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VisionLabs LUNA PLATFORM

Quick Start Guide

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Introduction

Welcome to LUNA PLATFORM!

This short guide will help you to get started with LUNA PLATFORM.

1 Package Structure

Directory name	Description
/luna-api	Public API implementation
/luna-admin	Service administration tools
/luna-ui	Public UI service
/luna-stat-server	Events & statistics service
/luna-faces	Service for storing faces and lists
/luna-image-store	Service for storing images and objects
/luna-index-manager	Service that manages a process of creating indexes from luna-faces lists and delivering them to matchers
/logs	Log directory stub
/extras	Additional dependencies and helper scripts
/docs	Documentation
/data	Algorithm model data
/conf	Example configuration files
/bin	Core binaries

2 Getting Started

We recommend to start from the /docs subdirectory of the package. Those are the documents focusing on such topics as installation, usage and troubleshooting.

To get familiar with the terminology, system architecture and overview of tasks solved by the system, begin with SystemOverview.pdf.

Installation instructions are contained in InstallationManualEng.pdf document. This document will teach you how to:

- install LUNA PLATFORM services;
- install and configure DBMS;
- install and configure service messaging (based on RabbitMQ message queue system);
- install and configure HASP licensing system;
- install or update a license;
- start and enable the services.

Once the service is up and running, refer to the operation manuals. Those are described in detail in section 2. It might be helpful to ensure the system installed and works correctly at this point. You may refer to section 5 for brief information on how to initiate system self-testing.

3 Documentation

This section covers documentation package for LUNA PLATFORM.

3.1 Operations Manuals

These manuals cover system architecture, deployment and public API.

File	Description
APIReferenceManual.html	Face detection with attributes, grouping and recognition
EventsStatsReferenceManual.html	Face descriptor extraction and matching events; how to get statistics on selected events
InstallationManual.pdf	All necessary procedures for full installation of LUNA PLATFORM
SystemOverview.pdf	Common tasks solved by LUNA PLATFORM

3.2 Developer Manuals

These interactive reference guides are intended for developers and DevOps.

File	Description
AdminManual/index.html	Common administrative routines
APIDevelopmentManual/index.html	Server installation, documentation of tornado-handlers, PostgreSQL usage, admin statistics, etc.
EventsStatsDevelopmentManual/ Index.html	Event module and Statistic module
FacesDevopsManual/Index.html	Faces service description
ImageStoreDevopsManual/index.html	Image Store service description
IndexManagerDevopsManual/index.html	Index Manager service description
UIDevopsManual/index.html	Installation, configuration of LUNA UI, etc.

4 Additional Dependencies

Additional dependencies and helper scripts are provided within the /extras directory. There you will find:

Directory name	Description
/systemd	A collection of systemd scripts to start/stop the service
/rpms	A collection of 3rd party libraries required to run the service
get-pip.py	A script to obtain Python package manager pip
aerospike.conf	Aerospike DBMS configuration example

Under the /rpms subdirectory you will find:

Directory name	Description
/python3-x.y.z-w	Installation packages for the Python interpreter
/aerospike-server-community-x.y.z.w-el7	Installation packages for the Aerospike DBMS
tbb-x.y-z.w.el7.centos.x86_64.rpm	Installation packages for the TBB threading library
haspd-x.y-vlabs.i386.rpm	Installation packages for the HASP licensing service with embedded VisionLabs vendor library

Note: *here x, y, z and w are placeholders for actual version numbers.*

5 Diagnosing Issues

5.1 Running Self-tests

5.1.1 LUNA FACES

To run self-tests:

- Activate your virtual environment (since you are probably using tools like virtualenv);
- Enter <setup dir>/luna-faces directory;
- Configure the test suite to work with your LUNA installation by setting the service URL in luna-faces/tests/config.py configuration file, e.g.:

```
SERVER_ORIGIN=”http://localhost:5030”
```

- Run the tests:

```
$ python -m unittest tests.unitests_main
```

5.1.2 LUNA Image Store

To run self-tests:

- Activate your virtual environment (since you are probably using tools like virtualenv);
- Enter <setup dir>/luna-image-store directory;
- Configure the test suite to work with your LUNA installation by setting the service URL in luna-image-store/tests/config.py configuration file, e.g.:

```
SERVER_ORIGIN=”http://localhost:5020”
```

- Run the tests:

```
$ python -m unittest tests.unitests_main
```

5.1.3 LUNA API

To run self-tests:

- activate your virtual environment (since you are probably using tools like virtualenv);
- enter <setup dir>/luna-api directory;
- configure the test suite to work with your LUNA installation by setting the service URL in luna-api/tests/config.py configuration file, e.g.:

```
SERVER_ORIGIN="http://localhost:5000"
```

- run the tests:

```
$ python -m unittest tests.unitests_main
```

5.2 Example Output

Example of successful output:

```
----------------------------------------------------------------
Ran 99 tests in 238.486s
OK
```

Example of test failure output:

```
======================================================================
FAIL:test_bad_email (tests.unitests_registration.TestRegistration)
----------------------------------------------------------------
Traceback (most recent call last):
File "Luna_python_server/tests/unitests_registration.py", line 29,
 in test_bad_email
    self.assertEqual(reply.statusCode, 400)
AssertionError: 201 != 400
----------------------------------------------------------------
```

Note, that these outputs are just examples and actual number of tests may be different since test sets are constantly updated and new tests are added.

Appendix: Version History

Date	Version	Notes
22.05.17	1	Initial release.
23.05.17	2	Added API developer documentation section.
25.05.17	3	Added System overview section.
28.02.18	4	Added introduction section and documentation section.
30.05.18	5	The document was updated.
05.07.18	6	Added information about Faces, Image Store, Index Manager.