



E-Mail Trailer with Images

**iQ.Suite Trailer
Installation and Administration
for Lotus Domino**

Document Version 1.0

Content

1 Overview	1
1.1 License Terms	1
1.2 System Requirements	1
2 iQ.Suite Trailer for Lotus Domino	2
2.1 Installation	2
2.1.1 Notes Client Extension	2
2.1.2 Starting the New iQ.Suite Administration Console	5
2.2 Configuration	7
2.2.1 Trailer Document Configuration	7
2.2.2 Inserting an Image into the Trailer Document	9
2.2.2.1 Inserting an Image from the iQ.Suite Server	9
2.2.2.2 Inserting an Image via an HTTP Link	11
2.2.3 Using Notes Data Sources (Individual Signature)	12
2.2.4 Creating Search Patterns	13
2.2.5 Assigning a Document to a Trailer Job	14
2.3 Field Type Rules	17

1 Overview

iQ.Suite Trailer allows to integrate predefined text blocks into emails according to specific rules. It is possible to configure individual trailers for different groups of persons and, for instance, generate them in different languages.

As of iQ.Suite 12.3 for Lotus Domino, it is also possible to integrate images into emails. This allows to combine company information, legal notices, disclaimers or individual signatures with graphic elements (such as the company logo) and have this information added to emails in a server-controlled process. The images are added to the email as attachment and inserted in the HTML body of the email at a freely configurable position.

1.1 License Terms

To be able to integrate images into email trailers, you need a regular iQ.Suite Trailer license.

1.2 System Requirements

iQ.Suite Trailer for Lotus Domino

- Domino Server 7.0.2 - 8.x
- Traditional administration console: Notes client Version 7.0 to 8.x.
- New administration console: Eclipse-based standard Notes client Version 8.0.2 or later, installed on each workplace where iQ.Suite Trailer is to be configurable.
- Current browser version as default browser:
 - Internet Explorer 7.0 or later
 - Mozilla Firefox 3.0 or laterJavaScript must be enabled.

2 iQ.Suite Trailer for Lotus Domino



Until now, images could only be included in the email bodies of Richtext emails. Using the Java-based Eclipse technology, a further administration console with a new graphical user interface is now available. Used in combination with the traditional administration console, iQ.Suite Trailer now also allows to integrate images in GIF, PNG or JPG format into MIME emails.

2.1 Installation

2.1.1 Notes Client Extension

Administrator side

To be able to use the iQ.Suite Trailer functionality provided as of Version 12.3, the Notes client needs to be extended. This requires basic skills in the use of widgets (window objects)¹.

1. Install iQ.Suite Version 12.3 or higher.
2. Check that the *admin_frontend.xml* file and the *g_update.nsf* database are located in the iQ.Suite data directory under `<update>`.



The database contains the client extensions (plug-ins) needed to use iQ.Suite Trailer. The XML file above defines the storage location of the database. The database is referred to through the Replica ID.

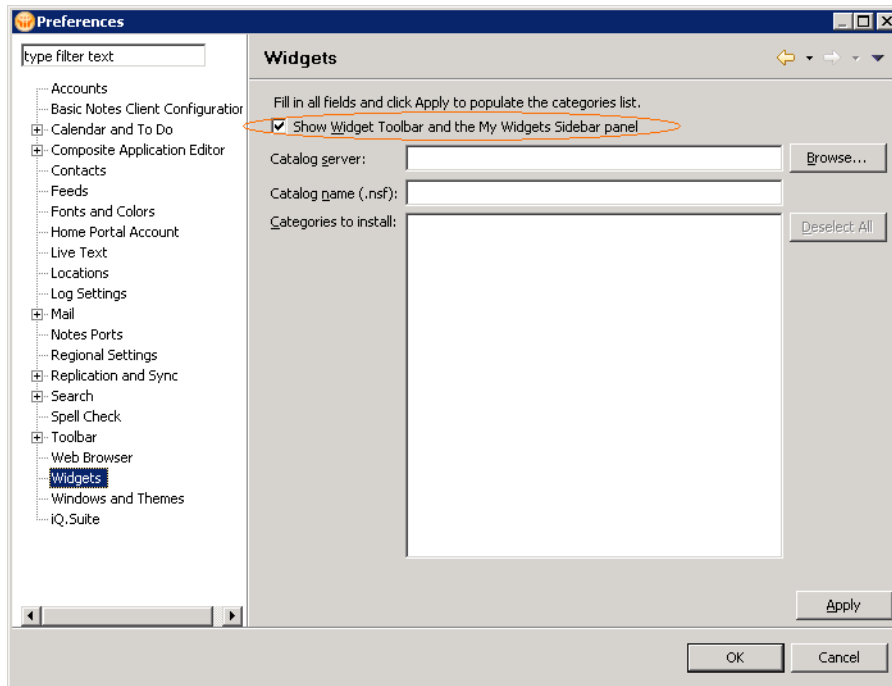


The toolbar for widgets must be visible in order to access the 'My Widgets' area. The Notes client settings required to this end depend on the client version used.

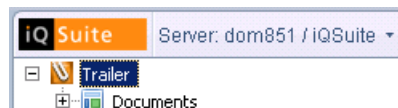
In the Notes client 8.0.2, these settings are located under: *FILE -> PREFERENCES -> WIDGETS -> ENABLE THE CHECKBOX: SHOW WIDGET TOOLBAR AND THE MY WIDGETS SIDEBAR PANEL.*

3. Integrate the *admin_frontend.xml* file into the 'My Widgets' sidebar of the Notes client.

1. For further information please refer to the IBM Lotus Domino documentation.



4. The iQ.Suite Trailer components are installed and the Notes client restarted. This may take a few seconds.
5. Select *PREFERENCES* -> *IQ.SUITE* -> *CONFIGURATION* and click the **ADD** button.
 - a) Check that the **Server name** or the server's **IP address** is set correctly and points to the correct **iQ.Suite data directory** of the server. If iQ.Suite has been installed on multiple servers, you may switch between servers. Click **ADD** to define these servers.



- b) The new administration console is available in two default languages: German and English. You can change the default setting either manually ('Selection') or dynamically according to the 'Content Language' of the Notes client used (set in the *notes.ini* file). The language of the new administration console does not have to be the same as for the traditional administration console.
- c) Change these settings manually as required and verify the installation of the iQ.Suite components under: *HELP* -> *ABOUT IBM LOTUS NOTES...* -> *FEATURE DETAILS*.

User side

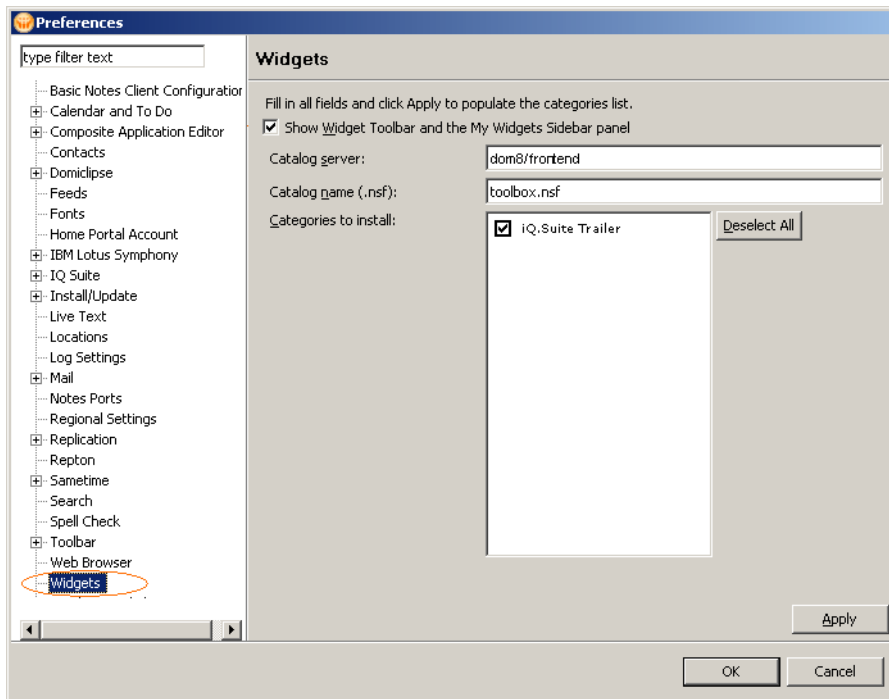
Every user who is to be able to configure iQ.Suite Trailer needs to integrate the *admin_frontend.xml* file in the Notes client. Use one of the following methods to provide the users with the XML file:

- a shared directory
- by email
- through a widget catalog

The users import the XML file into the 'My Widgets' sidebar panel of the Notes client, e.g. via Drag&Drop.

As an alternative, you can also publish the XML file in the widget catalog¹. To do so, in the Domino Administrator of your Notes client, provide the users with appropriate rights for using widgets. Please note that the users require the following information:

- Server where the widget catalog is located (**Catalog server**).
- Widget category that includes the *admin_frontend.xml* file (**Categories to install**).



1. For further information please refer to the IBM Lotus Domino documentation.

2.1.2 Starting the New iQ.Suite Administration Console




To integrate images into email trailers, you need make a number of settings in both the new and the traditional administration console.


1. Open the new iQ.Suite administration console: *NOTES CLIENT -> DROPDOWN MENU: OPEN -> IQ.SUITE:*



a	Menu bar
	Resets the current configuration. This means that your settings are reset to the state when last saved. All configuration changes performed since then will be lost.
	Saves the entire configuration.
	Inserts a new configuration object, e.g. a Trailer document.
	Deletes an existing configuration object, e.g. a Trailer document.

b	Navigation area
Documents	Documents are also being used in the traditional administration console to be able to include varying trailer texts in Trailer jobs. To add images to trailers, the Trailer documents need to be configured in the new administration console. The configuration principle is the same. Please note that assigning a Trailer document to a Trailer job is performed in the traditional administration console.
Images	To be able to append images to emails, the images are uploaded to the iQ.Suite server. For a better overview, images are managed under Image Categories.

Search Patterns	Trailer search patterns are used to optimize the position of the trailer within the email. Refer to "Creating Search Patterns" on page 13.
Notes Data Sources	Notes data sources are used to set the rules according to which the placeholders included in Trailer documents are resolved. Refer to "Using Notes Data Sources (Individual Signature)" on page 12.
	If iQ.Suite is operated on several servers, you may switch to the administration console of another server. This requires that the server has been defined accordingly under <i>PREFERENCES -> IQ.SUITE -> ADD CONFIGURATION.</i>
	Identifies objects currently being processed and not saved yet.
	Identifies disabled objects such as, for instance, Trailer search patterns.

	Display area
	Displays the iQ.Suite configuration.

2.2 Configuration

2.2.1 Trailer Document Configuration

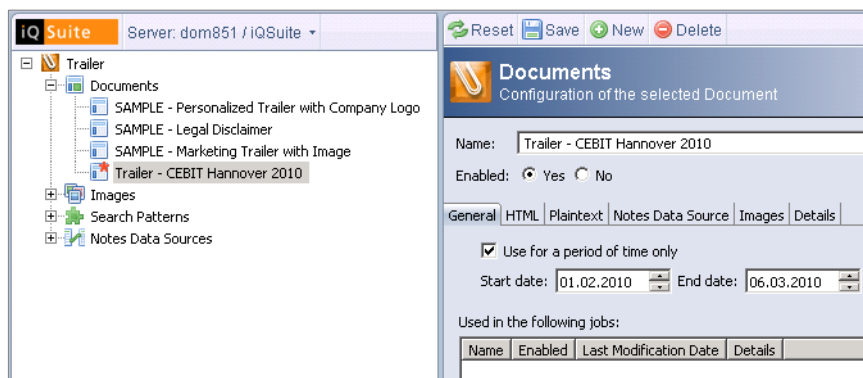
To be able to add images to Trailer documents, the latter need to be configured in the new administration console. Assigning the Trailer documents to Trailer mail jobs is performed in the traditional administration console. Refer to "[Assigning a Document to a Trailer Job](#)" on page 14.



Trailer documents created in the new administration console can only be used for the Trailer Mail Job Advanced (stored in the **g_trailer_advanced.nsf** database).

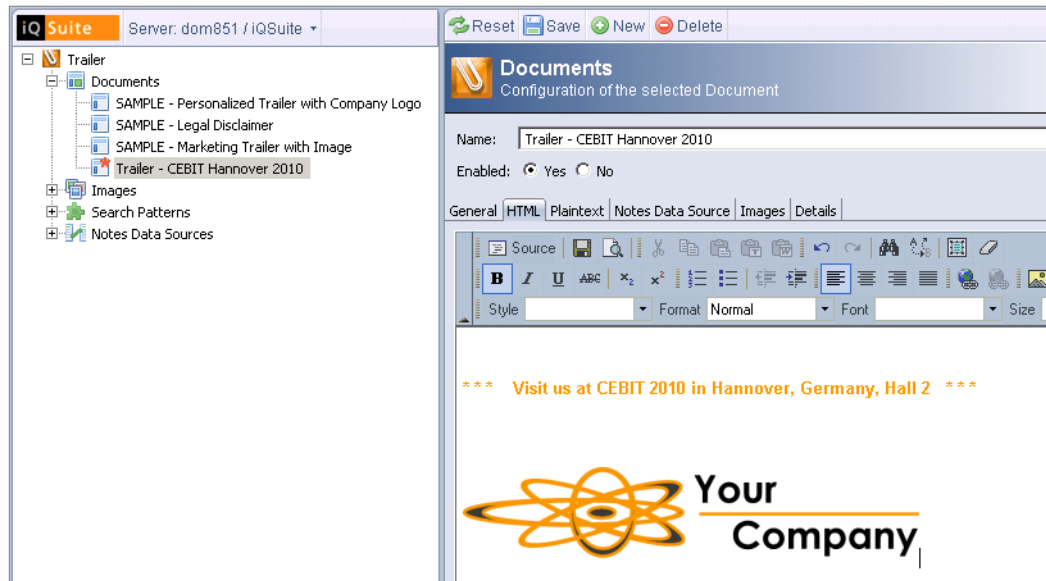
Trailer documents created in an iQ.Suite Version < 12.3 can only be used for the Trailer Mail Job (stored in the **g_trailer.nsf** database).

1. Create a new Trailer document: **DOCUMENTS** -> **RIGHT-CLICK** -> **NEW: DOCUMENT**.
2. Open the **General** tab and assign a **Name** to the Trailer document. Where required, enter the validity period for the trailer. The trailer will be appended to emails during the period set in the **Start date** and **End date** fields. Please note that the server time is specified here. If no dates are set, the trailer remains valid indefinitely.




Only an enabled document can be appended as a trailer to an email (even when the job itself is **Active**). The advantage of a enabling/disabling Trailer documents separately is that it simplifies administration. For instance, when normally several Trailer documents are appended to an email, but one of these documents is to be omitted for some reason, you can simply disable this Trailer document. This allows for temporary changes without having to modify the job.

3. Use the **HTML** and **Plaintext** tabs to create and set the desired trailer texts according to the email body format. The trailer text specified under the **HTML** tab will be appended to email bodies in HTML format, while the trailer text specified under the **Plaintext** tab will be appended to email bodies in text format. As HTML and Plaintext are not displayed in the same way, the trailer texts may differ in their layout and structure according to the email format. For instance, in unformatted Plaintext you can use line breaks for structuring purposes, while the HTML format allows to highlight text by way of font properties (bold, color etc.). Please note that images can only be inserted into trailers in HTML format.



- a) For **HTML** emails, the editor used (FCKeditor) provides a multitude of formatting options to individually design the trailer. Besides standard formatting options (such as font properties, including tables or links), this application also allows to insert images into HTML text¹. The HTML text specified here is inserted into the HTML email body of MIME emails.

If you open the source code ( Source), you can also enter HTML code manually. However, please note that it cannot be guaranteed that the HTML functionality is fully supported by all email clients.

- b) To append a trailer to a **text** email, the trailer must be available in Plaintext. This means that the trailer cannot be formatted in any way. Use the **Plaintext** tab to define another trailer text or layout for text emails. This allows to adapt the trailers to the specific requirements of Plaintext emails. The text specified here is inserted into the Plaintext email body of MIME emails.



If an email does not have an email body, an empty Plaintext body is created after which the Trailer document is inserted.

1. For details on the editing options please refer to the FCKeditor documentation.

2.2.2 Inserting an Image into the Trailer Document

As of iQ.Suite 12.3, you can integrate images into the trailer of an HTML email.

Two methods are available:

- a) [“Inserting an Image from the iQ.Suite Server” on page 9](#)
- b) [“Inserting an Image via an HTTP Link” on page 11](#)



Please note that images can only be inserted into HTML emails.

2.2.2.1 Inserting an Image from the iQ.Suite Server

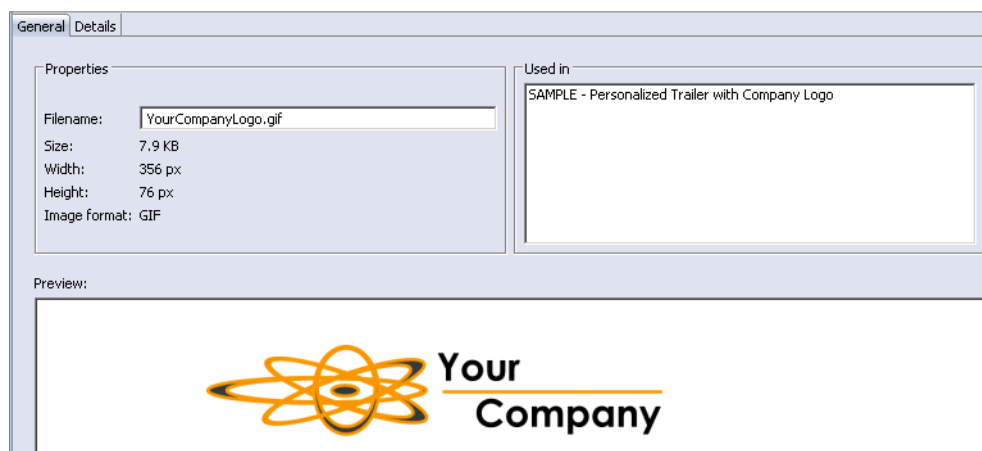
If you wish to permanently integrate images into Trailer documents, the images need to be uploaded to the iQ.Suite server first. Then, they can be integrated into a Trailer document.

Uploading an image to the iQ.Suite server

In the new iQ.Suite administration console, the images to be appended to emails are managed under **IMAGES**. To build a specific storage structure you can create image categories that allow to store images, for instance, for each department separately.

Proceed as follows:

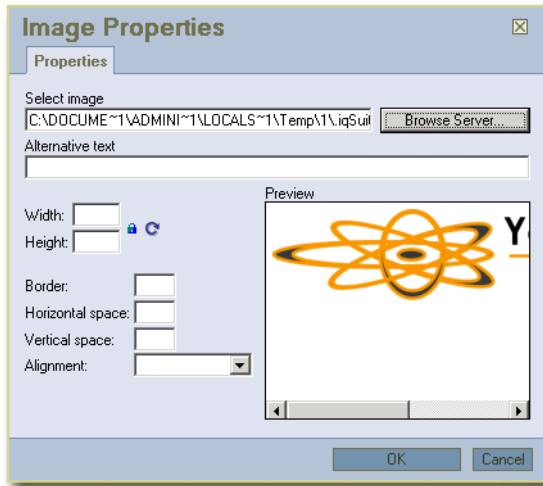
1. Create a new image category under: **IMAGES** -> **RIGHT-CLICK** -> **NEW: IMAGE CATEGORY**. Under 'Name' specify the name of the new image category, e.g. 'Marketing-Karlsruhe'.
2. Add the desired image to the image category. As an alternative, you can also extend the sample categories included in the standard configuration: **IMAGES** -> **<SELECT IMAGE CATEGORY>** -> **RIGHT-CLICK** -> **NEW: IMAGE**.
3. Now select the image using the tree structure of the filesystem. The image must be provided in GIF, PNG or JPG format and should be as small as possible in terms of file size. Large attachments could cause problems during the transport or on the recipient side. Note: We recommend not to exceed a file size of 200 KB.
4. The image is added to the image category and can now be used in the Trailer document.



Inserting an image into the Trailer document

1. In the Trailer document open the **HTML** tab.
2. In the trailer text, select the position where the image is to be inserted and click on .
3. In the dialog displayed next click the **BROWSE SERVER** button. Select the desired trailer image from the corresponding image category and click **OK** to confirm.



The image is displayed in the Preview box:



4. If required, specify additional image properties to be applied when the image is displayed in the Trailer document.
 - Alternative Text:** Enter the text to be displayed in case the image cannot be displayed.
 - Width/Height:** Enter the dimensions of the image in the HTML email (may differ from the original size). The values are entered in pixels or percent (in relation to the environment). If left empty, the image is used in its original size.
 - Resets the dimensions of the displayed image to their original value.
 - Horizontal/Vertical space:** Distance from the image to the text or left border of the document (set in pixels).
 - Alignment:**

LEFT	The image is aligned to the left of the page. The surrounding text and other elements wrap around the image on the right.
ABSBOTTOM	The image is aligned to the bottom border of the text. This also takes into account lowercase hanging letters such as p or g.
ABSMIDDLE	The center of the image is aligned to the center of the text - even if different font sizes are used.
BASELINE	Alternative to BOTTOM. Only use the BASELINE option if you are working with an older browser version.
BOTTOM	In more recent browsers, the image is aligned to the baseline of the text, i.e. to the bottom border of the text without taking into account lowercase hanging letters. In some older browser versions this yields the same result as with ABSBOTTOM.
MIDDLE	The center of the image is aligned to the center of the text.

RIGHT	The image is aligned to the right of the page. The surrounding text and other elements wrap around the image on the left.
TEXTTOP	The upper border of the image border is aligned to the upper border of the text.
TOP	The upper border of the image border is aligned to the upper border of the largest element in the top text line.

5. Click  to save the HTML configuration in FCKeditor and  Save to save the entire iQ.Suite configuration.

2.2.2.2 Inserting an Image via an HTTP Link


To keep the size of emails as low as possible, you can specify an HTTP link rather than physically integrating a trailer image. Email clients can load images via these links and display them to the recipient. Depending on the email client and the user settings, the images are displayed immediately, after a confirmation or after having clicked on the link.



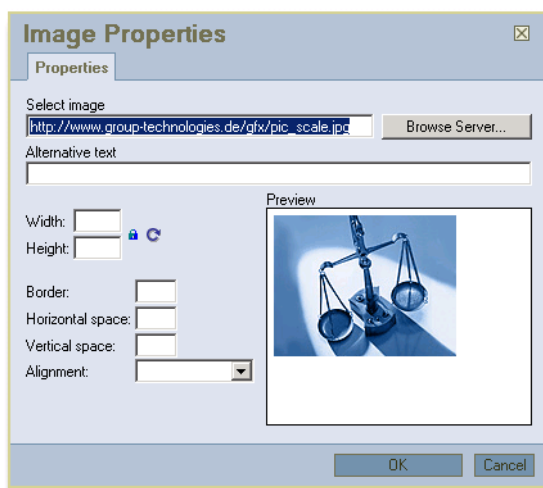
The following requirements must be met:



- The image is available in the Internet in a format supported by the web browser, e.g. JPG.
- The sender's email client sends emails in HTML format.
- The recipient is online.

Do the following to adjust the Trailer document:

1. In the Trailer document, open the **HTML** tab.
2. In the trailer text, select the position where the image is to be inserted and click on the  icon.
3. Under **Select image** enter the address to the desired image.

The image is displayed in the Preview:



4. If required, specify additional image properties to be applied when the image is displayed in the Trailer document.
5. Click  to save the HTML configuration in FCKeditor and  Save to save the entire iQ.Suite configuration.

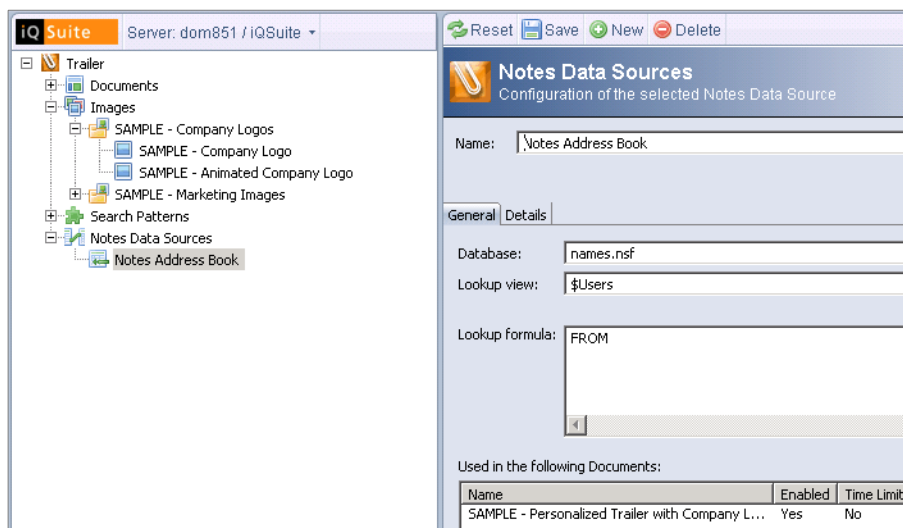
2.2.3 Using Notes Data Sources (Individual Signature)

With Notes data sources, you can use Notes formulas to have specific actions performed on any of the Notes databases, e.g. the Lotus Notes Name and Address Book (NAB). For instance, this allows to add individual signatures to emails.

The *SAMPLE - Personalized Trailer* document contains various placeholders, which are resolved and replaced with the configured values when the job is processed. A Notes formula in the corresponding Notes data source is used to set how the placeholders are to be resolved. For instance, in the standard configuration, the address-specific placeholders `[VAR]FirstName; [/VAR]` or `[VAR]LastName; [/VAR]` are resolved according to the NAB and replaced with the corresponding personal data.

Proceed as follows:

1. Create a new Notes data source: **NOTES DATA SOURCES** -> **RIGHT-CLICK** -> **NEW: NOTES DATA SOURCE**:



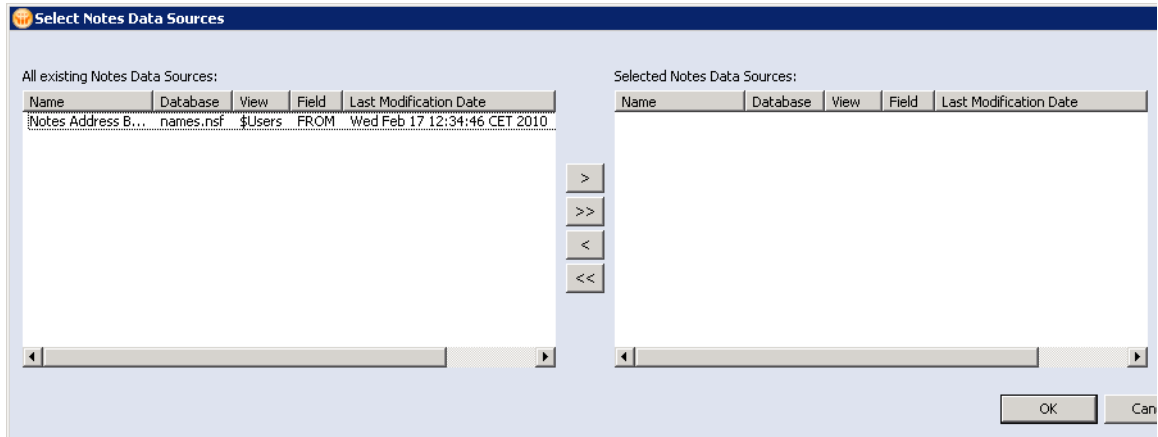
2. Specify a **Name** and enter appropriate values under the **General** tab:

- **Database:** Path to the database from where the data for the trailer text is taken (to resolve the variables). The path has to be specified relative to the server's data directory. Default: **names.nsf** (Lotus Notes Name and Address Book).
- **Lookup view:** The Notes view of the database specified above contains the documents to be searched for the personal data by iQ.Suite Trailer. Default: `$USERS`. This data will replace the placeholders in the trailer text.
- **Lookup formula:** Valid Notes formula applied to emails, e.g. an email field name. Default: `FROM`. The result of the Notes formula specified here is used to select Notes documents from the Notes view (set under **Lookup View**). The fields in the selected Notes documents are used as replacement text.

Example: The person *Anna Glenn*, listed in the NAB, wants to send an email with an individual signature:

The `FROM` field of the email is read to determine the email address, e.g. `Anna Glenn/Mng/mycompany/de@mycompany.de`. The `$User` view of the **names.nsf** database is searched for Notes documents with that email address. The documents found are then used to replace text.

3. Assign the configured Notes data source to a Trailer document: **DOCUMENTS** -> **<DESIRED DOCUMENT>** -> **NOTES DATA SOURCE TAB** -> **CLICK: SELECT NOTES DATA SOURCE ...** :

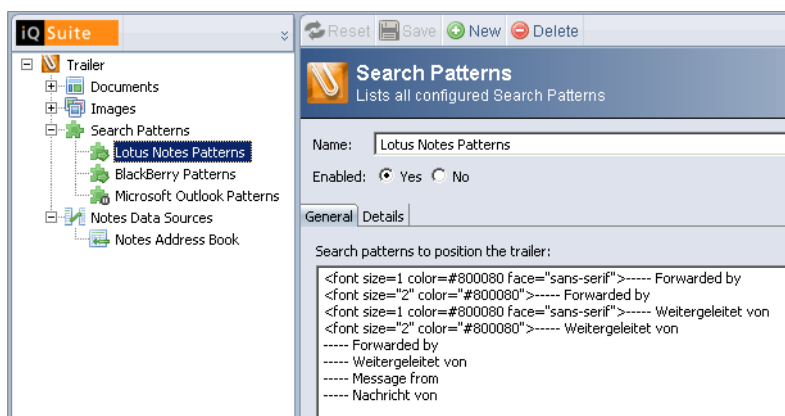


The order of the Notes data sources on the right affects the order in which text will be replaced. The first Notes data source in the list is the first one used for replacing text.

2.2.4 Creating Search Patterns

Trailers can be inserted at different positions within an email. The position is set in the Trailer job (**Operations** tab of the traditional administration console). In certain cases however, it may be useful to search for specific patterns in the email. For instance, if the trailers are not to be appended at the end of the email when forwarded (i.e. at the end of the original message), but at the end of the forwarding text (beginning of the original message), you need to define a search pattern that will identify the beginning of the original email text.

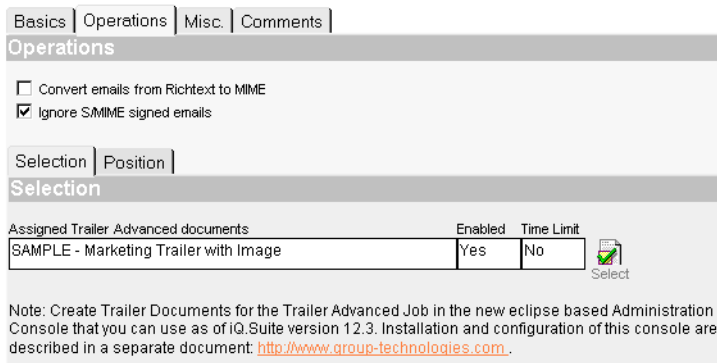
1. Use the search patterns included in the standard configuration as guideline and create a new search pattern:
SEARCH PATTERNS -> RIGHT-CLICK -> NEW: SEARCH PATTERN.
2. Specify the desired search patterns (for multiple languages where required) under the **General** tab and set the document to **Enabled**. Multiple search patterns are separated by line breaks.



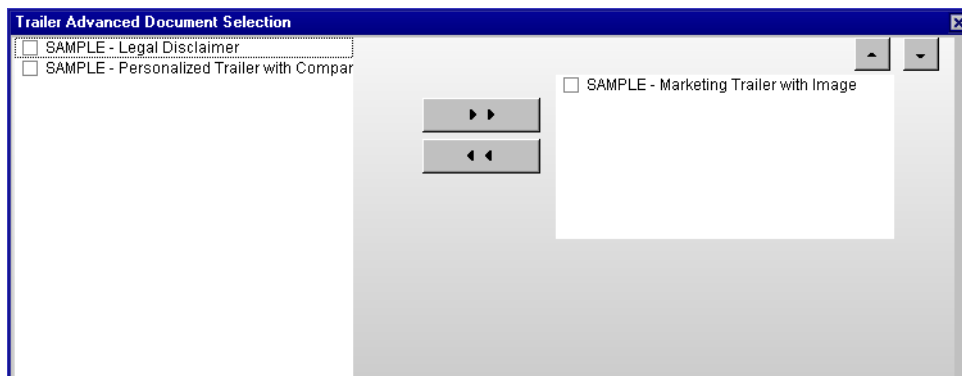
2.2.5 Assigning a Document to a Trailer Job

Assigning a configured Trailer document to a Trailer job is performed in the traditional administration console. The following description is limited to the specific features of inserting images into a trailer. For further information on the configuration options available in the traditional administration console please refer to the iQ.Suite Administration Manual¹.

1. Open the traditional iQ.Suite administration console.
2. Create a **Trailer Mail Job Advanced (gm_grab.nsf database)**. Please note that trailers can only be appended to MIME emails.
3. Open the **Operations** tab and click EDIT:



- To append a trailer to Richtext emails, these emails first need to be converted to MIME. As this conversion could result in the loss of basic Richtext functions such as 'DocLinks', the conversion option is disabled by default. No trailer is appended to Richtext emails².
 - By default, no trailer is appended to emails signed by the client (S/MIME signature). As iQ.Suite Trailer needs to modify the email to insert the text, the signature would be invalidated.
4. Under the **Selection** tab specify the Trailer document to be used by the job. To change the default setting click the SELECT button.



All Trailer documents shown in the list on the right will be used by the job. The document at the top of the list is the first one to be appended. Use the arrow buttons in the upper right corner to change the order of the documents.

1. The manuals are available on our website under www.group-technologies.com.
 2. To handle Richtext emails and MIME emails differently, use a 'Field Type Rule' email rule, refer to "[Field Type Rules](#)" on page 17.

5. Use the **Position** tab to set the position at which the trailer is to be inserted in the email.



The insert position of Trailer documents is set globally in the job. If you want to insert two trailers at two different positions, e.g. a marketing trailer at the beginning and a disclaimer at the end of the email, you need two Trailer Mail jobs.

The screenshot shows the configuration interface for a Trailer Mail job. At the top, there are tabs for 'Basics', 'Operations', 'Misc.', and 'Comments'. The 'Operations' tab is active, showing options like 'Convert emails from Richtext to MIME' (unchecked) and 'Ignore S/MIME signed emails' (checked). Below this, there are tabs for 'Selection' and 'Position'. The 'Position' tab is active, showing the 'Position of trailer' section. It has three radio button options: 'At beginning of the email body', 'At the end of the email body', and 'At a variable position in the email body' (which is selected). Under the selected option, there are three checkboxes: 'Replace placeholder' (checked), 'Position trailer using search patterns' (checked), and 'If not found append at the end' (unchecked). To the right of these checkboxes is an input field containing '%Signature%'.

Trailers can be inserted anywhere within the email message. The following options are available to set the position:

Replace placeholder: The trailer is inserted at the position of a defined placeholder, either manually by the user or automatically by the client. For instance, to automatically add a personalized sender signature to the email, you can freely define a placeholder in the input field. This placeholder (here: %Signature%) is used to insert the trailer at the desired position within the email. As an alternative, you can also insert the placeholder manually at the desired position. When processed, the placeholder is replaced with the configured Trailer document.

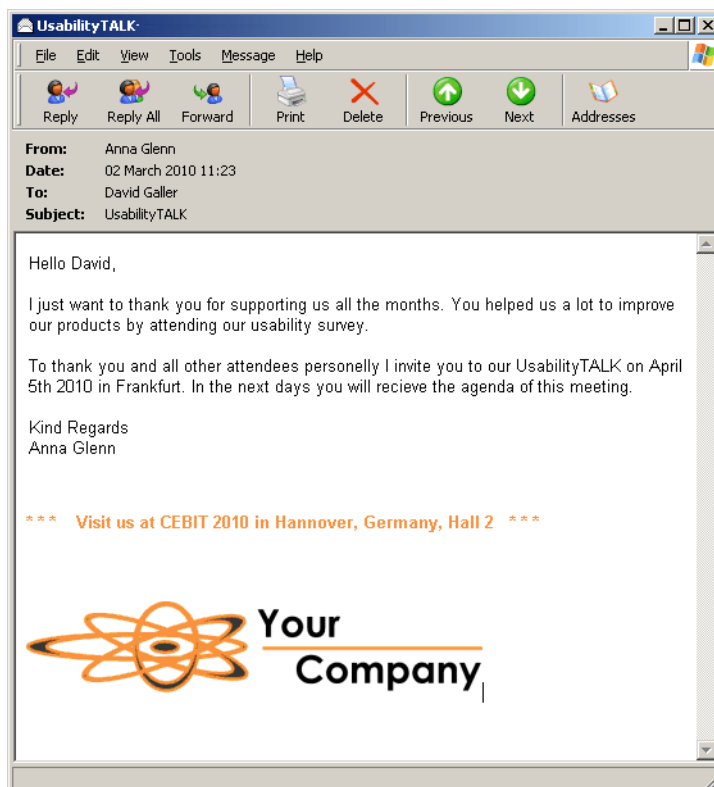
Position trailer using search patterns: The trailer is automatically inserted at the position defined by a search pattern, refer to [“Creating Search Patterns” on page 13](#). The search pattern can be used to set, for instance, that a trailer is not be appended at the end of the email body if it is forwarded (i.e. at the end of the original message), but at the end of the forwarding text (beginning of the original message).


This option can be combined with the **Replace placeholder** option, in which case **Replace placeholder** has the higher priority. The trailer will only be inserted at the position determined by the search pattern if no placeholder has been set by the user. If no position can be determined, the trailer is appended at the end of the email body.

If not found append at the end: The trailer is automatically inserted at the end of the email. This option can only be used in combination with the **Replace placeholder** option. If no insert position can be determined, the trailer is automatically placed at the very end of the email.

6. Enable the mail job, save your configuration and send a test email to yourself or any test user.

Sample test email including an integrated image in the trailer:



The image is displayed regardless of whether it was inserted from the iQ.Suite server or via an HTTP link. Whenever an image cannot be displayed, a red cross () is displayed instead. This can be due, among others, to a security setting of the email client (HTML viewer).

If the Trailer document is appended right at the end of the message text, you can add manual line breaks in the Trailer document as required.

2.3 Field Type Rules

iQ.Suite Version 12.3 features a new rule type called "Field Type Rule". With an email rule of this type, you can specify any email field through its field name and data type. When a job is configured with such a rule, it can be started according to the value returned by the rule (True/False). If the email field specified exists and matches the data type specified, the email rule will return 'True'. In all other cases the field type rule will return 'False'.

In the **Trailer Mail Job** and the **Trailer Advanced Job** you can use this rule type in the email rules "Mail Is RichText" and "Mail is MIME" in order to distinguish between Richtext emails and MIME emails. An email is identified as MIME email whenever the data type of the email field named 'Body' is 'MIME Element'. Similarly, the email is identified as Richtext email, when the 'Body' field type is 'Rich Text'.

This can be useful in scenarios where you do not want Richtext emails to be converted to MIME and yet want to append a trailer to them.

1. Configure a **Trailer Mail Job** designed to insert a trailer into Richtext emails. Include the email rule 'Mail Is Rich Text' as positive rule in the mail job (**Basics** tab). The job will be run whenever the rule returns 'True'.
2. Configure a **Trailer Mail Job Advanced** designed to insert a trailer into all MIME emails. Include the email rule 'Mail Is Rich Text' as negative rule in the mail job (**Basics** tab). The job will be run whenever the rule returns 'False'. Deselect the 'Convert emails from Richtext to MIME' checkbox (**Operations** tab).

For more detailed information on the rule mechanisms please refer to the iQ.Suite Administration Manual.

About GROUP Technologies

GROUP Technologies is the Email, Archiving and Administration unit of GROUP Business Software AG

Organizational operations depend on highly-efficient modes of communication. Communication affects - more or less - all business processes. Email is heavily used for communication, in collaboration efforts and as a workflow engine. Email is a process which affects all aspects of internal and external information exchange. Following these facts, email is the number one business critical application and is burdened with internal and external risks, regulations, policies and standards.

GROUP Technologies focuses on delivering a process-controlled, centralized and easy-to-maintain email management solution for the Lotus Domino and the Microsoft Exchange markets.

GROUP Technologies Value Proposition

Expertise: The company is a trusted advisor to its customers in the areas of email security, compliance or IT optimization and is capable of solving any business challenge in these areas through its centralized and rules-based email process management approach.

Unified console/single point of administration: Multi-level anti-virus and anti-spam, automated de-/encryption, rule-enforcement, regulatory enforcement and real time archiving through a single point of administration within the entire organization.

Simplicity: The company's email solution features easy-to-use interfaces and is efficient in solving email challenges. As a server-based solution, client/user interaction is limited and reduced to the absolute necessary minimum input by the email user. The organization-wide implementation for all users is done on the server and is easy to administer through our unified console.

Email as a business process: Company defined processes control email usage ensuring compliance with internal policies as well as regulatory requirements. Simple configuration tools allow the system to easily be adapted to satisfy the demands of growing companies and new regulations that have yet to be envisioned.

GROUP Facts

Customers: GROUP's clients include many well-known companies such as Deutsche Bank, Ernst & Young, Honda, Heineken, Allianz and Miele. More than three million users and 3,000 companies worldwide protect and organize their systems with GROUP Technologies products.

© 2010 GROUP Business Software AG

Our product descriptions are of a general and descriptive nature only. They do not stipulate any specific features nor do they represent any form of warranty or guarantee. We reserve the right to change the specifications and design of our products without notice at any time, in particular in order to keep abreast of technical developments.

The information contained in this document presents the topics from the viewpoint of GROUP Business Software AG at the time of publishing. Since GROUP Business Software AG needs to be able to react to changing market requirements, this is not an obligation for GROUP Business Software AG and GROUP cannot guarantee that the information presented in it is accurate after the publication date.

This document is intended for information purposes only. GROUP Business Software AG does not extend warranty for this document, in either explicit or implied form. This also applies to quality, execution, standard commercial practice or suitability for a particular purpose.

All the product and company names that appear in this document may be trademarks of their respective owners.

European Headquarters

GROUP Business Software AG

MesseTurm

60308 Frankfurt/Germany

Phone: +49 69 789 8819-0

Fax: +49 69 789 8819-99

Email Main Office

GROUP Technologies

Ottostrasse 4

76227 Karlsruhe /Germany

Phone: +49 721 4901-0

Fax: +49 721 4901-199

North American Headquarters

GROUP Business Software Corporation

40 Wall Street, 33rd Floor

New York, NY 10005/USA

Phone: +1 212 995-2900

Fax: +1 212 995-2206

UK Office

GROUP Business Software (UK) Ltd.

97 Buttermarket Street

Warrington WA1 2NL/UK

Phone: +44 1925 624950

Fax: +44 1925 240211

info@group-technologies.com

<http://www.group-technologies.com>



A Division of GROUP Business Software