Manual

ZAF 552

Zafena POC Workstation for medical devices

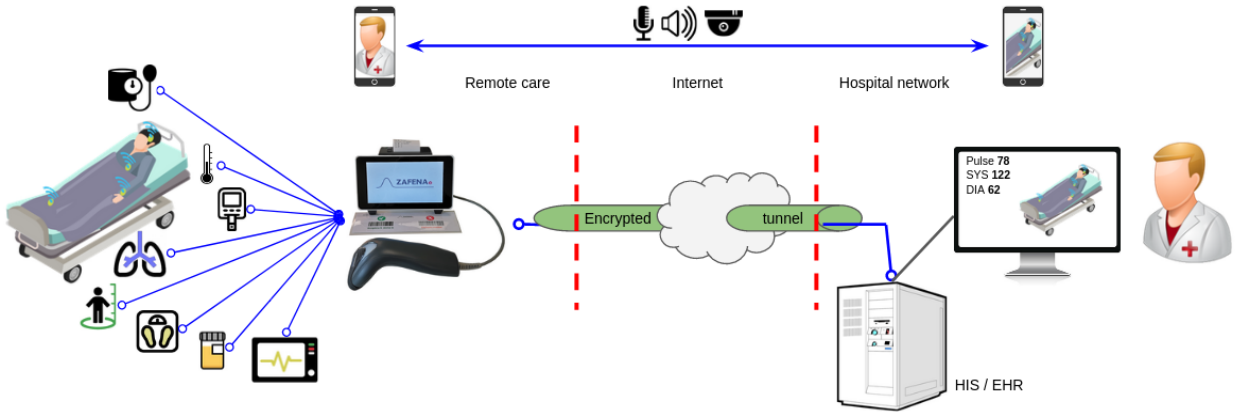
Contents

Modular POC instrument

Zafenas Poc-Workstation forms modern, patient-centered (POC) instruments together with analytical IVD equipment which is in itself analytically sound, but in terms of IT substandard. Formed POC instruments meet today's healthcare requirements for data processing, documentation and data communication, and can be updated to meet future requirements for IT support.

Zafena POC-Workstation and analysis module together form a modular instrument. It is a patented creation consisting of:

1) IT module (POC-Workstation),
2) analysis module,
3) barcode reader connected to POC-Workstation, and
4) barcode label (instrument tag) attached to the analysis module.



When the label (tag) is read with the barcode reader, the desired IT support is activated (selected) from many possible IT supports stored in the POC-Workstation's memory, at the same time information about the analysis module's unique identity can be transferred to the POC-Workstation. After the desired IT support has been activated, the operator is instructed, step by step, by POC-Workstation, on how to perform the analysis. Depending on which IT support is desired, different IT support for a particular analysis module can be obtained.

Desired / necessary supplementary information, such as the identity of the sample, the identity of the patient and the identity of the operator, is supplied with the bar code reader, or if desired with a connected keyboard or POC-Workstation touch function.

A modular POC instrument offers obvious practical and economic advantages over a conventional, monolithic, POC instrument. The technical life of analytical modules can be significantly extended, which greatly reduces the training needs of operators. In addition, a POC workstation can provide IT support for several analysis modules, and IT support can be easily updated. In several ways, costs are reduced.

Any analytical equipment such as digital (USB, Wifi, Bluetooth or serial) can deliver analysis results, for example to a printer, acts as an analytical module. Information about which analysis module, type and / or individual, and which data support is desired, POC-Workstation receives by reading a bar code attached to the analysis module. POC-Workstation informs about what supplementary information (patient ID, sample type, operator ID, etc.) is needed. After the operator has approved the analysis, the result is automatically packaged together with supplementary information and sent via network to one or more information systems (LIS / HIS) within healthcare. POC-Workstation locally documents all information received and sent as well as information about the status of the transmission.

Zafena POC-Workstation connects to networks and can interact with a variety of network services.

A typical network in healthcare may include network services and information systems as shown above. Zafena's POC-Workstation can then interact with the network and information systems (LIS / HIS of various kinds) in the following way:

- Zafena POC-Workstation sends its unique MAC address to the network's DHCP server which then, if communication is allowed, informs POC-Workstation about which IP address, Subnet mask, DNS server, Gateway and Host name to use.

- The DNS server translates the IP address into a network name or vice versa.
  The name or IP address of the LIS / HIS server is required for the POC-Workstation to be able to find the server on the network. The DNS server acts as the network directory of the network.

- Zafena POC-Workstation can synchronize its internal clock with any "time server" (NTP server).

- Zafena POC-Workstation sends packaged information with analysis results and supplementary information to LIS / LIMS server with secure bidirectional communication according to well-standardized protocols such as "ASTM LIS02-A2", "POCT1A", "HL7", "xml" or "FHIR". POC-Workstation is informed whether the transfer was successful or not. If not, POC-Workstation allows retransmission attempts.

- Zafena POC-Workstation can connect and in parallel handle up to three wired analysis instruments, as well as several via Bluetooth and / or wifi.

Statutory and regulatory requirements

Zafenas POC-Workstation (ZAF-552) is classified as an "Accessory" to a "General In Vitro Diagnostic
Medical Device" under Directive 98/79 / EC (in vitro diagnostic medical devices) in accordance with the Directive and the Swedish Medicines Agency's regulation LVFS 2001: 7.

*A fundamental difference between an "Accessory" and an IVD product is that the accessory on its
own cannot provide diagnostic information.*

An accessory must be considered as an IVD product by regulation and thus CE-marked as such. However, no registration with the Medical Products Agency is required for an accessory. For Zafena's POC-Workstation (ZAF-552), Zafena EMC must test, quality assure, risk assess, CE mark and follow up deviations prescribed for "Accessories" for IVD product.

The software (ZAF-505-2 located on the camera memory inserted in the ZAF-552) also counts as an accessory. Many medical devices must have accessories in order to be used according to their purpose. Stand-alone software that is an accessory to a medical device is not in itself a medical device, but it must still meet the same requirements as set out in the regulations on the medical device. Zafena must risk assess potential errors that the ZAF-505-2 software may cause, ensure the quality of the software regularly with automatic tests, CE mark the software and follow up the deviations that are reported when the software is used as an "Accessory" together with an IVD product.

Zafena has EMC tested the product to meet requirements.
Document *EMC TEST REPORT 17108* issued by KEMET SWEDAC accredited test laboratory.
Zafena CE marks the product after approved installation and testing in accordance with installation instructions.
Zafena documents the product's MAC address before shipment to the customer to enable traceability and deviation follow-up.

Method

1. Scan Instrument to be used

2. Scan Patient ID or Sampling ID

3. Perform analysis according to the manufacturer instructions

4. The result is displayed The in EHR / LIS / Middleware

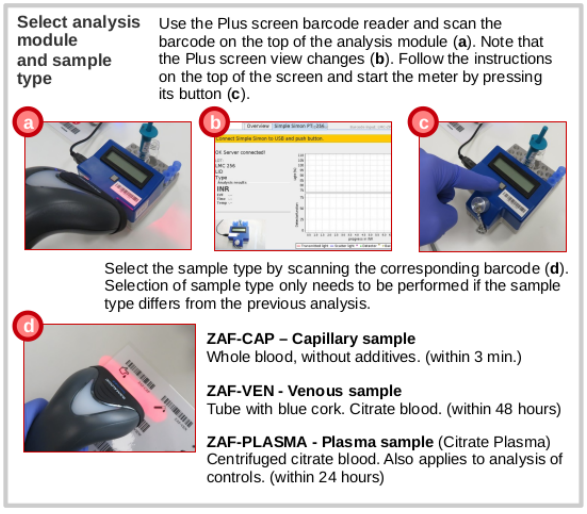
1. Use the barcode reader connected to the POC-Workstation to scan the instrument tag (barcode) on the desired analysis instrument. The barcode on the instrument activates the correct view in the POC-Workstation which is getting ready to receive result data from the meter.

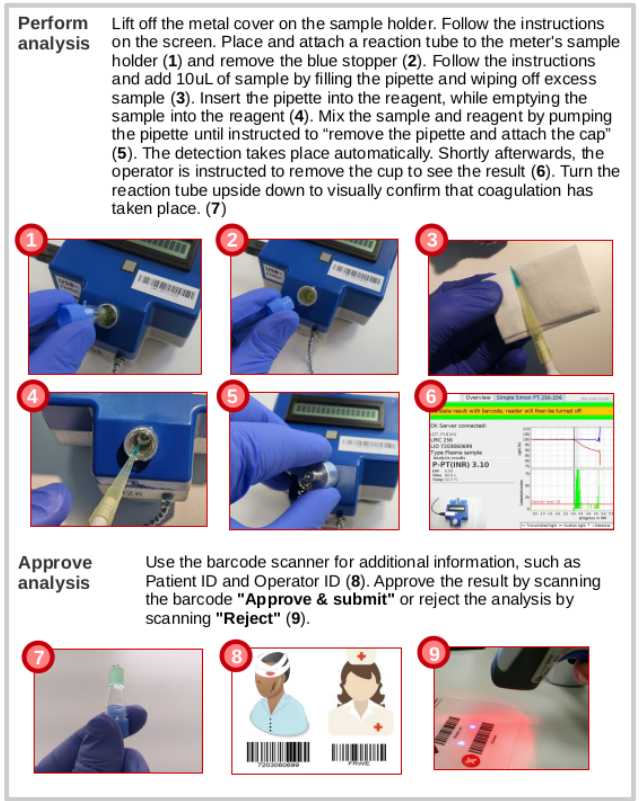
2. To link the analysis to the correct patient or sampling opportunity, the operator scans the barcode generated by the order from EHR. It is also possible to enter patient information via the built-in touch keyboard.

3. Perform analysis on the selected instrument. If the operator enters the patient ID in the analysis instrument itself, it accompanies the information to the POC-Workstation and further into the EHR / LIS.

4. The results from the analysis are paired with the order via Patient ID / Sampling ID and presented in EHR / LIS.

Example from "Quick guide Simple Simon PT Plus" below:





Risk assessment

Hardware

Zafenas Plus Monitor (ZAF-552) is classified as an "Accessory" to a "General In Vitro Diagnostic Medical Device" under Directive 98/79 / EC (in vitro diagnostic medical devices) in accordance with the directive and the Swedish Medicines Agency's regulation LVFS 2001: 7 The

hardware for ZAF-552 must be designed to be safe to use and function under normally prevailing circumstances where IVD products are available.
Risk management: The EMC hardware is tested by an accredited laboratory.
Identified risks caused by the hardware:

- Emissions risk that the hardware as an accessory interferes with connected IVD equipment. Risk management: The hardware must be EMC tested in new versions of the hardware by an accredited laboratory and must pass the tests Conducted disturbance and Radiated disturbance
  EN 60601-1-2: 2014
  EN 55011: 2009 + A1: 201 Class B

- Immunity risk that the hardware is disturbed by other electrical equipment and therefore stops working. Risk management: The hardware must be EMC tested in new versions of the hardware by an
  accredited laboratory and must pass immunity tests in accordance with
  EN 60601-1-2: 2014

Test criteria for acceptable loss of functionality in immunity testing

Zafena Minimum requirements are:

B	EN 61000-4- 2: Electronic discharge (ESD) immunity test Comment: Severe ESD can cause disturbance in the ground plane which can cause electronics to restart in case of severe ESD. It is acceptable if the software restarts and returns to normal without the operator's intervention.
B	EN 61000-4-3: Radiated RF electromagnetic field immunity test Comment: Since cable traffic, for example, USB can be disturbed by the test, it is acceptable that functionality decreases while the disturbance is going on, but the cable traffic must be restored after the disturbance has stopped without operator intervention.
A	EN 61000-4-4: Electrical fast transient / burst immunity test

A EN 61000-4-5: Surge immunity test

A EN 61000-4-6: Induced radio frequency field immunity test

A EN 61000-4-8: Power frequency magnetic field immunity test

BCCC EN 61000-4-11: Voltage dips and short interruptions immunity test
Comment: The product must pass the normal test criterion.
If power disappears completely, it is acceptable for the product to return to functional design after operator intervention.

Because the ZAF-552 is an accessory to the IVD product and cannot in itself generate measurement values, the risk is minimized by the above tests that the IVD measurement values are distorted in the event of temporary
loss of functionality.

Risk assessment software The

software ZAF-505-2 used in conjunction with ZAF-552 must be designed and tested to minimize risks when handling measurement values from IVD products.
Identified risks when handling measured values from IVD product:

- Analysis answers with errors / errors must not be able to be forwarded
  Risk management: The software must go through an automatic checklist before answers can be submitted.

- Analyzes with errors should not be displayed to the operator except in cases where it is required to investigate the cause of the error.
  Risk management: The software hides the received measured value in case of error.

- Measured value from IVD must not be linked to the wrong LID / Person or Referral number.
  Risk management: Only one measurement view may be displayed to the operator even if several parallel analyzes are in progress at the same time. Entered LID / Person or Referral number only goes to the active measurement view that is displayed.

- Answer confusion between related analyzes
  Risk management: The software uses isolated storage spaces for each individual measurement from the IVD product.

- Prevent the operator from believing that everything is ready even though more information about the analysis needs to be collected.
  Risk management: Responses should not be displayed until all information about the analysis has been collected

.

- Implemented functionality may be lost in future versions of the program.
  Risk management: Zafena creates automatic tests that are run regularly during the development work and during quality testing of new software to ensure the quality of the software's functionality.

- Implemented functionality may be lost if the software runs with
  a new Operating System.
  Risk management: Zafena creates "master" cards where both the Operating System and the software are packaged in one device. The software can thus not come into contact with a new operating system in operation at the customer. When Zafena creates copies of the software, the entire memory card is duplicated, including both the software and the operating system, verifying that the copy is identical to the master card.

Follow-up

To enable follow-up, Zafena creates:

- Creates the version number used when purchasing parts for the hardware.
- Creates version numbers and LOT numbers of the software when compiling.
- Archiving of source code for the software where you can derive version on at least 2 computers.
  Complete history with changes to the software is stored where you can go back to previous versions. Archived software is available on the local server at Zafena and requires a personal login.

GDPR

Personal data

Zafena does not wish and has no interest in receiving data containing personal data from third parties. Zafena opposes receiving information that is affected by GDRP or PUL.

Destruction

In the event of information subject to GDRP or PUL being sent from a third party to Zafena, one of two incidents will occur.
1. The information is sent back to the sender / third party, with information and reference to this document.
2. All information affected by GDRP or PUL from third parties will be destroyed in consultation with third parties.

Description

Description of POC-Workstation parts.

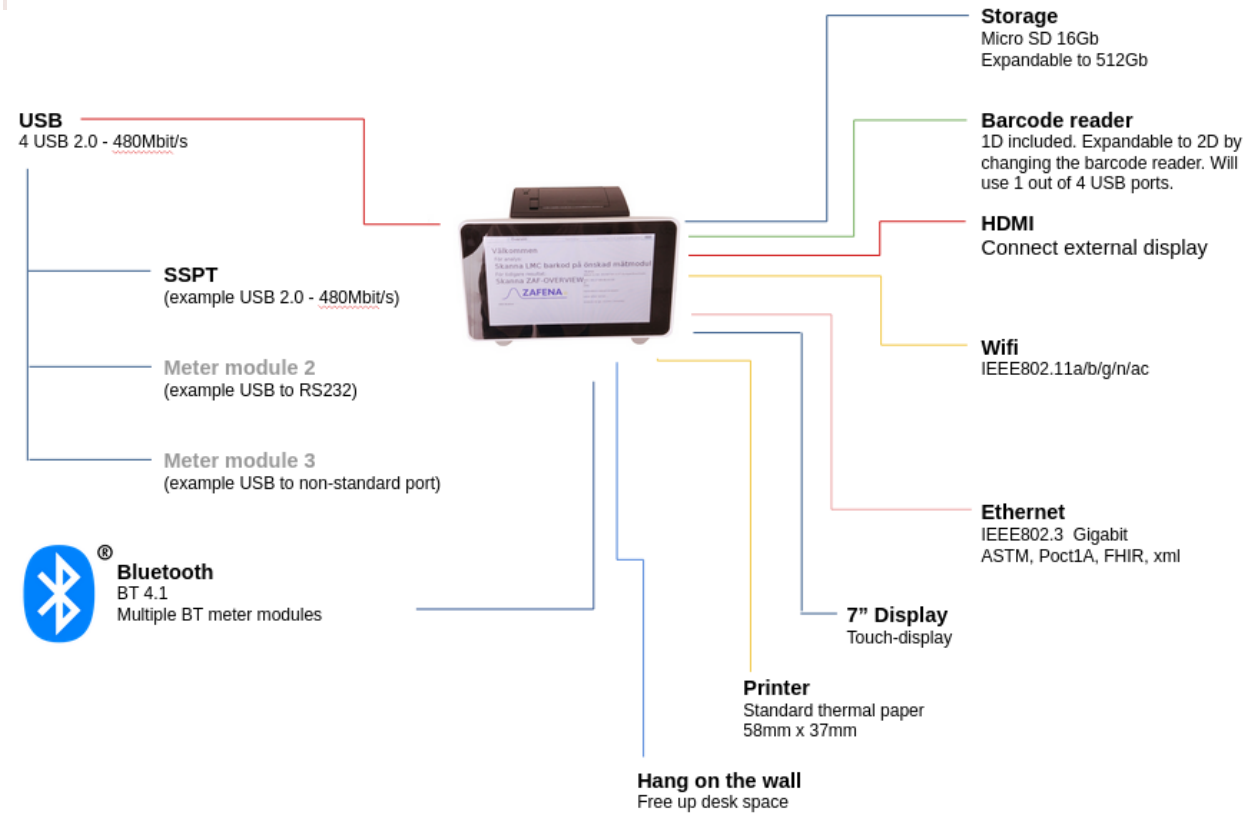
On / Off

Dark:	Off
Solid light:	On
Flashing:	Start-up / Shutdown

Power connector	12-19V / 3.33A
Memory card	Mirco-SD

Contains all software and history

USB	4 ports
Network port	RJ45 / 802.3ac



Configuration

For convenient handling and configuration of a modular POC instruments, communication takes place with the operator with barcodes to eliminate typos. Zafena provides the barcodes needed for configuration, visits by an IT technician are usually not needed.

Example:

Language

There are more languages available in the Zafena POC Workstation. These are activated with barcode commands or memory card changes. Contact Zafena for support.

Available languages (2021): English, Korean, Swedish, Norwegian, German, Finnish.

Example:

Time and time server

Zafena POC-Workstation has an internal clock that is not powered by batteries in the usual sense. Products that contain batteries can cause problems during transport, have an unknown service life and be a problem for the environment. Zafena has therefore developed a solution without a battery, which is based on a supercapacitor, which gives the watch enough power to keep running for more than 30 days. Zafena checks and sets the date and time in connection with delivery, in addition, POC-Workstation is configured to contact an official time server when it is connected to the network, in order to always keep the correct date and time.
POC-Workstation can also satisfy the desire to use the customer's own time server.

Example:

Network

Zafena POC-Workstation can connect to any network, both wired and wireless. There are several ways to configure the network settings. The most common is that the POC-Workstation asks the network DHCP server for the settings it needs. The customer's local IT department usually needs the POC Workstation's MAC address, which you will find on the underside of the Workstation, in order to register the device or approve that the device communicates via the network.

DHCP Server: All settings required by POC-Workstation are provided by the local network DHCP server.

Wifi: This function is activated via barcodes if you want to use the wireless network instead of the wired one. Wireless function is activated and deactivated via barcodes below:

Example of configuration:

Wifi: Each network card (wired or wireless) has its own unique MAC address, the IT manager may need to know to allow communication over the network. There are thus different MAC addresses for wired and wireless communication. If wired and wireless communication are used interchangeably, communication should be opened for both MAC addresses.

MAC addressaddress of the

The MACunit can be found by:

- Looking at the label attached under the POC Workstation. (Ethernet only)
- Press  to view the log file. (Both Ethernet and Wifi)

Network

control It is easy to check if network communication is established, and if there is contact with the information system (LIS / HIS).

Check the icon  at the top right of the view. When filled, communication is established with receiving systems. If the link to the network is down, the  appear to alert the user that the network is not available.

To check which network tasks POC-Workstation has been assigned, tap the icon  where you can see the data at the bottom of the log.

```
EDI_LOG_MESSAGE  ASTM: client try connect 18080 0
EDI_LOG_MESSAGE  20210107 13:37 Europe/Stockholm
MAC: C6:BA:EC:B2:5B:2D 38:D5:47:78:6B:41
IP: 192.168.250.1192.168.1.32
DNS: nameserver 127.0.0.53

analysis to go: 670227 ( 87051Mb)
```

Software in ZAF-550 compatibility mode: Zafena POC-Workstation has a Status box on the right of the welcome view that is displayed when the Workstation is started.

In this box you can read:

- Date & Time Time
- zone (if activated)
- MAC address
- IP address
- Device network name
- Domain Name Server (DNS)
- Contact with Lab / Journal system
- Analyzes that remain until the memory for history (log) is full.

Software

update Zafena's software and operating system in ZAF-552 may need to be updated if new features are required and / or if security updates are required. This can be done in two optional ways:

1. Replacement of Micro SD card.

A new Micro SD card with updated software is sent by mail from Zafena to the customer. The customer's operator switches off the ZAF-552 via the button on the side of the unit. Wait until the button has stopped flashing and is off. Carefully remove the old Micro SD card and insert the new one in the same position. Start the ZAF-552 by pressing the ON / OFF button again and then wait until the Welcome view is displayed together with the correct time and date. The device is now ready for use.
This method clears all local history and all local settings. Redefine the device by scanning barcodes for server, port and communication protocol.

2. Remote update

Operator scans barcode “ZAF-UPDATE” to initiate a remote update. This requires the device to access the internet through the network to which the device is connected. The command switches over the device view to the system log where downloading the latest software version for ZAF-552. The operator can follow the process by noting the percentage information on the screen. The update takes about 2 minutes from start to that ZAF-552 is ready for new analyzes.
All settings are saved using this method.

Troubleshooting software

In the event of an error, Zafena can help you read the system log from the device to understand what went wrong and how to best fix the error.
By scanning the barcode “ZAF-SENDLOG”, a copy of the entire system log is activated, which is then compressed and sent to Zafena.
The system log records all events in the device, which is very helpful in troubleshooting.
This feature requires the ZAF-552 to have internet access.

The “ZAF SENDLOG” function can also be used by the operator to provide Zafena with output data from new meters, sensors and instruments connected to the ZAF-552 for the purpose of integration.
The aim of this function is to provide the opportunity for integration of new analytical equipment, without having to visit the site of the installation itself.

Communication protocols

POC-Workstation has the ability to use one of several standardized protocols to communicate analysis results to EHR / LIS / middleware. Below is a brief description of the main protocols used.

ASTM-LIS2

ASTM, as it is called, is an old, but incredibly simple and stable standard.

POC-Workstation sends data structured via ASTM-LIS2, according to the example below:
Formatting of the laboratory response data set takes place according to
NCCLS LIS2-A2 Vol. 24 No. 33 a revision of ASTM E1394-97.

All ASTM messages are packaged in an ASTM "frame" with modulo 256 checksum, documented in the low-level handshake for ASTM according to NCCLS LIS1-A Vol. 23 No. 7 Before
ASTM E1381-02.

Header
H | \ ^ & ||| ZAF101 ^ SS291 ^ I485M ^ J113X |||||||| | P | LIS2-A2 | 20100217162100
H.2 | \ ^ & = which characters will be used as delimiters during the transfer,
we will for ease of use only | \ ^ &
H.5 SS291 ^ I485M ^ J113X = ZAF101 (ZAFENA Simple Simon PT product number) ^ SS291 (Indicates which simple simon performed the analysis) ^ I485M (which lotnr the connected simple simon uses) ^ J113X (the lot / version number used in the
communication box software for the data transfer).
H.12 P = Production we will only enter P in this field.
H.13 LIS2-A2 = Which standard is used
H.14 20100217162100 = Date and time when this transfer is performed formatted according to ÅÅÅÅMMDDTTMMSS

Patient
P | 1 |||| NKP272M0dVB |||||||||||||||| ||||||||||||||||
P.2 1 = "Sequence number" We will only transfer one patient per connection
so this number will always be 1.
P.6 NKP272M0dVB = LIDnr

Order
O | 1 | NKP272M0dVB || 3289-6 ^^^ | R || |||| X |||| BLDC ^ |||||||||| SS291 ^ 1234 | F ||||||
O.2 1 = Sequence number we will only transfer one order per connection so this number

will always be 1.
O.3 NKP272M0dVB = Specimen ID
we will enter LID
no. O.5 3289-6 = Universal test id 3289-6 ar LOINC code for PT
O.6 R = Priority where R = routine we will only enter R in this field.
O.7 = Date and time when the analysis was requested, we will not specify when the analysis was requested as
our system does not handle query calls.
O.12 X = Action code X = specimen or test allready in process. We will not specify anything other than X here.0.16 = "Specimen descriptor". The LIS2-A2 standard lacks a complete list of sample types.
Zafena has chosen to use codes from HL7 "Specimen type". To indicate the type of sample used in the analysis on Simple Simon.
PLAS = plasma (centrifuged anticotagulated sample from citrate tubes / edta)
BLDV = venous blood (slightly diluted in citrate tubes)
BLDC = capillary blood (from the finger)
O.16 example:
capillary blood (from the finger) = BLDC
O | 1 | 80279504 | | 3289-6 ^^^ | R |||||||| X |||| BLDC ^ |||||||||| SS639 ^ 524 | F |||||||
venous blood (slightly diluted in citrate tube) = BLDV
O | 1 | 80279504 || 3289-6 ^^^ | R ||||||| X |||| BLDV ^ |||||||| SS639 ^ 524 | F ||||||
plasma (centrifuged anticotagulated sample from cirtata tubes / edta or similar) = PLAS
O | 1 | 80279504 || 3289-6 ^^^ | R ||||||| X ||||| PLAS ^ ||||||||| | SS639 ^ 524 | F ||||||
O.25 SS291 ^ 1234 = Instrument Section Identification
O.25.1 SS291 = which simple simon performed the analysis
O.25.2 1234 = assigned LMC reader
number O.26 F = Final we will only enter F in this field.

Result

R | 1 | 3289-6 ^^^ | 1.19 | INR || N || F |||| 20070803170300 | SS291 ^ 1234
R.2 1 = Sequence number we will only transfer one result per connection so this number
will always be 1.
R.3 3289-6 ^^^ = Universal test id 3289-6 is LOINC code for PT
R.4 = Answer in INR with. as a decimal point.
R.5 INR = Unit, we will specify INR as unit.
R.7 N = We will enter N for Normal answer within the measuring range or> when the answer is above 8.0 inr.
R.9 F = Final we will only enter F in this field.
R.13 20070803170300 = Date and time the analysis was performed formatted according to YYYYMMDDTTMMSS
R.14 SS291 ^ 1234 = Instrument Identification SS291 (which simple simon performed the analysis) ^ 1234 assigned LMC reader number

Terminator

L | 1 | N
L.2 1 = Sequence number we will only transmit one terminator message per connection so this number will always be 1.
L.2 N = Normal termination, We will only enter N in this field.

Poct1A

Document from Clinical and Laboratory Standards Institute POCT01-A2, Point-of-Care Connectivity; Approved standard - the second edition was developed for those who manufacture diagnostic devices for healthcare professionals, as well as hardware and software used to connect the devices to various information systems in healthcare facilities. An example of communication is described below.

```
<? xml version = "1.0" encoding = "UTF-8" standalone = "yes"?>
<OBS.R01>
        <HDR>
        <HDR.control_id V = "1015" />
        <HDR.version_id V = "POCT1" />
        <HDR.creation_dttm V = "2019-06-26T16: 25: 35 + 0200" />
        </HDR>
        <SVC>
        <SVC.observation_dttm V = "2017-05-05T11: 32: 00 + 0200" />
        <PT>
        <PT.patient_id V = "First POCT1A" />
        <OBS>
        <OBS.observation_id V = "50563-6" SN = "LN" />
        <OBS.value V = "131" U = "umol / L" />
        <NOTE.interpretation_cd V = "N" />
        </OBS>
        </PT>
        <OPR>
        <OPR.operator_id V = "AUTO" />
        </OPR>
        <SPC>
        <SPC.type_cd V = "" />
        </SPC>
        </SVC>
</OBS.R01>
```

FIHR


```
{"resourceType": "Bundle", "entry": [{
"resource": {"resourceType": "Observation",
"Contained": [
{" resourceType ":" Practitioner "," id ":" 1 "},
{" resourceType ":" Specimen "," id ":" 2 "," identifier ": [{" value ":" 84256 "}]," type ": {" coding ": [{" system ":" http://hl7.org/fhir/v2/0487 "," code ":" EAR "}]}}},
{" resourceType ":" Device " , "id": "3"}
],
"Identifier": [{"value": "84256"}],
"Status": "final",
```

"code": {"coding": [{"system": "http://loinc.org", "code": "76011-6", "display": "Ear temperature"}]},
"issued": "2020-02-26T14: 16: 00.000 + 01: 00 ",
" performer ": [{" reference ":" # 1 "}],
" valueQuantity ": {" value ": 36.5," unit ":" Cel "},
" specimen ": {" reference ":" # 2 "},
" device ": {" reference ":" # 3 "}}
}]}

Views

Users are exposed to different views on the POC Workstation:

Welcome view
The view presented after POC-Workstation is started.
This view provides access to the history and log file, as well as an overview of the meters / sensors that are connected and activated by scanning the instrument tag (unique bar code on the meter). Here you can also see if printer functions are activated, as well as version number, date, time and keyboard.

- History
- System log
- Version
- Date, Time and time zone
- Automatic printing activated
- IPP print activated
- Network status
- Keyboard

Log file

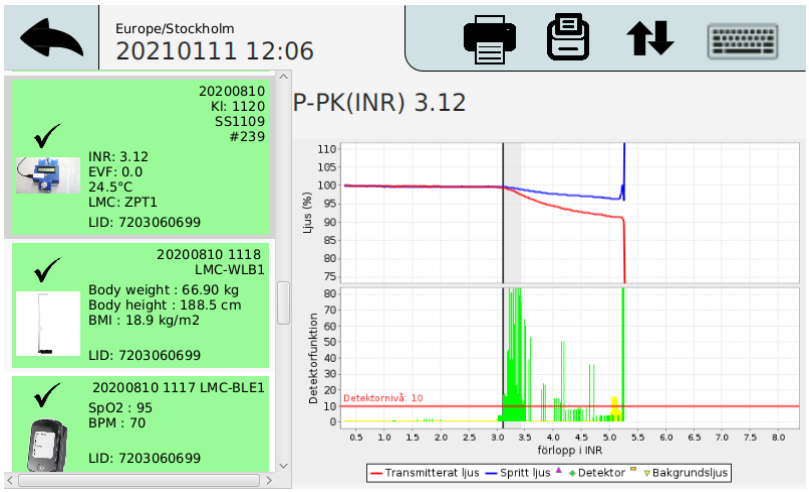
Touch the icon  to read the log file. Here is a list of the system's reactions and any errors the system detects.

History The

analysis history is accessed by tapping the icon  . Here is a list of results and transfers for all analyzes performed with analysis modules connected to the Workstation.

The list of analysis results is mainly for history, traceability and troubleshooting. The overview is significantly spacious, it can contain results from about 40 thousand analyzes.

Color code shows whether the transfer to LIS / HIS was successful (green), or not (orange), or never undertaken (gray). Some analytical modules transmit progression curves over the analysis reaction, these can be depicted in the overview. The same applies to the screen that was displayed when analysis results were approved or rejected. Moving in the list takes place either with barcode commands or with touch function.

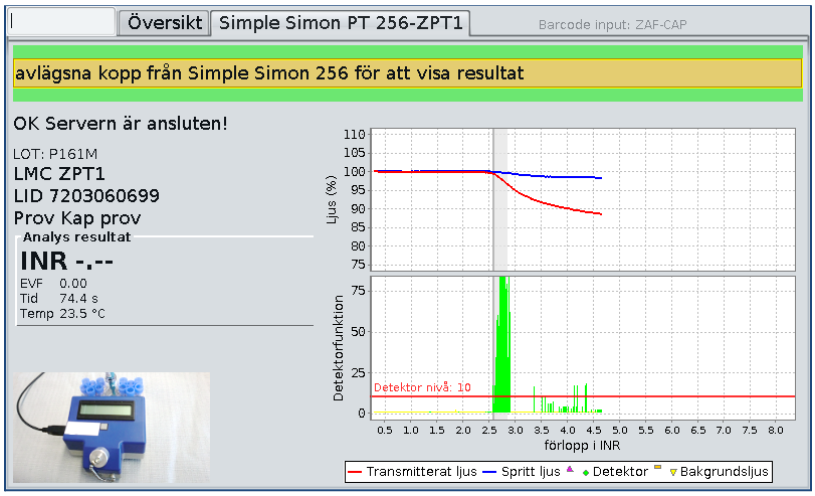


- Analysis answer
- List of previous analyzes
- Selected analysis

Example: History view with measurement with Simple Simon PT Plus

Analysis view

The view where the current analysis is presented. This can be done in different ways based on which module is used. Some show graphs and others only the result of the analysis.



- Instructions
- statusServer
- Meteridentity
- patient identity
- Sample type
- reaction graph
- reaction
- Klot signal
- Backlight

Example: Analyzer view from Simple Simon PT Plus reaction graph.

Special

functions Zafena AB develops and manufactures POC-Workstation. It opens up almost unlimited possibilities for variation where the customer's wishes govern.

Keyboard

There is a built-in keyboard with touch function that can be activated and used directly on the POC-Workstation. This function is activated via the icon  at the top right of the Workstation view. This function also provides buttons for "Accept", "Decline" and "Print".

Touch function

Zafena POC-Workstation has a pressure-sensitive display. You can use your fingertips to orient among the Workstation's different views - as an alternative to the barcode reader.

Time

POC-Workstation can be configured to ask the hospital organization's time server what time it is to synchronize the time. If there is no time server in the existing network, the time can be set manually. The settings are maintained by the Workstation's clock battery when the Workstation is switched off.

Remote calibration

(This only applies to the Simple Simon PT analysis module)

When changing reagent LOT, it is possible to remotely calibrate Simple Simon Plus instruments. The reader does not need to be serviced and calibrated by Zafena during LOT change, but is easily handled by the user. By scanning a few barcodes in any order, the reader is calibrated to a new LOT reagent and other consumables. These barcodes are delivered by Zafena when it is time for LOT change.

Barcode printer A barcode printer

can be connected to the POC-Workstation and the option to print text to barcodes (CODE128) is activated via a special barcode. If there is a need for a barcode printer in the organization, contact Zafena and we will send the necessary equipment and instructions. The barcode function is accessed by reading the barcode “ZAF-BARKOD”.

ZAF-BARKOD

Printer

The POC-Workstation has a built-in printer for printing results after analysis.
This function is activated via barcode “CFG-print=” on or off


CFG-print=on


CFG-print=off

The POC-Workstation also has a function that helps cloud-based journal systems to reach internal printers on the customer's local network, to send printouts in the form of PDF documents through the workstation.

Words & Abbreviations

DHCP

Domain Host Control Protocol
This server service informs connected network devices about which network settings the device should use. The IP address, Subnet Mask and Gateway device should be used.

USB

Universal Serial Bus
Standard connection for barcode scanners, analytical meters, keyboards, etc.

DNS

Domain Name Server
This server service informs connected network devices which IP addresses are associated with which network names. You can see it as the network's telephone directory.
(Ex. Www.test.se = 23.14.10.11)

NTP

Network Time Protocol
This server service informs connected network devices about the time that applies.

LIS / LIMS

Laboratory Information System / Laboratory Information Management System
This is a receiving system for laboratory responses, which then sends the results into the patient's medical record.

HIS

Hospital Information System
This describes the entire hospital's information system where all the system's services are included.

EHR

Electronic Health Record
Describes the patient's digital patient record.

MAC Address

Media Access Control Address
All network devices have unique identification numbers when communicating over the network. (Example: EB: 27: AA: 45: C3: F2)

IP address

Internet Protocol address
An address associated with the unique MAC address of the network device. A borrowed identification ID to communicate through the network.

The laboratory

The workflow is one of the important parts of a laboratory. Like a well-oiled movement, samples flow in and analysis results out of the business. The value of digitizing these analysis results is described by Equalis (Swedish EQA; https://www.equalis.se/en/): "Eliminate typos and secure analysis results" Common assays: CRP, INR, ESR, Hb, Glucose, Urine, HbA1C

The doctor's office

When it is the personal contact with the patient that is at the center of the visit, the doctor is relieved by digitizing the measurement results directly into the EHR / LIS. Instead of devoting the visit to writing results on notes or remembering them in their heads, doctors and patients can meet and start healing. Normal tests: Blood pressure, Length, weight, temperature, heart rate, oxygenation, spirometry.

Ambulatory

In this environment, it is time that can determine the outcome for the patient. Digitizing emergency sampling results in real time, which can be discussed with centrally located specialists, provides faster, better and more accessible ambulatory emergency care. Commonly occurring analytes: Blood pressure, temperature, CRP, D-dimer, heart rate, oxygenation, ECG