>
110/2	Innsbruck Atmospheric Observatory (Innsbruck)	⚠	2017-11-22 12:23	2017-11-22 12:23	2017-11-22 11:57	operational	✔	<a href="#">View STM-Log</a>	<a href="#">Live</a>

The first column shows the Instrument and spectrometer number (e.g. 106/1 means spectrometer 1 of Pandora 106). Then the current instrument location and the current status are shown. The user also sees the times when the last L0 datafile arrived and the last status message was received by the system. This is also the place where the Local Operator will be informed if any of the parameters are outside the correct values. The column “L2 last seen” shows the time when the last successful data processing took place.

To the end of each line the user has two buttons, one allows to enter the ILB tool and the other to view the data of the current day and the day before.

## 2.4 ILB overview page

The ILB overview page can be accessed by pressing the ILB-Log button in the top menu bar. The page shows a list of instruments together with a quick status overview, which shows deployment status, open issues, status of field and laboratory calibrations. It also allows the user to access the detailed log of each instrument.

## Station Maintenance Log

Pan-ID	Current location	Comb-Stat	Deployment	Issue	Field Cal	Lab	STM
106	Innsbruck Atmospheric Observatory	✔	operational	✔	✔	✔	<a href="#">Instrument Details</a>
110	Innsbruck Atmospheric Observatory	⚠	operational	✔	⚠	✔	<a href="#">Instrument Details</a>



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## 2.5 ILB Instrument details page

The ILB Instrument details page can be accessed from the “Instrument Details” button on the ILB overview page or from the “View ILB-Log” button in LIM. This page shows the detailed history of each instrument. The page consists of five labeled sections, each presenting a different aspect of the instrument history.

### 2.5.1 Instrument history

This is the first section on the ILB Instrument details page and shows a paper trail with an overview of the instrument history, giving all events that happened with timestamps and a short description.

### 2.5.2 Current status

The second part of the details page shows a combined deployment status of the instrument, informing the operator about needed field calibrations, open laboratory session, open issues

Current status		Change deployment status
Deployment status	operational	
Field calibration status	ok	
Issue status	healthy	
Laboratory status	analyzed	

Deployment

and the (manually set deployment) status of the Instrument. In the top right corner of that section the user has got a button that allows to change the deployment status of an Instrument. The available deployment status are:

- **Operational:**  
The instrument is at its designated location taking measurements.
- **Intensive care:**  
This status is set by the Pandonia network operators team, when an Instrument has been deployed to a new location, or when the instrument is participating in any campaign, to note that this instrument needs to be watched closely more often by both, the network operators and the local operators.
- **Testing**  
The instrument is currently being tested, produced data might not be of the quality



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needed by the network. The users can use this status if they want to warn the Network Operators that they shouldn't check the instrument operativity temporarily.

- **Laboratory**

The instrument is currently in the laboratory for calibration or repair.

- **Out of operation**

The instrument is currently out of operation. Reasons to use this status might be for example: The instrument was unmounted on purpose because of extremely bad weather.

- **On-hold due to issue**

There is an issue with the instrument which makes the data unusable or no data is produced at all.

- **Action by instrument hardware provider needed**

Internal status when HW-Repairs are needed by the provider. This status is used when is necessary to get specialized support from the instrument manufacturer, or when the instrument has been sent for maintenance or repair to the manufacturer laboratories.

When setting a new deployment status there is room for notes, which should be used to detail why a deployment status was set.

### 2.5.3 Deployment

The deployment section displays a full history of locations at which an instrument has been deployed. It further allows to see the field calibrations which were performed at each location.

### 2.5.4 Laboratory

This section shows a list of all laboratory sessions performed for this instrument. Clicking on an entry gives details about the operations performed in the laboratory.

### 2.5.5 Issues

The last section of the ILB instrument details page provides an "Issue tracking system" that allows local operators and Pandonia network operators to keep track of the full history of current and past issues of the instrument.



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It shows a list of all the closed (past) issues as well as the open (current) issues. Clicking on the title of an issue opens the detail page showing all the actions and comments added by the users.

Further for open issues there are buttons to add actions (comments) and to close the issue, each providing the user with a form to give a date and comment for the related action taken. In the top right corner of the issue section there is a button allowing the user to create a new issue.

## New issue Pandora 110

Issue

Title

Issue impact

Date

Description

[Open the issue](#)

In the “New issue” form the user has to specify a title describing the issue, an issue impact and the date when the issue occurred or was noticed by the user. There is also the possibility to add a more detailed description.

The available issue impacts are:

- **Information**

This is an issue which has no impact on the quality of the measured data. E.g. if an instrument temporarily needs specialized settings this could be noted in an Information issue. For example, to warn about a temporal customized schedule that has to be used for a determined period, or to inform that a software update has been done.



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- **Quality**

This denotes issues that impact the data quality but do not make the instrument completely inoperational. For example when an instrument cannot get any successful alignments from a long time, and is not possible to realign it by one or other cause.

- **Critical**

Used for Issues that make the instrument inoperable. This issue impact is commonly used for hardware issues, for example when the communication with the head sensor cannot be established, or when the reference position of the tracker after a tracker reset has been lost, or any issue that needs a physical intervention in the instrument.