



Mail Service

With this library, emails can be sent, received, and deleted from one CODESYS controller.

The library “Mail Service” is now part of the product [IIoT Libraries SL](#) and is no longer available as single product.

Product description

This library contains function blocks for sending, receiving, and deleting emails by means of SMTP and POP3 protocols. Communication with the mail server can be established either encrypted (TLS) or unencrypted. A sample project demonstrates how to use the function blocks.

The library contains the following function blocks.

ServerFB

Basic function block for the SMTP and POP3 connection. Encrypted (TLS) and unencrypted connections can be established to a mail server (SMTPS).

SendMail

Function block for sending emails via SMTP.

ReceiveMail

Function block for receiving emails via POP3. The oldest email is always retrieved from the server.

DeleteMail

Function block for deleting emails via POP3.

The mail server must support unique mail IDs so that emails can be received or deleted from the server.

The sample project “MailServiceExample.project” demonstrates how to use the function blocks.

Example: Mail Service

In the sample project “MailServiceExample.project”, a simple email client is implemented with a visualization.

The following functions are available:

Button “Settings”

Here you modify the POP3 login and SMTP/POP3 server addresses and ports. With “Use TLS”, an encrypted connection is established to the server (SMTPS).

Button “New message”

Select “New message” in the page bar to write a new mail. Add the sender, receiver, subject, and an email text in the respective fields. To send files, specify the full file path (for example: C:/temp/testfile.txt). Click “Send” to submit your mail.

Button “Get first email”

If you switch to “Inbox” in the page bar, then the email program automatically checks for new mails on the server. With “Refresh”, it is also possible to retrieve new mails manually. After receiving the email, delete the email by clicking “Delete” in order to retrieve the next latest unread email on the server.

Area “Errors”

Error messages are displayed in the lower area of the page bar.

Technical functions

This mail program runs through seven different states: FIRST_START, INIT_SERVER, SEND_MAIL, NEW_MAIL, RECEIVE_MAIL, DELETE_MAIL, and WAITING. By input in MainVisu_PRG, the program switches to another state, for example SEND_MAIL. The program remains in this state until the condition is fulfilled for switching to another

state, for example if an email is sent, then the program switches to `WAITING`. It remains there until a state change is triggered.

`MAIL_PRG`: Main program. It runs through the following seven states:

`FIRST_START`: Active when starting the program. All settings are set to default values. Server addresses and ports are assigned, and memory is reserved for receiving emails.

`INIT_SERVER`: Initializes the server with new values, for example user name and password or other server addresses and ports.

`SEND_MAIL`: An instance of `EMAIL_SEND` is sent via SMTP by an instance of `SERVER`.

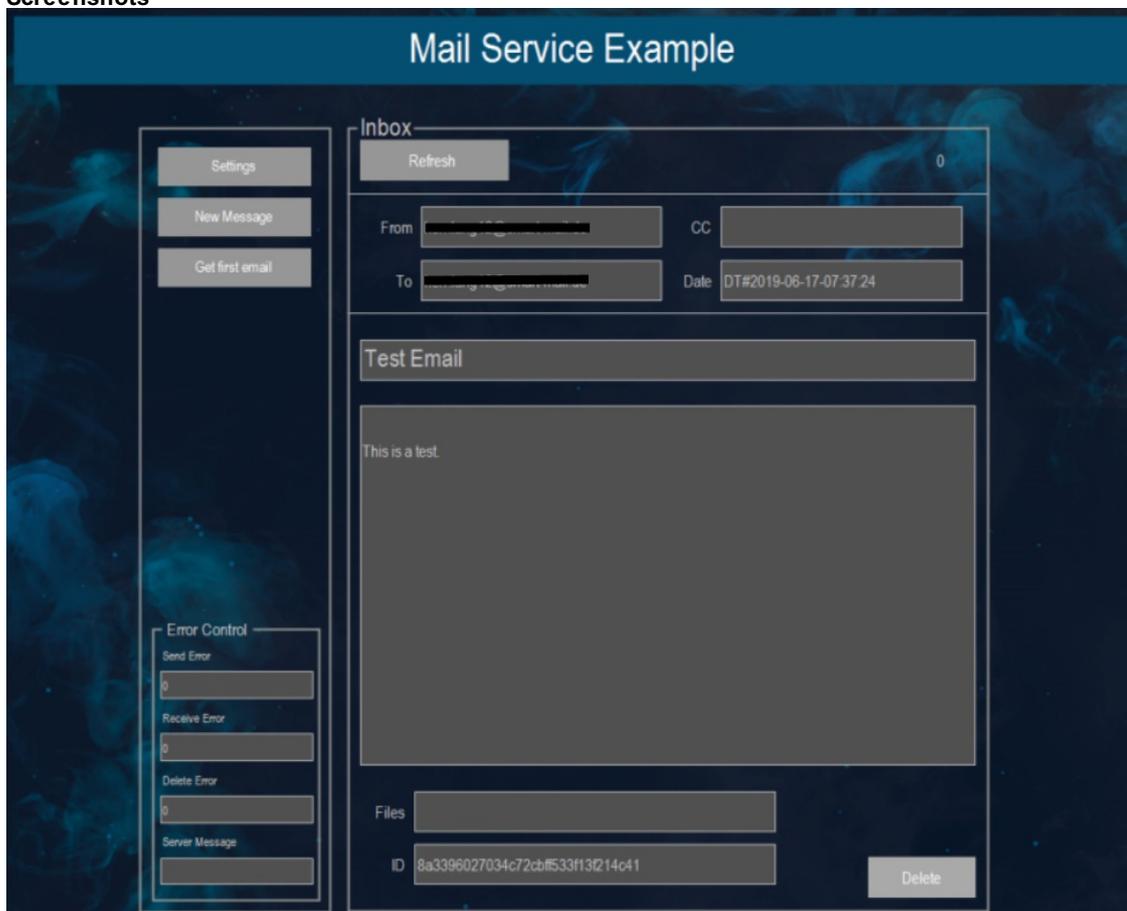
`NEW_MAIL`: The values of the current instance of `EMAIL_SEND` are reset and the `SENDMAIL VISU` visualization is prepared for sending a new email.

`RECEIVE_MAIL`: The program retrieves new email from the server via POP3. If there is an unread email, then this is saved in `EMAIL_RECV`.

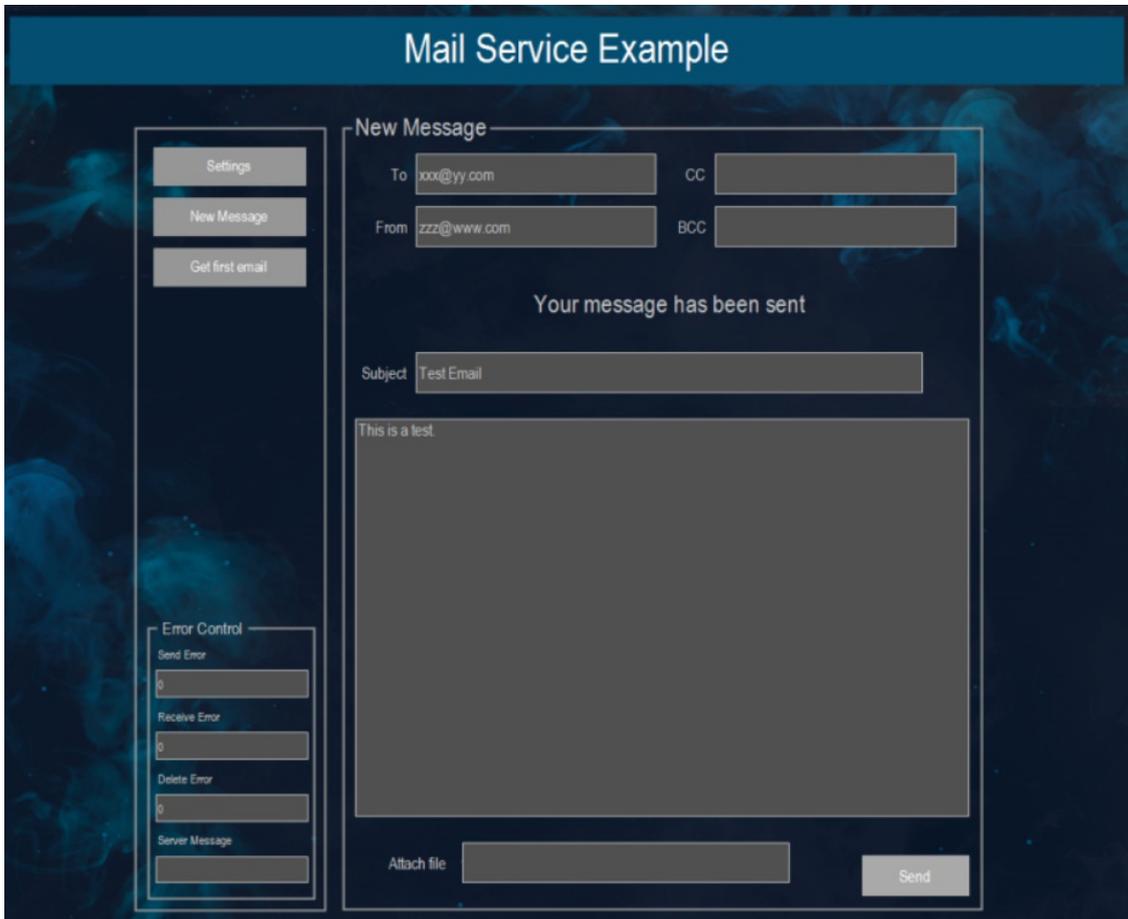
`DELETE_MAIL`: In this state, the current displayed email is deleted from the server. This happens by means of the message ID. For `DELETE_MAIL`, the server must support mail IDs.

`WAITING`: Nothing happens. The program remains in this state and waits for input by the visualization.

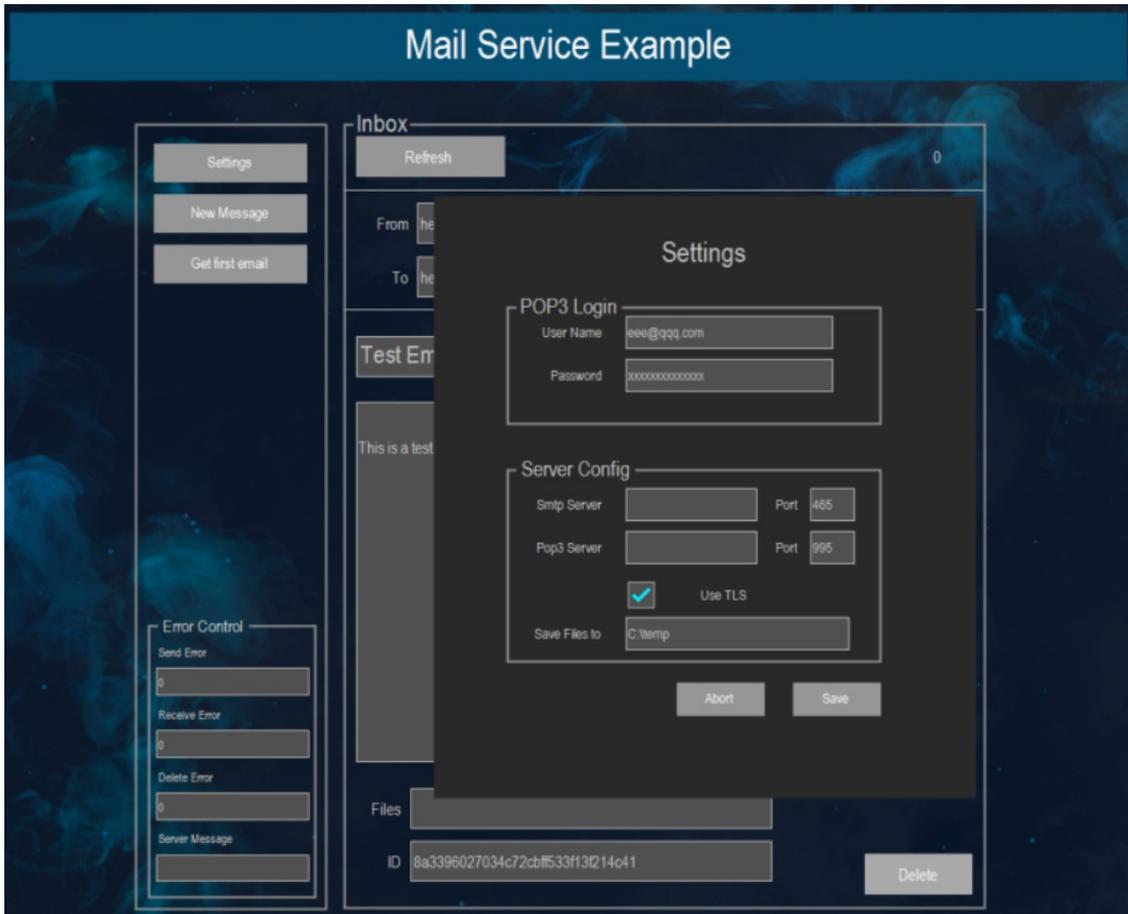
Screenshots



Inbox



New Mail



Settings

General information

Supplier:

CODESYS GmbH
 Memminger Strasse 151
 87439 Kempten
 Germany

Support:

<https://support.codesys.com>

Item:

Mail Service

Item number:

2111000001

Sales:

CODESYS Store

<https://store.codesys.com>

Included in delivery:

CODESYS Package with library and example project

System requirements and restrictions

Programming System	CODESYS Development System Version 3.5.14.0 or higher
Runtime System	CODESYS Control Version 3.5.14.0
Supported Platforms/ Devices	Support of libraries SysSocket2, CmpTls, and CmpX509Cert Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
Additional Requirements	<ul style="list-style-type: none"> • The mail server must support SMTP and POP3 protocols. • The mail server must support message IDs.
Restrictions	<ul style="list-style-type: none"> • Establishing a connection via STARTTLS is not supported. • The maximum size of an email (maximum size of the send/receive buffer) is limited to 32,767 bytes.
Licensing	Workstation license
Required Accessories	CODESYS Key for CODESYS < 3.5.14.0

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.

Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.