



Ersa TRACE Cockpit

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Ersa GmbH
Leonhard-Karl-Str. 24
97877 Wertheim
www.ersa.de
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Printing date: 30/11/2021

Phone +49 9342/800-136
Fax +49 9342/800-132
Mobile +49 171 241 846 8
service-ersa@kurtzersa.de

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1. Introduction

These software instructions describe how to install and use the “Ersa TRACE Cockpit” web app. The “Ersa TRACE Cockpit” software makes it possible for you to control the Ersa i-CON TRACE soldering station via LAN or WLAN[®]. To set up the web app and all its functions, carry out the work steps as described here.

Adhering to the safety instructions and process descriptions contained in Ersa i-CON TRACE[®] operating instructions and the Kurtz Ersa “Safety Notes” brochure is a prerequisite for properly operating the soldering station.

The functions of the “Ersa TRACE Cockpit” web app

The “Ersa TRACE Cockpit” is a server application that is used to control Ersa i-CON TRACE[®] soldering stations in the network. The software interface can be opened through a web browser. End devices in the same network can connect to the application through the web browser.

Virtual workplaces with different user rights can be created with “Ersa TRACE Cockpit” and soldering stations assigned to them. This enables a clearly arranged production line.

Soldering tasks can be generated with “Ersa TRACE Cockpit” which make the manual soldering process traceable. Materials to be used by the user, such as the soldering tip, can be assigned to each soldering task. After the soldering task has been completed, an entry is generated that contains all info required to understand the manual soldering process.

2. Network connection: Work steps and methods

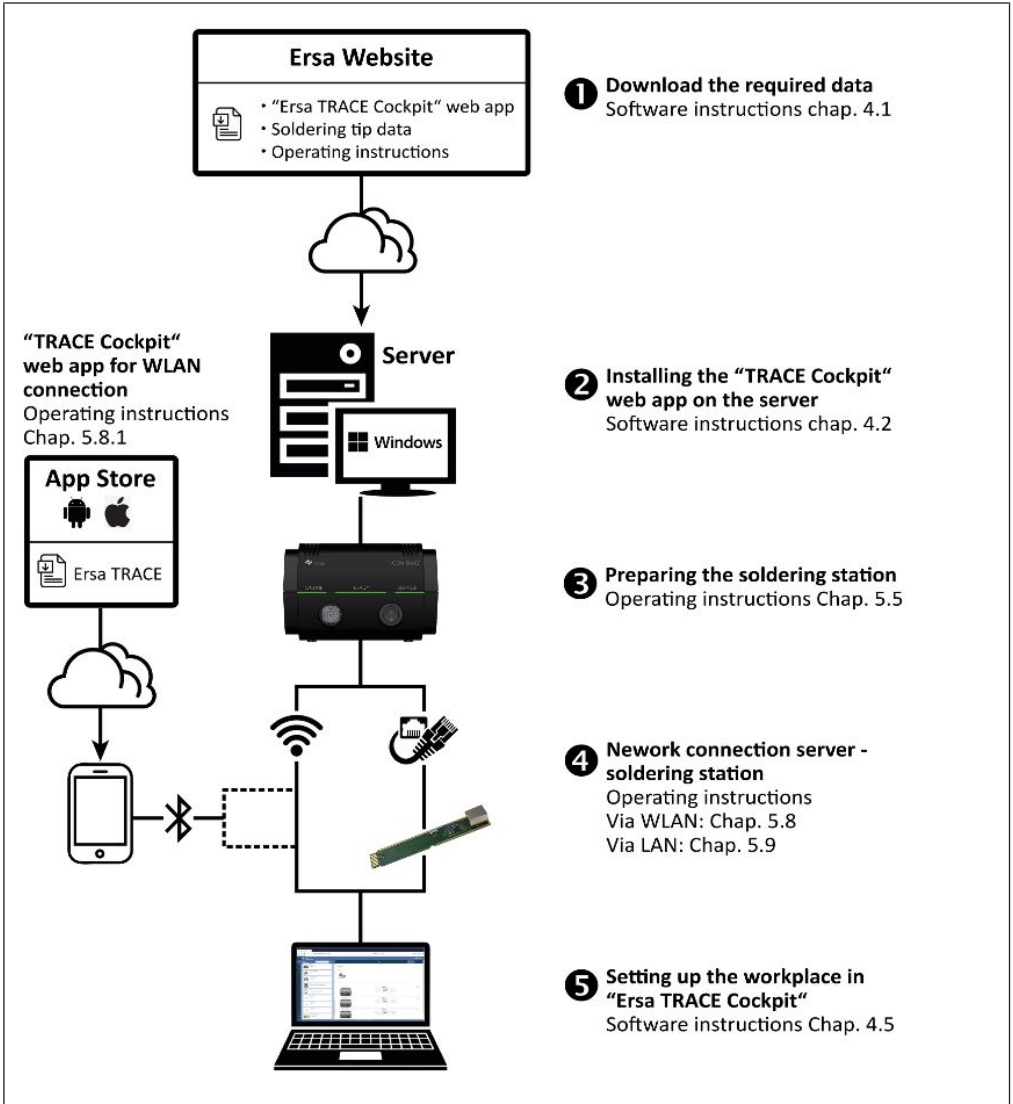


Fig. 1: Network connection: Work steps and methods

3. The network ports

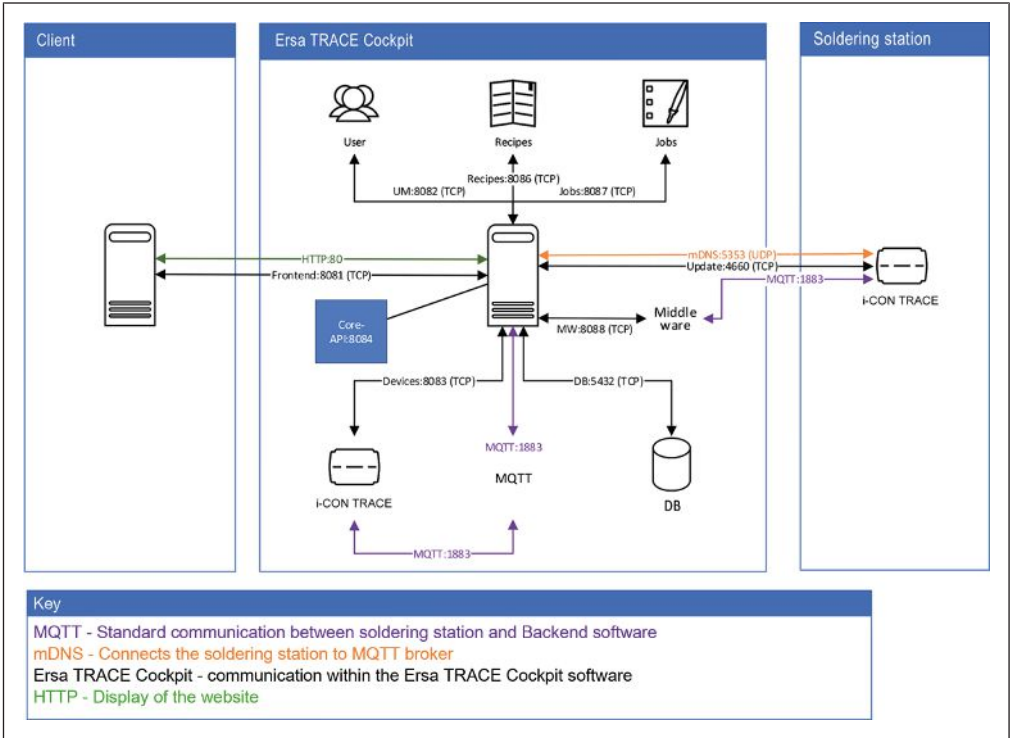


Fig. 2: The ports to be released

4. The steps to set up the software

4.1 Downloading the required data from the Ersa website

Regardless of the network connection, the soldering station is controlled and managed with the “Ersa TRACE Cockpit” web app. Download the application to install the web app:

- a) Use the [Login] button to sign in to the www.kurtzersa.com website.
- b) Log in to access the members area.
- c) Here, navigate in the “6 Software” area to “6. 1. 5 i-CON TRACE”.
- d) Download the installation file for the “Ersa TRACE Cockpit” web app.
The installation file must be saved locally on the server.
- e) Download the file with the soldering tip data.
The file with the soldering tip data must be saved locally on the server.
It contains the material data for all soldering tips in the 142 Ersa soldering tip range, and must be then imported to the “Ersa TRACE Cockpit” web app.

4.2 Installing the “TRACE Cockpit” web app on the server

- ✓ The server meets the technical requirements. Read more about this in chapter „3.4 Server PC minimum requirements“ of the i-CON TRACE® operating instructions.
- ✓ The server must be embedded in the network in which the soldering station is also integrated.
 - a) Open the server folder in which the Internet downloads are saved.
 - ⇒ You will find the zipped installation file there.
 - b) Unzip this file only.
 - ⇒ Info: The ZIP file with the soldering tip data is to be then imported to the “Ersa TRACE Cockpit” web app.

The installation process

- a) To create the following folder structure on the server:

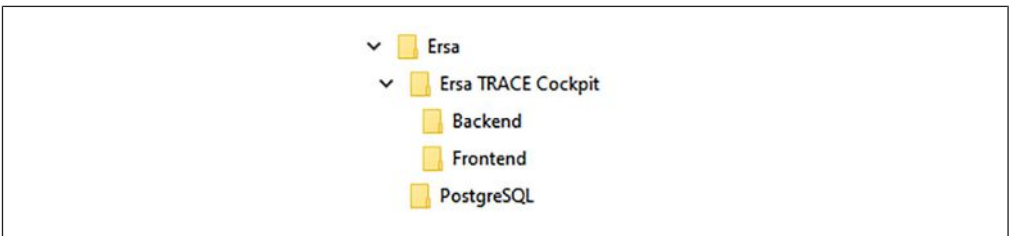


Fig. 3: Folder structure for installation

- b) Start the “CockpitSetup.exe” unzipped file.
- c) Follow the installation Assistant.
 - ⇒ The setup window for the PostgreSQL database opens.
- d) Select the [PostgreSQL] folder in the [Installation Directory] window as the target for installation.
- e) Select everything in the [Select Components] window except [Stack builder].
- f) Confirm the saving place in the [Data Directory] window as suggested by the installer.
- g) Enter the password into the [Password] window twice: eaasadmin
- h) Enter the following number into the [Port] window: 5432
- i) In the [Advanced Options] window, select: Default locale
- j) Complete PostgreSQL installation with [Finish].
 - ⇒ The setup window for installing the “Ersa TRACE Cockpit” web app opens.
- k) Follow the installation assistant.

- l) Select the [Backend] folder in the [Destination Folder] window as the target for installing the backend (server software).
- m) Select the [Frontend] folder in the [Destination Folder] window as the target for installing the frontend ("Ersa TRACE Cockpit" web app).
 - ⇒ The installation process has been completed.

The program configuration

- a) Select the [Ersa iConTrace Cockpit Backend] entry in the Windows start menu.
 - ⇒ The [iCon Trace Cockpit Control Panel] starts.

Now determine the IPv4 address of the server:










- a) Open the Windows start menu and enter: cmd
 - ⇒ The command prompt will appear.
 - b) Enter "ipconfig" into the command prompt
 - ⇒ The "IPv4 address" line for the device on which Ersa TRACE Cockpit was installed and which acts as a server is displayed.
 - c) Enter this IPv4 address of the [iCon Trace Cockpit Control Panel] application into the [Ip address] line.
 - d) Select the [Set ip address] button.
 - e) Select the [Start process] button.
- ⇒ The "Ersa TRACE Cockpit" web app can now be used on the server PC and all devices with a web browser embedded in the network.


4.3 Starting the “Ersa-TRACE Cockpit” web app for the first time



- ✓ Adhering to the safety instructions and process descriptions contained in Ersa i-CON TRACE® operating instructions and the “Kurtz Ersa Safety Notes” brochure is a prerequisite for properly operating the soldering station.
- ✓ The soldering station is switched on and connected to the server’s network. Read more about this in the i-CON TRACE® operating instructions.
- ✓ The end device and web browser meet the technical requirements. To do so, read chapter “3.5 Minimum web browser requirements” in the i-CON TRACE® operating instructions.
- ✓ The device on which the “Ersa TRACE Cockpit” web app is to be displayed is connected to the server’s network.
- ✓ The web browser scaling is set to 100%.
 - a) Start the web browser on the device on which the web app is operated.
 - b) Enter the server’s IPv4 network address into the browser address line, followed by “:8081/login”
e.g. 123.456.78.90:8081/login
⇒ The login window appears.
 - c) Enter this user name and password into the login window:
mm@kurtzera.de
kurtzera
⇒ The “Ersa TRACE Cockpit” will start.


The user’s login data mm@kurtzera.de for the initial setup is to be assigned to an administrator with unrestricted user rights.





4.4 The menu items on the left






	Menu item [Work places]
	Display of all created workplaces including the logged in user's workplace.
	Only in the [All] tab, at middle top: Add a workplace. Read more about this in chapter Adding a workplace [▶ 14].
	At the top right: Assign a soldering station to a workplace. Read more about this in chapter Assigning a soldering station to a workplace [▶ 15].
	Only in the [All] tab: Assign the selected workplace to tab [My workplaces].
	Only in the [All] tab: Permanently delete the selected workplace from the [All] tab.
	Only in tab [My workplaces]: Delete the selected workplace from tab [My workplaces]. The workplace remains in the [All] tab.
	Green arrow buttons: Display of the live chart with the temperature and power values of the soldering station that is selected in the  [Devices] menu item. Info: When a soldering task is started, the temperature and power value are automatically recorded (tracking) and saved as a chart. Read more about this in chapter Showing the recorded soldering protocol [▶ 21].
	Controlling the soldering station from your own workstation. Read more about this in chapter Soldering station control [▶ 17].


	Menu item [Materials management]
	Create work materials to be assigned to a soldering task.
[Tip]	Soldering tip data is only provided by Ersas as a download. Read more about this in chapter Downloading the required data from the Ersas website [▶ 7].
[Soldering wire] [Flux material] [User defined]	How to paste other work materials is described in chapter Pasting your own materials to materials management [▶ 16].


	Menu item [Soldering tasks]
Create and perform a soldering task. Read more about this in chapter Creating a soldering task [▶ 19].	
	Edit a saved soldering task. Save changes with the [Update] button.

	Menu item [Logging]
Show the parameters and the chart of a completed soldering task.	

	Menu item [Soldering station]
Display of all soldering stations embedded in the network.	
	Show information about a soldering station and use the button  to edit the basic data.
	Remove a soldering station from the network.
Range [Calibration]: Read more about this in chapter Calibrating a soldering station [▶ 22].	

	Menu item [User management]
Display of users and user parameters.	
	At middle top. Create a user. Read more about this in chapter Creating a user [▶ 14].
	At the top right. Display of the created workplaces. Read more about this in chapter Assigning a workplace to a user [▶ 15].
	Edit the selected user.
	Delete the selected user.



	Menu item [Settings]
[Advice]	Display of all previous system messages, warnings and error messages. Select the soldering station in the first drop-down menu. The messages can be filtered using the other drop-down menus.
[API Online Status]	State of the “Ersa TRACE Cockpit” web app modules. The [Frontend version] function shows the currently used version of the web app.

	Menu item [Settings]
[Firmware update]	You will receive info from the manufacturer if an update is available. Software updates are carried out by installing a newer version on the server. To update the soldering station firmware, read chapter Performing updates [23].

4.5 Setting up a workplace in the web app

Perform the work steps described below to set up the workplace for the first soldering station in "Ersa TRACE Cockpit".

4.5.1 Creating a user

- a) After logging in with administrator rights, select the  [User administration] button.
- b) Select  the button at middle top to create a user.
- c) Enter the desired user data.
 - ⇒ The data entered into the [Username] and [Password] fields must be specified upon the user's future login.
- d) To create the first user with unrestricted user rights, assign the [Administrator] user role.
- e) Confirm the entries with the [Save] button.

There are three user roles:

1. The Administrator

The Administrator has unrestricted user rights. Only the administrator can create or edit a user.

2. The super user

The super user has the same rights as the Administrator, but cannot create or edit any users.

3. The user


The user cannot make any changes. They can create and edit soldering tasks.


4.5.2 Log in again with a created user

- a) Select the current user name at the top right.
- b) Select the [Logout] button to log out this user.
- c) Log in with the desired user data.
 - ⇒ The user can use their workstation with the user rights assigned to them.

4.5.3 Adding a workplace



Soldering stations and users can be assigned to a workplace.

- ✓ The desired user has logged in.
- a) Select the  [Workplace] button.
- b) Select the [All] tab.




- c) Select the button  at middle top to create a workplace.
- d) Confirm the entries with the [Save] button.

4.5.4 Assigning a soldering station to a workplace

All soldering stations that were integrated into the network are available for selection here.


- a) Select the  [Workplaces] button.
- b) Select the [All] tab.
- c) Select the workplace which a soldering station is to be assigned to.
- d) Select the button  at the top right.
 - ⇒ The soldering stations that have not yet been assigned to a workstation are listed in the right column.
- e) Drag and drop the desired soldering station onto the workplace.
- ⇒ The assignment has been made.



4.5.5 Assigning a workplace to a user

- a) Select the  [User management] button.
- b) Select a user who a workplace is to be assigned to.
- c) Select the button  at the top right.
 - ⇒ The workplaces that have been created are listed in the right column.
- d) Drag and drop the desired workplace onto the user.
- ⇒ The assignment has been made.
- ⇒ The workplace is now under the [User management] button  in tabs [M workplaces] and [All].

4.6 Pasting materials for the soldering work

4.6.1 Importing materials data of the soldering tip



To be able to assign material of the [soldering tip] type to a soldering task, the soldering tip data must  be imported into [materials management].

- ✓ All the necessary downloads from the Erska website have been carried out. Read more about this in chapter "[Downloading the required data from the Erska website](#) [▶ 7]".
 - a) Select the  [Materials management] menu item.
 - b) Select the button  in the [Tip] tab.
 - c) Select the [Browse] button.
 - d) Navigate to the download directory of the web browser.
 - e) Import the ZIP file with the soldering tip data.
- ⇒ The materials data of all soldering tips has been imported and can be used.

Future additions or changes to the soldering tip data are imported in the same way.

4.6.2 Pasting your own materials to materials management

In order to be able to assign materials of the [soldering wire], [flux material] and [user defined] types to a soldering task, they must be created under material management. Any material type can be optionally created under [User defined].

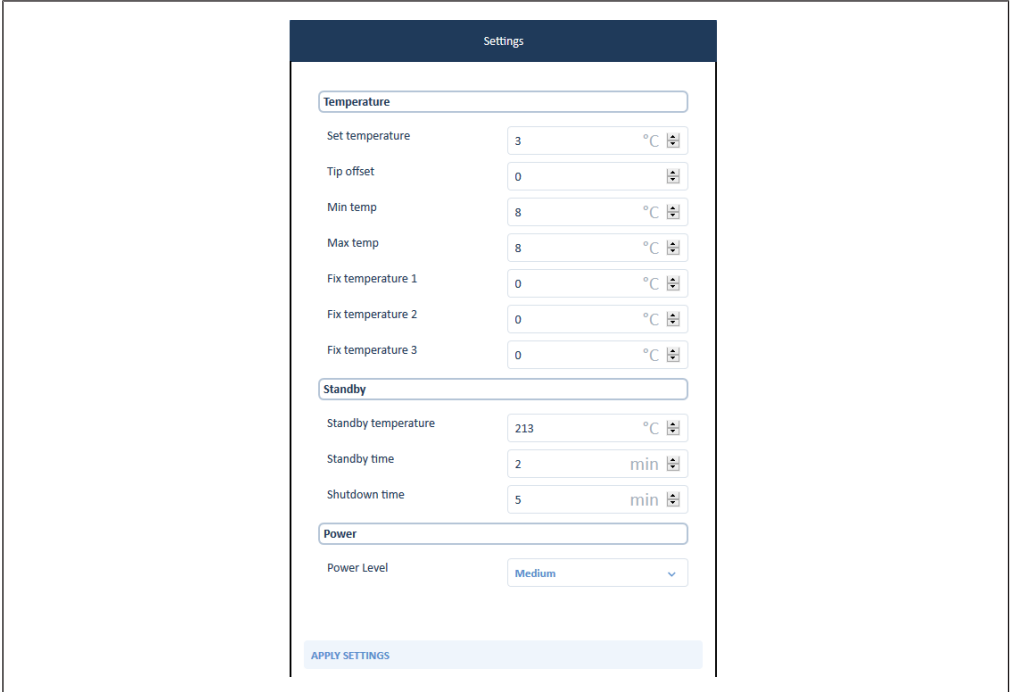
- a) Select the  [Materials management] menu item.
- b) Selecting the tab for the desired material type
- c) To paste the material,  select the relevant button.
- d) Confirm the entries with the [Save] button.

5. Operating "Ersa TRACE Cockpit"

5.1 Soldering station control

Select the  [Workplaces] menu item.

To call up the soldering station PLC,  select the relevant button.



Temperature	
Set temperature	3 °C
Tip offset	0
Min temp	8 °C
Max temp	8 °C
Fix temperature 1	0 °C
Fix temperature 2	0 °C
Fix temperature 3	0 °C
Standby	
Standby temperature	213 °C
Standby time	2 min
Shutdown time	5 min
Power	
Power Level	Medium

APPLY SETTINGS

Fig. 4: [Settings] window for the soldering station PLC.

[Temperature] range

Target temperature (50...450 °C / 122...842 °F)

The target temperature is the desired soldering tip working temperature.

Temperature range below (rel) / temperature range above (rel) (Standard setting ± 20 °C / ± 68 °F)

A temperature range with upper and lower limit values can be defined for the soldering tool. If the tool temperature is outside this range, the READY LED turns red.

Fixed temperatures 1, 2 and 3

Three fixed temperatures to be called up with one click can be set. To show these temperature buttons, select the middle one.

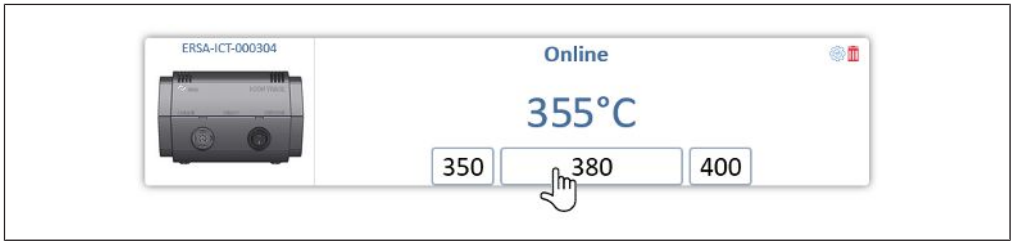


Fig. 5: Three buttons for fixed temperatures

Range [Standby]

Standby temperature (Standard setting 210 °C / 410 °F)

During work breaks, the soldering station automatically switches to [Standby temperature] after [Standby time] has elapsed. The READY LED lights up yellow in standby mode. The soldering iron must be moved to trigger reheating from standby temperature.

Standby time (20 s...60 min)

[Standby time] is the span from the last time you worked with the soldering tool until when [Standby temperature] is enabled.

Shutdown time



⚠ CAUTION

Attention Risk of burns!

After switching off, the soldering tip remains hot for a long time!

Span from when [standby temperature] has been reached until the heating element is switched off (shutdown). The READY LED blinks yellow in shutdown mode. The soldering iron must be moved to trigger reheating from shutdown.

Range [Energy]

Energy level

Affects the heating and post-heating behaviour of the soldering station. The three control characteristics [Low], [Medium] and [High] make it possible to adjust to different sizes of soldering tips and components.

[Low]: Minimal post-heating behaviour, for soldering work with low heat requirements.

[Medium]: Stronger post-heating behaviour, for soldering work with average heat requirements.

[High]: Maximum post-heating behaviour, for soldering work with high heat requirements.

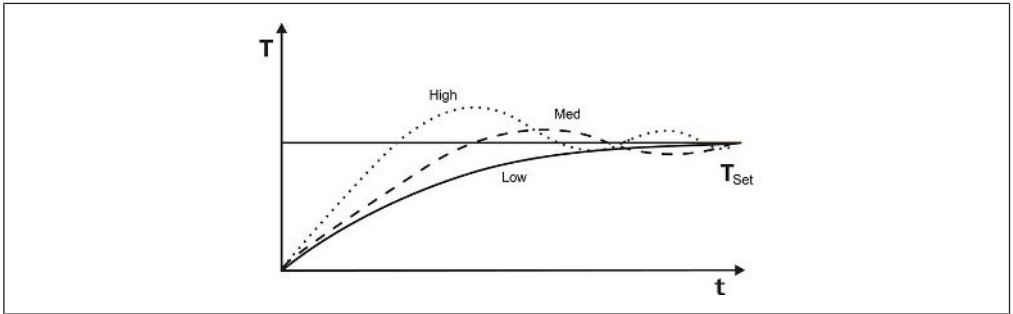




Fig. 6: Energy level, temperature/time diagram

Select the [Apply settings] button to apply changes.


5.2 Creating a soldering task


Only users with administrator rights can create soldering tasks.

Creating a soldering task

- a) Select the  [Soldering tasks] menu item.
 - b) To create a new soldering task, select the  button at the middle top.
 - c) Optionally, the [Job number] and the [Job size] can be entered.
 - d) Call up the materials intended for use by pressing the [Soldering tip], [Flux material], [Soldering wire] and, if necessary, also [Customised material] buttons.
 - e) Drag & drop the material to be used onto the button.
If only the specified material is to be used when performing the soldering task, activate the [Requested] button.
The materials used can also be scanned with a barcode scanner. To do so, connect the scanner to the device on which the "Ersa TRACE Cockpit" web app is running.
 - f) Select the [Save] button.
- ⇒ The soldering task has been added to the list of soldering tasks.

5.3 Performing a soldering task

- a) Select the  [Soldering tasks] menu item.
- b) Select the soldering task.
- c) Select the workplace and the soldering station used in the relevant drop-down menus.

- ⇒ If in possession of the necessary user rights,  the user can edit the soldering task through this button. Select the [Update] button to confirm the changes.
- d) Select the [Begin soldering job] button.
- ⇒ **Step 1** starts:

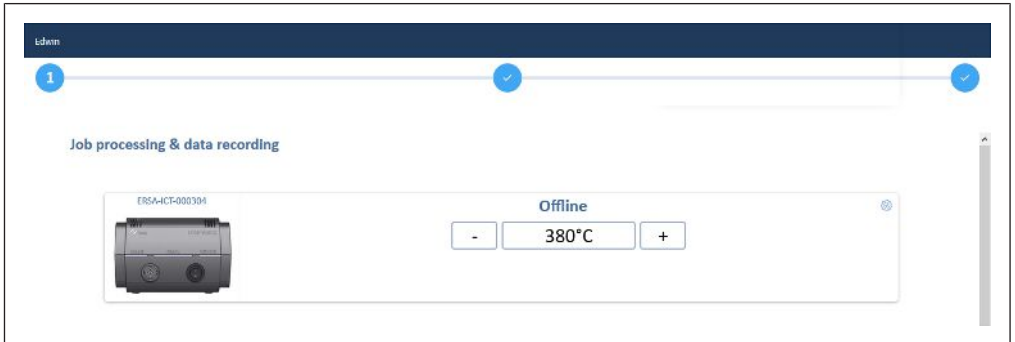




Fig. 7: Performing the soldering process

- e) Perform the soldering tasks.
 - ⇒ Adhering to the safety instructions and process descriptions contained in Ersa i-CON TRACE® operating instructions and the Kurtz Ersa "Safety Notes" brochure is a prerequisite for properly operating the soldering station.
 - ⇒ Users with any user role  can edit the temperature parameters of the soldering station through this button. Read more about this in chapter [Soldering station control](#) [▶ 17].
 - ⇒ The temperature and power value of the soldering station are recorded during the soldering process. Read more about this in chapter [Showing the recorded soldering protocol](#) [▶ 21].
- f) When the soldering task has been completed, select the [Complete soldering job] button.
- g) **Step 2:** Enter the soldering task information.
- h) Select the [Summary] button.
 - ⇒ **Step 3:** The performed soldering task is shown.
- i) Select the [Save] button.

5.4 Showing the recorded soldering protocol



The automatically recorded data from completed soldering tasks can be displayed under the  [Logging] button. The materials used are shown along with the parameters of the soldering task.

- a) Select the [Download] button to open or save the live chart data in *.csv (Comma Separated Values) format.


6. Calibrating a soldering station

Calibrating will bring the temperature reading into line with the actual soldering tip temperature. If provided with the necessary user rights, users can calibrate. You need a calibrated controller (e.g. ERSA DTM 110). The adjustable calibration range is $-70...+50$ °C / $-126...+90$ °F.

Determining the soldering tip temperature

- a) Ensure quiet air conditions during calibration to avoid measurement errors.
- b) Select the  [Workplaces] button.
- c) Select the soldering station to be calibrated.
- d) To call up the soldering station PLC,  select the relevant button.
- e) Set the desired target temperature of the soldering tip here and wait about 30 seconds until a stable condition is reached.
- f) Measure the soldering tip temperature with a calibrated controller (e.g. ERSA DTM 110) at about 2 mm from the outermost point of the soldering tip. To do so, read the operating instructions for the controller. The work steps specified therein must be followed for accurate measurement.

Enter the determined soldering tip temperature into the “Ersa TRACE Cockpit” web app

- a) Select the  [Soldering station] button.
 - b) Select the soldering station to be calibrated.
 - c) Enter the controller’s temperature reading into the [Measured temperature] edit control.
 - d) Select the [Apply settings] button.
- ⇒ The soldering station has been calibrated.

7. Performing updates

Administrators und super users can perform updates.


Refreshing the “Ersa TRACE Cockpit” web app

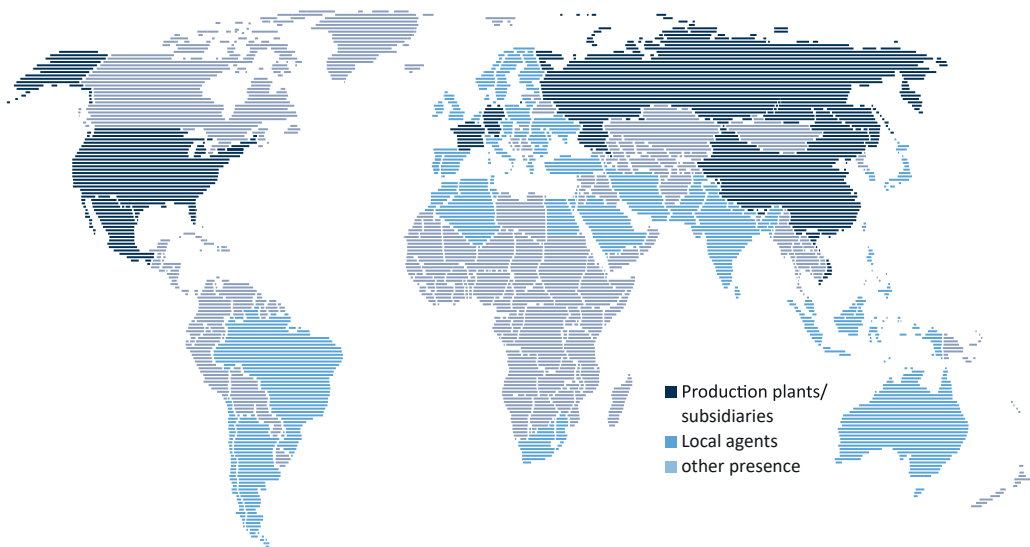
Updates are made available in the members area on the Ersa website.

- a) Install the update file on the server.

Refreshing the soldering station firmware

Firmware updates are made available in the members area on the Ersa website.

- a) Select the  [Settings] menu item.
 - b) Select the [Firmware update] tab.
 - c) Select the [Select file] button.
 - d) Navigate to the update file (file extension * .bin) and load the file.
 - e) Select all soldering stations to be updated in the [Update] column.
The update process of several soldering stations will run simultaneously.
 - f) Click on the [Update] button.
- ⇒ All LEDs blink yellow during the update process. The update process can take more than 30 minutes.



Electronics Production Equipment

GLOBALLY PRESENT

America

Kurtz Ersä, Inc.
usa@kurtzersa.com
www.ersa.com

Mexico

Kurtz Ersä, S.A. de C.V.
info-kmx@kurtzersa.com
www.ersa.com

France

Ersä France
ke-france@kurtzersa.com
www.kurtzersa.com

Asia

Kurtz Ersä Asia Ltd.
asia@kurtzersa.com
www.ersa.com

China

Ersä Shanghai
info-esh@kurtzersa.com
www.ersa.com

Vietnam

Kurtz Ersä Vietnam
 Company Limited
info-kev@kurtzersa.com
www.ersa.com