



PaymentStandards Test Platform

Automated Testing via EBICS

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1. Introduction

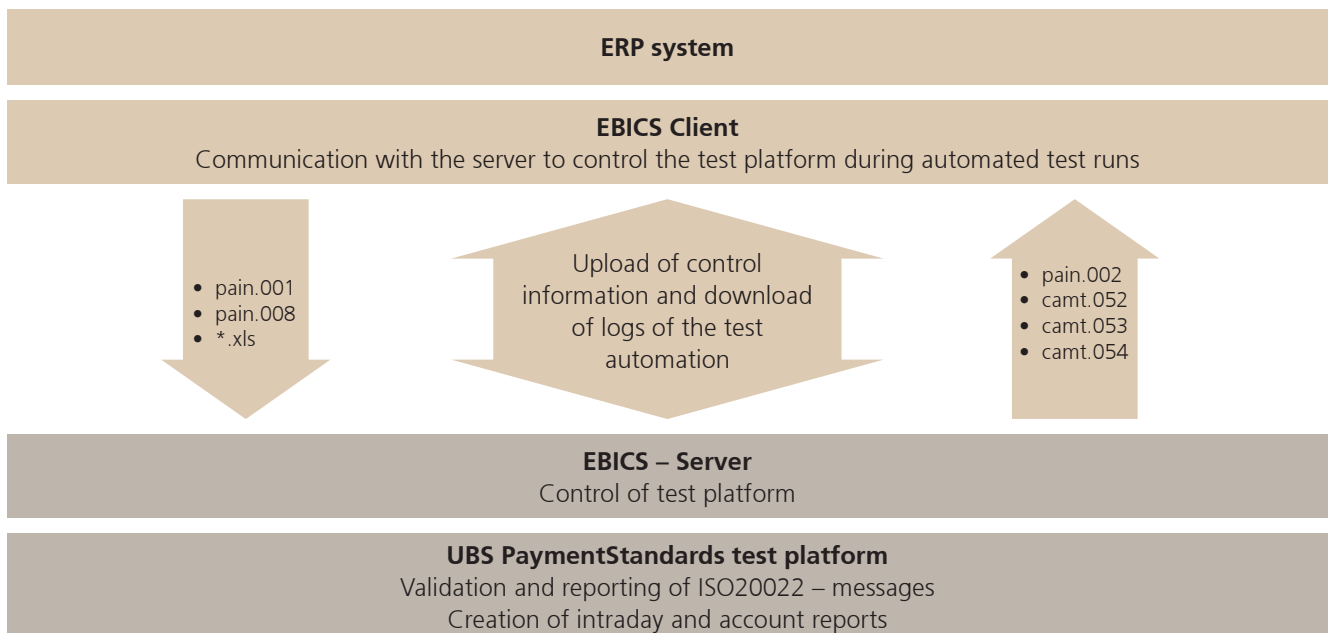
1.1. Overview of functions

The EBICS connection of the PaymentStandards Test Platform offers the option of automating validations and booking simulations.

All simulation functions known through the web interface can be performed via an EBICS client. To control and parameterize the PaymentStandards Test Platform, an XML control file must be transmitted to the EBICS server with each specific order type.

After transmitting pain.001 and pain.008 messages, the PaymentStandards Test Platform carries out the validation and automatically generates the corresponding pain.002 messages. Excel templates (also with a specific order type) can be uploaded for the simulation of incoming payments (credit and debit).

The creation of Reporting messages (camt) will be triggered by the upload of the XML control file. Depending on the test procedure, this allows you to upload any payment data to the platform in advance and subsequently control camt generation as required.



1.2. Limitation and deviations from the EBICS production environment

The EBICS interface of the PaymentStandards Test Platform exclusively serves to provide secure and automated communication during tests. Its focus on usage within the test environment naturally results in some deviations in behavior when compared to the bank's productive environment.

Therefore, the test results with respect to EBICS communication do not represent any statements or assurances as to the acceptance or processing of payment orders within the productive EBICS environment, and do not replace a separate test with the bank's EBICS test systems.

We would like to point out the following deviations in particular. Please note that these are used here only as examples and that this list is therefore not comprehensive.

Registration process

In productive EBICS environments, a so-called EBICS initialization letter must be sent to the bank by the user after the successful initialization of the EBICS connection, prompting the bank to activate the EBICS user.

To simplify this process and allow faster access to the simulation functions of the PaymentStandards Test Platform, the test platform performs an automatic activation after the initialization.

For this reason, the EBICS access of the PaymentStandards Test Platform is already ready for use once initialization is complete.

Account validation

The provided EBICS user does not perform any account validation when orders are submitted via the web interface. Thus, unlike productive submissions, any account number can be specified via EBICS.

Order types

When uploading files for order types intended for a specific payment type (such as order type 'YE5' for payment type 5), no validation is carried out to ensure the submitted file matches the payment type.

Unlike productive environments, these order types thus behave like the order type for mixed submissions ('XE2' in this example).

Distributed signature

Please note that the distributed signature logic is not supported by the test platform. An EBICS user with a single signature is always created upon registration.

1.3. Reference documents

The EBICS interface of the PaymentStandards Test Platform supports the standard according to the Swiss Market Practice Guidelines EBICS version 1.1. The relevant document can be found at the link below.

six-interbank-clearing.com/en/home/standardization/ebics.html

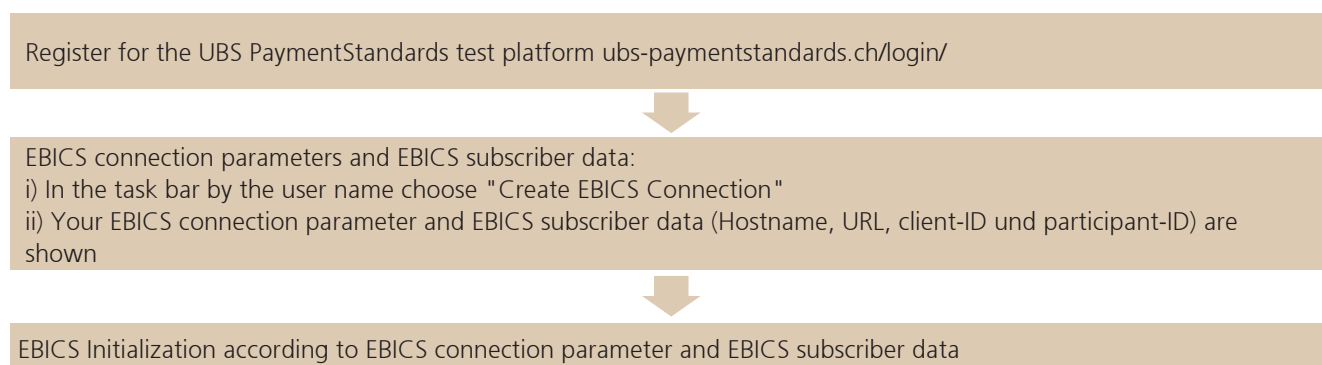
2. Registration for EBICS access

2.1. EBICS registration

In order to be able to use the functions of the test platform via the EBICS interface, a user must first register with the UBS PaymentStandards Test Platform. The user account created during this registration process will be activated for EBICS transmission by UBS in a second step.

Please note that any files uploaded to the test platform via EBICS can be neither viewed nor edited by the user you use to access the test platform via the web interface. The data exchanged with the PaymentStandards Test Platform via EBICS is separated from conventional usage.

Registration process:



2.2. EBICS initialization

Once you have received your EBICS subscriber information as described above, please initialize your EBICS access as usual.

2.3. Connection data

Url	ubs-paymentstandards.ch/ebics/EbicsServlet
Host name	Will be transmitted during registration.
User-ID	Will be transmitted during registration.
Client-ID	Will be transmitted during registration.

2.4 Key management

According to the Swiss Market Practice Guidelines EBICS, the following characteristics regarding EU procedures and key length are supported:

Version "H004" of the EBICS protocol

- "X002" for the authentication signature
- "A006" for the EU
- "E002" for the encryption
- Key length: 2048 Bit



Caution:

The optional element *ds:KeyInfo* must not be used in the authentication signature, as the EBICS server rejects messages with this field (not defined in the EBICS specification).



Note:

Please wait for 1-2 minutes after initialization has been successfully completed, as the process required for activation is time-delayed.

2.5 Changing the customer keys











If the customer's keys change, the order type 'SPR' should first be transmitted to the EBICS server with the old key. This will delete the old key data and reset the subscriber to the "ready for initialization" status.

Another initialization can then be performed as described in chapter 2.2.



3. Test process via EBICS interface

3.1. Overview

Once the requirements have been met by completing the registration and initialization as described in the previous chapter, the PaymentStandards Test Platform can be used via the EBICS Interface as shown here and described in detail in subsequent chapters.

UP-/Download	Mult	Brief description	For details see
Upload 	1..1	Account initialisation	Chapter 3.2 Initialization of accounts for booking simulation
Upload 	0..n	Upload pain.001	Chapter 3.3 Uploading pain.001 and pain.008 messages
Upload 	0..n	Upload pain.008	Chapter 3.3 Uploading pain.001 and pain.008 messages
Upload 	0..n	Upload Excel received data	Chapter 3.4 Uploading an Excel file to simulate incoming payments
Upload 	0..n	Generate account report	Chapter 3.5 Simulation / Generate Account Report (camt.052, camt.054)
Upload 	0..1	Generate account statement	Chapter 3.6 Simulation / Generate Account Statement (camt.053, camt.054)
Download 	0..n	Retrieve pain.002	Chapter 3. 7 Downloading Status Messages pain.002
Download 	0..n	Retrieve camt messages	Chapter 3.8 Downloading Reporting Messages camt.052, camt.053, camt.054
Download 	0..n	Retrieval of pain.001/ 008.xml with comments	Chapter 3.9 Downloading Validation Result (XML with comments)
Download 	0..n	Retrieve processing log	Chapter 3.10 Downloading the processing log

Key

	Special processing for test control, unifitsSimControlV1.xsd
	EBICS standard

To control the test platform during the execution of automated test runs, the special order type 'XT1' is available, which can be used to transfer XML control files to the EBICS server of the test platform.

3.2. Initialization of accounts for booking simulation

The function “Fnclnitialize” in the control file of the ‘USI’ order type should be used for the initialization.

Order type	Message type	Definition / description
XT1	unifitsSimControlV1	XML control file / here: Initialization of test platform

This initialization function is used to delete all data from previous test runs, set the booking date to the desired value and define the accounts required for a booking simulation.

The definition options intended for the initialization via the XML control file are described in this chapter. For all technical details on the XML control file, please refer to the XSD description which can be found in the test platform.

Message Item	Mult	Definition
SimulationControl +Fnclnitialize ++BookingDate	0..1	BookingDate The booking date for which the test run and booking simulation are being carried out. If the booking date is not provided, the current system date of the test platform will be used as a default.
SimulationControl +Fnclnitialize ++ExportValidationResults	0..1	ExportValidationResults If ‘true,’ all uploaded Pain.001 and Pain.008 messages will be updated with the validation results and made available for download under the order type ZT1.
SimulationControl +Fnclnitialize ++AccountDefaults	1..n	Defines the master data of the accounts required for the booking simulation (accounts from the B-level of the pain.001 and pain.008 messages uploaded for the simulation, and / or from the Excel Files).
SimulationControl +Fnclnitialize ++AccountDefaults +++Account	1..1	Account Account to be created as a basis for the booking simulation, in the ‘IBAN’ format.
SimulationControl +Fnclnitialize ++AccountDefaults +++Currency	0..1	Currency Currency of the account according to ISO 4217:2015. If no currency is provided, the default setting is ‘CHF.’
SimulationControl +Fnclnitialize ++AccountDefaults +++Language	0..1	Language Language of the account. The default language is English. For example, the language setting is reflected in the comments, which are integrated into the uploaded XML based on the validation (see ExportValidationResults).
SimulationControl +Fnclnitialize ++AccountDefaults +++OpeningBalance	1..1	OpeningBalance The account’s opening balance in the specified currency.
SimulationControl +Fnclnitialize ++AccountDefaults +++BatchBookingDtls	1..1	BatchBookingDtls Controls how booking details on a batch booking are output. INTERNALLY: Booking details are output in Camt.052 or Camt.053. C54: “Externally,” booking details are output in Camt.054.
SimulationControl +Fnclnitialize ++AccountDefaults +++CollByCustDtls	1..1	CollByCustDtls Batch booking details when collected by customer true: Details are output false: Details are not output

Beispiel:

```
...
<FnInitialize>
  <AccountDefaults>
    <Account>CH2801234000123456789</Account>
    <Currency>CHF</Currency>
    <OpeningBalance>1000</OpeningBalance>
    <BtchBookingDtls>C54</BtchBookingDtls>
    <CollByCustDtls>true</CollByCustDtls>
  </AccountDefaults>
</FnInitialize>
...
```

3.3. Uploading pain.001 and pain.008 messages

To upload pain.001 and pain.008 messages to the test platform via EBICS, the following standard order types according to the Swiss Market Practice Guidelines EBICS are available.

Order type	Message type	Definition / description
XE2	pain.001.001.03.ch.02	Mixed submission, all payment types
YE1	pain.001.001.03.ch.02	Domestic payment transactions in CHF and EUR
YE5	pain.001.001.03.ch.02	SEPA transfer
YE6	pain.001.001.03.ch.02	Foreign payment transactions, all currencies

Order type	Message type	Definition / description
XL3	pain.008.001.02.ch.03	Direct Debit for the Swiss direct debit procedure LSV+
XL4	pain.008.001.02.ch.03	Direct Debit for the Swiss direct debit procedure BDD

Order type	Message type	Definition / description
XE3	pain.008.001.02.chsdd.02	SEPA Direct Debit CORE (basic direct debit)
XE4	pain.008.001.02.chsdd.02	SEPA Direct Debit B2B (business-to-business direct debit)

Before performing a specific simulation, e.g., Generate Account Statement, several pain.001 and / or pain.008 messages can be uploaded to the test platform.

Please note that with payment-type-specific order types (such as 'YE1'), no validation is performed to ensure the EBICS order type matches the payment type of the pain.001 message, unlike in productive EBICS environments.

For any payment-type-specific simulations, the actual payment type in the pain.001 message is exclusively decisive.

3.4. Uploading an Excel file to simulate incoming payments

In order to be able to perform booking simulations for transfer and incoming payment transactions as well, the order type 'XT2' provides the option to upload the payment data required for the simulation.

Order type	Message type	Definition / description
XT2	MS Excel	Data for simulation of incoming payments

The currently available Excel templates for the incoming payment simulation (credit and debit) can be found in the test platform (menu: [Incoming payments](#), [Import example Excel](#), [Download](#)). Please adjust the default data in the templates to your test requirements.

3.5. Simulation / Generate Account Report (Camt.052, Camt.054)

To generate an account report, use the "FncRequestAcctReport" function in the control file on the 'XT1' order type.

Order type	Message type	Definition / description
XT1	unifitsSimControlV1	XML control file / here: Generating an account report

This function generates account report camt.052 and additionally camt.054 messages (if applicable) and makes them available for download via EBICS.

The definition options intended for the account report generation via the XML control file are described in this chapter. For all technical details on the XML control file, please refer to the XSD description which can be found in the test platform.

Message Item	Mult	Definition
SimulationControl +FncRequestAcctReport ++Account	0..n	Account Account for which a camt.052 is to be generated. If not specified, a camt.052 will be generated for each defined account (see FncInitialize). With batch bookings, one or several camt.054 will be additionally generated, based on the master data setting (see also FncInitialize).
SimulationControl +FncRequestAcctReport ++CreationTime	0..1	CreationTime 'Fictitious' time set as Creation Time in the generated messages. Must always be ascending if retrieved multiple times on the same booking date. If no time is specified, the system time will be used.

Example:

```
...  
<FncRequestAcctReport>  
  <Account>CH2801234000123456789</Account>  
</FncRequestAcctReport>  
...
```



Note:

Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

3.6. Simulation / Generate Account Statement (Camt.053, Camt.054)

To generate an account statement, use the "FncEndOfDay" function in the control file of the 'XT1' order type.

Order type	Message type	Definition / description
XT1	unifitsSimControlV1	XML control file / here: Generating an account statement

This function can be used to simulate the bank's batch run. This means that all payment data transmitted up until then (pain.001, pain.008, Excel) are booked to their respective accounts and the corresponding account statements are generated as camt.053 and additionally camt.054 (if applicable) and made available for download via EBICS.

If multiple accounts have been defined via **FncInitialize**, the EndOfDay processing / booking simulation is always done for all accounts.

The definition options intended for the account statement creation via the XML control file are described in this chapter. For all technical details on the XML control file, please refer to the XSD description which can be found in the test platform.

Message Item	Mult	Definition
SimulationControl +FncEndOfDay ++NextBookingDate	0..n	NextBookingDate The next booking date to be set after completion of the batch run. Should usually correspond to the next bank business day.
SimulationControl +FncEndOfDay ++CreationTime	0..1	CreationTime 'Fictitious' time set as Creation Time in the generated messages. Must always be ascending if retrieved multiple times on the same booking date. If no time is specified, the system time will be used.

Example (function activation / trigger only, no submission of parameters):

```
...
<FncEndOfDay/>
...
```



Note:

Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

3.7. Downloading Status Messages pain.002

During the upload of order files in the pain.001 and pain.008 format, a pain.002 based on the validation result is automatically generated and made available by the test platform.

Thus, the only prerequisite for the retrieval of a pain.002 message is the previous upload of at least one pain.001 or pain.008 message.

Order type	Message type	Definition / description
Z01	pain.002.001.03.ch.02	Mixed Status Report (payment, debit CHTA / SDD)
Z02	pain.002.001.03.ch.02	pain.001.001.03.ch.02
Z03	pain.002.001.03.ch.02	pain.008.001.02.ch.03
Z04	pain.002.001.03.ch.02	pain.008.001.02.chsdd.02

The optional element SplitPain002 of the **FncInitialize** function can be used to control whether pain.002 should be output separately, based on the original message. The value "true" is the default here, i.e., the order types 'Z02,' 'Z03' and 'Z04' are generated.

If the value is set to "false," the pain.002 messages will be collected and made available as 'Z01.'

Note: Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

3.8. Downloading Reporting Messages camt.052, camt.053, camt.054

The prerequisites for the retrieval of Camt messages are:

- Upload of the control file with the initialization request (see **FncInitialize**)
- Upload of pain.001 messages and / or pain.008 messages and / or payment data in the Excel template, so data for Camt generation will be available
- Upload of the control file for generating account reports (see **FncRequestAcctReport**) and / or the account statement (see **FncEndOfDay**)

Order type	Message type	Definition / description
Z52	camt.052.001.04	Account / balance report, intraday account activities
Z53	camt.053.001.04	Account statement, End of Day Report

Order type	Message type	Definition / description
Z53	camt.054.001.04	C53F: Batch booking details for account report (FI collects)
Z54	camt.054.001.04	C53C: Batch booking details for account report (customer collects)
Z55	camt.054.001.04	C52F: Batch booking details for balance report (FI collects)
Z57	camt.054.001.04	C52C: Batch booking details for balance report (customer collects)
Z54	camt.054.001.04	C53F: Batch booking details for account report (FI collects)

Note: Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

3.9. Downloading Validation Result (XML with comments)

If required, you can also download the XML messages updated with comments by the test platform during the validation.

For example, the pain.001 and pain.008 messages provided via upload to the test platform are marked with an ERROR comment and corresponding text in those places where error bookings have been detected. In addition to the pain.002 messages also made available for download, this can be helpful when analyzing error situations.

Order type	Message type	Definition / description
ZT1	pain.001.001.03.ch.02 pain.008.001.02.ch.03	Download of previously uploaded messages annotated with comments from the test platform



Note:

Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

3.10. Downloading the processing log

The processing log can be used to trace the processing of the control files. Since this log records errors in the control files, this information is an important tool when it comes to detecting the causes of deviations from the expected behavior.

The following information is output in the CSV format:

- Time of processing
- EBICS order number of submitted file
- EBICS order type of submitted file
- Status (ERROR, WARNING, OK)
- Additional detailed information in text format

Order type	Message type	Definition / description
ZT2	Log im CSV Format	Processing log



Note:

Please note that because of the way the system operates, the response files are generated asynchronously. Please plan for a waiting period of 20 seconds before retrieving files.

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