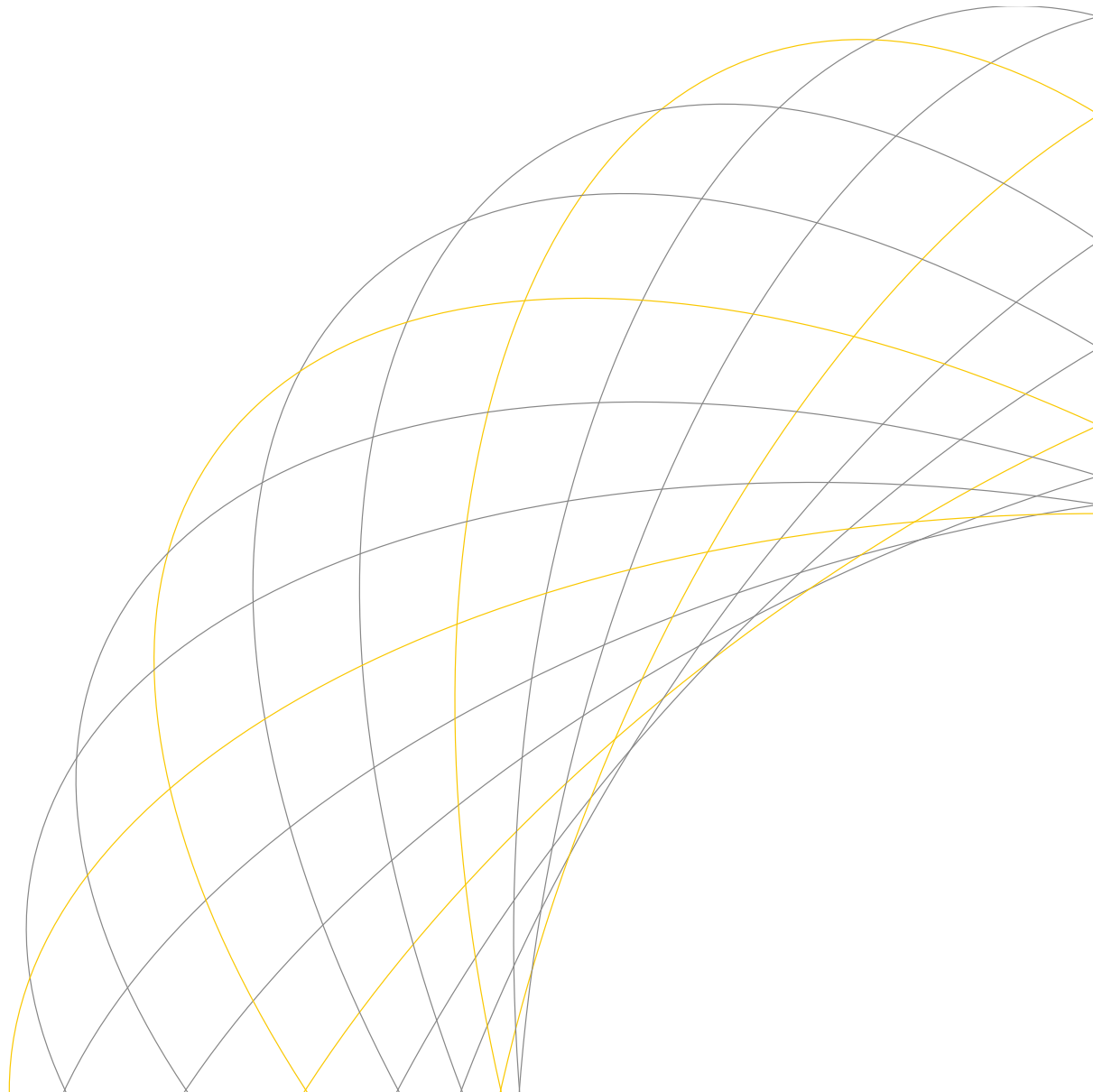




Mail Integration Solution

White Paper



Contents

General information	3
IMAP	3
Rapid Automation (RA)	3
RA Agent	3
RA Solution.....	3
Mail Integration Solution.....	4
Use cases.....	5
Download incoming mails	5
Processing attachments	5
Executing objects	6
Activities	7
Summary	7

General information

This Rapid Automation (RA) Solution integration allows the Automic Automation Engine to access any IMAP mailbox and check for incoming emails.

IMAP

The Internet Message Access Protocol (commonly known as IMAP) is an Application Layer Internet protocol that allows an email client to access email on a remote mail server. The current version, IMAP version 4 revision 1, is defined by RFC 3501. An IMAP server typically listens on well-known port 143. IMAP over SSL (IMAPS) is assigned well-known port 993.

IMAP supports both on-line and off-line modes of operation. Email clients using IMAP generally leave messages on the server until the user explicitly deletes them. This and other characteristics of IMAP operation allow multiple clients to manage the same mailbox. Most email clients support IMAP in addition to Post Office Protocol (POP) to retrieve messages. This protocol also offers access to the mail storage but here, the clients store local copies of the messages which are considered to be a temporary cache.

Incoming email messages are sent to an email server that stores messages in the recipient's email box. The user retrieves the messages with an email client that uses one of a number of email retrieval protocols. Some clients and servers preferentially use vendor-specific, proprietary protocols, but most support IMAP, SMTP for sending email and POP and IMAP for retrieving email, allowing interoperability with other servers and clients. For example, Microsoft's Outlook client uses MAPI, a Microsoft proprietary protocol to communicate with a Microsoft Exchange Server. IBM's Notes client works in a similar fashion when communicating with a Domino server. All of these products also support POP, IMAP, and outgoing SMTP. Support for the Internet standard protocols allows many email clients such as Pegasus Mail or Mozilla Thunderbird to access these servers, and allows the clients to be used with other servers.

Rapid Automation (RA)

Rapid Automation is a generic technology that can integrate various Solutions and, as a result, it connects to particular external applications and platforms.

RA Agent

The RA Agent provides the universal framework and connects the Solution with the Automic Automation Engine. The Key benefit of this concept is that the same agent can be combined with any other Solution of your choice. That is why a lot of different RA Agent are in place and delivered by Automic Software.

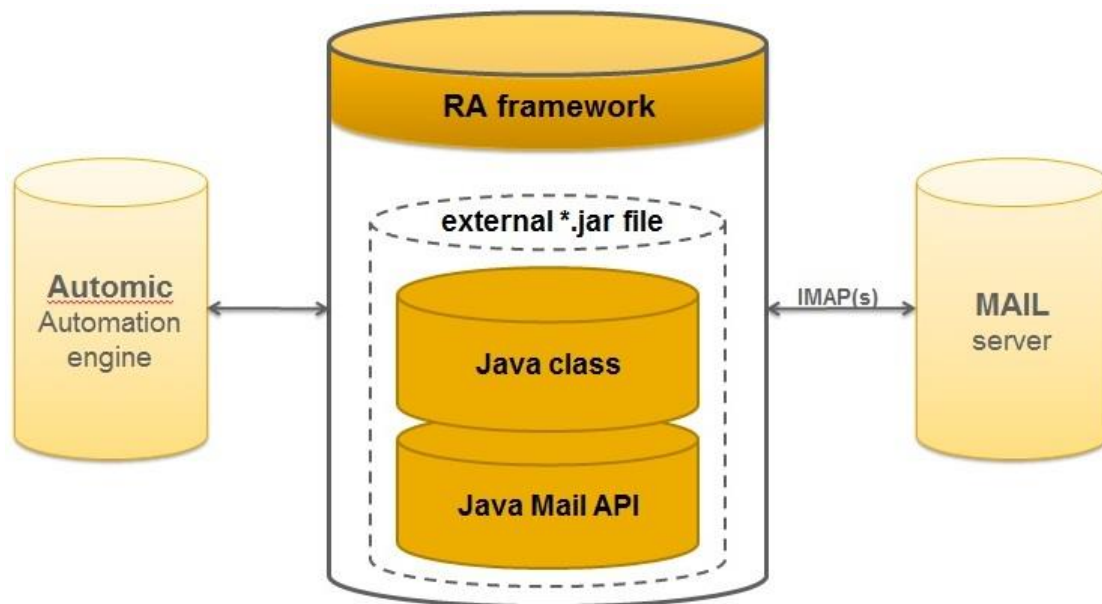
RA Solution

The RA Solution is linked with an RA Agent. It determines the Agent's functionality, and the RA Connection objects, Agent objects and Job objects that can be created and how they are structured. The Solution is supplied as a JAR file.

In order to use an RA Solution, you need a technical license key of type EX.RA (RA framework) from Automic.

Mail Integration Solution

The following illustration describes the main architecture of the Rapid Automation Mail Integration Solution. As mentioned above the Mail Integration Solution was initially developed as a standalone Java class using a Java Mail API provided by Oracle (formerly Sun).



This pre-developed Solution is build and packaged as an external JAR file and then used within the Rapid Automation framework. The final result represents the RA Mail Integration Solution which can be easily integrated within the Automic Automation Engine.

By using the Mail Agent class and any external IMAP API the agent is able to connect to any IMAP mailbox. Additionally, the IMAPS protocol can be used to satisfy highest security policies. Finally, the agent will download incoming emails to a specified system folder on the agent's host. Downloaded emails will be marked as "read". Attachments can also be downloaded by the Mail Integration Solution.

Therefore, it represents an interface which can be used as a trigger to control the Automic Automation Engine by email.

Use cases

The following describes some use cases to give an idea about what can be realized using the Mail Integration Solution.

Download incoming mails

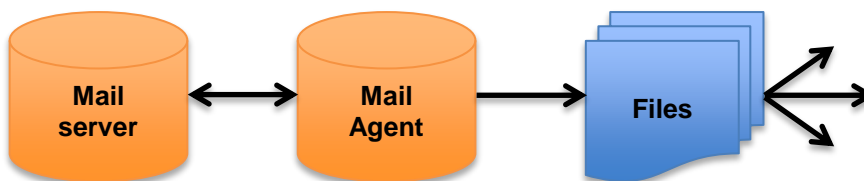
The main functionality of the Mail Integration Solution is to download incoming emails from any IMAP mail server to a local folder of the agent system (for further processing). These emails are then marked as “read” to identify them as already processed.



Using the filtering functionality, you can process specific emails by the Mail Integration Solution. For example, a user may only receive messages sent from a specific address. Other options can be filtering for receiving addresses or subject of a message. In addition, emails can be moved or copied to another mailbox folder, or even be deleted (using almost the same filtering functions).

Processing attachments

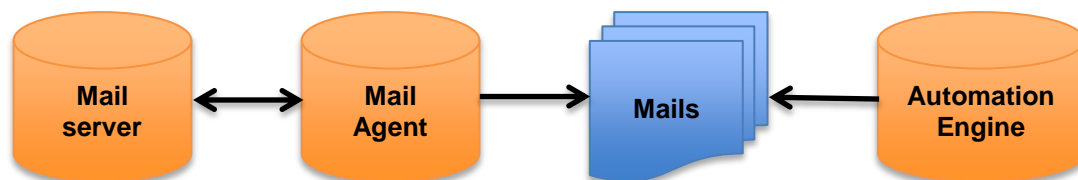
In addition to just downloading the message’s content, attachments can also be downloaded. Using this functionality, an immediate post-processing of attachments can be realized.



For example, downloaded txt, csv or pdf files can directly be processed by individual jobs within the Automation Engine. This processing automates manual user intervention of finding out relevant emails and their specific attachments for further processing.

Executing objects

When parsing the email's content, triggering can also be realized. After download the relevant email can be parsed for specific parameters which are then used to execute any object within Automic Automation Engine.



For example, a specific designed email can be used as a trigger to execute a process on demand. Without using the Automation Engine User interface, a job request can be realized just by sending an email.

Activities

This “Mail Integration Solution” is offered as a Consulting Package. One package covers the use of the Solution on one production system; running the Solution on one corresponding test system is free of charge in this case.

The package contains:

- The RA Framework (RA Core), which is generally necessary to use any RA Solution (software)
- Installation and configuration of the Solution
- Initial implementation of some use cases (including testing)
- The program for the email functionalities (already developed by Automic Consulting)

Duration: approximately 1 day (depending on the effort), on-site/remote; assistance per package is limited to a maximum of 4 days.

Requirements:

- Automation Engine (minimum Version 8, because of RA technology)
- Rapid Automation framework (version 6.4.0 or higher; V8: minimum version 4.1.0)
- Java Runtime Environment (at least version 7)

On demand and after talking to Automic, smaller changes may be possible as well. All rights for any changes/extensions remain the sole property of Automic.

The “Mail Integration Solution” requires a technical license key of type EX.RA. When buying this package, Automic will provide you with this key free of any additional charge, for using it with the “Mail Integration Solution”.

Tipp: The Solution itself is not a product; thus, it is not part of product maintenance. Support can be requested from Automic Consulting, as additional effort.

Summary

Increase your level of IT driven business process automation by:

- using input emails to drive your AE workflows (example: wait for confirmation emails to automatically continue your “interrupted” workflows)
- reading attachment content with dynamic reaction (example: read figures from attachments and use them as input parameters for your runs)
- Triggering emails and activation of predefined workflows (example: start certain tasks if requested via email only).