

# Kofax Communication Server

## TC/MRM Technical Manual

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The KOFAX logo is rendered in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a consistent weight throughout. The 'K' and 'F' are particularly prominent due to their complex shapes. The overall appearance is clean and professional, typical of a corporate brand identity.

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## Chapter 1

# Introduction

The solution typical for Kofax Communication Server is a store and forward system: Messages are generally forwarded to other mail systems like Notes or Exchange. After the messages are forwarded, they are marked as “terminated” and can be deleted when the Kofax Communication Server runs out of storage space.

The TC Message Release Manager can terminate messages that are older than a configurable amount of days.

## Current Situation

There are installations that do not forward messages to other mail systems. In this case, users have to terminate their messages by reading them.

On a voice-only system reading messages equals for the users to listen to their mail boxes. In this case the messages are only marked as “touched” or “read”, but they are not “terminated”. In such environment, messages are not terminated and this can lead to an overflow of the message store.

## Solution

The TC Message Release Manager has the task to terminate messages that are older than a configurable amount of days. Various configuration possibilities let you choose when TC/MRM has to run and what messages it has to filter for.

The default configuration will run daily at 3 a.m. and will terminate “touched” voice-messages that are older than 30 days, and “unread” voice-messages that are older than 60 days.

## Unicode Support

TC Message Release Manager is compatible with a Unicode TCOSS, however, the product has not been updated.

- With a mixed mode Unicode TCOSS, all characters in the legacy TCOSS code page are supported.
- A pure Unicode TCOSS only supports ASCII characters.

For more information see *Unicode Installation Guide*.

## Chapter 2

# Installation

This section describes the installation of TC/MRM.

## Requirements

TC/MRM has to connect to a KCS server that has the standard tcvmail user present (e.g. there connects TC/VoiceAccess or TC/VoiceLink to this KCS system). If not you have to create a user with the same user rights, and specify this user during setup.

See the following screen shot for the necessary user rights:

**User Profile - TCVMAIL**

Queue Length/Age alerting | Queue Length/Age logging | TC/WEB | TC/WEB Identity Rights

General | Address | Event | **Rights** | Manual Fax | Distributor | Authorize/Sign

| Read                                | Write  | FIS prefix: <input type="text"/>              |   | TC/WEB Identity Rights |  |
|-------------------------------------|--|---|---|------------------------|--|
| <input type="checkbox"/>            | <input type="checkbox"/> FIS Folder                      | <input type="checkbox"/> Tech user            | <input type="checkbox"/> Meta-Mail              |                        |  |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Message Folder       | <input type="checkbox"/> Server               | <input type="checkbox"/> LAN login              |                        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> System Folder                   | <input type="checkbox"/> Services             | <input type="checkbox"/> Terminate incoming     |                        |  |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> System Address Book  | <input type="checkbox"/> Registration/licence | <input type="checkbox"/> Change cost center     |                        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> User Address Book               | <input type="checkbox"/> Change sender        | <input type="checkbox"/> Extended folder view   |                        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> All Priv.Address Books          | <input type="checkbox"/> Reporting            | <input checked="" type="checkbox"/> Preferences |                        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> Group Address Book              |   |   |                        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> Group User Profiles             |   |   |                        |  |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> System User Profiles |   |   |                        |  |

|                | Group members                       |                                     |                                     | All users                           |                                     |                                     |
|----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|                | List                                | Correct                             | Open                                | List                                | Correct                             | Open                                |
| Inbox          | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |
| Outbox         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Message Folder | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |

|                            |  |   |
|----------------------------|--|---|
| Enter number directly      | <input checked="" type="checkbox"/> Always | <input checked="" type="checkbox"/> Correct |
| Restricted use of services | <input type="checkbox"/>                   |   |

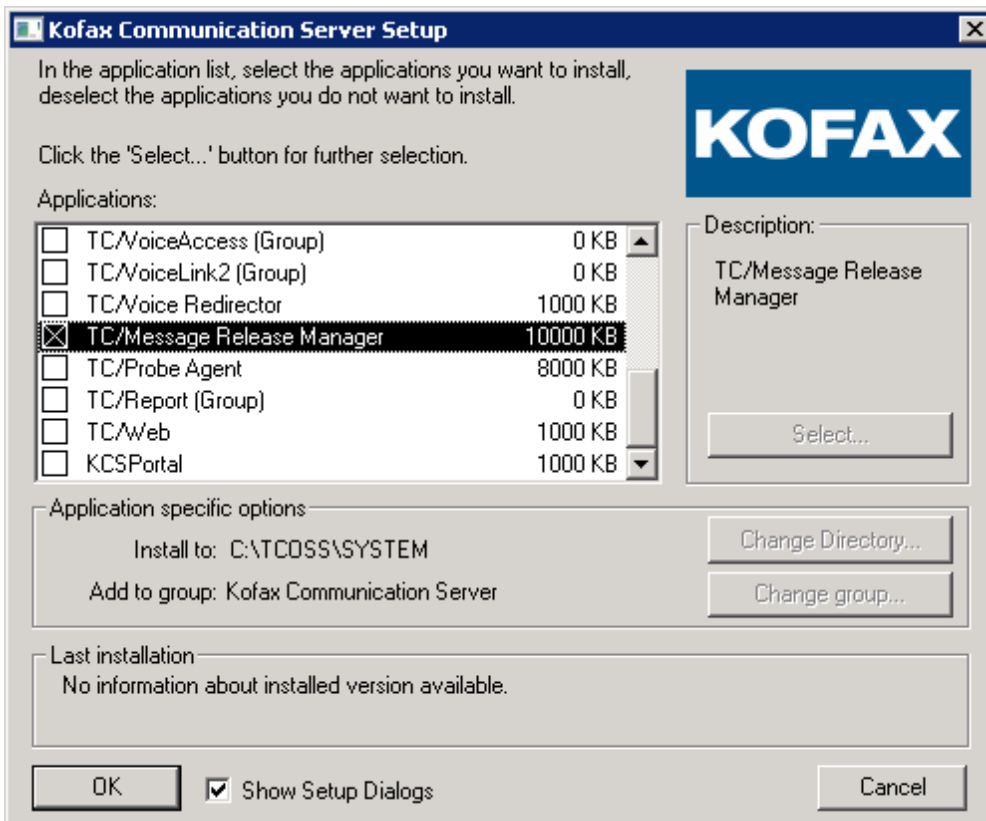
OK Save Cancel

## Licensing

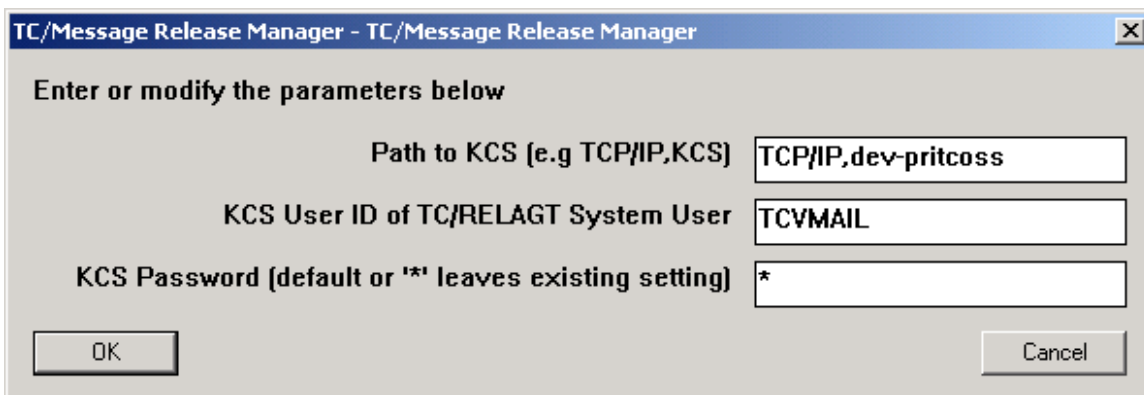
The Message Release Manager needs one free KCS client license.

## Setup

Start the KCS setup and choose “TC/Message Release Manager”. Also install the “KCS Monitor” from the “Administrative Tools” group if not already present on the system.



The following parameters have to be configured:



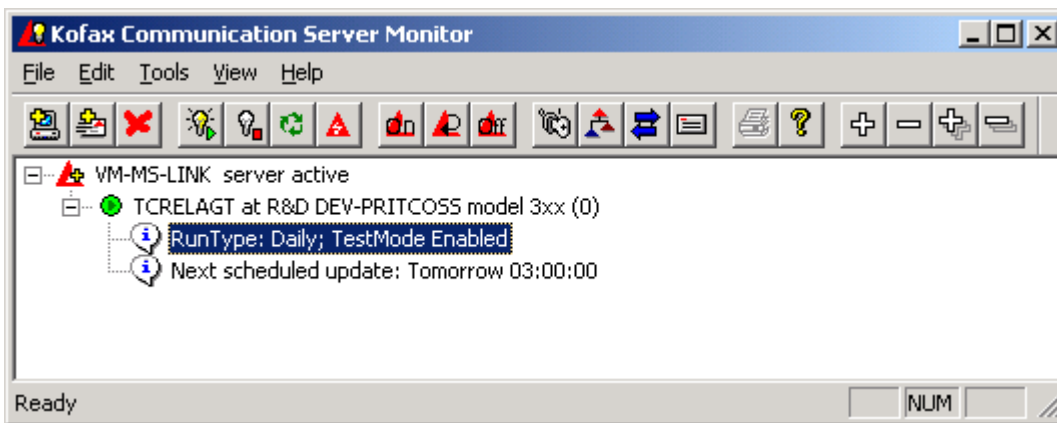
**Path to KCS Server:** Configure the KCS system TC/MRM has to control.

**KCS User ID:** TC/MRM needs a user that allows connecting to the KCS system and changing the message status. Typically the tcvmail user (the system user of TC/VoiceAccess and TC/VoiceLink) will have the appropriate rights. If not you will have to create a user with these rights.

**KCS Password:** Enter the password of the previously configured user. When updating the system or using the default password, it is not necessary to retype the password. Just leave a "\*" in the field and the current password. If currently no password is used, the default password will be used.

## Starting TC/MRM

After running setup you can start/restart the TC service.



TC/MRM should be now in the list of processes in the KCS-Monitor. The status shows that it is running in a special test mode.

## Test Mode

The default configuration lets you start TC/MRM in a special test mode. In this mode TC/MRM only reads the entries it is configured for and writes the heading information of the found entries to the trace-file (standard KCS tracing; default: "c:\tcoss\trace\tcrelagtX.trc"). No update of the message state is done in test mode.

To trigger an immediate run of TC/MRM you can set the registry key "HKLM\SOFTWARE\TOPCALL\TCRELAGT\General\RunImmediate" to 1; this key is checked each poll-cycle ("HKLM\SOFTWARE\TOPCALL\TCRELAGT\General\Pollcycle", default 30 seconds). After each run an event-log entry is created stating the number of entries found and updated. In test mode, the value for updated entries is always zero.

You can use the filter settings (HKLM\SOFTWARE\TOPCALL\TCRELAGT\FilterX) to get more or less results by changing the filter range, e.g. the "DocClass", or by specifying an "Originator" or "Recipient", or by increasing or decreasing the key "MsgOlderThan". After changing the filter-settings you have to restart TC/MRM.

## Productive Mode

In order to activate the ability of TC/MRM of updating the state of messages, you have to disable the test mode by setting the following registry key:

- HKLM\SOFTWARE\TOPCALL\TCRELAGT\TestMode = 0

After changing this setting, TC/MRM has to be restarted.

**Note** By doing so TC/MRM actively changes the state of the filtered messages at the configured times to “terminated”. This can also be done for messages that have not already been read by their recipients.



## Chapter 3

# Configuration

TC/MRM uses standard KCS configuration of the TC/Library (especially for tracing). The standard path for the configuration is “HKLM\SOFTWARE\TOPCALL\TCRELAGT”.

HKEY\_LOCAL\_MACHINE\ SOFTWARE \TOPCALL\TCRELAGT

| Registry Key | Type  | Default | Description   |
|--------------|-------|---------|---|
| TestMode     | DWORD | 1       | 0: Productive mode, filtered entries are terminated<br>1: Test mode, filtered entries are written to trace-file, message state is not changed |

## KCS Settings

The following settings define the connection to the KCS server.

HKEY\_LOCAL\_MACHINE\ SOFTWARE \TOPCALL\TCRELAGT\Topcall

| Registry Key | Type   | Default | Description  |
|--------------|--------|---------|--|
| Server       | STRING | “”      | Name of KCS Server   |
| Path         | STRING | “”      | Path to KCS Server   |
| User         | STRING | “”      | KCS user that is allowed to view and change the state of all messages. The user rights of the standard voice-mail user (“tcvmail”) are sufficient. |
| Internal     | STRING | “”      | Password of “User”   |

## General Settings

The following registry keys are read each “PollCycle” (default 30 seconds). They are used for scheduling when TC/MRM is supposed to run.

HKEY\_LOCAL\_MACHINE\ SOFTWARE \TOPCALL\TCRELAGT\General

| Registry Key | Type  | Default | Description                                |
|--------------|-------|---------|--|
| TraceLevel   | DWORD | 10      | 10 (dec): Standard<br>255 (dec): Debugging |

| Registry Key | Type   | Default  | Description  |
|--------------|--------|----------|--|
| PollCycle    | DWORD  | 30       | Interval in seconds. In this interval the registry keys of "General" are updated, and the time is checked if it is time to run TC/MRM. |
| RunType      | DWORD  | 1        | 1: Daily at "RunTime", default 3 a.m.<br>2: Interval, every "RunInterval", default every hour  |
| RunTime      | STRING | "030000" | Only used if RunType=1; the time when TC/MRM runs each day in the format "HHMMSS".   |
| RunInterval  | DWORD  | 3600     | Only used if RunType=2; Interval in seconds TC/MRM runs.   |
| LastRun      |        | ""       | Used internally; stores day and time of last run.  |
| RunImmediate | DWORD  | 0        | If this key is set to 1, TC/MRM runs immediately. After successful run, the key is reset to 0.   |

## Filter Settings

The following registry keys define for which message entries TC/MRM has to filter. It is possible to define 10 sets of filters (Filter0 – Filter9). By default, two filters are configured:

- Filter0 for "Touched Messages"
- Filter1 for "New Messages"

The default value of registry key "FilterName" for the next filter set is "NULL". If this value is changed and TC/MRM is restarted, a new filter set is generated. This key has no other functionality for TC/MRM.

Each filter is used after each other. First filter 0 is executed and the found entries are updated, after that filter 1 is executed and so on.

HKEY\_LOCAL\_MACHINE\SOFTWARE\TOPCALL\TCRELAGT\FilterX

| Registry Key  | Type   | Default for 0      | Default for 1  | Description  |
|---------------|--------|--------------------|----------------|--|
| FilterName    | STRING | "Touched Messages" | "New Messages" | Only for displaying. If set to "NULL", no further filter set will be created in the registry.  |
| FilterEnabled | DWORD  | 1                  | 1              | A filter can be disabled by setting this key to 0. In this case the filter won't be used in test mode or in productive-mode.   |
| FolderType    | DWORD  | 1                  | 1              | KCS Folder Type; possible values are:<br>1: In-folder (TCSI: IN_FLDR)<br>2: Out-folder (TCSI: OUT_FLDR)  |
| MsgOlderThan  | DWORD  | 30                 | 60             | TC/MRM filters for messages that are older than the here configured value in days. If set to 0, no time filter is used. The maximum value is 2 <sup>31</sup> -1. The filter is set to the current date minus the configured number of days, 0:00:00 a.m. |

| Registry Key      | Type   | Default for 0 | Default for 1 | Description   |
|-------------------|--------|---------------|---------------|---|
| MsgOlderThanHours | DWORD  | “*”           | “*”           | TC/MRM filters for messages that are older than value (in hours) configured. The value in the "FilterX\MsgOlderThanHours" key is added to "FilterX\MsgOlderThan" to trigger the termination of messages.<br>The default value is 0.                             |
| Originator        | STRING | “*”           | “*”           | Filter for the originator. To filter for all, use “*”.  |
| Recipient         | STRING | “*”           | “*”           | Filter for the recipient. To filter for all, use “*”.   |
| Subject           | STRING | “”            | “”            | Filter for the subject. To filter for all, leave the key empty.   |
| DocClassFrom      | DWORD  | 16            | 16            | Lower range for the TCSI field DocClass. 1)   |
| DocClassUntil     | DWORD  | 16            | 16            | Upper range for the TCSI field DocClass. 1)   |
| StateFrom         | DWORD  | 800           | 700           | Lower range for the TCSI field State. 2)  |
| StateUntil        | DWORD  | 820           | 710           | Upper range for the TCSI field State. 2)  |
| PriorityFrom      | DWORD  | 48            | 48            | Lower range for the TCSI field Priority. 3)   |
| PriorityUntil     | DWORD  | 49            | 49            | Upper range for the TCSI field Priority. 3)   |
| UpdateTo          | DWORD  | 1             | 1             | Update Method; possible values are:<br>1: The state is changed by setting the “TERMINATE” flag; this works for inbox-messages (state 700 and higher).<br>2: The state is set to “CANCELLED”; this cancels inbox and outbox-messages with a state less than 700. |

1) DocClass-Filter: The default (value: 16) filters for voice-messages only.

2) State-Filter: The default message-state Filter0 (values 800-820) filters for touched (also called read) messages, the default for Filter1 (values 700-710) filters for new (also called unread) messages.

3) Priority-Filter: The default (values: 48-49) filters for messages of the priority LOW and NORM; messages of the priority HIGH are not filtered for.

The following TCSI document classes are currently defined on the KCS server:

```
/* INT_DOC_CLASS */
#define RESTR 1
#define TEXT_DOC 2
#define XIMAGE 4
#define BINARY_DOC 8
#define XVOICE 16
#define DC_XIMAGE_TO_TEXT 256
#define DC_XIMAGE_TO_BINARY 512
#define DC_MUST_SIGN 1024 /* requires digital signature */
```

The document class is an additive bit value that describes of what parts a message consists of. E.g. a message with text body and binary attachment has the doc class 10 (2 for text, 8 for binary).

To filter for special doc classes do the following: Set DocClassUntil always to 0xffff and DocClassFrom to the value of the class you want to filter for. To filter for all doc classes, set DocClassFrom to 00 and DocClassUntil to 0xffff.

The following TCSI priorities are currently defined on the KCS server:

```
/* INT_PRIORITY */
#define LOW          48
#define NORM        49
#define HIGH         50
```

The values for the TCSI State are defined in the TCSI Manual.

The filter values of Originator, Recipient and Subject are used like in TCfW.

## Example for Additional Filter

Let's say we want to have another filter that updates additionally to the two standard filters touched messages that are older then 10 days, have a recipient starting with "TESTME", are from LOW or NORM priority and that are of any message class. The filter would have to be defined the following way.

```
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\FILTERNAME = "Testme only"
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\FILTERENABLED = 1
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\MSGOLDERTHAN = 10
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\ORIGINATOR = "*"
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\RECIPIENT = "TESTME*"
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\SUBJECT = ""
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\DOCCLASSFROM = 0
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\DOCCLASSUNTIL = 0xffff
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\STATEFROM = 800
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\STATEUNTIL = 820
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\PRIORITYFROM = 48
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\PRIORITYUNTIL = 49
```

If today is December 16th, messages that have been created before December 6th, 0:00:00 a.m. will be updated.

## Example for Out-Folder Filter

To terminate messages with the status "at next node" (500), set the following filter values.

```
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\FOLDERTYPE = 2
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\STATEFROM = 500
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\STATEUNTIL = 500
HKLM\SOFTWARE\TOPCALL\TCRELAGT\FILTER2\UPDATETO = 2
```