

MOBILE APPROVAL

Configuration Guide

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About MOBILE APPROVAL

MOBILE APPROVAL allows users to approve, reject or add a note to a document via email. This is different to working with documents using a smartphone. For using a phone interface to handle documents, please refer to the *ReadSoft Mobile Installation and Configuration Guide*.

The basic function of using MOBILE APPROVAL follows these simple steps.

1. A user receives an email from MOBILE APPROVAL indicating that they have a document to approve, reject, or add a note to.
2. In the received email, the user clicks on an approve, reject or add note link that opens the user's email client and populates a new email message with the appropriate subject and body text information.
3. The user sends the message of the approval or rejection of the document.
4. The user receives a reply email, showing the updated status of the document.

About this guide

This guide contains the following chapters:

- [Deploying the Web Application](#)
How to deploy the Web Application to Apache Tomcat.
- [Connecting to SAP systems](#)
How to connect the MOBILE APPROVAL Web Application to your SAP system.
- [Configuration parameters](#)
Describes all the parameters for configuring the MOBILE APPROVAL Web Application.
- [Email servers](#)
Information about connecting to the email server that is used to receive the emails.
- [Log settings](#)
Some log settings for the Web Application.
- [IMG](#)
How to activate MOBILE APPROVAL for workflow steps, and other options.

Deploying the Web Application

System requirements

See the ReadSoft *PROCESS DIRECTOR Web Applications System Requirements* document, which lists:

- Hardware requirements
- Software requirements
- Tested environments

Installation file

The MOBILE APPROVAL Web Application is a Java Web Application. The deployment file is `approval-app.war`.

The file is sent as a ZIP file and is password protected (to ensure that it is not blocked by email server protection filters). The password is *readsoft*.

Deploying to Tomcat

1. Stop Tomcat (if it is running).
2. Place `approval-app.war` in the `../Tomcat/webapps/` directory.
3. Start Tomcat.

Tomcat decompresses the WAR file to a new folder: `approval-app`.

Configuration files

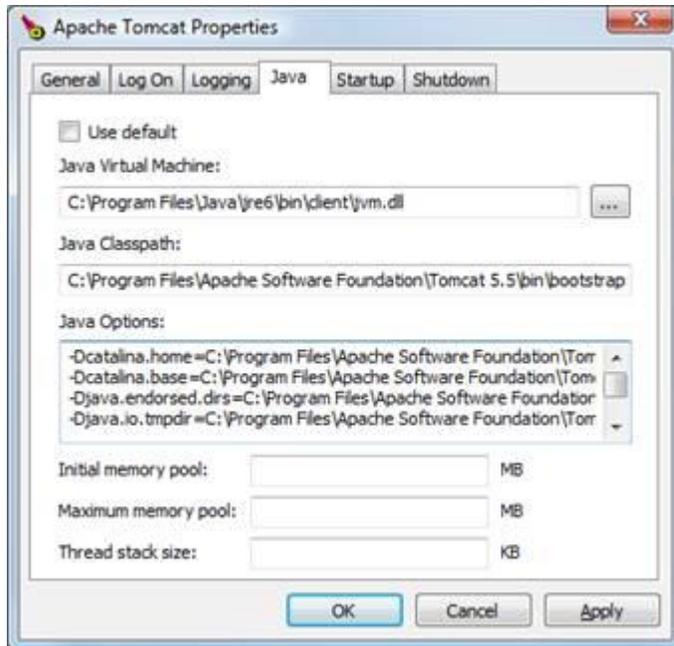
The main configuration file is `web.xml`, which is saved in the `../webapps/approval-app/WEB-INF/` folder. This file specifies the location of some other configuration files.

All the parameters in `web.xml` can also be specified using an `approval.properties` file that uses a `key = value` notation. This requires that the web application server set a system property called `com.ebydos.webapp.config` that points to this property file.

Specifying the location of approval-app.properties

For Windows running Tomcat 5.5 or later:

1. Open the **Configure Tomcat** application.
2. Go to **Start > All Programs > Apache Tomcat > Configure Tomcat**.
3. Select the **Java** tab.



4. Enter the path of the `approval-app.properties` file for the `-Dcom.ebydos.webapp.config` variable in **Java Options**.

You must use the `%context%` variable because you are using more than one ReadSoft Web Application.

Example:

More than one Web Application: -

```
Dcom.ebydos.webapp.config=c:/your/path/%context%.properties
```

If the `approval-app.properties` file cannot be found using the default method and if no specific path has been set in the Tomcat configuration, the MOBILE APPROVAL Web Application uses the `pdweb-app.properties` file in its own internal folder: `.../webapps/pdweb-app/WEB-INF/conf/`.

Connecting to SAP systems

Overview

Connection method

The MOBILE APPROVAL Web Application connects to SAP systems via a Remote Function Call (RFC). To configure the Web Application, the SAP Basis team must first create and configure an SAP user. For PROCESS DIRECTOR Accounts Payable, ReadSoft supplies an authorization profile file that the Basis team can upload and assign to the user created for the Web Application.

Configuration file

The `saplogon.properties` file is used to configure the connection to the SAP system and is located in the `../webapps/wcconfig/pdweb-app/WEB-INF/conf/` directory.

Parameters

The `saplogon.properties` file contains the following parameters. The `sysid` portion of the parameter should be replaced by the SAP system ID.

- `sysid.activate`
- `sysid.client`
- `sysid.user`
- `sysid.passwd`
- `sysid.sysnr`
- `sysid.system`
- `sysid.ashost`
- `sysid.msgghost`
- `sysid.group`
- `sysid.sso`
- `sysid.ext_auth_svc`
- `sysid.ext_search`
- `sysid.jcotrace`
- `sapssystem`

Connecting to an SAP application server

The following example entries in `saplogon.properties` illustrate a typical connection to a single application server:

```
TR1.activate = yes
TR1.client = 120
TR1.user = system
TR1.passwd = abc123
TR1.lang = EN
TR1.ashost = your.server.local
TR1.sysnr = 0
TR1.maxconnections = 10
```

Here, the `system` user has the `abc123` password to connect to the application server located at `your.server.local`. Each parameter uses the `TR1` prefix as the SAP system ID, while the `TR1.client` parameter is the client number.

`TR1.activate` must be set to `yes` to enable subsequent entries.

Connecting to multiple application servers

The MOBILE APPROVAL Web Application can connect to more than one SAP system. This is specified in the `saplogon.properties` file.

For example:

```
sapsystem = TR1
TR1.activate = yes
TR1.client = 120
TR1.user = system
TR1.passwd = abc123
TR1.ashost = your.server.local
TR1.sysnr = 0
TR1.maxconnections = 10
PD1.activate = yes
PD1.client = 120
PD1.user = system2
PD1.passwd = xyz789
PD1.ashost = my.server.local
PD1.sysnr = 0
PD1.maxconnections = 10
```

The `sapsystem` parameter specifies the default system; in this case, `TR1`.

Alternatively, you may specify `$(SAPSYSTEM)` (a variable) for `sapsystem` and the system ID will be determined from the Web Application system property ID. For example, in Tomcat, this is done by adding `-DSAPSYSTEM=TR1` to the **Java Options**.

Connecting to an SAP message server

You must use the following two parameters to connect to an SAP message server:

Parameter	Description
sysid.msghost	The address of the SAP message server.
sysid.group	The name of the message server group.

Note: The `sysid.ashost` parameter is not needed.

Example:

```
QA1.activate = yes
QA1.client = 120
QA1.user = system
QA1.passwd = abc123
QA1.msghost = your.server.local
QA1.group = space
QA1.sysnr = 0
QA1.maxconnections = 10
```

Configuration parameters

Overview

The following configuration files can be edited directly or via the MOBILE APPROVAL Web Application.

- [scheduler.xml](#)
- [web.xml](#)
- [settings.properties](#)

scheduler.xml

MOBILE APPROVAL can operate on a schedule of your choice. You must determine the days and times on which the MOBILE APPROVAL Web Application should run.

1. Log in to the MOBILE APPROVAL web page.
2. Select the **Schedule** tab.
3. You have three options:
 - Permanently

MOBILE APPROVAL runs continuously.

The screenshot shows a configuration panel with three radio button options: 'Permanently' (selected), 'Every day', and 'Selected days of week'. Below the options is a text input field labeled 'Interval (minutes):' with the value '3' entered.

- Every day:

MOBILE APPROVAL runs every day, but only during the times you specify here.

The screenshot shows a configuration panel with two radio button options: 'Every day' (selected) and 'Selected days of week'. Below the options are three text input fields: 'Interval (minutes):' with '3', 'Start time (HH:mm):' with '09:00', and 'End time (HH:mm):' with '22:00'.

- Selected days of the week:

MOBILE APPROVAL runs only on the days and times you specify.
For all the options, you must specify the **Interval** to determine how often MOBILE APPROVAL should check for new email.

web.xml

Main settings path

This is set in `WEB-INF\web.xml` for internal configuration. This is the path to the main MOBILE APPROVAL core configuration file.

```
<init-param>
  <param-name>settings</param-name>
  <param-value>WEB-INF\conf\settings.properties</param-value>
</init-param>
```

Available languages

The internal configuration for available languages is set in `WEB-INF\web.xml`.

Use this parameter to configure the available languages for the Web Application. The ISO codes of the supported languages are separated by the comma sign.

The first language code is the default language and is selected, if:

- The user is not logged on and the browser locale is not in the list specified.
- The user's locale is not in the list specified.

```
<init-param>
  <param-name>languages</param-name>
  <param-value>de,en</param-value>
</init-param>
```

Note: Only English and German are currently supported.

Session timeout

This is the maximum inactive time interval. In the schedule window, there is a loop for calling the servlet and asking about the status within MOBILE APPROVAL.

The value is in seconds.

```
<init-param>
  <param-name>normaltimeout</param-name>
  <param-value>1800</param-value>
</init-param>
```

Trace file directory

```
<init-param>
  <param-name>tracedir</param-name>
  <param-value>C:\...\...\</param-value>
</init-param>
```

The Web Application writes a trace file, `trace.yyyy.mm.dd.log`. By default, this file is written to the log directory of the Web Application servers (Apache Tomcat or SAP WAS). A subfolder with the name of the Web Application is automatically created. With this parameter, you can explicitly set the path to the trace files. The subfolder mentioned is automatically created.

This parameter is not handled if in the `log.properties` file, the `logDir` property is set.

Folder for configuration files

```
<init-param>
  <param-name>configdir</param-name>
  <param-value>Path</param-value>
</init-param>
```

When you define this parameter, configuration files are read from the specified path with `WEB-INF\conf` appended. If this parameter is missing, the configuration files are read from the `WEB-INF\conf` folder of the Web Application's context.

Scheduler configuration file

This is the path for the `scheduler.xml` file, where the scheduler information is stored. Default is `WEB-INF\conf`.

Selecting the logon language

```
<init-param>
  <param-name>languageselection</param-name>
  <param-value>0</param-value>
</init-param>
```

If this parameter is set to 1, the Web Application displays a language selection box below the user/password input fields. The user can then choose from the configured languages. In addition, the two following values are also available:

- **Default:** The language is taken from the user's master data. If this is empty, the default language is taken.
- **: The browser language is taken.**

Using the browser language

```
<init-param>
  <param-name>browserlocale</param-name>
  <param-value>0</param-value>
</init-param>
```

Usually, the website is displayed according to the browser's language setting prior to log on. After logging on, the language is taken from the language specified in the user's master data. When setting this parameter to 1, the language is not changed after login. This method is necessary if you want to differentiate between the special settings of a language family. For example, the user language can only be `en` = English, which defaults to American English, but with the full language model of a browser, you can differentiate between `enUS` (America) and `enGB` (UK). This is the only way to give UK users the common date format, `DD/MM/YYYY`, instead of the American date format, `MM/DD/YYYY`.

If you select a language that is not supported by the Web Application, it is shown in English, but the conventions for displaying a date or decimal number are taken from the chosen country's language settings.

The value for `browserlocale` can be set to a two or four character ISO country code (for example, `de` or `enUS`). In such cases, the language setting is handled as if it was set in the browser settings.

Configuring the link area

```
<init-param>
  <param-name>showlinks</param-name>
  <param-value>15</param-value>
</init-param>
```

The link area of the application consists of Product logo (1), Disclaimer (2), Copyright (4) and Homepage link (8). You can numerically add the values together to specify which of these will be displayed.

Value	Product logo (1)	Disclaimer (2)	Copyright (4)	Homepage (8)
1	X			
2		X		
3	X	X		
4			X	
5	X		X	
6		X	X	
7	X	X	X	
8				X
9	X			X
10		X		X
11	X	X		X
12			X	X
13	X		X	X
14		X	X	X
15	X	X	X	X

Alternative messages files

```
<init-param>
  <param-name>messageconfig</param-name>
  <param-value>WEB-INF\conf\Messages</param-value>
</init-param>
```

This parameter allows you to set custom messages by specifying an alternative message folder. MOBILE APPROVAL will first check the specified folder for `Messages_XX.properties`, where `XX` is the possible language code, such as `Messages_en.properties` for an English message file.

Color themes

Parameter: theme.Mobile Approval

Value: a relative folder

Default: themes\Mobile Approval

The graphic style of the application is driven by themes. A theme is a copy of the application's set of graphic elements, as well as the style sheet. A `theme` is a subfolder in the `themes` folder in the application's root directory (or external image applications). The default theme for MOBILE APPROVAL is shipped with the application. A theme is selected by setting the parameter.

```
<init-param>
  <param-name>theme.application</param-name>
  <param-value>themes/application</param-value>
</init-param>
```

settings.properties

File: \WEB-INF\conf\settings.properties

Web: Parameters > Parameters configuration

This file contains the main configuration settings for the MOBILE APPROVAL Web Application. It can be found in the `WEB-INF\conf\` directory of the Web Application or in an external configuration directory of your specification.



This configuration file is divided into sections. Elements are sorted in ascending order, by name.

Setting	Valid values	Description
<code>config.filename.logwriter</code>		The path to the log settings file.
<code>config.filename.mimetypes</code>		The path to the MIME types settings file. It lists the supported MIME types.
<code>config.filename.sap</code>		The path to the SAP server and logon settings file.

Setting	Valid values	Description
<code>general.directory.languagefiles</code>		The path where statistic message templates are saved.
<code>general.statistics</code>	true/false	Set to true to record statistics.
<code>general.timeslice.minutes</code>	Positive integer	The time between checking for new email and the sending of the email response.
<code>general.reply.error.codes</code>		<p>A list of the SAP error codes that you wish to display to users</p> <p>Valid format:</p> <pre>/COCKPIT/<error code 1>;/COCKPIT/<error code 2></pre> <p>or</p> <pre>/EBY/<error code 1>;/COCKPIT/<error code 2></pre> <p>Example:</p> <pre>/COCKPIT/WC.133;/COCKPIT/WC.22</pre> <p>If SAP returns one of these error codes, an email containing the error message is sent to the user.</p>

Setting	Valid values	Description
<code>mail.pop3.folder</code> <code>mail.imap.folder</code>		Name of the folder that MOBILE APPROVAL checks for incoming messages; for example, INBOX.
<code>mail.pop3.host</code> <code>mail.imap.host</code>		Name of the POP3/IMAP server.
<code>mail.pop3.password</code> <code>mail.imap.password</code>		Password for the POP3/IMAP account.
<code>mail.pop3.port</code> <code>mail.imap.port</code>		Port number of the POP3/IMAP server.

Setting	Valid values	Description
mail.pop3.socketFactory.class		Optional; specifies the name of the class that implements the <code>javax.net.SocketFactory</code> interface. This class is used to create POP3 sockets. <code>javax.net.ssl.SSLSocketFactory</code> can be used.
mail.pop3.socketFactory.fallback	true/false	
mail.pop3.socketFactory.port		The port to use when using the specified socket factory. If left blank, the default port is used.
mail.pop3.user mail.imap.user		User name for the POP3/IMAP account.
mail.pop3.user.address mail.imap.user.address		The email address of the user for the POP3/IMAP account.
mail.smtp.auth	true/false	Set to true to allow only authorized emails to be sent.
mail.smtp.from		The email address that is displayed in the From field for the emails sent to suppliers by MOBILE APPROVAL.
mail.smtp.host		Name of the SMTP server.
mail.smtp.password		Password for the SMTP account.
mail.smtp.port		Port number of the SMTP server.
mail.smtp.socketFactory.class		Optional; specifies the name of the class that implements the <code>javax.net.SocketFactory</code> interface. This class is then used to create SMTP sockets. <code>javax.net.ssl.SSLSocketFactory</code> can be used.
mail.smtp.socketFactory.fallback	true/false	
mail.smtp.socketFactory.port		The port to use when using the specified socket factory. If left blank, the default port is used.
mail.smtp.starttls.enable	true/false	

Other SMTP settings can be added if necessary. For detailed information on what kind of properties can be set, review the information in the following link:

<https://javamail.java.net/nonav/docs/api/com/sun/mail/smtp/package-summary.html>

Mail logging settings

Depending on the type of event, there are five different kinds of log emails that MOBILE APPROVAL can send:

1. Administration
2. Application closing
3. Errors
4. Information
5. Warnings

For each type, you can specify:

- Whether or not an email is sent when the event type occurs.
- The email subject and the text that is displayed at the start of every email, before the content of the logs.

Setting	Valid values	Description
<code>maillogger.admin.mailaddress</code>		The email address of the MOBILE APPROVAL administrator.
<code>maillogger.from.mailaddress</code>	Name <email address>	The name and email address that are displayed in the From field for log emails. Example: MOBILE APPROVAL Logs <name@company.com>
<code>maillogger.logwindow</code>	on/off	Turns the Log Window feature on or off. If the Log Window feature is turned on, all the available log information is written in the current system log window. If MOBILE APPROVAL is running as a Windows NT service, you must use the Services control panel to modify the logging service and enable the Allow interaction of service and desktop setting.
<code>maillogger.message.admin.send</code>	true/false	Enables or disables the administration log emails.
<code>maillogger.message.admin.subject</code>		The subject for the administration emails.
<code>maillogger.message.admin.text</code>		The text that is displayed at the start of every administration email, before the content of the logs.

Setting	Valid values	Description
<code>maillogger.message.close.send</code>	true/false	Set to true if application closing log emails will be sent.
<code>maillogger.message.close.subject</code>		The subject for the application closing emails.
<code>maillogger.message.close.text</code>		The text that is displayed at the start of every application closing email, before the content of the logs.
<code>maillogger.message.error.send</code>	true/false	Set to true if error log emails will be sent.
<code>maillogger.message.error.subject</code>		The subject for the error emails.
<code>maillogger.message.error.text</code>		The text that is displayed at the start of every error email, before the content of the logs.
<code>maillogger.message.info.send</code>	true/false	Set to true if information log emails will be sent.
<code>maillogger.message.info.subject</code>		The subject for the information emails.
<code>maillogger.message.info.text</code>		The text that is displayed at the start of every information email, before the content of the logs.
<code>maillogger.message.warning.send</code>	true/false	Set to true if warning log emails will be sent.
<code>maillogger.message.warning.subject</code>		The subject for the warning emails.
<code>maillogger.message.warning.text</code>		The text that is displayed at the start of every warning email, before the content of the logs.

Setting	Valid values	Description
<code>sap.logon.system</code>		The SAP system that MOBILE APPROVAL connects to. Note: Further SAP system settings are saved in the <code>saplogon.properties</code> file.

Setting	Valid values	Description
<code>sap.rfc.value.flag.delete</code>		The RFC function sets the delete flag in its export parameter, and if this value matches <code>sap.rfc.value.flag.delete</code> , the email will be deleted, without any information being sent to the sender.

Setting	Valid values	Description
<code>b</code>	ISO 639-2 language code	The language of the statistic emails. For example, a value of <code>DE</code> for German sets the use of <code>statisticMessage_de.txt</code> (file located in the <code>wcconfig\WEB-INF\conf\lang\</code> directory.)
<code>statistics.mail.addresses.from</code>	Name <email address>	The name and email address that are displayed in the From field for statistic emails. Example: MOBILE APPROVAL Statistics <name@company.com>
<code>statistics.mail.addresses.to</code>		The email address of the receiver.
<code>statistics.mail.subject</code>		The subject of the email.
<code>statistics.send.every</code>	hour, day, month, year	The frequency of sending statistic emails. You can use one or more values. Multiple values must be separated by a semicolon. Example: <code>hour; day</code>
<code>statistics.tempfiles.dictionary</code>		The directory where the temporary statistic files are saved.

Verifier (spam) settings

Use these settings to filter out spam email so that MOBILE APPROVAL processes incoming email from only authentic suppliers.

Setting	Valid values	Description
<code>verifier.blacklist</code>	true/false	Set to true to enable the use of a blacklist (list maintained in the runtime object).
<code>verifier.blacklist.resettime.hours</code>		Time (in hours) until the blacklist object is cleared.
<code>verifier.blacklist.resettime.maxmails</code>		This defines the maximum number of emails that a user can send to MOBILE APPROVAL within the time set in <code>verifier.blacklist.resettime.hours</code> .
<code>verifier.blacklist.resettime.minutes</code>		The time interval, in minutes, to reset the blacklist.
<code>verifier.maxmailsize.bytes</code> (Optional setting)	Positive integer	Optional; the maximum size (in bytes per email) of emails allowed by MOBILE APPROVAL. Emails greater than the amount specified here will not be processed. Example: 524288 (0.5 Megabytes)
<code>verifier.regex.subject</code> (Optional setting)		Optional regular expression; this expression will be evaluated on each subject line, and if a match is found, the mail will be ignored. Only one regular expression string is allowed. Note: In the configuration file, the backslash symbol (\) outside the character string must be set as \\ For example: <code>.\ \ **SPAM.\ \ **</code>
<code>verifier.timeslice.maxmails</code> (Optional setting)	Positive integer	The maximum number of emails that MOBILE APPROVAL is allowed to process within the time limit. If the number exceeds this amount, MOBILE APPROVAL will close. By default, the time limit is determined by the <code>general.timeslice.minutes</code> parameter, or from the Scheduler, if it has been set.

Email servers

Supported protocols

MOBILE APPROVAL requires an email account that can be accessed using POP3 or IMAP. It does not support the MAPI protocol used by Microsoft Exchange. This email account should be used for only incoming requests for MOBILE APPROVAL. No other emails should be present on this account (such as statistics or logs – a different account should be used for these). POP3 must be activated on the server.

SSL settings

Some email servers accept only SSL connections with a valid certificate. You can specify this certificate information by using the following parameters for Java Virtual Machine.

Parameter	Description
<code>javax.net.ssl.trustStore</code>	The path to the file that contains the KeyStore object used by the default TrustManager.
<code>javax.net.ssl.trustStorePassword</code>	The password for the KeyStore object used by the default TrustManager.
<code>javax.net.ssl.trustStoreType</code>	The type of KeyStore object used by the default TrustManager.
<code>javax.net.ssl.keyStore</code>	The path to the file that contains the KeyStore object used by the default KeyManager.
<code>javax.net.ssl.keyStorePassword</code>	The password for the KeyStore object used by the default KeyManager.
<code>javax.net.ssl.keyStoreType</code>	The type of KeyStore object used by the default KeyManager.

The parameters can be specified using one of two methods:

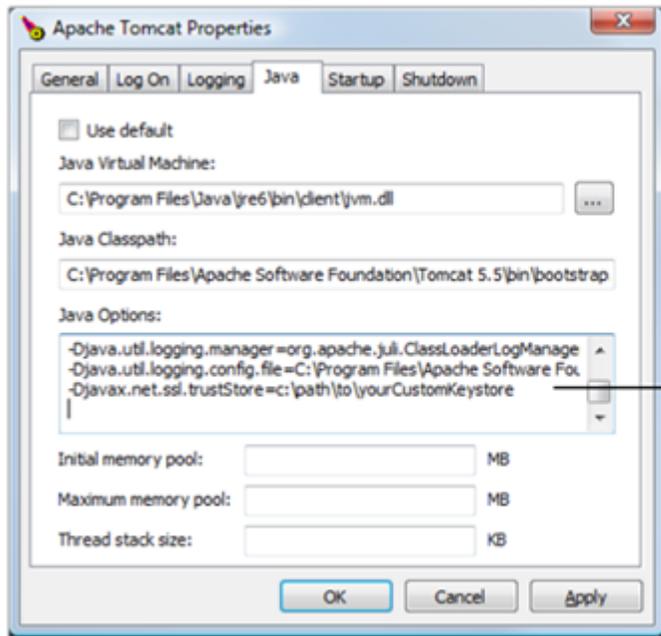
- [In the Apache Tomcat Properties dialog box](#)
- [In the `settings.properties` file](#)

Apache Tomcat

1. Start the **Configure Tomcat** application.

It can be started from the Windows Start Menu or by running `tomcat5w.exe` in the Tomcat `bin` directory.

2. Enter the parameters in the **Java Options** text box on the **Java** tab.



You must include the `-D` option before each entry (this is the Java option to specify environment properties.)

settings.properties

Enter the Java environment `property=value` pairs in the `MOBILE APPROVAL settings.properties` file. For example:

```
javax.net.ssl.trustStore=c:\path\to\yourCustomKeystore
```

Note: Do not add the `-D` Java option before each entry.

Statistics messages

There are templates for sending and displaying statistics. The templates are placed in the `WEB-INF\conf\lang` directory by default, but their current position can be set in the main settings by using the `general.directory.languagefiles` property. The files must use UTF8 encoding and their name must start with `statisticMessage` and the file extension, `txt`. For different languages, the file name ends with the underscore symbol (`_`) and language abbreviation (for example; `statisticMessage_en.txt`). The default file does not have a language shortcut in its syntax. Using the Web Application, it is possible to change the text by selecting the **Parameters** tab, and then the **Statistics message** menu.

Lines that start with the number sign (`#`) are treated as a comment and will not be sent in the email text. This number sign must be at the very beginning of the line.

The first non-comment line is the statistics email subject.

There are some variables that can be replaced by statistics data. They start and end with the percent (`%`) sign.

The `%date_from()` and `%date_to()` variables define the time scope of the start and end of the collection of statistics. The date format must be within the parentheses symbols to be accepted by the `java.text.SimpleDateFormat` function.

Some possible date format symbols:

d: Day in month

M: Month in year

y: Year

H: Hour in day (0-23)

m: Minute in hour

s: Second in minute

To add clear text, add an apostrophe (`'`) symbol at the beginning and end of the clear text string.

Example: `%date_from(dd.MM.yyyy 'at' HH:mm:ss)%`

For detailed information about possible time formatting, please see:

<http://java.sun.com/j2se/1.5.0/docs/api/java/text/SimpleDateFormat.html>

`%statistics_type()`: Type of statistics: 1 – last, 2 – hour, 4-day, 8-month, 16-year

`%mails_received()`: Number of received emails; you can format this number

Sample statistics lines	For 168 received emails
<code>%mails_received()%</code>	168
<code>%mails_received(5;0)%</code>	00168
<code>%mails_received(5;)%</code>	168
<code>%mails_received(2;)%</code>	168

Sample statistics lines	For 168 received emails
<code>%mails_received(10;-)%</code>	-----168

Other possible variable formats:

Variable	Description
<code>%mails_sent()%</code>	Number of sent emails
<code>%sap_system_calls%</code>	Number of SAP system calls
<code>%mails_blocked()%</code>	Number of blocked emails
<code>%block_reason_subject()%</code>	Number of blocked emails because of subject
<code>%block_reason_blacklist()%</code>	Number of blocked emails for addresses on the black list
<code>%block_reason_mailsize()%</code>	Number of blocked emails whose sizes were larger than allowed
<code>%block_reason_rfc_return()%</code>	Number of blocked emails that had the same SAP RFC return code for the email status, as set for <code>sap.rfc.value.flag.delete</code> in the general settings

Below is a table of the variables possible between `%list_begin%` and `%list_end%`:

Variable	Description
<code>%list_mailaddress%</code>	Email address of list element
<code>%list_received()%</code>	Number of received emails for the given list element
<code>%list_sent()%</code>	Number of sent emails for the given list element
<code>%list_blocked()%</code>	Number of blocked emails for the given list element

Log settings

Parameters

File: ... \WEB-INF\conf\log.properties

Item	Default	Options	Details
level	WARNING	OFF FATAL ERROR WARNING INFO DEBUG	Only messages with a level higher or equal to the specified level are written to the log.
logDir	The trace tries to find the log directory of the application server and creates a folder name like the application there.	... \path	The trace is written to this path. If the path is not absolute, it is relative to the working directory of the application servers.
logName	wctrace.%date.log		The name of the trace file. If the name contains the %date pattern, it is replaced by the current date.
separator	Semicolon (;)		The separator between the columns of a trace file's line.
dateFormat	dd.mm.yyyy		The date format in the log.
timeFormat	hh.mm.ss.SSS		The time format in the log.
host	<i>None – host is not shown in the log.</i>		The hostname of the application server. If the name is specified as %host, the name is automatically taken from the HTTP request.
appName	<i>None – application name is not shown in the log.</i>		The name of the application.
showDate	yes	yes no	To show/not show the date in the log.
dailyFile	yes	yes no	To create/not create a new log file every day.

Log file syntax

[Date]<Sep>Time<Sep> [Host<Sep>] [Application<Sep>] SessionID<Sep>Level<Sep>Message

Square brackets indicate optional values.

<Sep> is the separator character.

The message is free-formatted text.

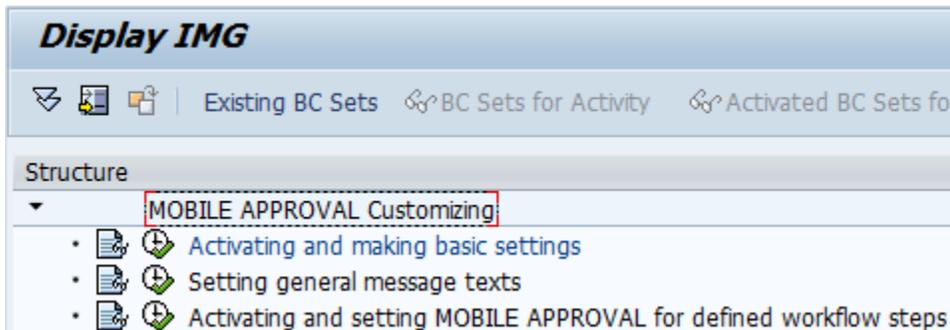
MOBILE APPROVAL prefixes an error number and additional separator if the log level of an entry is FATAL, ERROR or WARNING.

IMG

Accounts Payable

Overview

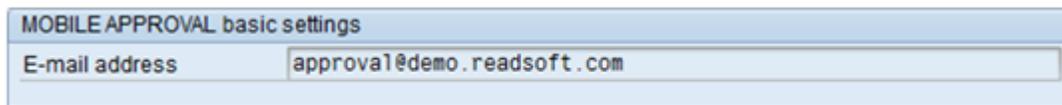
The /COCKPIT/MAI transaction opens the configuration menu for MOBILE APPROVAL in PROCESS DIRECTOR Accounts Payable.



Activating and basic settings

/COCKPIT/MAI1

The only configuration in this node is the email address for MOBILE APPROVAL.



This email address is the reply `mailto:` link in the MOBILE APPROVAL emails sent to the workflow recipients.

Setting up general message texts

/COCKPIT/MAI3

Change View "Set general message texts for MOBILE APPROVAL"

New entries

Set general message texts for MOBILE APPROVAL

Texts

message of success

Error message

Header: To whom it may concern

message of success

Error message

Definitions of operation (for text substitution)

Release

Reject

Add a note

Setting	Description
Texts	
message of success	The body text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) was successful.
Error message	The body text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) could not be performed.
Header: To whom it may concern	
message of success	The subject line text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) was successful.
Error message	The subject line text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) could not be performed.
Definitions of operation (for text substitution)	
Release	The text that will be displayed in the link (or for HTML mails, on the button) that the user clicks to release/approve the document.

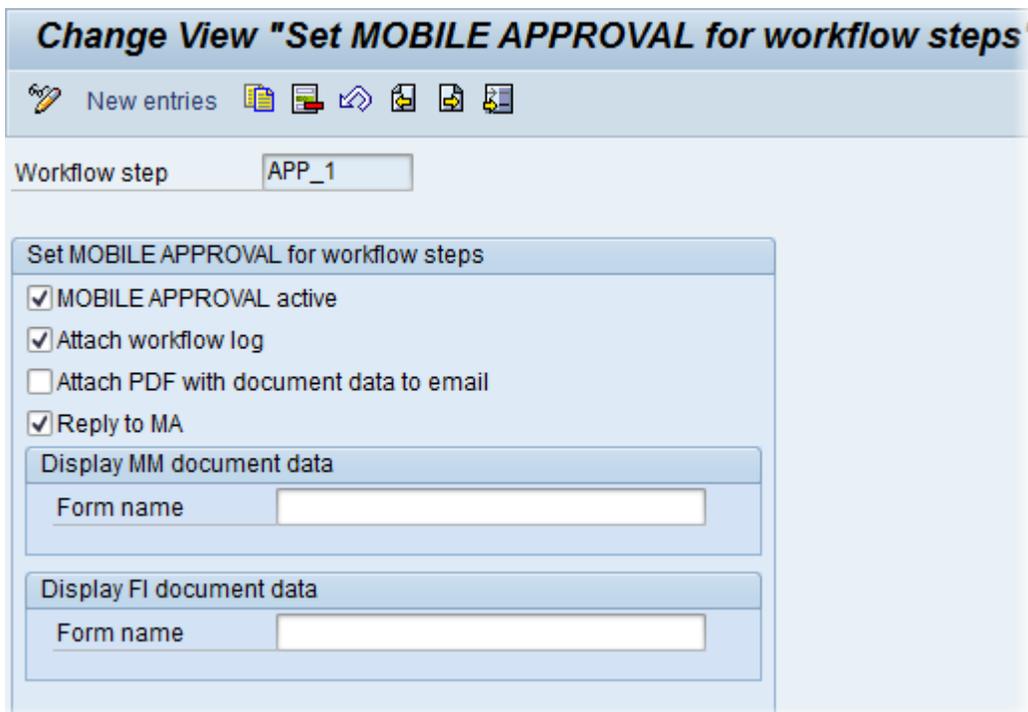
Setting	Description
Reject	The text that will be displayed in the link (or for HTML mails, on the button) that the user clicks to reject the document.
Add a note	The text that will be displayed in the link (or for HTML mails, on the button) that the user clicks to add a note.

An email template is used to fill the content of the email that is sent to the users after they perform an action. In the templates, aliases can be set. For example, &DOCNO& . &MA_ACTION& is useful to inform the user about the action to which the email relates.

Note: Success and error emails are sent only if **Reply to MA** is activated in the [MOBILE APPROVAL workflow steps settings](#).

Activating/Defining workflow steps

/COCKPIT/MAI2



Setting	Description
Workflow step	The ID of the workflow step.
Set MOBILE APPROVAL for workflow steps	
MOBILE APPROVAL active	Activates the use of MOBILE APPROVAL for the workflow step.
Attach workflow log	The log history of the current workflow is attached to the email (as a PDF).

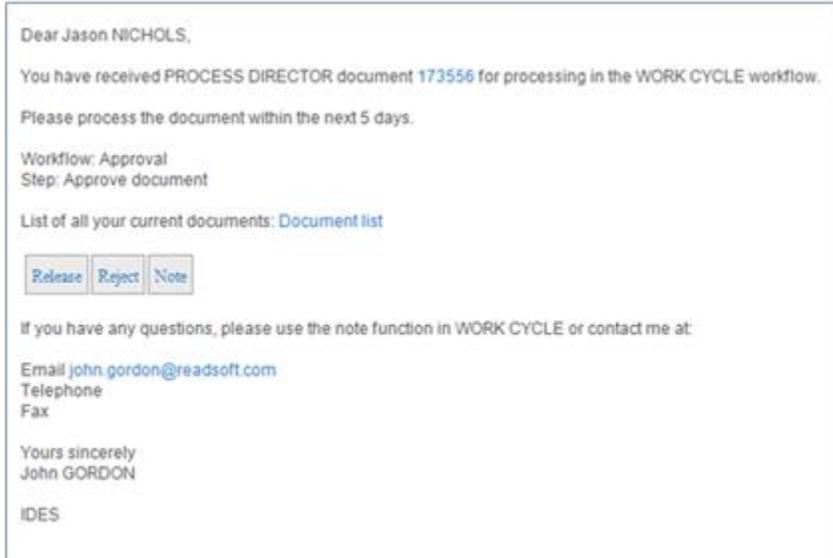
Setting	Description
Attach PDF with document data to email	The document data is attached as a PDF. To use this feature, you must specify an SAP Smart Form for MM and FI documents (see below). SAP Smart Forms are available in SAP R/3 4.6C and later.
Reply to MA	Sends an email back to users after they have performed an action successfully. (For actions that encounter errors and are not performed successfully, email notifications are always sent and are not controlled by this setting.)
Display MM document data	
Form name	The ID of the SmartForm used for displaying the data of the MM document in a workflow (in PDF). To use this feature, you must activate Attach PDF with document data to email (see above).
Display FI document data	
Form name	The ID of the SmartForm used for displaying the data of the FI document in a workflow (in PDF). To use this feature, you must activate Attach PDF with document data to email (see above).

Email links

There are three aliases for the links included in email texts.

Alias	Description
&MOBILE_APPROVE&	The <code>mailto</code> URL to approve the document.
&MOBILE_REJECT&	The <code>mailto</code> URL to reject the document.
&MOBILE_NOTE&	The <code>mailto</code> URL to add a note to the document.

Depending on whether the email is sent in HTML or plain text, these URLs are embedded in the respective buttons, or appear as text.



Example HTML email



Example plain text email

The aliases are included in the text template. There are built-in templates that you can use or modify:

- /COCKPIT/WEB_CYCLE_TEMPL_HTM (HTML emails)
- /COCKPIT/WEB_CYCLE_START (Plain text emails)

Edit these texts using SE61:

Settings	
Document Class	General text 
Language	English 
Document	
Name	/COCKPIT/WEB_CYCLE_START   Create
 Display  Change	

The email aliases for the /COCKPIT/WEB_CYCLE_START template:

Dear &WEB_CYCLE_USER_NAME&.

You have received PROCESS DIRECTOR document &HEADER-DOCNO& for processing in the WORK CYCLE workflow.
Please process the document within the next &DUE_DAYS& days.

Workflow: &WEB_CYCLE_DESCRIPTION&
Step: &WEB_CYCLE_STEP_DESCRIPTION&

Link to process the document:
&WEB_CYCLE_SINGLE_DOCUMENT_LINK&

Link to list of all your current documents:
&WEB_CYCLE_DOCUMENT_LIST_LINK&

Links to WORK CYCLE processing via e-mail (MOBILE APPROVAL)
&MOBILE_APPROVE&
&MOBILE_REJECT&
&MOBILE_NOTE&

If you have any questions, please use the note function in WORK CYCLE or contact me at:
Email &SENDER_EMAIL&
Telephone &SENDER_PHONE&
Fax &SENDER_FAX&

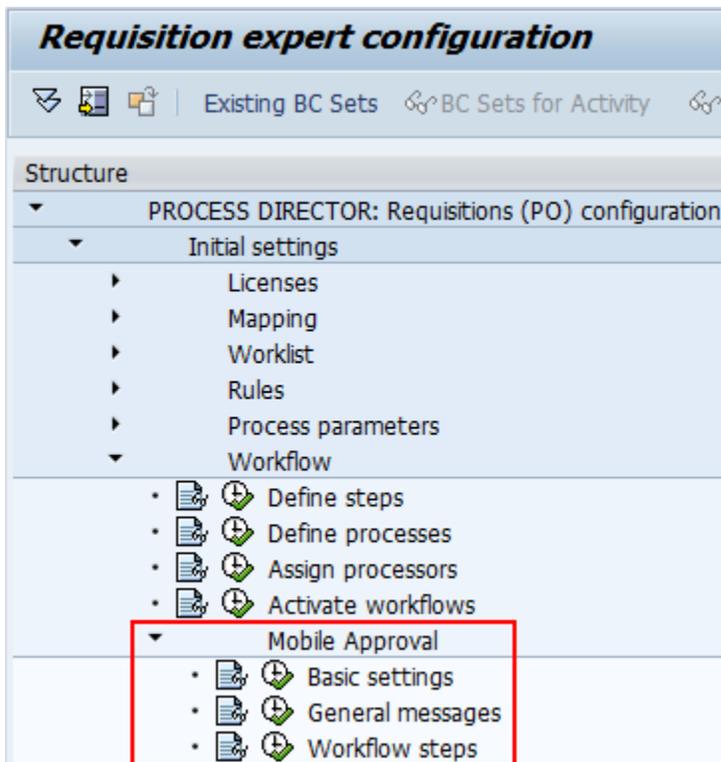
Yours sincerely
&SENDER_NAME&
&SENDER_FUNCTION&
&SENDER_DEPARTMENT&
&SENDER_COMPANY&=

PROCESS DIRECTOR

Overview

To open the configuration menu for MOBILE APPROVAL in PROCESS DIRECTOR, go to /EBY/PDB0C and select the appropriate process type.

Initial settings > Workflow > Mobile Approval



Basic settings

/EBY/PDWC_VMABS

Initial settings > Workflow > Mobile Approval

The only configuration in this node is the email address for MOBILE APPROVAL.

You can specify different addresses for different SAP systems.

MOBILE APPROVAL basic settings	
SAP System ID	E-Mail Address
RS1	approval@demo.readsoft.com
RS2	mobile@demo.readsoft.com

Setting	Description
SAP System ID	The SAP system for which the MOBILE APPROVAL email address is valid.
E-Mail Address	This email address is the reply <code>mailto:</code> link in the MOBILE APPROVAL emails sent to the workflow recipients.

General messages

/EBY/PDWC_VMAMES

Initial settings > Workflow > Mobile Approval

Display View "MOBILE APPROVAL general messages": Details

Project ID: Default project 547 client 800

MOBILE APPROVAL general messages

Success email

Subject: Mobile Approval ok
Body: /EBY/MOBILE_APPROVAL_OK

Error email

Subject: Mobile Approval err
Body: /EBY/MOBILE_APPROVAL_ERR

Button names

Approve: Approve
Reject: Reject
Add a note: Add note

Setting	Description
Success email	
Subject	The subject line text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) was successful.
Body	The body text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) was successful. You can use a standard PROCESS DIRECTOR documentation object for this text.
Error email	
Subject	The subject line text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) could not be performed.

Setting	Description
Body	The body text for the confirmation email sent to a MOBILE APPROVAL user to inform them that their action (approve, reject, add note) could not be performed. You can use a standard PROCESS DIRECTOR documentation object for this text.
Button names	
Approve	The text displayed in the link (or for HTML mails, on the button) that the user clicks to approve the document.
Reject	The text displayed in the link (or for HTML mails, on the button) that the user clicks to reject the document.
Add a note	The text displayed in the link (or for HTML mails, on the button) that the user clicks to add a note.

An email template is used to fill the content of the email that is sent to the users after they perform an action. In the templates, aliases can be set. For example, &DOCNO& . &MA_ACTION& is useful to inform the user about the action to which the email relates.

Note: Success and error emails are sent only if **Reply to MA** is activated in the [MOBILE APPROVAL workflow steps settings](#).

Workflow steps

/EBY/PDWC_VMAST

Initial settings > Workflow > Mobile Approval

Change View "MOBILE APPROVAL for workflow steps": Details


New Entries







Project ID

Workflow step

MOBILE APPROVAL for workflow steps

MOBILE APPROVAL act.

Reply to MA

Attach log

Attach PDF doc.

Setting	Description
Workflow step	The ID of the workflow step.
MOBILE APPROVAL for workflow steps	
MOBILE APPROVAL act.	Activates the use of MOBILE APPROVAL for the workflow step.
Reply to MA	Sends a confirmation email back to the MOBILE APPROVAL user to inform them that their action (approve, reject, add note) was successful. For actions that encounter errors and are not performed successfully, email notifications are always sent and are not controlled by this setting. You can specify the text of these emails in the General messages settings .
Attach log	Attaches the workflow log of the current workflow to the email.
Attach PDF doc.	Attaches the document data as a PDF. You must specify a SmartForm for the PDF.

Email links

The following are the aliases for the links included in email texts:

Alias	Description
&MOBILE-APPROVE&	The <code>mailto</code> URL to approve the document.
&MOBILE-APPROVE_HTML&	The <code>mailto</code> URL to approve the document in the HTML version.
&MOBILE-REJECT&	The <code>mailto</code> URL to reject the document.
&MOBILE-REJECT_HTML&	The <code>mailto</code> URL to reject the document in the HTML version.
&MOBILE-NOTE&	The <code>mailto</code> URL to add a note to the document.
&MOBILE-NOTE_HTML&	The <code>mailto</code> URL to add a note to the document in the HTML version.

Depending on whether the email is sent in HTML or plain text, these URLs are embedded in the respective buttons, or appear as text.

From: Bartosz Kolodziej
 To: Hilary Thomas
 Cc: Hilary Thomas
 Subject: Please process this workflow document

Dear THOMAS2,

The document Requisition 13678 has been sent to you for processing. Please process the document by 31.12.9999.

Workflow: Demo2
 Step: Demo step 2

Link to the document

[Approve](#) [Reject](#) [Note](#)

If you have any questions, please contact me at:

Email: bartosz.kolodziej@readsoft.com
 Telephone:
 Fax:

Yours sincerely,
 Mr. KOLODZIEJ

Example HTML email

Please process document 13696

Bartosz Kolodziej

Sent: Tue 3/11/2014 5:07 PM
 To: Bartosz Kolodziej
 Cc: malpa@malpa.pl
 Attachments: Workflow log.PDF; Doc.data.PDF

Dear Mr. KOLODZIEJ,

The document Requisition 13696 has been sent to you for processing. Please process the document by 13.03.2014.

Workflow: giant step for mankind
 Step: 1st wf step

Link to the document: <http://sapn47.ebydos.local:8080/pdweb-app/init.do?sapsystem=547&ACTION=OTHER-&GUID=E00BA91F0454CF4AB18757ABC65308CC>

Links to workflow processing via e-mail (MOBILE APPROVAL)
 Approve: <mailto:MobApproval.Test@readsoft.com?subject=PD-270C8B9E498A074CAF551702C40CB3F5967577014830345C2266AAE3E8ACA94E>
 Reject: <mailto:MobApproval.Test@readsoft.com?subject=PD-270C8B9E498A074CAF551702C40CB3F5B1CB72B978FD08AF7AFC5B67E89C29A4>
 Add note: <mailto:MobApproval.Test@readsoft.com?subject=PD-270C8B9E498A074CAF551702C40CB3F58CF80D6CDA553AF638FD4A1DDC80B88>

If you have any questions, please contact me at:
 Email: bartosz.kolodziej@readsoft.com
 Telephone:
 Fax:

Yours sincerely,
 Mr. KOLODZIEJ

Example plain text email

The aliases are included in the text template. There are built-in templates that you can use or modify:

- /EBY/PDWC_SENT_HTML_MA (HTML emails)
- /EBY/PDWC_SENT_MA (Plain text emails)

Edit these texts using SE61:

The email aliases for the /EBY/PDWC_SENT_MA template:

```

Dear &RECIPIENT-ADDRESS-TITLE_P& &RECIPIENT-ADDRESS-FIRSTNAME&
&RECIPIENT-ADDRESS-LASTNAME&.

The document &HEADER-OBJ-TXT& &HEADER-NUMBR& has been sent to you for processing. Please process the
document by &WORKFLOWSTEP-WC_STEP_DUEDATE&.

&LAST_NOTE&

Workflow: &WORKFLOW-WC_DESCR&
Step: &WORKFLOWSTEP-WC_STEP_DESCR&

Link to the document: &URL&&ACTION=OTHER-&GUID=&HEADER-GUID&

Links to workflow processing via e-mail (MOBILE APPROVAL)
&MOBILE-APPROVE&
&MOBILE-REJECT&
&MOBILE-NOTE&

If you have any questions, please contact me at:
Email: &SENDER-ADDRESS-E_MAIL&
Telephone: &SENDER-ADDRESS-TEL1_NUMBR& &SENDER-ADDRESS-TEL1_EXT&
Fax: &SENDER-ADDRESS-FAX_NUMBER& &SENDER-ADDRESS-FAX_EXTENS&

Yours sincerely,
&SENDER-ADDRESS-TITLE_P& &SENDER-ADDRESS-FIRSTNAME& &SENDER-ADDRESS-LASTNAME&
&SENDER-ADDRESS-FUNCTION&
&SENDER-ADDRESS-DEPARTMENT& =
    
```