Live Universal Interface

LUI

Installation and setup guide for Windows

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Content

1. Terms and abbreviations

LUI - Live Universal Interface, is a tool environment for rapid development a visual user interface for web applications and interacting with DBMS based on meta-programming.

Meta-programming - is a type of programming associated with the creation of programs based on descriptive data about objects (metadata) to control user actions, processing and displaying data in screen forms.

Metadata - information about the features and properties of screen forms for the work of programs to control the display, data processing and valid user actions.

LUI Service User – is a dedicated database user is used to launch LUI Application and read metadata. Service User password is stored in configuration file in clear text.

DBMS – is Database Management System.

2. Brief description

Live universal Interface (LUI) is a software tool for creating and executing application software systems based on DBMS and consists of the following architectural elements:

- DBMS server to store form metadata in DB tables
- Editor the forms metadata
- Interpreter the forms metadata
- Web-server of interfaces
- Web-browser, client program for the visual user interface.

An Application in LUI is the named root of a hierarchy of forms description elements. Descriptions of applications and their elements are created by the form editor and stored in database tables (metadata). During LUI operation, this metadata is read by the application server and interpreted to display on the screen and react to user actions.

Using LUI allows you to reduce the cost of developing and standardizing the visual user interface, reduce the time to create applications and improve their quality. The application development environment is also an Application that has LUI code.

This document describes how to install LUI on a computer running MS Windows 7, where the DBMS is already preinstalled locally.

3. Specifications

For installation and demo of the LUI, you must perform the following technical requirements for workstation deployment:

- Computer with characteristics not below than:
  - Processor: x86, 2-core, 1 GHz
  - RAM: 2 GB
  - Free disk space: 100 MB.
- Operating system: MS Windows 7 and above. Required OS user with administrator rights to install new programs, create and control Windows services
- Java Development Kit: JDK-1.8.0_2xxx (Java 8), must be preinstalled. The distribution kit and description of the JDK installation can be downloaded from the Internet:
  https://www.oracle.com/technetwork/java/javase/downloads/2133151

  Server DBMS: PostgreSQL 10 and above, must be preinstalled. Require access to the DBMS server and the user with administrator rights to create a new user and a new database. The distribution kit and description of the DBMS Postgres Pro Standard installation can be downloaded from the Internet: https://www.postgresql.org/download/. Must be set to DBMS extension *pg_variables* SQL command: *create extension pg_variables*;
- WEB browser from the supported list in LUI: Google Chrome, MS Edge, Mozilla Firefox, Opera.

No need to install Apache Tomcat. Package for the web server built into the program settings (LuiBandle).

4. Installation and setup

Installing and setting LUI consists of the following steps:

- Download distribution LUI
- Installing LUI Bundle
- Run LUI Bundle
- Setting database schema to store LUI Metadata
- Testing the settings of LUI
- Create Windows service LUI (optionally)

Configuring security, performance and network access to LUI from the database is not provided in this document.

4.1. Download distribution LUI

The distribution to install LUI for PostgreSQL under Windows and technical documentation can be obtained on the Internet page http://lui.fors.com/ in the menu section "DISTRIBUTION" on the tab "Download LUI for PostgreSQL" or the link-anchor http://lui.fors.com/#distribution-postgresql (see figure 1).

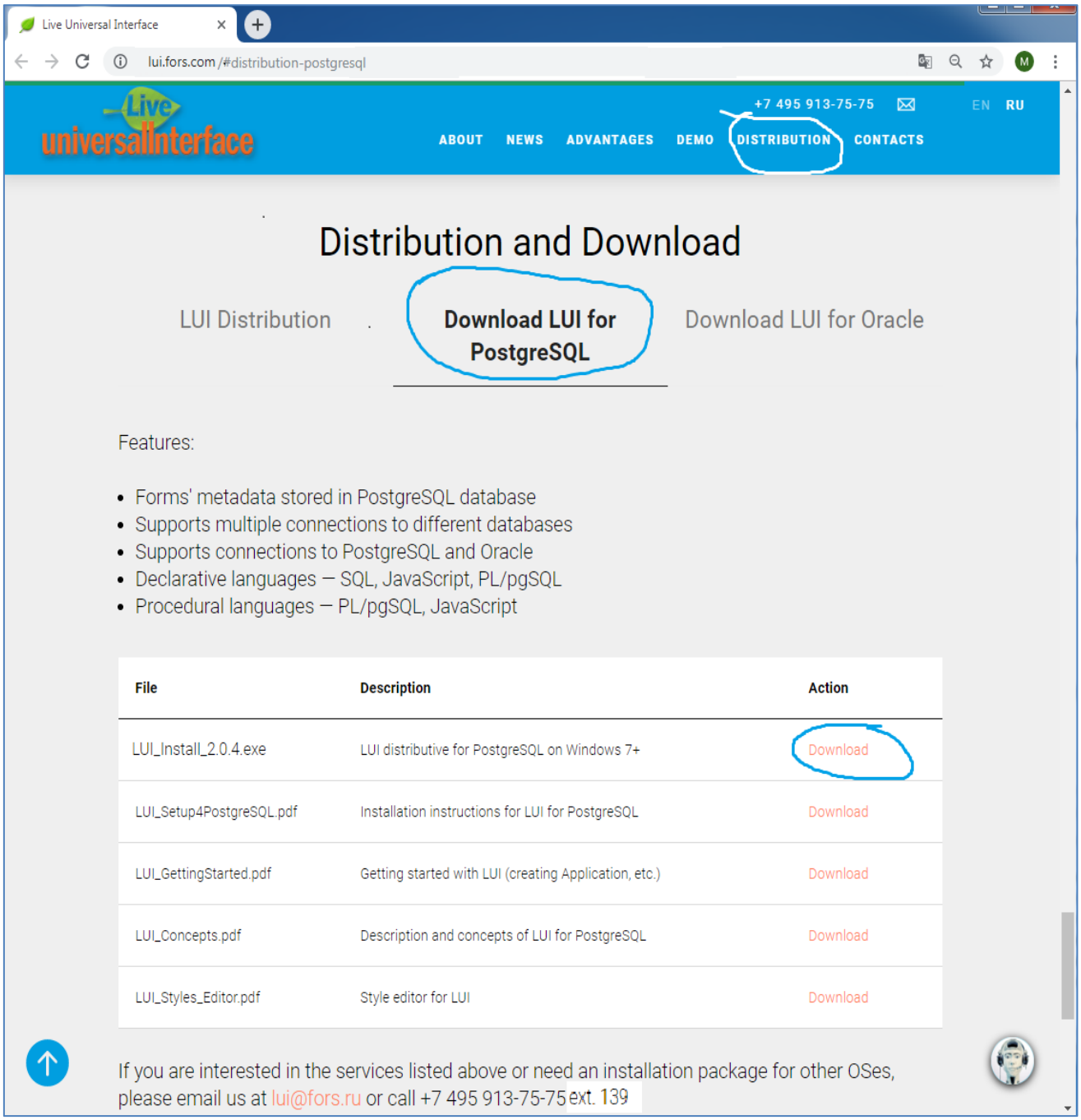

Figure 1. Page to download the LUI distribution

Download workstation deployment LUI installation file ***LUI_Install_2.0.4.exe*** – "Setup LUI for PostgreSQL under Windows".

If your workstation meets the specifications in Chapter 3, you can start installing and configuring the LUI.

4.2. Installing LUI Bundle

Run the installation program LUI_Install_2.0.4 and read the License agreement please, click the "I Agree" button to continue the process (see Fig. 2).

Figure 2. License agreement

Specify the directory on the disk where LUI will be installed, then click on the "Install" button (see Fig. 3).

If you specify a directory that does not exist, it will be created automatically during installation.

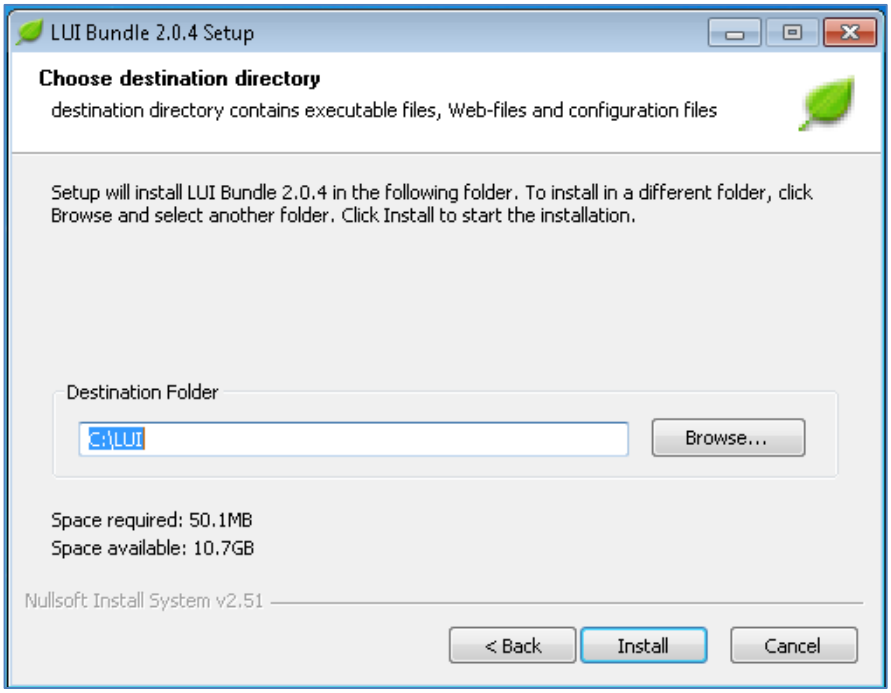

Figure 3. Specifying the installation directory

When the LUI installation process is complete, click the "Next" button (see Fig. 4).

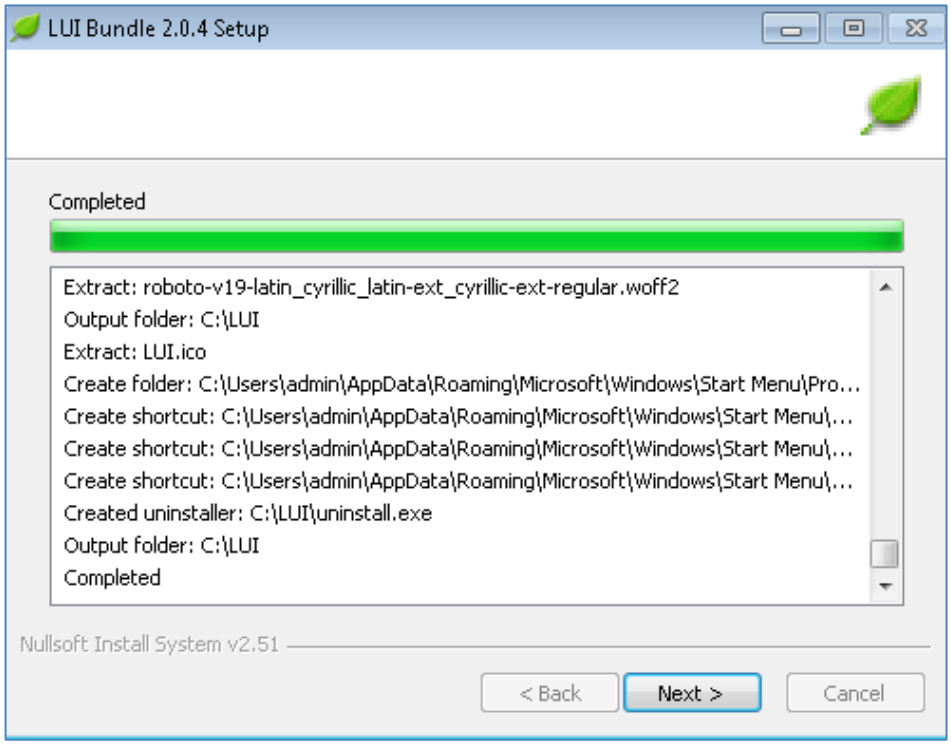

Figure 4. Display the installation process

Confirm the end of the LUI Bundle installation by clicking on the "Finish" button (see Fig. 5).

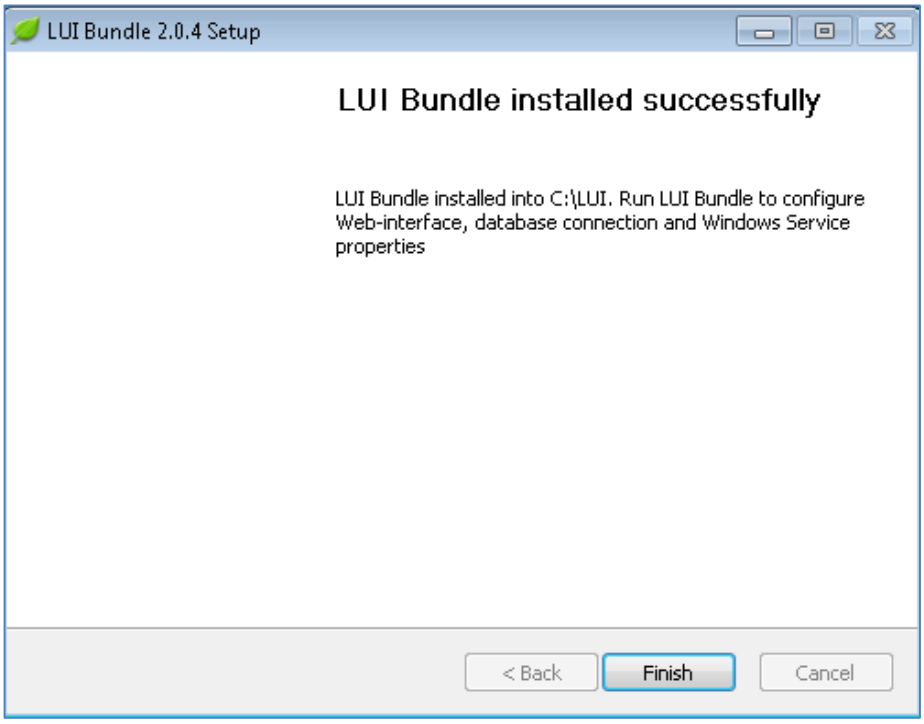

Figure 5. Installation complete LUI Bundle

After the LUI Bundle installation is complete use it to configure the database connection, Web interface, and Windows service registration.

4.3. Run LUI Bundle

Run the setup LUI as the administrator of the deployment computer operating system (see Fig. 6):

- For 32-bit platforms file: LuiBundle32.exe
- For 64-bit platforms file: LuiBundle64.exe

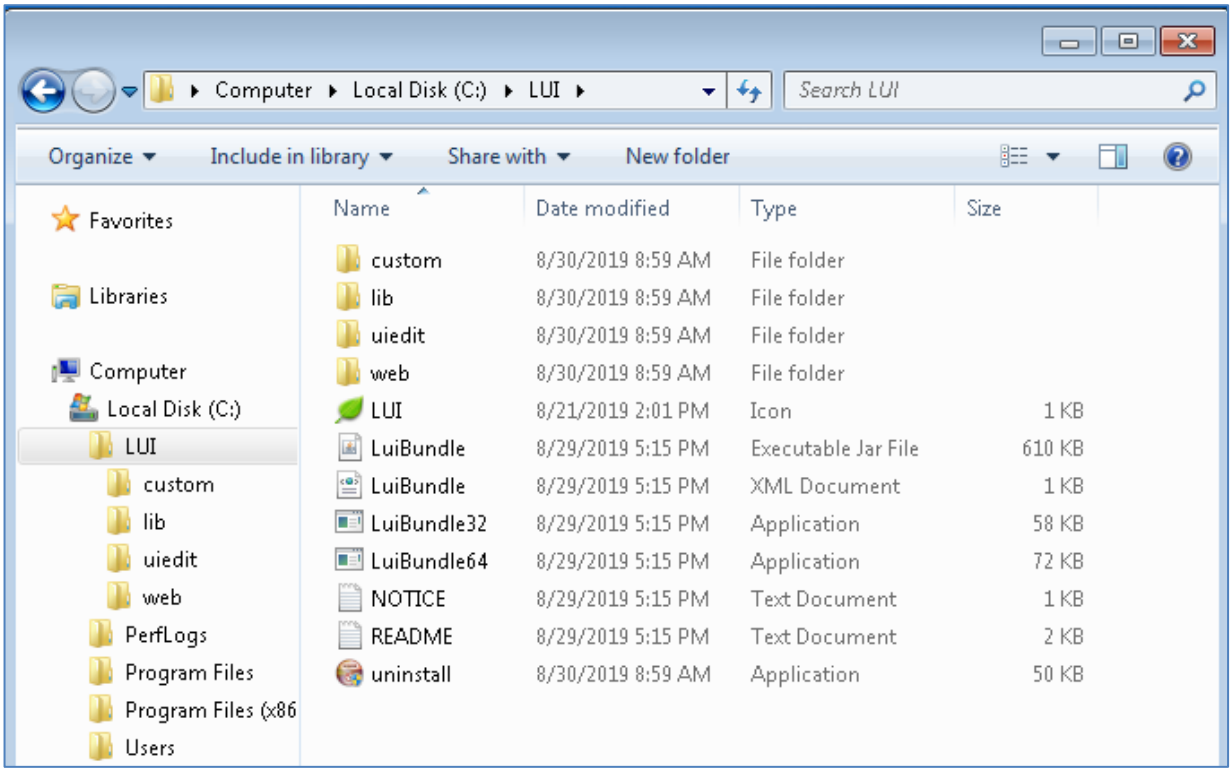

Figure 6. The contents of the directory LUI

After starting LUI Bundle the main form shown in figure 7 appears where the following settings are available:

- DBMS server parameters: DNS name or IP address, port
- Selection of existing database parameters: database name, schema, user
- Creating a new database, scheme, users and LUI Service user
- Web server parameter: port
- Start / Stop web server
- Launch LUI client, a web browser with options.
- Create a Windows service for the LUI web server.

Figure 7. The main settings form LUI Bundle

4.4. Setting database schema

Click the "Create schema" button to select an existing or create a new database schema (see Fig. 7), after that, you will see a form requesting access to the LUI schema creation wizard (see Fig. 8).

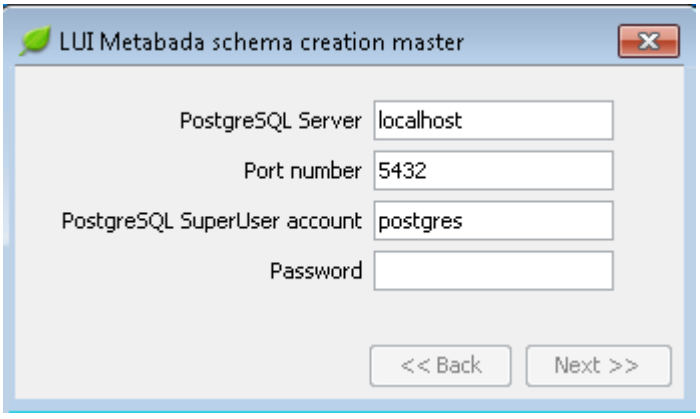

Figure 8. The request access to the LUI schema creation wizard

Enter PostgreSQL Server address, administrative credentials and click on the "Next" button to enter in the database users setting form.

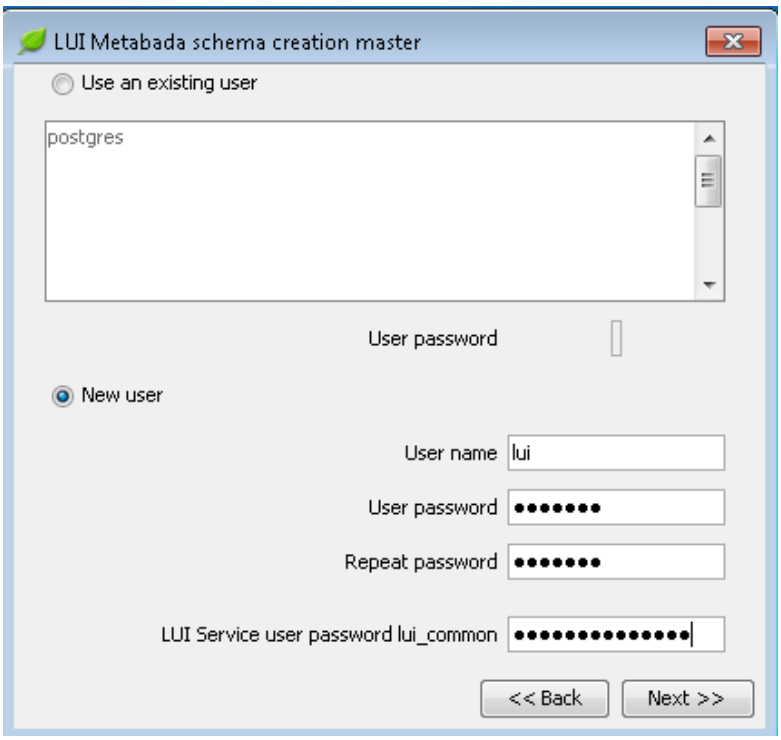

Figure 9. Setting a database user in the LUI schema wizard form

Choose an existent user or enter name a new LUI Superuser, the metadata tables and stored procedures owner (see Fig. 9), click on the "Next" button to enter in the database setting form.

Enter a new or choose an existing database and table space to store LUI Metadata (see Fig. 10) and click the "Next" button to enter in the database schema setting form.

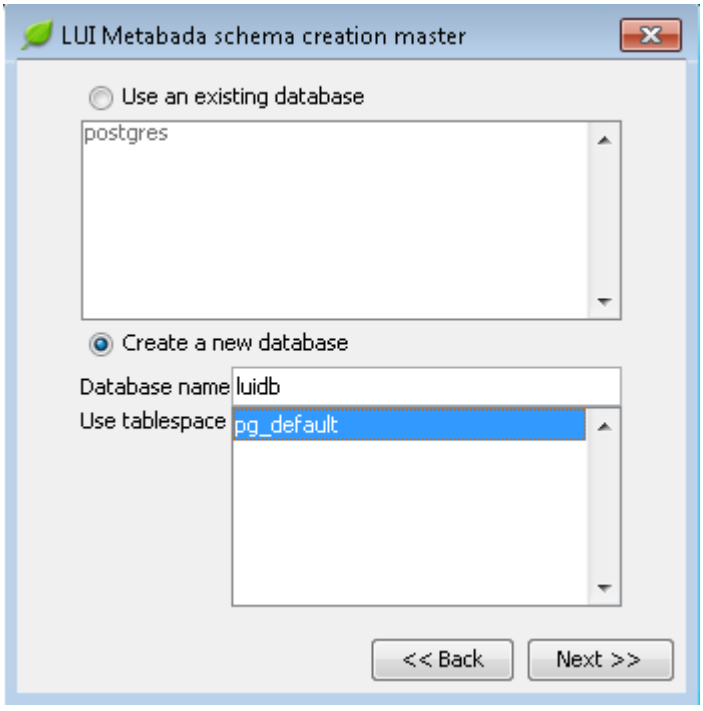

Figure 10. Setting the database in the LUI schema wizard form

Enter a new or choose an existing database schema to store LUI Metadata (see Fig. 11) and click the "Next" button to apply all specified DB circuit parameters and displaying the deployment process.

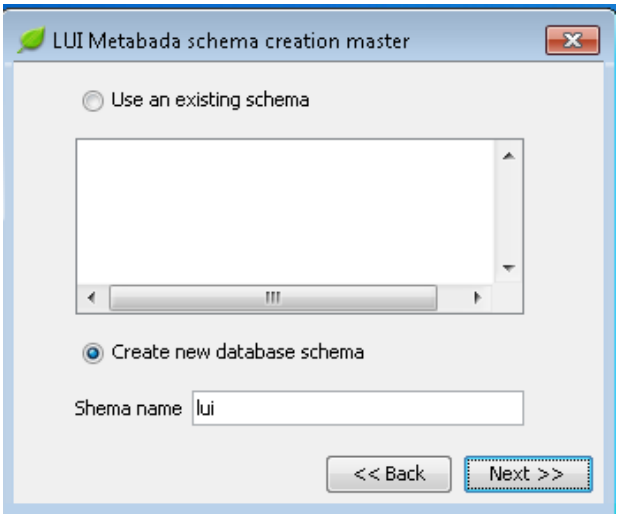

Figure 11. Setting the database scheme in the LUI schema wizard form

It is not recommended that you store metadata and application data in the same schema.

The process of deploying tables and stored procedures is displayed in the form shown in figure 12. When the deployment process is complete, the "Save log" and "Finish" buttons are activated.

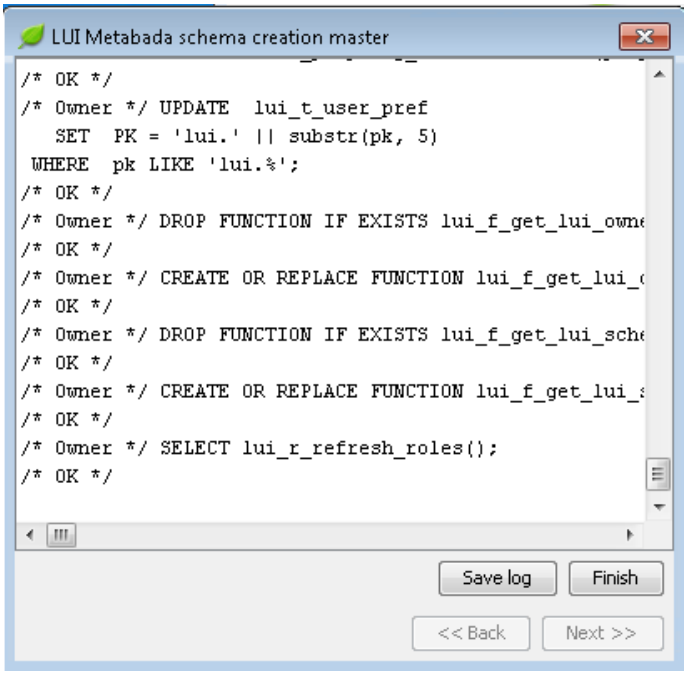

Figure 12. Displaying the deployment process of tables and stored procedures

To save the installation log to a file, click the "Save log" button.

Click "finish" to return to the main form LUI Bundle and go to test settings and run the application.

4.5. Testing the settings of LUI

Testing the setting of LUI is executed from the main form LUI Bundle and is carried out in the following sequence:

- Check the setting parameters of the web server and the database. Enter the name and password of the Service User and click on the "Test" button. The result of the check is confirmed by a message (see Fig. 13)
- Start the web server LUI - click on the "Start" button (see Fig. 14 and Fig.15)
- Start client LUI - click "Open" button (see Fig.16) and successful result (see Fig. 17)
- Sign in LUI, - specify the database user, as shown in Fig.18. The result of a successful LUI login is shown in figure 19.

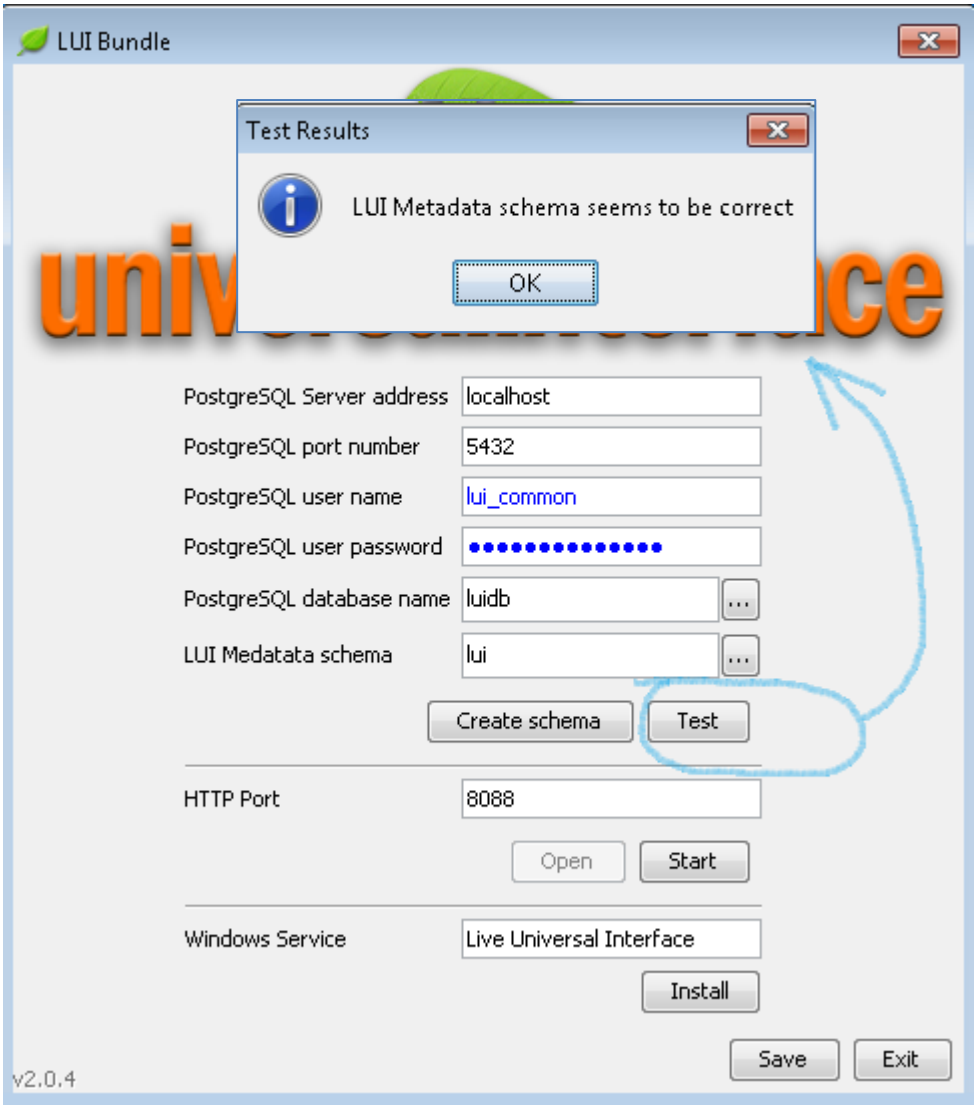

Figure 13. Checking parameters by clicking the "Test" button

To start the LUI web server, click on the "Start" button (see Fig. 14) and wait for the name change and activating the "Open" and "Stop" buttons (see Fig. 15).

Figure 14. Start the web server LUI by clicking the "Start" button

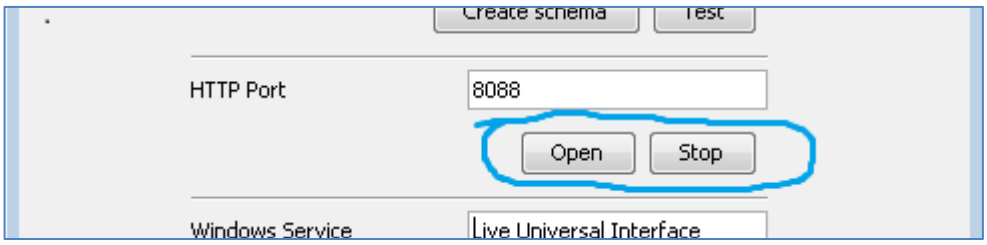

Figure 15. Name change and activation of "Open" and "Stop" buttons after WEB server start

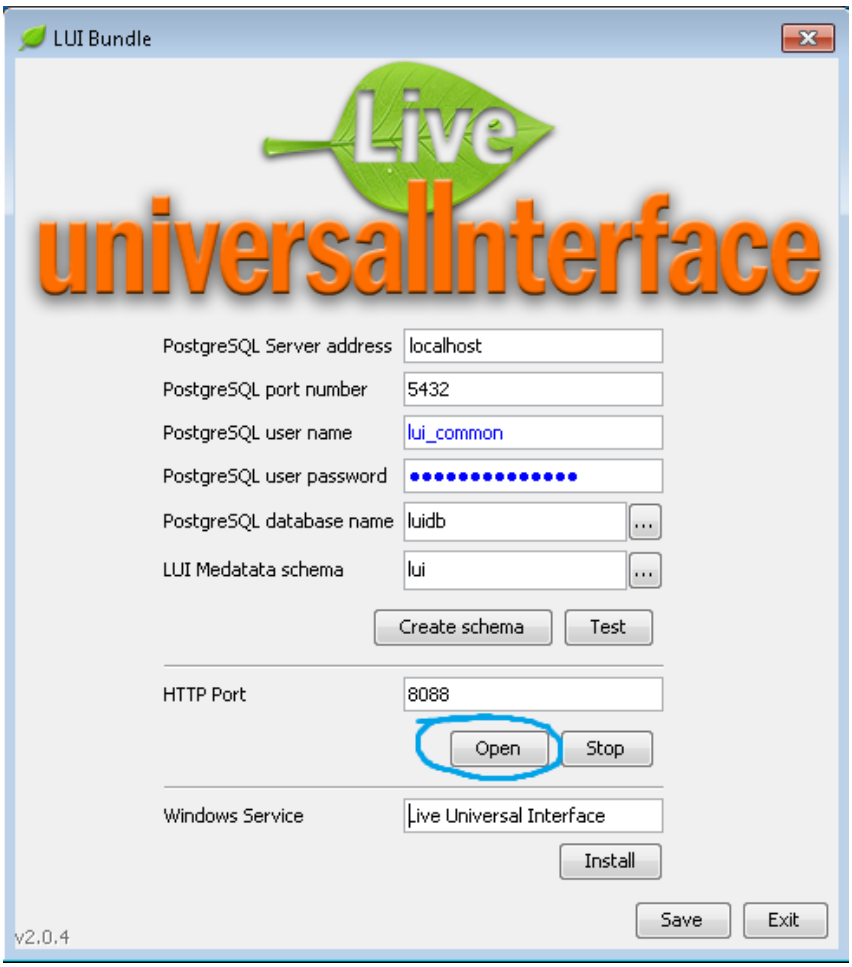

Figure 16. Starting client LUI by clicking on the button "Open"

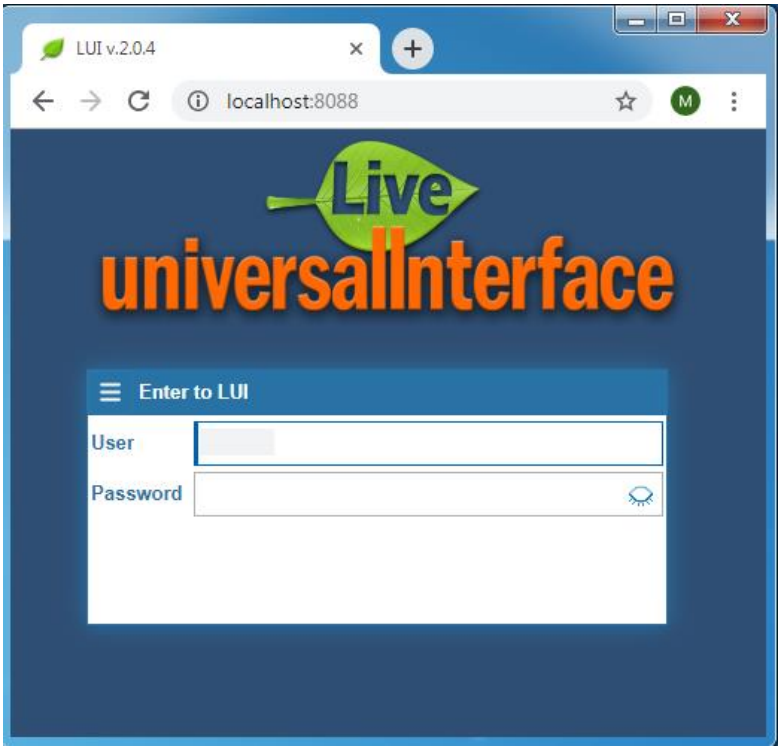

Figure 17. The successful launch of LUI by clicking on the button "Open"

Figure 18. Specifying the database username to log in to LUI

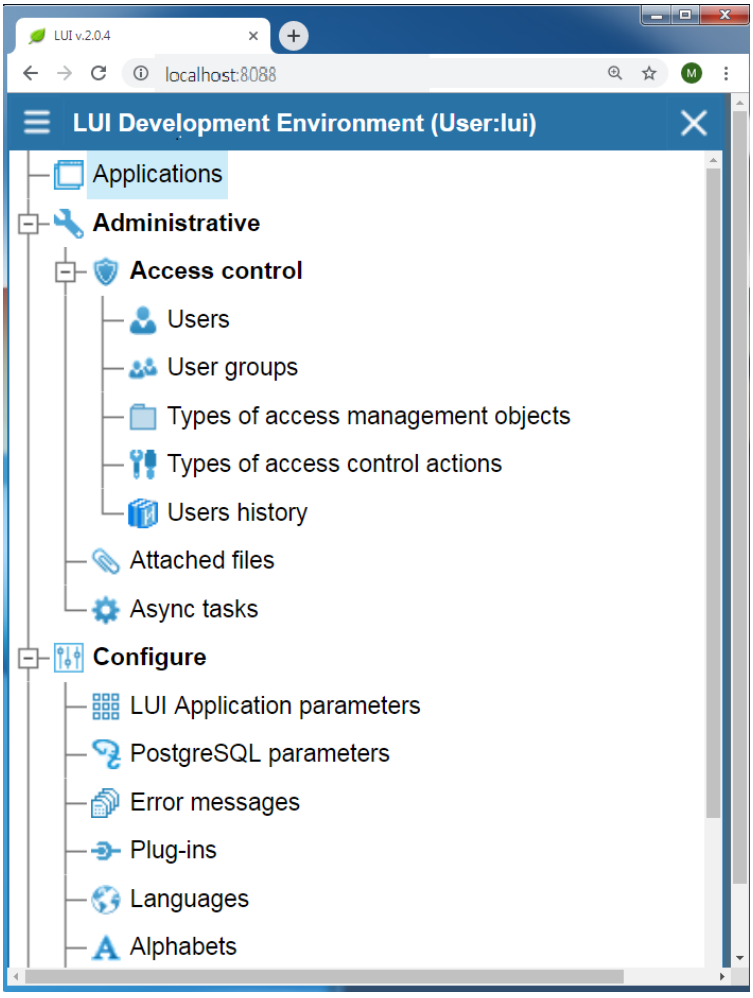

Figure 19. The successful enter in LUI

4.6. Creating a Windows service for LUI (optionally)

Creating web server LUI as a Windows service is executed in the form LUI Bundle in the following sequence of actions (optionally):

- Save customized settings LUI (see Fig. 20)
- Stop the web server LUI by clicking on the button "Stop" in the "Web port" and wait for automatic change of the button to "Start" (see Fig. 21)
- Click on the "Install" button in the "Windows Service" block (see Fig. 21)
- Confirm creation of a Windows service (see Fig. 22), this requires Administrator rights on the computer
- Check the availability of the service "Live Universal Interface" in the list of Windows services and start it (see Fig. 23)
- Check LUI, putting in the web browser address http://localhost:8088.

Figure 20. Save settings LUI

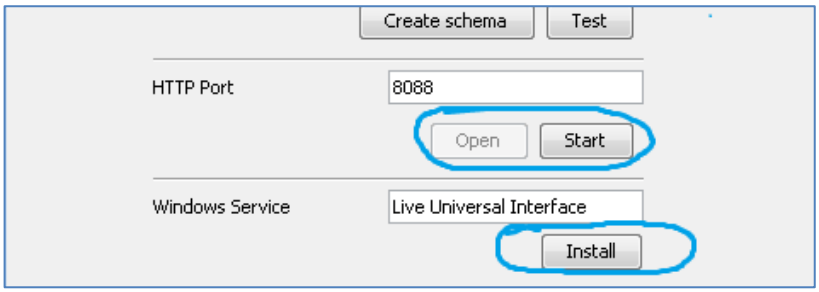

Figure 21. Click on the "Install" button in the "Windows Service" block

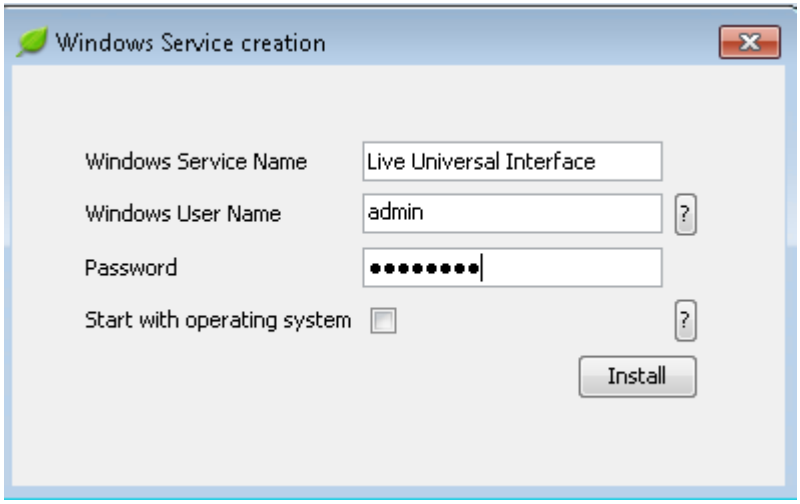

Figure 22. Confirm rights to create a Windows service

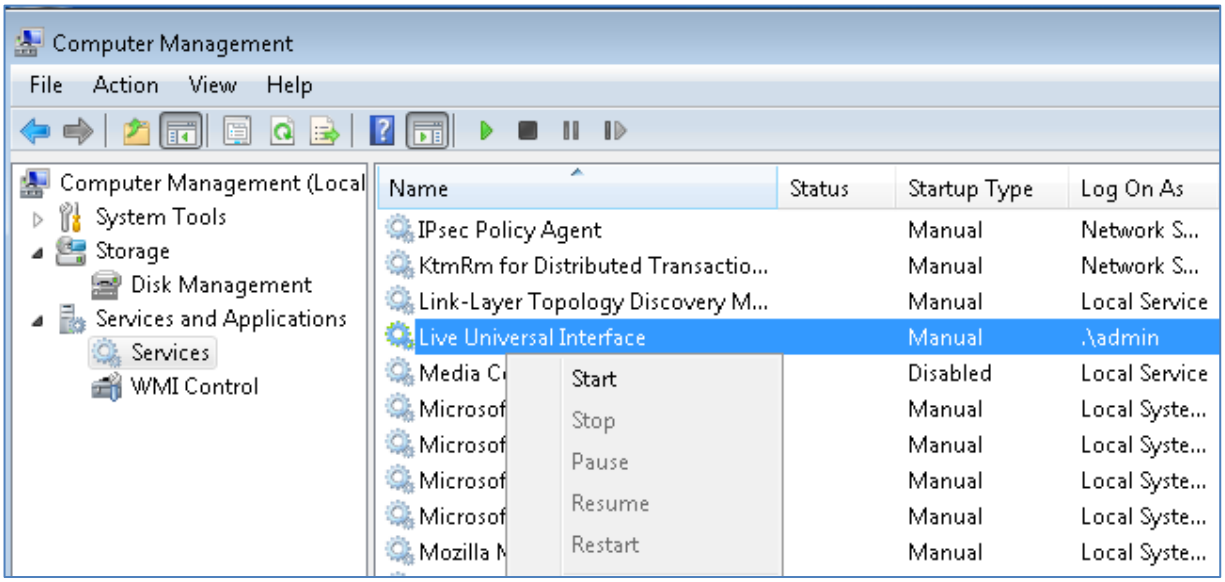

Figure 23. "Live Universal Interface" should appear in the list of Windows services

Start the service "Live Universal Interface" for action "Start».
