





Publication information

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1.0	3.02	January 2021	First version
2.0	3.03	May 2021	Preface restructured New Symbols used on the product section New SDD host added Updated some message segments descriptions •  What is new in publication version 2.0 (12)
2.1	3.03	July 2021	Reference to default PBP interface removed •  What is new in publication version 2.1 (12)
2.2	3.03	April 2022	Intended Use section updated •  What is new in publication version 2.2 (12)

 Revision history

Edition notice

This publication is intended for Host Interface programmers and Roche field engineers of the **cobas[®] infinity** central lab application.

Every effort has been made to ensure that all the information contained in this publication is correct at the time of publishing. However, the manufacturer of this product may need to update the publication information as output of product surveillance activities, leading to a new version of this publication.

Where to find information

The **User Guide** and the **User Assistance** focus on routine operation and configuration. The chapters are organized according to the normal operation workflow.

General attention

To avoid incorrect results, ensure that you are familiar with the instructions and safety information.

- ▶ Pay particular attention to all safety notices.
- ▶ Always follow the instructions in this publication.
- ▶ Do not use the software in a way that is not described in this publication.
- ▶ Store all publications in a safe and easily retrievable place.

Training

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For conditions of warranty, contact your local sales representative or refer to your warranty contract partner.

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Intended use

The **cobas[®] infinity** central lab software is intended to be used for:

- the configuration and connectivity management of instruments and software systems
- The management of data regarding
 - Samples
 - Technical validation including automatic release
 - Quality Control (both qualitative and quantitative)
 - Test results and their entry (offline workplaces)
- The management and storing of information, such as
 - Samples Archiving Storage information
 - Rule engine for technical validation
 - Notifications from any part of the system
 - Reagent and Calibrator management
 - Turn Around Time management
 - Production statistics

In addition to the above intended use, the **cobas[®] infinity** central lab software is intended for:

- The management of data regarding
 - Order Data
 - Patient Data for Clinical Labs
For Blood/Plasma Donor Screening Labs this functionality can be used to manage blood donor sample data
 - Medical Validation support for Clinical Labs
For Blood/Plasma Donor Screening Labs this functionality can be used to support two step validation processes/schemes
 - Result Consolidation and Reporting
 - Billing support
- The management and storing of information, such as
 - General statistics (Data Warehouse)
- Microbiology workflows and data for: (Microbiology module)
 - Human samples

cobas[®] infinity central lab is intended for Clinical Laboratories.

cobas[®] infinity central lab is intended for Blood/Plasma Donor Screening Laboratories (Excluding U.S.).

Use environment and intended users

cobas[®] infinity central lab is intended for Clinical Laboratories.

cobas[®] infinity central lab is intended for Blood/Plasma Donor Screening Laboratories (Excluding U.S.).

You can find different user profiles using the **cobas[®] infinity** central lab software.

Lab Technician

Lab technicians utilize the solution to perform technical validation on patient and QC results, manually edit orders (add or remove tests, edit patient-demographic data), enter patient and QC results that have been obtained from offline workplaces, print-out patient and QC reports, archive samples, retrieve samples from the archive, etc. Access level depends on specific user rights.

Lab Physician/Director

Lab Physicians/Directors utilize the solution to check technically validated results, search for samples or test results on patient results, and add comments to the results or order. Access level is depending on specific user rights.

Lab IT Admin

Lab IT Administrators maintain users and authorization, and maintain tests and senders.. Access level will depend on specific user rights.

GP/Hospital doctor/Hospital nurse/Community nurse

These users are not employees of the laboratory; thus their access is restricted to the Lab Link module only. They enter orders manually within the Lab Link module, release print-outs of barcode labels for the tubes for positive patient/sample identification, release print-outs of reports for the patient for blood drawing, and view and print the patient result report of their patients.

Phlebotomist

These users are employees of the laboratory, but their access is restricted to the Lab Link module only. Phlebotomists confirm in the software that the samples have been taken according to the order.

IT Manager

- Network and security configurations
- WLAN device configuration security type EAP
- EAP Settings management (EAP settings and EAP settings assignment)

Roche Service representative (global and local)

Roche Service representatives configure the system and master data (test, test groups, senders, instruments, reports, interfaces, etc.) according to specific requirements of the customers with regards to connected hosts, instruments, and sample workflow. Access level depends on specific user rights.

Symbols and abbreviations

Product names






Except where the context otherwise requires, the following product names and abbreviations are used.


Product name	Descriptor
cobas® infinity central lab	software

 Product names

Symbols used in the publication






The following symbols are used.


Symbol	Explanation
	Code example. Used in code titles and cross-references to codes
•	List item
	Tip. Extra information on correct use or useful hints
	Related topics containing further information
	Figure. Used in figure titles and cross-references to figures
	Table. Used in table titles and cross-references to tables

 Symbols used in the publication

Symbols used on product

The following symbols are used on product.

Symbol	Explanation
	Global Trade Item Number
	Date of manufacture
	Manufacturer
	Consult instructions for use
	Consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself

 Symbols used on product

Abbreviations

The following abbreviations are used.

Abbreviation	Definition
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
CLSI	Clinical and Laboratory Standards Institute (formerly known as the National Committee for Clinical Laboratory Standards [NCCLS])
GUID	Global Unique Identifier
HL7	Health Level 7

 Abbreviations

Abbreviation	Definition
IM	Instrument Manager™
ISO	International Standards Organization
LIS	Laboratory Information System
LOINC	Logical Observation Identifiers Names and Codes
MLLP	Minimal Lower Layer Protocol
OSI	Open System Interconnection
QC	Quality Control
TCP/IP	Transmission Control Protocol / Internet Protocol
UCUM	Unified Code for Units of Measure
UL	Underwriters Laboratories Inc.

☰ Abbreviations

What is new in publication version 2.2

The following changes have been made.

Preface section Intended Use has been updated.

What is new in publication version 2.1

The following changes have been made.

Preface section Reference to default PBP interface removed.

What is new in publication version 2.0

The following changes have been made.

Preface section Preface section restructured.


Symbols used on the product section Contact addresses section updated.
Section about symbols used on the product added.

Host added About this document section updated with new SSD default host.

Message segments Description of some message segment updated.

Scope of publication version 1.0

This publication documents the configuration of the SSD host interface provided with **cobas® infinity** central lab version 3.02.08 onwards (excluding 3.03.00 and 3.03.01).


 If you require information about the configuration of other communication protocols supported by the software, talk to your Roche Service representative.

About this document

This document describes the SSD host interface provided by **cobas® infinity** central lab. The interface contains a set of preconfigured messages for the exchange of information between **cobas® infinity** central lab and the SsdwLab 6 software. The structure and syntax of the messages are detailed in the following sections.

A separate host interface manual is available for each of the following default interfaces. Use the manual that applies to your interface.

Default interface	Description
HL7 default	Default HL7 interface
IM_ASTM	ASTM interface from Instrument Manager™
IM_HL7	HL7 interface from Instrument Manager™
HL7_PSM	HL7 interface from PSM
ASTM_PSM	ASTM interface from PSM
Omega	Default interface for data exchange between cobas® infinity central lab and Omega LIS
BIO-RAD	Default interface for bidirectional exchange of QC data between cobas® infinity central lab and the UnityConnect™ software from BIO-RAD
eQC	Default interface designed to send QC results to a LIS/HIS via FTP server
astraiia	Default astraiia interface
SSD	Default SSD interface

 Default interfaces

⚠ WARNING**Incorrect message format**


If an external host sends messages not according to the communication standards used by **cobas® infinity** central lab, it can lead to delayed and/or incorrect results.


- ▶ When exchanging data with **cobas® infinity** central lab, ensure that the message format complies with the communication standards used by **cobas® infinity** central lab.
-

⚠ CAUTION**Host connection**

Incorrect configuration of the host connection can cause loss of data, or delay patient results.

- ▶ Ensure that the host connection is correct at all time.
-

 The default interface is configurable. If you wish to modify the default messages, or add additional messages, contact your Roche Service representative.

 **cobas® infinity** central lab supports multiple protocols by default. If you require a protocol not supported by default, contact your Roche Service representative.

SSD host reference

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SSD host protocol

This chapter provides an overview on the SSD host and describes the default settings supported by the software.

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About the SsdwLab 6 interface and HL7

The SsdwLab 6 software interface communication is based on the HL7 protocol. HL7 is an ANSI accredited organization dedicated to developing standards for the exchange of electronic health information. The organization's mission is to improve the interoperability of software applications used by the health care industry.

HL7 standards

In regular meetings called HL7 Work Group, HL7 members discuss and document how healthcare-related information should be exchanged between disparate healthcare applications.

HL7 is the most acknowledged standard in the healthcare industry for exchanging health information. HL7 currently considers the following as its primary standards based on their widespread use.

- **Version 2.x and Version 3 Messaging Standard** – interoperability specifications for health and medical transactions.
 - **Clinical Document Architecture (CDA)** – an exchange model for clinical documents, based on HL7 Version 3.
 - **Continuity of Care Document (CCD)** – a US specification for the exchange of medical summaries, based on CDA.
 - **Structured Product Labeling (SPL)** – specifications for the published information that accompanies a medicine, based on HL7 Version 3.
 - **Clinical Context Object Workgroup (CCOW)** – an interoperability specification for the visual integration of user applications.
- For more detailed information about HL7 standards, refer to www.hl7.org.

OSI model

In the OSI model of the ISO, the functions of both communication software and hardware are separated into 7 layers, or levels.

The “7” in HL7 refers to the seventh, or application, layer of the OSI model. The application layer serves as the work area for users to access network services. It includes commonly needed functions including:

- Remote file access
- Supply sharing
- Network management
- Directory services
- Remote printer access
- Electronic messaging (e.g. email)
- Network virtual terminals

HL7 provides definitions for the data to be exchanged, the timing of the data exchanges, and the communication of application-specific errors between applications.

Limitations

The SsdwLab 6 does not provide or support the following functionality.

- *Security* - SSD host does not provide for the enforcement of the user's security policies and does not specify a specific encryption method.
- *Confidentiality* - SSD host does not address this issue and makes no assumption about the use of the data at the source or destination of a message.
- *Accountability* - SSD host does not define transaction processing features needed in the user's environment.

⚠ WARNING

Unauthorized access to confidential data

The SsdwLab 6 protocol supported by the system does not provide any integrity protection and encryption beyond TCP-mediated control of data flow. The connection is therefore vulnerable to unauthorized access.

- ▶ Ensure that the connection is secured and protected against unauthorized access (physical access protection, network security).
 - ▶ Restrict physical access to the system.
 - ▶ Read the respective safety information on data security provided along with this product.
-

⚠ WARNING**Disclosure of confidential data**

Unauthorized users can view confidential data in an SsdwLab 6 message when entered as unencrypted (plain) text.

- ▶ Do not enter any confidential data as plain text.
 - ▶ Restrict physical access to the system.
 - ▶ Read the respective safety information on data security provided along with this product.
-

Default settings

Supported HL7 version

Default settings of the SsdwLab 6 software interface are explained below.

By default, The SsdwLab 6 host is configured to send and receive HL7 messages compliant with HL7 version 2.5. If you wish to change the default configuration to support HL7 version 2.3, talk to your Roche Service representative.

Minimal Lower Layer Protocol

The Minimal Lower Layer Protocol (MLLP) is the standard for transmitting SSD host messages via TCP/IP. When using MLLP, an SSD host message is sent in 1 block. Framing characters wrap the message to mark its beginning and end. They do not belong to the content of the message.

[VT]

```
MSH|^~\&|SSD||ROCHE_MW||
20210108102400||ACK|1S225b [CR]
MSA|CA|6B601D60-8BB1-44CF-AEE1-AB6ADB041A89|Accept
Success Text [CR]
```

[FS] [CR]

 SSD host message with framing characters in brackets

Function	Character	ASCII code
Message start	VT (vertical tab)	11
Message end	FS (file separator)	28
	CR (carriage return)	13
Segment end	CR (carriage return)	13

 Supported framing characters

If the host does not support the standard framing characters, they are configurable in [Administration > HCA > Protocols](#).




The software only sends 1 message block at a time.

Time intervals

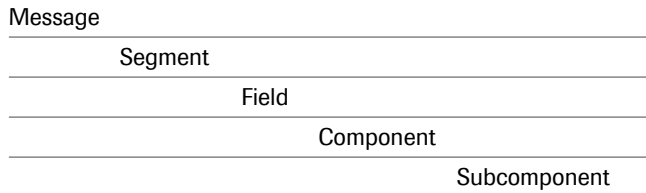
The software defines the following time intervals when communicating with a host.

Parameter	Interval	Description
Reading time	0.5 sec	Maximum time allowed for the sending/receiving software to check whether a connection can be established. Configurable in Administration > HCA > Protocols
Waiting time	15 sec	Interval required to elapse before the software sends or reads a message. Configurable in Administration > HCA > Protocols

 Time intervals

About the SSD host elements

Data in an SSD host message is organized hierarchically.



☐ SSD host message hierarchy

Message

SSD host defines different types of messages for specific purposes. A message is defined as an entire unit of data transmitted between sender and receiver. A message is triggered by a real event which generates a workflow (e.g. availability of a test result to be sent to the host).

Segments

Each line of an SSD host message is a segment. Segments can be required or optional, and occur only once or repeatedly in a message. Each segment starts with a 3-character string (ID) that defines the segment type. The ID contains only printable characters (ASCII 32–126).

Fields

Each segment consists of fields. A field contains information about 1 specific attribute of the segment. Fields may be required, optional, or conditional, and may occur only once or repeatedly.

Components and subcomponents

Fields are subdivided into components that refer to a logical set of characters within a field. Components can be further divided into subcomponents.

Delimiters

Encoding characters, or delimiters, define how data is separated in a message. Delimiters are not part of the message content.

When sending messages:

- The software sends the following delimiters in the fields MSH-1 and MSH-2.

Delimiter	ASCII code	Function
	124	Separates fields
^	94	Separates components
~	126	Separates repetitions
\	93	Indicates the escape character
&	38	Separates subcomponents

 Delimiters

When receiving messages:

- The software reads the delimiters from the incoming message.
- It is not necessary to send the delimiters in MSH-1 and MSH-2. The software ignores the 2 fields.

 The field and component delimiters are configurable in [Administration > HCA > Protocols](#).


Data type

SSD host data types define the type of data that can be included in a field. A data type may contain additional data types that are referenced as components or subcomponents. 2–3 letter codes are used to specify the data type. Supported data types by the software are listed below.

Data type	Description
CE	Coded Element
CWE	Coded with Exceptions
CX	Extended Composite ID with Check digit
EI	Entity Identifier
FN	Family Name
FT	Formatted Text
HD	Hierarchic designator
ID	Coded Values for SSD host tables
INT	Integer
IS	Coded Value for User-Defined Tables
MSG	Message Type
PL	Person Location
PT	Processing Type
SAD	Street Address
SI	Sequence ID
ST	An alphanumeric string with a maximum length of 199 if not otherwise stated.
TQ	Coded Values for SSD host tables

 SSD host data types

Data type	Description
TS	Time Stamp. The default format is: YYYYMMDDHHMMSS <ul style="list-style-type: none"> • YYYY is the four-digit Gregorian year • MM is the month • DD is the day. • HH is the hour, as 24-hour military time. • MM is the minute. • SS is the second. Note: Seconds (SS) are optional. Note: by default, the software does not support the addition of the time zone (+HHMM/-HHMM).
TX	Text Data
VID	Version Identifier
XAD	Extended Address
XCN	Extended Composite ID Number and name for persons
XPN	Extended Person Name
XTN	Extended Telecommunication Number

 SSD host data types

Transmitting the null value

The "null" value is transmitted as 2 double quote marks (" "), which is relevant when a message is sent to update a record. If no value is sent (i.e. omission of an optional field), the old value remains unchanged. If the null value is sent, the old value is changed to null.

Cardinality and usage

Both cardinality and usage determine the appearance of SSD host elements (segment, field, component) in a message.

- Cardinality defines the minimum and maximum number of element repetitions.
- Usage further defines the circumstances under which an element appears in a message (optionality).

Some elements must always be present, others may never be present, and others may only be present under certain circumstances. The following codes are used to indicate the usage of fields in a segment.

Value	Description
R	Required
RE	Required but may be empty
O	Optional
C	Conditional
B	Backward compatible
CE	Conditional but may be empty
-	Not supported

 Field usage

In addition, square and curly brackets indicate appearance and repetition of segments and segment groups in the SSD host message structure trees.

Value	Description
[..]	0 or 1 occurrence
{..}	1 or multiple occurrences
[{..}]	0 or multiple occurrences

Directionality

This publication visualizes the directionality of SSD host segments/messages by different colors as illustrated below:

Incoming message (software<-host)

Outgoing message (software->host)

Message with unspecified directionality

SSD host messages

This chapter describes the structure of the messages supported by the SsdwLab 6 software.

In this chapter

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Messages sent by the software

This section describes the default messages sent from the software to the host.

Changing field values

To change the default value of a field, do the following:

1. Choose **Administration > HCA > Host message config.**
2. Select a configuration.
3. Choose the **Send** button.
4. Change the value of the field you wish to change.

 Fields that are not supported by the software are omitted in the following message structure tables.

In this section

OUL^R21 (patient result) (32)

OUL^R21 (patient result)

The OUL^R21 message is enabled by default.

Segment code	Segment name	Link to segment
MSH	Message header	MSH (32)
PID	Patient identification	PID (33)
NTE XXX	Notes and comments	NTE (34)
SAC	Specimen Container Detail	SAC (35)
ORC	Common order	ORC (35)
{OBR}	Observation request	OBR (36)
{OBX}	Observation result	OBX (37)
TCD XXX	Test Code Details	TCD (38)
SID	Substance Identifier	SID (38)
[NTE]	Notes and comments	NTE (38)

Patient result structure

```
MSH|^~\&|cobas infinity 3.3.0|Roche Diagnostics|Receiver Application|Receiver Facility|20200713153517||OUL^R21^OUL_R21|6B601D60-8BB1-44CF-AEE1-AB6ADB041A89|P|2.5|||ER|ER||UTF-8
PID|1|PatID-1|PatID-1|Surname1^Name1||M
SAC|000111|000111
ORC|RE|000111|000111|||^^^^^R|20200713153517|||^^^0^^^^^Laboratory 1
OBR|1|000111|000111|ALL|R|20200713153516|||1^^^^^P
OBX|1|NM|FBHCG|40|IU/L|MR||F||20200713153517|||c8k1..MU1-c701-1-1|20200713153517
```

Patient result (OUL^R21) message

Field	Component	Element Name	Data Type	Usage	Maximum Length	Description	Fixed values
MSH-0		Message Header Segment		R	3	Identifier for MSH segment	MSH
MSH-1		Field Separator	ST	R	1	Field separator to be used for the rest of the message.	
MSH-2		Encoding Characters	ST	R	4	4 delimiters in the following order: component, repetition, escape, and subcomponent separator	^~\&
MSH-3		Sending Application	HD	O	227	The field uniquely identifies the sending application. The value consists of the product name (e.g.cobas infinity) and the LIS version.	
MSH-4		Sending Facility	HD	O	227	The field further describes the sending application.	Roche Diagnostics
MSH-5		Receiving Application	HD	O	227	This field uniquely identifies the receiving application among all other applications within the network enterprise. If you wish to change the value of this field, talk to your Roche Service representative.	Receiver Application

MSH

Field	Component	Element Name	Data Type	Usage	Maximum Length	Description	Fixed values
MSH-6		Receiving Facility	HD	O	227	This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations. If you wish to change the value of this field, talk to your Roche Service representative.	Receiver Facility
MSH-7		Date/Time of Message	TS	R	26	Date/time when the sending software created the message. Format: YYYYMMDDhhmmss	
MSH-9		Message Type	MSG	R	15	Message type and trigger event	OUL^R21^OUL_R21
MSH-10		Message Control ID	ST	R	20	GUID generated by the software to uniquely identify the message.	
MSH-11		Processing ID	PT	R	3	The field indicates whether the message is processed according to SSD host (level 7) Processing rules. Supported value: • P = Production	P
MSH-12		Version ID	VID	R	60	HL7 version used to write, interpret, and validate the message.	
MSH-15		Accept Acknowledgment Type	ID	R	2	Supported value: • ER = Error/reject conditions only	ER
MSH-16		Application Acknowledgment Type	ID	O	2	Supported value: • ER = Error/reject conditions only	ER
MSH-18		Character Set	ID	R	16		UTF-8

MSH

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
PID-1		Patient Identification Segment		R	3	Identifier for PID segment	PID
PID-2		Set ID - Patient ID	SI	O	4	Segment number: the software supports only 1 PID segment.	1
PID-3		Patient ID (ExtPatientID)	ST	R	50	Patient ID received from the host	
PID-4		PatientID1	ST		50	Patient ID. Identical to PID-3, if the patient ID received from the host matches the format configured in Administration > Patient management > Patient ID1 . Otherwise, the software creates a new patient ID to match the configured format.	
PID-6.1		Last Name	FN			Patient's last name	
PID-6.2		First Name	ST			Patient's first name	

PID

Field	Component	Element Name (1)	Data Type	Usage	Maximum Length	Description	Fixed values
PID-6.3		Middle Name	ST			Patient's middle name	
PID-8		Date of Birth	TS	R	26	Patient's date of birth	
PID-9		Sex	IS	O	1	Patient's gender. Supported values are: <ul style="list-style-type: none"> F = Female M = Male U = Unknown O = Generic 	
PID-11		Race	ST	O	50	Ethnicity. Supported values are: <ul style="list-style-type: none"> 1 = Generic 2 = Black 3 = White 4 = Asian/Pacific islander 5 = American native/Alaskan native 6 = Hispanic 	
PID-12		Patient Address	XAD	O	250		
PID-13		Country	ST	O	50		
PID-18		Religion	ST	O	50		

☰ PID

(1) Name in brackets reflects terminology used by the software.

Field	Element Name	Data Type	Usage	Maximum Length	Description	Fixed values
NTE-1	Notes and Comment segment		R	3	Identifier for NTE segment	NTE
NTE-2	Set ID - NTE	SI	R	4	1 for the first NTE, 2 for the second, etc.	
NTE-3	Source of Comment	ID	R	8	The software sends the following value: <ul style="list-style-type: none"> L = Ancillary (filler) department is source of comment. 	L
NTE-4	Comment (TextComment)	FT	R	32000	The field contains the comment (human-readable description)	

☰ NTE

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
SAC-1		Specimen Container Detail Segment		R	3	Segment identifier for SAC segment	SAC
	SAC-3.1	Accession Identifier (ExtSampleID)	ST		50	Order ID received from the host	
SAC-4		Container Identifier (ExtContainerID)	ST	C	50	Sample ID. The barcode of the tube	
SAC-10		Carrier Type (ExtInstrumentID)	ST	C	50	Identifier for the analyzer sent by the host	
SAC-12		Position in Carrier (RackPosition)	INT	C	4	Position of the tube in the rack	

☰ SAC

(1) Name in brackets reflects terminology used by the software.

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
ORC-1		Common Order segment		R	3	Identifier for ORC segment	ORC
ORC-2		Order Control	ST	R	50	Supported value: <ul style="list-style-type: none"> RE = Observations/Performed Service to follow 	RE
ORC-3		Accession Identifier (ExtSampleID)	ST	O	50	Order ID received from the host	
ORC-4		Container Identifier (ExtContainerID)	ST	R	50	Sample ID. The barcode of the tube	
OCR-8.6		Priority (ApplicationID)	INT	R	1	The software supports the following values: <ul style="list-style-type: none"> R = Routine S = STAT M = Microbiology 	
ORC-10		Date/Time of Transaction	TS	O	26	Date and time of the event that initiated the current transaction	
ORC-13.1		ID Number (Doctor)			50	Defined in Administration > Import/export > Assign host config. > Demographics > Values.	
ORC-13.2		Family Name (DoctorDesc)	FN		255	Doctor Description. Free text defined in Administration > Import/export > Assign host config. > Demographics > Values. The doctor description can consist of any number of components.	
ORC-14.4		Facility (Location)	ST	O	50	Order demographic value. Defined in Administration > Import/export > Assign host config. > Demographics > Values	

☰ ORC

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
ORC-14.9		Location Description (LocationDesc)	ST	O	255	Text description of Location. Free text defined in Administration > Import/export > Assign host config. > Demographics > Values.	
ORC-18.1		Identifier (Service)				Defined in Administration > Import/export > Assign host config. > Demographics	
ORC-18.2		Text (ServiceDesc)				Human-readable description of the service. Defined in Administration > Import/export > Assign host config. > Demographics	

ORC

(1) Name in brackets reflects terminology used by the software.

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
OBR-1		Observation Request segment		R	3	Identifier for OBR segment	OBR
OBR-2		Set ID - OBR	SI	R	4	1 for the first OBR, 2 for the second, etc.	
OBR-3		Entity Identifier (ExtSampleID)	ST	O	50	Order ID received from the host.	
	OBR-4.1	Container Identifier (ExtContainerID)	ST		50	Sample ID. The barcode of the tube	
OBR-5		Universal Service Identifier	CE		250	Identifier code for the requested observation/test/battery	
OBR-5		Identifier					ALL
OBR-6		Priority - OBR(ApplicationID)	INT		1	Supported values: • R = Routine • S = STAT	
OBR-7		Requested Date/Time	TS		26	Format: YYYYMMDDhhmmss	
OBR-16.1		Specimen SourceName or Code (ExtSpecimenID)	ST	C	50	Sample ID received from in from the externalhost.	
OBR-16.7		Additives				Fixed value	P

OBR

(1) Name in brackets reflects terminology used by the software.

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
OBX-1		Observation Result segment		R	3	Identifier for OBX segment	OBX
OBX-2		Set ID - OBX	SI	O	4	1 for the first OBX, 2 for the second, etc.	
OBX-3		Value Type (ValueResult)	ID	C	2	Format of the observation value in OBX segment. Supported values: <ul style="list-style-type: none"> NM = Numeric ST = String data 	
OBX-4		Identifier (ExtTestID)	ST		20	Test ID used by the host	
OBX-5		Observation Sub-ID (LinkageID)	ST		20	This field is used to distinguish between multiple OBX segments with the same observation ID organized under one OBR	
OBX-6		Observation Value (ValueResult)	ST	R	50	The value of the test result	
OBX-7		Units (Primary Unit)	CE	O	250	Units of the result reported in OBX-5. Primary unit, defined in Administration > Tests > Tests	
OBX-9		Abnormal Flags (Flag)	ST	O	50	Normalcy status of the result. Configured in Administration > Import/export > Assign host config. > Notifications	
OBX-12		Observation Result Status (Rerun)	ID	R	1	Supported value: <ul style="list-style-type: none"> F = Final results; can only be changed with a corrected result. C = Record coming over is a correction and thus replaces a final result 	
OBX-15		Date/Time of the Observation	TS	O	26	Date/time when the result arrives in the software, or the test was done on the instrument depending on the functionality of the instrument driver.	
OBX-17		Responsible Observer (OperatorID)	ST	O	50	Identifier for the operator using the analyzer	
OBX-19		ExtInstrumentID InstrumentModuleID	ST	O	50	This field contains the instrument ID followed by the instrument module ID. You can optionally separate the 2 values by a linking character (e.g. "."). You define the linking character in Administration > HCA\Host-Message config > Send > Configuration	
OBX-20		Date/Time of theAnalysis	TS	O	26	This field is used to transfer the time stamp associated with generation of the analytical result by the instrument specified in Equipment Instance Identifier.	

OBX

(1) Name in brackets reflects terminology used by the software.

Field	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
TCD-1	Test Code Detail			3	Identifier for TCD segment	TCD
TCD-2	Universal Service Identifier (ExtTestID)	ST	O	50	Test ID sent by the host	
TCD-3	Auto-Dilution Factor (DilutionFactor)		O	50	Dilution factor to send to the instrumentFormat:InstrumentCode.InstrumentNumber.DilutionFactor	

☰ TCD

(1) Name in brackets reflects terminology used by the software.

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
SID-1		Substance Identifier			3	Identifier for SID segment	SID
SID-2		Application / Method Identifier					
	SID-2.1	Identifier (ExtTestID)	ST	O	50	Test ID sent by the host	
	SID-2.4	Alternate Identifier (ReagentType)	ST	O	50	ID of reagent	
SID-3		Substance Lot Number (QCTestLotR1)	ST	O	50	Lot number for reagent 1	
SID-4		SID-3 Substance Container Identifier (QCBottleSerialNumber)	ST	O	500	Bottle serial number	

☰ SID


(1) Name in brackets reflects terminology used by the software.

Field	Element Name	Data Type	Usage	Maximum Length	Description	Fixed values
NTE-0	Notes and Comment segment		R	3	Identifier for NTE segment	NTE
NTE-1	Set ID - NTE	SI	R	4	1 for the first NTE, 2 for the second, etc.	
NTE-2	Source of Comment	ID	R	8	The software sends the following value: <ul style="list-style-type: none"> ↳ = Ancillary (filler) department is source of comment. 	L
NTE-3	Comment (TextComment)	FT	R	32000	The field contains the comment (human-readable description).	

☰ NTE

Messages received by the software

This section describes the structure of the default messages accepted by the software.

 Fields that are ignored by the software are omitted in the following message structure tables.

In this section

ACK (39)

ACK

Segment code	Segment name	Link to segment
MSH	Message header	MSH (39)
MSA	Message acknowledgment	MSA (40)
[ERR]	Error	ERR (41)

ACK structure

```
MSH|^~\&|SSD||ROCHE_MW||20210108102400||ACK|1S225b MSA|CA|6B601D60-8BB1-44CF-AEE1-AB6ADB041A89|Accept Success Text
```

ACK message

Field	Component ⁽¹⁾	Element Name ⁽²⁾	Data Type	Usage	Maximum Length	Description	Fixed values
MSH-0		Message Header Segment		R	3	Identifier for MSH segment	MSH
MSH-1		Field Separator	ST	R	1	Field separator to be used for the rest of the message Delimiters (24)	
MSH-2		Encoding Characters	ST	R	4	4 delimiters in the following order: component, repetition, escape, and subcomponent separator Delimiters (24)	^~\&
MSH-3		Sending Application	HD	R	227	The field uniquely identifies the sending application.	
MSH-3		System Name					
MSH-4		Sending Facility	HD	O	227	The field further describes the sending application	
MSH-5		Receiving Application	HD	R	227		
MSH-6		Receiving Facility	HD	O	227	The field uniquely identifies the receiving application.	

MSH

Field	Component ⁽¹⁾	Element Name ⁽²⁾	Data Type	Usage	Maximum Length	Description	Fixed values
MSH-7		Date/Time of Message (MessageDate, MessageHour)	TS	R	26	Date/time when the sending system created the message.	
MSH-9		Message Type	MSG	R	15	Message type and trigger event	
	MSH-9.1	Message Type	ID	R			ACK
	MSH-9.2	Trigger Event	ID	O			
MSH-10		Message Control ID	ST	R	20	GUID generated by the system to uniquely identify the message.	

MSH

(1) Name in brackets reflects terminology used by the software.

(2) Name in brackets reflects terminology used by the software.

Field	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
MSA-0	Message Acknowledgment Segment		R	3	Identifier for MSA segment	MSA
MSA-2	Acknowledgment Code	ST	R	50	Supported codes: <ul style="list-style-type: none"> AA = Original mode: Application Accept - Enhanced mode: Application acknowledgment: Accept AE = Original mode: Application Error - Enhanced mode: Application acknowledgment: Error AR = Original mode: Application Reject - Enhanced mode: Application acknowledgment: Reject CA = Enhanced mode: Accept acknowledgment: Commit Accept CE = Enhanced mode: Accept acknowledgment: Commit Error CR = Enhanced mode: Accept acknowledgment: Commit Reject 	
MSA-3	Message Control ID (OriMessageControlID)	ST	R	36	Copy of MSH-10 of the original messages sent by the system	

MSA

(1) Name in brackets reflects terminology used by the software.

Field	Component	Element Name ⁽¹⁾	Data Type	Usage	Maximum Length	Description	Fixed values
ERR-0		Message Header Segment		R	3	Identifier for ERR segment	ERR
ERR-4.2		Text (ErrorCondition)			50	The software stores the content of this field in its database. See Monitoring > HCA > Message monitoring	

ERR

(1) Name in brackets reflects terminology used by the software.

Appendix

Appendix

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External tests mapping

The following table suggests the test mappings between **cobas[®] infinity** central lab and the SSD host, to be configured in the **External ID** field in the **Administration > Import/Export > Assign host config. > Tests** screen:

Test	Suggested mapping
PAPP-A	PAPPA
Free Beta HCG	FBHCG
Alpha-fetoprotein	AFP
Full-HCG	HCG
Unconjugated Estriol-3	UE3
Inhibin-A	INHA
PLGF	PLGF

☰ Suggested tests mapping

Order control codes

Order control codes determine the function of the ORC segment.

Value	Description
NW	New order/service

☰ Order control codes

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