

MTinfo 3000 web app User Manual



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TABLE OF CONTENTS

1	Versi	on Histo	ory	8		
2	Prefa	Preface				
	2.1	2.1 Purpose of the User Manual				
	2.2	2.2 Users				
	2.3	Readir	ng guide	11		
	2.4	Abbre	viations			
3	Tech	nical spe	ecifications			
4	Term	s of use				
	4.1	14				
	4.2	Instruc	ctions for first use	15		
5	Proje	ect users	and tasks			
6	Using	g MTinfo	o 3000			
			iew of functions			
	6.2	lcons a	and actions			
	6.3	Gettin	g started			
		6.3.1	Two-Factor authentication			
		6.3.2	Password reset			
	6.4 Dashboard					
	6.5	Service messages				
	6.6	6 Creating and managing companies				
		6.6.1	Step 1 - Info			
		6.6.2	Step 2 - Rights			
		6.6.3	Step 3 - Forms			
		6.6.4	Company editing			
	6.7	Creati	ng and managing users			
		6.7.1	Step 1 – Info			
		6.7.2	Step 2 - Roles			
		6.7.3	Employee who leaves the company			
	6.8	Creati	ng and managing user rights roles			
	6.9 Search and view projects					
	6.10 Create projects					
		6.10.1	Setup projects			
		6.10.2	Design projects	53		
		6.10.3	Plan projects			

		6.10.4	Verification and validation		
		6.10.5	Release, Return and Close projects		
7	Swit	ch Protec	ction Zones	75	
	7.1	Step1-	- Protection zone		
	7.2	Step 2	- Switch		
	7.3	Web ap	pplication – Single zone switching		
	7.4	Web ap	pplication – Multiple zone switching		
8	Repo	orts			
	8.1	Periodi	ical Reports		
		8.1.1	Step 1 - Report info		
		8.1.2	Step 2 - Users		
		8.1.3	Step 3 - Devices		
		8.1.4	Step 4 - Display		
		8.1.5	Step 5 - General		
	8.2	One-tir	me Reports		
	8.3	Downlo	oad Reports		
9	Addi	itional Fu	nctions	101	
	9.1	Real-ti	me status		
	9.2	9.2 Adding data to devices			
	9.3 Templates				
		9.3.1	Step 1 - General		
		9.3.2	Step 2 - Questions		
	9.4	Project	t documentation		
		9.4.1	General		
		9.4.2	Documents through the app		
	9.5	Project	t log		
	9.6	Knowle	edgebase	112	
10	Syste	em Maint	tenance and System Health	115	
11	Арро	endix ZKL	_ 3000 RC	116	
	11.1	Explan	ation real-time status ZKL 3000 RC		
12	Арр	endix RDI	I 3000		
	12.1	Explan	ation Real-time status RDI 3000		
13	Арро	endix Not	tification Messages		
	13.1	Genera	əl		
	13.2	Notifica	ations ZKL 3000 RC		
		13.2.1	Errors and Notifications		
_		13.2.2	Text Notifications - Reminders		



13.3	13.3 Notifications RDI 3000125				
	13.3.1	Errors and Notifications	125		
	13.3.2	Errors and Notifications - Reminders	127		
13.4	Notific	ations RSS 3000	128		
	13.4.1	Errors and Notifications	128		
	13.4.2	Errors and Notifications - Reminders	129		

LIST OF FIGURES

Figure 1 Landing page MTinfo 3000	
Figure 2 Sign in	
Figure 3 Log in	
Figure 4 Login prompt after session has expired	
Figure 5 Account authentication	
Figure 6 Email with verification code	
Figure 7 Forgot password	
Figure 8 Request Password reset	
Figure 9 Reset password	
Figure 10 Password reset successful	
Figure 11 Dashboard	
Figure 12 Sample notification email of return project	
Figure 13 Sample SMS Notification	
Figure 14 Sample Reminder SMS Notification	
Figure 15 Security Notification Sample	
Figure 16 Security Notification Sample	
Figure 17 Search companies	
Figure 18 Creating companies - info	
Figure 19 Creating companies - rights	
Figure 20 Creating companies - forms	
Figure 21 View company	
Figure 22 Edit company page	
Figure 23 Edit company page	
Figure 24 Search users	
Figure 25 Creating users - info	41
Figure 26 Adding users - roles	
Figure 27 View user	
Figure 28 Creating user roles	
Figure 29 Creating a user role – step 1	45
Figure 30 Creating a user role – step 2	46
Figure 31 Search project	
Figure 32 View project	
Figure 33 Setup project - project info	
Figure 34 Setup project - users	51
Figure 35 Setup project - tasks	
Figure 36 Design project - devices	

Figure 37 Design project - protection zones	
Figure 38 Design project - setup	
Figure 39 Design project - message	
Figure 40 Save design	
Figure 41 Plan project - switch users	
Figure 42 Plan project - protection zones	61
Figure 43 Plan project - instruction app	62
Figure 44 Plan project - documents	63
Figure 45 Plan project - access levels	64
Figure 46 Plan project - devices	65
Figure 47 Save planning	
Figure 48 View project - verify and validate	
Figure 49 Check design	
Figure 50 Release - start	69
Figure 51 Release - finished	
Figure 52 Release – warning service date of a devices expires	71
Figure 53 Return - start	
Figure 54 Return - finished	72
Figure 55 Close	74
Figure 56 Switching protection zone(s) - protection zones	
Figure 57 Switching protection zone(s) - switch	77
Figure 58 Warnings	
Figure 59 Error	
Figure 60 Search project page	
rigare oo searen projeet page	
Figure 61 Project view page	
Figure 61 Project view page	
Figure 61 Project view page Figure 62 Switch protection zone page	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message Figure 66 Device error/warning message	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message Figure 66 Device error/warning message Figure 67 Project view page	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message Figure 66 Device error/warning message Figure 67 Project view page Figure 68 Switch protection zone	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message Figure 66 Device error/warning message Figure 67 Project view page Figure 68 Switch protection zone Figure 69 Switching devices page	
Figure 61 Project view page Figure 62 Switch protection zone page Figure 63 Switch devices page Figure 64 Switch successful message Figure 65 Switch error/warning message Figure 66 Device error/warning message Figure 67 Project view page Figure 68 Switch protection zone Figure 69 Switching devices page Figure 70 Switch successful message	

Figure 74 View report - report info	
Figure 75 View report - users	
Figure 76 View report - Devices	
Figure 77 View report - Display	
Figure 78 View report - General	
Figure 79 Reports - once	
Figure 80 View report - one-time report	
Figure 81 My reports	
Figure 82 Reports - download	
Figure 83 Download report - select users	
Figure 84 Real-time location and data	
Figure 85 Dashboard - asset management	
Figure 86 Edit device	
Figure 87 Search templates	
Figure 88 Creating templates - general	
Figure 89 Creating templates - questions	
Figure 90 Project documentation - general	
Figure 91 Project documentation - through the app	
Figure 92 Project log	
Figure 93 Dashboard page	
Figure 94 Knowledgebase space	
Figure 95 Upload documents page	
Figure 96 Uploading documents	
Figure 97 Uploaded documents	
Figure 98 Knowledgebase space	
Figure 99 Real-time status ZKL 3000 RC	
Figure 100 Real-time status RDI 3000	
Figure 101 Notification logic diagram	

1 VERSION HISTORY

Version number	Date	Change log	Reference (Chapter/Section/Figure)
1.6	16.05.2023	Addition: Identity provider	
2.0	08.09.2023	Addition: Notifications and remote switching, knowledgebase description, mobile phone number note, Disclaimer Improvements: Screenshots, System Health	
		chapter, RDI RTS explanation	
2.1.0	22.09.2023	Addition: Notification	
2.1.1	02.10.2023	Addition: 2FA & Password reset	
2.1.2	26.10.2023	Modification: Asset management Screenshot, Notification logic diagram	
		Deletion: Excel as a reporting option	
2.2.0	16.01.2024	Addition : Time zone feature (Screenshots), List of Figures	
		Modification: Rebranded, Terminology ('Alerts' replaced as 'Notifications')	
2.2.1	20.03.2024	Addition:	
		Filter option added for other devices (RDI 3000, RSS 3000 etc.),	Figure 76, Figure 85
		Report expiry detail	<u>8</u>
		CSV as a reporting option for Project downloads	Figure 90
2.3.0	26.03.204	Addition: Return via mobile application	<u>6.10.5.2.2</u>
		Modification: Screenshots with the 'Return via mobile application' feature	Figure 18, Figure 21, Figure 22, Figure 26, Figure 28, Figure 32, Figure 41, Figure 33
2.3.1	21.08.2024	Addition: User right 'Device: change Unique ID'	Figure 29
		Modification: User Manual naming conventions	All



Version number	Date	Change log	Reference (Chapter/Section/Figure)
2.3.2	16.09.2024	Addition: Key switch notification	Errors and Notifications (item 29), <u>Errors and</u> <u>Notifications</u> (item 15), <u>Errors and Notifications</u> (item 3)

2 PREFACE

The MTinfo 3000 IoT platform has been developed in line with the rail and information standards EN 50126, EN 50128, EN 50129, ISO 9001, ISO 14000 and ISO 27001 for maximal safety and security. As well as having its own private cloud, which can be accessed via the internet, MTinfo 3000 also offers worldwide secure mobile communication with systems in the field. The platform also complies with all privacy standards according to the new European legislation. The platform has Safety Integrity Level 4 (SIL 4), which is the highest available standard in the market for managing railway safety plans.

Please read this manual carefully. For MTinfo 3000 to be used safely and correctly, it's important that you fully understand and follow each step accordingly. Always keep this manual to hand, so you can use it at any time.

This manual is also available on https://www.dualinventive.com/en/downloads.

If you encounter any ambiguities while using MTinfo 3000, please report them via <u>info@dualinventive.com</u> or by telephone. Your feedback is important to us.

To support the use of MTinfo 3000, resources have been made available by Dual Inventive which can be found on our website <u>https://dualinventive.com/en/</u>.

No rights can be derived from the information in this User Manual. The reproduction or distribution in printed, written and/or audio-visual form is prohibited, unless Dual Inventive has permitted this beforehand.

Dual Inventive has originally written this manual in English. If anything is unclear or deviates from the original in a translated version, the original English document is leading.

2.1 Purpose of the User Manual

The purpose of this User Manual is to instruct the user on the correct and safe use of MTinfo 3000. The platform is the web interface for various Dual Inventive products, for example ZKL 3000 RC and RDI 3000. New products are under development and will be added to MTinfo 3000.

This User Manual contains instructions regarding the:

- setup of safety plans;
- planning of safety plans;
- remote switching of protection zones; A protection zone is a group of one or more devices that always switch together. It is possible to use multiple Dual Inventive products, named devices, in the same protection zone and to manage them simultaneously. Multiple protection zones can be created, giving the project planner operational flexibility. As you will see in the main menu, MTinfo 3000 has many functions and possibilities. For more information you can always contact us;
- real-time monitoring of safety devices;
- generating reports.

How to use MTinfo 3000 is similar for Dual Inventive's safety products. If any product specific information is applicable, see the appendix for that product in this manual.

2.2 Users

Typical users of MTinfo 3000 are:

- the work planner who prepares safety plans and assigns the locations for installing devices on the railway track;
- the installer, the track worker who installs devices on the railway track;
- the operator, the track worker who switches devices on the railway track.

The work planner will frequently use MTinfo 3000. The installer and operator will frequently use the MTinfo 3000 mobile app. Users can be named by their assigned task in MTinfo 3000, for example: Project Designer, Project Planner, Project Validator, Project Verifier, etc.

Every user of MTinfo 3000 must meet the following requirements:

- certified to work with MTinfo 3000;
- authorised by the user company administrator for the needed access and user rights for MTinfo 3000.

After certification, the user receives a personal MTinfo 3000 account. See 4.1 for the terms of use.

2.3 Reading guide

To alert the reader to safety issues and important information, the following symbols and terms are used in this manual:

SYMBOL	MEANING
	WARNING
	Indicates a hazardous situation which could result in death or serious injury and/or damage to the product or the surrounding area if the safety instructions are not followed.
	NOTE Provides important information.
	NOTE Refers to a document.

2.4 Abbreviations

	MEANING
SIL	Safety Integrity Level
RDI 3000	Remote Detonator Installer 3000
ZKL 3000 RC	Line Blockage System 3000 Remote Control

Table 2-1: Abbreviations



ΝΟΤΕ

The figures in this manual show examples of several devices and projects in a figurative sense.

3 TECHNICAL SPECIFICATIONS

MTinfo 3000 is an online application that does not require any software to be installed on your computer. After registration, authorisation and authentication, MTinfo 3000 can be used on any computer with an internet connection.

The minimum requirements are:

SPECIFICATION	VALUE	
Internet	Broadband	
Computer	• Processor at least 1.5 GHz	
	 Internal memory at least 2,048 MB 	
	• Video card at least 512 MB	
	• Screen resolution of at least 1,366p by 768p	
Web browser	Google Chrome latest version (recommended)	
	Microsoft Edge latest version	
Recommended	Adobe Acrobat as PDF reader to view reports	
software	• Google Earth (for projects 'GPS-Track')	
Table 3. 1: Minimum requirements		

Table 3-.1: Minimum requirements



NOTE

If the requirements for the needed software and hardware are incorrect or absent, Dual Inventive is not responsible for the consequences.

4 TERMS OF USE



DANGER

Please read all terms of use and instructions for the first use carefully before using MTinfo 3000. Ensure that you fully understand the principles of MTinfo 3000 and how it works practically. When precautionary measures and safety instructions are not properly followed by the user there is a risk of electrocution, fire or even death due to the railway environment.

4.1 Terms of use

- 1. You may only use MTinfo 3000 when:
 - you are trained and certified to work with the applicable Dual Inventive products;
 - you are authorised by the user company for the right access and user rights;
 - the products are certified for the deployment area.
- 2. Dual Inventive creates a user account for the company. This user account is the company's administrator and is the nominated contact person for your company. The administrator is responsible for creating and managing users and their respective rights for using Dual Inventive product(s), in such a manner that misuse is avoided.
- 3. As a certified user, you are responsible for:
 - the received user rights, username and password and/or PIN code;
 - keeping the password and/or PIN code secret;
 - working safely with Dual Inventive products.



WARNING

Always respond to service notifications from devices when something is not working correctly.

- 4. There are certain situations where you may be prevented from switching protection zones. For more information about these situations, refer to the applicable User Manual of the Dual Inventive product.
- 5. Used hardware, software settings, firewalls etc. could limit the connection to MTinfo 3000. When you encounter any issues, please discuss it with your IT staff.
- 6. See Table 3-.1 and visit <u>https://dualinventive.com/en/</u> to find out which browsers and devices are supported by MTinfo 3000 and the app. If needed, request support from Dual Inventive.
- 7. Ensure you have the right SIM card inserted into your mobile phone. The system links your mobile phone number with your assigned user account.
- 8. Ensure your mobile phone is in good working condition. You should be able to send and receive messages via MTinfo 3000.
- 9. When entering a user into MTinfo 3000, ensure that the correct language is activated. If <u>needed</u>, users can change the language.

MTinfo 3000 web app User manual

- 10. User must set their preferred time zone under 'My profile' in MTinfo 3000. This will be automatically applied as default across various functionalities in MTinfo 3000.
- 11. If you have lost login details and/or PIN codes, immediately contact the company administrator within your organisation to block the account to avoid misuse. If internet is available, please go to MTinfo 3000 and change the password and PIN code to avoid misuse.
- 12. While preparing projects, make sure to have internet connection.
- 13. Assign at least two users per project who are authorised for setting-up, releasing and returning projects. MTinfo 3000 offers the possibility to grant several users the rights to manage projects.
- 14. If a scheduled user is ill or absent, contact the person with rights for the project planning. Change the project planning according to the procedure. Schedule another or second user.
- 15. If the location of a device must be changed, contact the person with rights for the project design. Change the project design according to the procedure.
- 16. Check the connection with MTinfo 3000 if it cannot be reached. If a device is not present in MTinfo 3000, the project cannot be released.

4.2 Instructions for first use

- 1. Ensure that the software on your computer is kept up-to-date, including your web browser, Google Earth and PDF reader.
- 2. Follow the applicable, local regulations before entering the worksite.
- 3. Always take care of your own safety within the track environment, following the current applicable legislation.
- 4. Always use a secure connection with MTinfo 3000. The connection is safe to use when the web address is preceded by https://.

5 **PROJECT USERS AND TASKS**

MTinfo 3000 utilises a role-based access control system. Project users are created by the company's administrator (see 6.6). For each project, MTinfo 3000 tasks are assigned to right-bearing project users. The order of the project tasks is not fixed.

Table 5-1 shows an overview of the MTinfo 3000 tasks:

TASK	EXPLANATION
Setup	Creating projects and assigning tasks to project users.
	Assign tasks to at least two project users. This way, more than one person can always change the project.
Design	Creating protection zones and assigning devices to protection zones.
Verify design	Verification of the project design.
	Do not assign this task to a project user who is also responsible for the design.
Validate design	Validation of the project design.
	Do not assign this task to a project user who is also responsible for the design or design verification.
Plan	Assigning switch users to protection zones. This means linking switch users to protection zones and determining the time frames for switching protection zones.
Verify planning	Verification of the project planning.
	Do not assign this task to a project user who is also responsible for the planning.
Validate planning	Validation of the project planning.
	Do not assign this task to a project user who is also responsible for the planning or planning verification.
Release	Release the project to be able to use it. Devices will be reserved to the project.
Return	Return the project so the protection zones no longer can be switched. The devices are no longer reserved to the project.
Closing	Close the project to archive it. A closed project can never be released again, but it can still be viewed or duplicated.

Table 5-1: MTinfo 3000 tasks

6 USING MTINFO 3000

This section provides an overview of the MTinfo 3000 functions. How to use them is explained in section 6.10 to 9.

This section explains the basic features of MTinfo 3000:

- Icons and actions
- Signing in
- Dashboard
- Service messages
- Creating and managing companies
- Creating and managing users
- Search and view projects

6.1 Overview of functions

The MTinfo 3000 functions are divided in three main sections:

- Creating projects: setup, design and plan projects;
- Managing projects: release, return and close projects;
- Switching protection zones.

Additional functionalities in MTinfo 3000 are:

- Creating and managing various types of reports;
- Viewing the real-time status of devices;
- Adding data to devices;
- Managing documents within projects;
- Logging users and tasks within projects.



NOTE

The functions within MTinfo 3000 that a user can access depend on the rights assigned to them.

Several MTinfo 3000 functions consist of multiple steps. Some of these steps are optional.

Table 6-1 shows an overview of the MTinfo 3000 functions and their steps:

SECTIC	N FUNCTION		STEP	• OPTIONAL
6.10.1	Setup project	1.	Project info	
		2.	Users	
		3.	Tasks	
6.10.2	Design project	1.	Devices	
		2.	Protection zones	
		3.	Setup	
		4.	Message	Х
6.10.3	Plan project	1.	Switch users	
		2.	Protection zones	
		3.	Instruction app	Х
		4.	Documents	Х
		5.	Access levels	Х
		6.	Devices	Х
6.10.4	Validate and verify			
6.10.5.1	Release			
6.10.5.2	Return			
6.10.5.3	Close			
7	Switching	1.	Protection zone(s)	
		2.	Switch	
8	Reports	1.	Report info	
		2.	Users*	
		3.	Devices	
		4.	Display	
		5.	General	
9.1	Real time status			
9.2	Adding data to devices			
9.3	Templates	1.	General	



		2.	Questions	Х
9.4	Documents	٦.	General	
		2.	Documents through the app	
9.5	Project log			

Table 6-1: MTinfo 3000 functions

*Some reports also have the step Projects.

6.2 Icons and actions

MTinfo 3000 uses a set of recurring icons for actions. The table below explains the icons:

	EXPLANATION
යා	Back to the Dashboard.
+	Create a new item (project, user, company, etc.).
*	Cancel or close an item. The item will not be saved.
	Download a report or document.
	Duplicate an item.
*	Return to the user overview.
	Return to the user roles
	Generate a report.
•	Check and approve or reject the performed step.
	Personal MTinfo 3000 profile.
	Save an item.
	Show the project overview.
	Switch protection zones.
	Close a project. See all closed projects.
	Show the reports overview.
•	View the real-time status of devices.
i	Show the assigned tasks.
	Start an assigned task.
1	Upload files.
	Delete selected items.
•	Go to the next step.
•	Go back to the previous step.
	Edit an item.
	Add comments.
Q	Search for an item.
	Warning for unwanted conditions.

Table 6-2: Explanation of icons

6.3 Getting started

Get started with MTinfo 3000 by first going to the landing page:

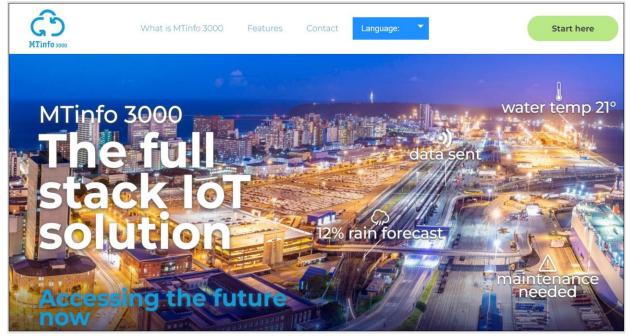


Figure 1 Landing page MTinfo 3000

- 1. Go to https://www.mtinfo3000.com/landingpage/
- 2. Click 'Start here' in the upper right corner.

The window for signing in appears:

🖒 MTìnfo 3000
A MELANDER
Username
Company code
Password
Accept agreement*
SIGN IN
Forgot your password

Figure 2 Sign in



Figure 3 Log in

If you were already logged in, you get the option to login automatically with the same credentials or to login using another account.

- 3. Enter your Username, Company code and Password.
- 4. Click 'Accept agreement', read the 'IoT SaaS Terms of Use MTinfo 3000' and accept them.
- 5. Sign in.



NOTE

If you are logged into MTinfo for more than two hours and if you try to logout, you will have to enter your password to login again.



Figure 4 Login prompt after session has expired

6.3.1 Two-Factor authentication

The Two-Factor Authentication is enabled when you sign in from a new or untrusted device. Follow these steps for account authentication:

• The following window appears for account authentication:

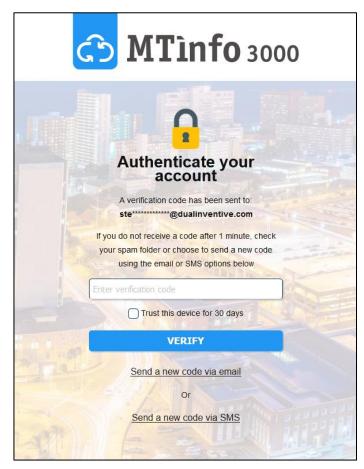


Figure 5 Account authentication

	🖒 MTìnfo 3000
Dear	L.
	le to log in using your MTinfo 3000 account. Please insert this to 3000 verification screen to complete your log-in. fter 15 minutes.
	e this request, contact your company's MTinfo 3000 change your password ASAP.
Code:	7CCE8D
Kind regards, MTinfo 3000	

Figure 6 Email with verification code

- Copy the verification code and enter it into the authentication window.
- Optionally, You can check the 'Trust this device for 30 days' box. When you do this, you won't have to log in to your account again for the next 30 days on this web browser and your current device.



NOTE

It is not recommended to check this option for public devices.

• Click on 'Verify'.



NOTE

You have 10 attempts to enter a valid verification code. If your last attempt fails, you will be temporarily blocked from using Two-Factor authentication for 15 minutes.

6.3.2 Password reset

If you can't sign in because you have forgotten your password, you can reset it. Follow these steps for Password reset:

• Click on 'Forgot your password' in the sign-in window.

င်ာ MTinfo 30	000
	000
Username	
Company code	
Password	
Accept agreement *	
SIGN IN	
Forgot your password	

Figure 7 Forgot password

• The following window appears to request a password reset:



Figure 8 Request Password reset

- Enter your username and company code.
- Click on 'Submit'.



NOTE

Ensure there are no typos, and the correct username & company code are entered to receive the password reset email.

If you don't receive an email, you may have entered an incorrect username or company code.

- Go to your email address to find the **MTinfo 3000 password reset link** sent to you.
- Click on the link in the email. The following window will open in your browser:

ာ MTìnf	O 3000
Reset password	
New password	
Repeat password	
SUBMIT	

Figure 9 Reset password

- Insert a new password with minimum of **10 characters**.
- Repeat the same password for confirmation.
- Click on 'Submit'. If you see the following window, your password has been successfully reset:

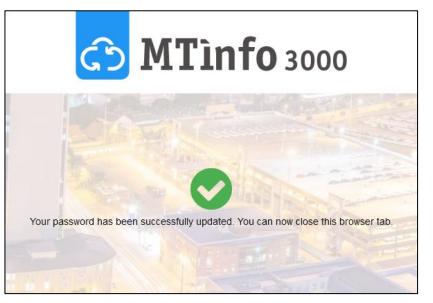


Figure 10 Password reset successful

• You can now sign in to MTinfo 3000 using your new password.

6.4 Dashboard

After signing in, you will see the dashboard:

ථ							٠	User 1 Dual Inventive Limited
٠							My MTinfo	
۶ به	ſ	Good afternoon User 1 Dual Inventive Limited		8.6°C Sheffield			🔿 Plan - DI 3	6 seconds ago
5							O Design - DI 3	6 seconds ago
9 #	a	J.C.	4	>	(***	O Plan - ZKL 1	56 seconds ago
•	My MTinfo	Asset Management	Support	Projects	Real time status	Users	O Design - ZKL	1 56 seconds ago
≥ •	User roles	Companies	Knowledgebase	Reports	Monitoring	\odot		
	Timesheet			þ		troight		

Figure 11 Dashboard

From the dashboard, you can navigate to projects, reports, devices, change settings, etc. The applicable functions will be discussed in the next sections of this manual.

The upper right corner of the Dashboard has the following functions:

- The button User/Company Name, gives you access to:
 - My profile;
 - My company;
 - Privacy statement;



- Contact us;
- Logout.
- The blinking ellipses at the top right corner (:) indicates a good internet connection. A blinking exclamation (!)indicates no internet connection;
- Displaying banners, notifications and tasks.

On the left side, you see a menu with several functions. This menu is always available on the individual screens of MTinfo 3000. You can hide (\leftarrow) or display (\equiv) this menu.

On the right side, you see My MTinfo. This menu shows an overview of the assigned tasks in MTinfo 3000.

6.5 Service messages

Users can receive the following service messages from MTinfo 3000:

1. emails regarding project release and return notifications.

[RC] MTinfo pr	oject RETURNED: RC Simulator Project Automated Tests_4
MTinfo 3 To sysadn	000 <mtinfo@dualinventive.com> nin</mtinfo@dualinventive.com>
he project to which	you have been assigned has changed: RC Simulator Project Automated Tests_4
he project overview	is displayed below.
	-
General project i	nformation
Component	Value
General project I Component Project name Project type	
Component Project name Project type	Value RC Simulator Project Automated Tests_4
Component Project name Project type Description	Value RC Simulator Project Automated Tests_4 RC Jira ticket:
Component Project name Project type Description Changes	Value RC Simulator Project Automated Tests_4 RC Jira ticket: https://dual-inventive.atlassian.net/browse/CRC-122
Component Project name Project type Description Changes Changed by	Value RC Simulator Project Automated Tests_4 RC Jira ticket: https://dual-inventive.atlassian.net/browse/CRC-122 Status: Released => Not released
Component Project name	Value RC Simulator Project Automated Tests_4 RC Jira ticket: https://dual-inventive.atlassian.net/browse/CRC-122 Status: Released => Not released Super user

Figure 12 Sample notification email of return project

- 2. critical service notifications via text message (SMS). Examples of these critical notifications are:
 - Detection not OK;
 - Back-up or main battery status;
 - Device is offline;
 - Device Maintenance.

ZKL 3000 RC T0119 is offline. Please check manual for more information.

Figure 13 Sample SMS Notification

- 3. reminder functionality for the following notifications, for example:
 - Device offline, when the device is in an activated protection zone;
 - Detection not OK, when the device is in an activated protection zone.

Reminder: ZKL 3000 RC T006 is offline. Please check manual for more information. ZKL 3000 RC T006 * The backup battery has sufficient power, the main battery is CRITICAL. Please check manual for more information.

Figure 14 Sample Reminder SMS Notification



NOTE

For more information on Notifications and Notifications reminders please refer to 13 APPENDIX notification messages:

Notifications ZKL 3000 RC for ZKL devices Notifications RDI 3000 for RDI devices Notifications RSS 3000 for RSS devices

4. security warnings (in case rights have changed or a user logs in from a different IP address);

MTinfo 3000 security notification MTinfo 3000 <mtinfo@dualinventive.com> To testing</mtinfo@dualinventive.com>
MTinfo 3000
This is a security notification for MTinfo 3000 user Preethi User (Dual Inventive Test)
Your profile has been changed Your profile was changed by Preethi User (Dual Inventive Test) from IP '82.168.232.250' using 'CHROME':
The following items have been changed:
Assigned userrole(s)
If this activity is your own then there's no need to respond, otherwise
 Scan your computer for viruses or malware Contact the support department of your company

Figure 15 Security Notification Sample

5. (Periodic) reports were generated and documents that are filled in by/for project users.

Filte	New actions	My	y reports						
-	er								
-			Report name	Report type	Description	Generated on	Period from	Period to	Activ
Penort		_	report_device_20240117_14_02_00.pdf	Devices	Dualinventive	17-01-24 13:02:01 UTC+00	15-01-24 23:00:00 UTC+00	16-01-24 22:59:59 UTC+00	± t
			report_device_20240116_14_02_00.pdf	Devices	Dualinventive	16-01-24 13:02:01 UTC+00	14-01-24 23:00:00 UTC+00	15-01-24 22:59:59 UTC+00	40
hepon	tname	8	report_device_20240115_14_02_00.pdf	Devices	DualInventive	15-01-24 13:02:01 UTC+00	11-01-24 23:00:00 UTC+00	14-01-24 22:59:59 UTC+00	40
Optio	onal		report_device_20240112_14_02_00.pdf	Devices	DualInventive	12-01-24 13:02:01 UTC+00	10-01-24 23:00:00 UTC+00	11-01-24 22:59:59 UTC+00	1
Descrip	iption	8	report_device_20240111_14_02_00.pdf	Devices	DualInventive	11-01-24 13:02:02 UTC+00	09-01-24 23:00:00 UTC+00	10-01-24 22:59:59 UTC+00	±1
Optio	onal		Showing 1 to 5 of 71 rows 5 rows per page					1 2 3 4 5	d la
Genera	ated on (Europe/London)	8	showing to solutions 5* nows be page					1 2 3 4 3	
	Optional								
Period	d from (Europe/London)	8							
	Optional								
	d to (Europe/London)								
	Optional								
Report	vices	Ξ							
	vices								

Figure 16 Security Notification Sample



NOTE

Emails regarding projects can be turned off under My profile (Receive project emails: No).

Services notifications are safety related and cannot be turned off.



NOTE

A notification is a message, or a reminder of a message send by MTinfo 3000 to a users' mobile device (tablet, phone). A reminder for a critical notification is an extra service to help the user but it is explicitly not a mitigation of an identified risk.



WARNING

SMS messages will not be delivered to the user if a wrong telephone number is registered or when the user blocks the sender's phone number MTinfo 3000.

Verify if you have entered your correct telephone number and do not block the sender.

6.6 Creating and managing companies

If you have the assigned rights, you can create and manage companies.

The page Search companies appear:

ථ	≡	Karlo Hering Foxiz testbedri	
د بر	Search companies		v5.60.0 🕑
1) O (1)	Filter +		
•	Company name Optional Foxiz testbedrijf (fxz)		

Figure 17 Search companies

• 2. Click the icon to start creating a new company within the parent company.

Follow steps 1 to 3 to create a new company.

6.6.1 Step 1 - Info

In step 1 of creating companies, add the required company information.

ථ	-						User 1 Dual Inventive	8 -
	Add company							
	Home > Companies > New company	Home > Companies > New company					v5.78.1-returnvia.app.20240319160800.11.at	173b4ca 🛈
8 0 8	a a c c c c c c c c c c c c c c c c c c	Optional 3 Forms	90					
					-			_
	Company name *	Company name			Latitude	Optional		
⊌ •	Company code *	Company code			Longitude	Optional		
	Logo				Invisible for rent	Yes	No	
					Multi-protection zone switching enabled	Yes	No	
		± CHOOS	E FILE		Operators can return projects	Yes	No	
	Address *	Address			Status	Service Pack Enabled		
					Country	United Kingdom		
					5 Time zone	Europe/Amsterdam		
Phone *		*** *** 07400 123456			Language	English		
	Fax	Optional			Date format	DD-MM-YY (24-03-24)		
	Email	Optional]			
	Contact e-mail *	Required]			
	Parent company	Dual Inventive Test		· · · · · · · · · · · · · · · · · · ·				
	Contact email for parent company	testing@dualinventive.com			-			
	Service email				•			

Figure 18 Creating companies - info

 Fill out the required fields. Note: select the country code of the telephone number.
 Fill out the optional fields.
 Upload optionally files (max. 8 MB).
 Go to step 2.

6.6.2 Step 2 - Rights

In step 2 of creating companies, select the available rights.

ĉ	=		User 1 Dial International Links 2	÷
	Add company Home > Companies > New company		Ib	200
	C 1 2 Contract of	98		
• ₽	Filter DAULIAGE BIGHTS Category 6 Acat management 20 Popert management 20	Catagory 2.0" Asset management Asset management Asset management Asset management Asset management	<section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></section-header>	

Figure 19 Creating companies - rights

Select the available rights.
 Go to step 3.

6.6.3 Step 3 - Forms

In step 3 of creating companies, select forms. This is an optional step. Before you can select forms, templates must be created (see 9.3).

ථ	=		User 1 Dad Inventor Limited
* }	Add company		
	Home 🔰 Companies 🔰 New compa		v5.72.8 Q
9 C 6	C 1 2	optimal 3 Its Forms	
R D	Filter	rours selected	а Туре
۰	Name 😑	Manual Switch Report	Logbook feedback template
	Optional	Showing 1 to 1 of 1 rows	
	Type 🖂		
	Logbook feedback template		

Figure 20 Creating companies - forms

	1.	Optional: select one or more forms.
•	2.	If needed: change any entered data of step 1 and 2 before saving the company.
	3.	Save the company.
×	4.	If needed: cancel the company at any point. The entered data will not be saved.

v5.78.1-returmviaapp.20240319160800.11.a973b4ca 🙆

After saving the company, the page View company appears:

Figure 21 View company

From this page, you can manage companies:

 If needed, edit company information. Select the applicable tab Info, Right or Forms to edit.
 If needed, change the user roles.
 If needed, delete the company.

6.6.4 Company editing

After creating the company, you can edit it. This process is almost identical to that of creating a company. The notable exception is that you can set up a contact, to whom any support questions will be sent via email. You can select any user, that exists within the created company, that has the *User: administration* right.

ථ	-						A User 1 au linventive - B III
۵ بر	Edit company - Dual Inventive Test						
, a	Home > Companies > Dual Inventive Test	Edit					v5.78.1-returnsiaapp.20240319160800.11.a973b4ca 🔘
2 2 0 12	a a constant a constan	Forms					
R D	Company name *	Dual Inventive			Latitude	Optional	
•	Company code *	ditst			Longitude	Optional	
Ŭ	Logo				Invisible for rent	Yes	No
					Multi-protection zone switching enabled	Yes	No
		±. сно	OSE FILE	E REMOVE	Operators can return projects	Yes	No
	Address *	Belgiëstraat 5			Status	Service Pack Enabled	✓
					Country	United Kingdom	✓
					// Time zone	Europe/Amsterdam	✓
	Phone *	+31 • 013 533 9969			Language	English	✓
	Fax	Optional			Date format	DD-MM-YY (24-03-24)	✓
	Email	Optional					
	Contact e-mail *	testing@dualinventive.com					
	Parent company	SYSTEM					
	Contact email for parent company	support@dualinventive.co.uk					
	Service email				+		

Figure 22 Edit company page

If left blank, any support question will be sent to Dual Inventive.

ා		٩	User 1 Dual Inventive Limited
*	View company - ABC		
a	Home > Companies > ABC		v5.72.0 Q
	Info Rights Forms		
۰	PROJECT FEEDBACK TEMPLATE LOGBOOK FEEDBACK TEMPLATE		
*	Name Name		
۹	Manual Switch Report		
М			
٠			
	4		

Figure 23 Edit company page

6.7 Creating and managing users

Before you set up a project, first you must create new users.

1. Go to the Dashboard (Figure 11) and click Users.

The page Search users appear:



Ô	=				User 1 Dual Inventive Limited
اھ بر چ	Search users	Users			v3.720 0
	Filter	•			4
\$	Name Optional Company Dual Inventive Lim 26 S&C South Alliance 28 Silver Edge 10 Dual Inventive Lim 2 More options	First name ∆⊽ User User	Last name Δ∇ 1 2	Company ∆⊽ Dual Inventive Limited Dual Inventive Limited	Actions
	Roles (diltd) 22 C RTM User 13 ZKL Switcher 29 ZKL Planner 23 Asset Management 15 Password Reset 17 More options				

- Figure 24 Search users
- 2. Click the icon to start creating a new user.

Follow steps 1 and 2 to create a new user.

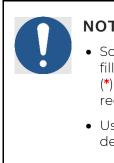
6.7.1 Step 1 – Info

In step 1 of creating a user, add the required user information.

ථ	=		٠	User 1 Dual Inventive	8
	Add user				
	Home 🔰 Users 🔰 New user				v5.1
8 1) O 1)	• • •				
	User name *	Mobile phone number* 667 +44 + 7400 123456			
•	Password *	Email address* Required			
	Confirm password *	Required Begin login (Europe/London)* 🗮 16-01-24			
	Pincode *	Required Outsourced* Yes		No	
	Confirm pincode *	Required Two factor authentication (27A) * Yes		No	
	Initials *	Required Receive project emails * Yes		No	
	First name *	Required English			~
	Last name *	Required Company* Dual Inventive			~
	Avatar Avatar	Time zone * Europe/Amsterdam			~
		± CHOOSE FILE			

Figure 25 Creating users - info

	1.	Fill out the required fields. Note: spaces are not allowed in username
		the password must have minimal 10 characters;
		the pin code must have at least 2 unique digits;
		the phone number must have at least 7 digits;
		select the country code of the phone number;
	2.	Fill out the optional fields.
	3.	Upload optionally files (max. 8 MB).
•	4.	Go to step 2.



NOTE

- Some steps or fields in MTinfo 3000 are not required and do not have to be filled out to go to the next step. Required fields are marked with a red asterisk (*) and must be filled out to continue. If you forget a field or do not comply with requirements, a pop up will appear showing what needs to be done.
- User must set their preferred time zone which will be automatically applied as default across various functionalities in MTinfo 3000.

• Use *a uniform time zone* for all users in a project to avoid errors that may arise during project planning and switching.

6.7.2 Step 2 - Roles

In step 2 of creating a user, select one or more user roles.

ා	-			🐥 Useri 🐣
۵ ۶	ıdd user			
	Home 🗦 Users 🗦 New u:	ser		v5.78.1-returnvisapp.20240319160800.11.#973D4ca ©
1 0 L	c I Info	Cystead 2 Roles		
•	Filter	AVAILABLE ROLES	SELECTED ROLES	
	Uter role Optional	App instructions user App instructions user App instructions user App instructions user App instructions App instructing App instructing App ins	Noresults	

Figure 26 Adding users - roles

	1.	Select one or more User roles.
•	2.	If needed: change any entered data of step 1 before saving the user.
	3.	Save the user.
×	4.	If needed: cancel the user creation at any point. The entered data will not be saved.



ථ	=				•	User 1 Dual Inventive	8
د عر	View user - User 1						
	Home 📏 Users 📏 User 1						v5.76.0 🕗
ୟ ଜ	Info	Roles	Projects				
Ø							
	CHANGE PASSWORD	CHANGE PINCODE	SEND ACTIVATION EM/	IL			
	User name			Begin login (Europe/London)	09-09-23		
2	Avatar			Outsourced	No		
•				Two factor authentication (2FA)	Yes		
	Initials	U1		Receive project emails	Yes		
	First name	User					
	Last name	1		Language	-		
	Mobile phone number	+44		Company	Dual Inventive		
				Time zone	Europe/London		
	Email address						

After saving the user, the page View user appears:

Figure 27 View user

From this page, you can manage users:

- 1. Send an activation email to grant the new user access to MTinfo 3000.
- 2. If needed, change the user's password or pin code.
- 3. If needed, edit user information. Select the applicable tab Info, Roles or Projects to edit.



(🜒

NOTE

The mobile phone number is used to send critical notifications to.

6.7.3 Employee who leaves the company

When an employee is going to work somewhere else it is necessary to remove the user from the project. This can only be done when a user is not on a project which is in use. When the user is on an active project and you want to update the date of "Begin login" you see the warning: "This is critical information, you cannot modify it until the user is not assigned to an open project".

6.8 Creating and managing user rights roles

User rights in MTinfo 3000 allow what a user is allowed to see and do in the application, and what not. Each right corresponds to one or more features/functionalities in the system.

User roles are bundles of user rights which can be assigned to a user. The added value of this feature is that instead of having to select multiple users per right, they can instead be assigned one user role that covers all of these rights instead.

In order to create a new user role, navigate to the company which you want to create a user role first (see step 5.6.3).

Press the user roles button
You will see an overview of the current user roles. Press the following button to create a new user role

Roles				
н	Iome > Companies > Dual Inventive > User roles			v5.78.1-returnviaapp.20240319160800.11.a973b
ilter				
tole name	Role name △▽	Number of rights △▽	Number of users ムマ	Action
	App administration user	1	3	10
Optional	App instructions user	1	4	10
lights	App location user	1	3	10
	App realtime user	2	4	10
	App returner	1	2	10
	App RS user	1	4	10
	App scan user	1	3	10
	App TWS user	1	3	10
	App weld user	1	3	10
	Asset manager user	20	3	10
	Asset manager user DI	11	3	10
	Operate only	2	4	10
	Project and RTS viewer	5	4	10
	Project Designer	3	3	10
	Project Leader	9	3	10
	Project Operator	9	4	10
	Project Planner	3	4	10
	Project Validator	4	3	10
	Project Verifier	4	3	10
	Report user	10	3	10
	Superuser	105	3	10
	Support manager	6	3	10
	System manager user	13	3	10
	Track	8	3	19

Figure 28 Creating user roles

3. Give the user role a name and select the appropriate rights. The names of the rights are self-explanatory and show which area or functionality they grant access to within MTinfo 3000. Multiple rights can be selected for one user role.

ථ	=			🔺 User 1. 📥 🗄
	Create role			
	Home > Companies > I	Dual Inventive > User roles > New user role		v5.85.0@
14 O 17 25	rz 1 Rights	Cystemat 2 Users		
	Filter	Role name * Required		Copy rights from None 🗸
۰	Right Optional	□ - Right △▽	Category △▽	No results
		Asset manager: access	Asset management	
	Category Asset management 26	Article: create	Asset management	
	Project management 27	Article: edit	Asset management	
	Rail insight 3	Article: view	Asset management	
	Mobile apps 8 Reports 8	Device: administration	Asset management	
	Asset management 26 Project management 27 Rail insight 3 Mobile apps 8 Reports 8 Reports 2	Device: change Unique ID	Asset management	
	More options	Device: edit	Asset management	
		Device: financial administration	Asset management	
		Grafana: devices	Asset management	
		Device: import	Asset management 1 - 10 of 103, selected 0 10 +	

Figure 29 Creating a user role – step 1

If required, you can copyrights from an existing role using the drop-down menu on the right side.

- 4. After creating the user role, you can immediately add one or more users to this role. This step is optional.
- 5. Once all these steps have been completed, press the save button to save the user role.

ථ	=				User 1 Dual Inventive Limited
▲ ۶	Create role				
a	Home > Companies > Du	ual Inventive Limited 👂 User roles 👂 New user rol	le		v5.72.0 Ø
14 O 17 3	¢ 1 Rights	Optional 2 Users			
•	Filter	AVAILABLE USERS		SELECTED USERS	
2		□ - Name ▲ マ		No results	
۰	Name Optional	User 3 User 2 User 1			
			_		
		4 1 2 3 4 5 6 »	1 - 5 of 27, selected 0 5 -		

Figure 30 Creating a user role – step 2

B

6.9 Search and view projects

From the page Search project, search for existing projects:

ධ

Go to the Dashboard and click Projects.

The page Search project appears with an overview of the existing projects:

ආ	=	A Karlo Hering B
∎ بر	Search project	
	Home 3	> Projects
0	Filter	
€ . ⊲	Project name	Project name Reference Company Type Start 0 Start Date Design Planning Actions User Manual RDI 3000 Karlo Hering (Super user) Foxiz testbedrijf RC Not released 24/06/2022 OOOO OOO Ct
	Optional	User manual MTinfo 3000 Karlo Hering (Super user) Foxiz testbedrijf RC Not released 24/06/2022 OOO
٠	Reference E	Showing 1 to 2 of 2 rows
	Optional	
	Project type	3
	Regular RC TWS	
	Ready to release	3
	Not released (Ready to release)	
	Status E	
	Project Start Date	Э
	Doptional	
	Project End Date	3
	Doptional	
	Company E	3
	Optional	
	Devices E	3
	Optional	
	Project leader	B
	User 🗄	9

Figure 31 Search project

From this page, search, filter and sort projects. On the left side, you see Filter. Enter a project name and/or reference, partially or as a whole. Use filters (project type, ready to release, status, etc.) for effective searching.

Use the arrows to sort projects alphabetically (a-z or z-a).



NOTE

Search, filter and sort are available for many overviews, for example users, reports, etc.



To view an individual project, click the project's row. The page View project appears:

٢	=					🌲 User 1 Deal Inventive Test 🚨
۵	View project					
×	Home > Projects > DI_A2					vd.80.0 ©
4	Setup 🗸 Design 🗸 PL	nning Documents	Project log			
٠						
۰	🖍 💿 🖿 😂 🖓 🛓 RELEASE RET	IRN				
-	PROJECT INFO			PROJECT TASKS		
•	Project name DI_A2			Task	Users	
	Project name 01_A2			A Setup	User 1	
×.	Company Dual Inventive Test			Design	User 1	
				Verify Design	User 1	
۰	Reference			Validate Design	User 1	
				• Plan	User 1	
	Project type RC			Verify Planning	User 1	
				Validate Planning	User 1	
	Operators can return project Ves			Release	User 1	
	Start Date (Europe/London) 27-03-24			Return	User 1	
	Site Leader			UNASSIGNED SETUP USERS	s	
	Project Planner -			All users assigned.		
	Safety Coordinator -					
	Description					
	Status Not released (Ready to relea	e)				
	Design Definitive					
	Planning Definitive					

Figure 32 View project

From the tab Setup, you have access to several functions for the selected project:

	Edit a project.
Q	View the real-time status.
	Close a project.
*	Switch protection zones (not active).
	Duplicate a project.
	Download a report or document.
RELEASE	Release a project (not active).
RETURN	Return a project (not active).

When a button is not active, it colours light blue. Not active buttons become active (blue) after having performed the applicable actions in MTinfo 3000.

You can also view:

- project details: project name, company, project type, start date, Site Leader, Project Planner, etc. (scroll down to see more);
- the status of project tasks.
- Click the icon to go back to the Dashboard.



NOTE

There are different ways to access several functions in MTinfo 3000, for example from the Dashboard or the page View project. Not all different ways are discussed in this manual. You will learn by doing and finding your own way in MTinfo 3000.

6.10 Create projects

This section explains how to create MTinfo 3000 projects. A project allows you to easily set up, design, plan and control protection zones.

6.10.1 Setup projects

Before you set up a project, first create a new project:

෩	1.	Go to the Dashboard (Figure 11).
	2.	Click on Projects to access the page Search projects.
+	3.	Create a new project.
	4.	Start the setup.

The page Setup project appears. Follow steps 1 to 3 to setup a new project.

6.10.1.1 Step 1 - Project info

In step 1 of the project setup, add the applicable project information.

ථ	=		🔺 Unit 🛔 🛔
▲ ≁	Setup project		
47 8	Home > Project > Project Setup	0 00	Outoffits LL SUBSTITUTE approximate (JFL):
9 #	Project Info	3 Description of the second se	
a N	Project name *	Project name	Description Optional
۰		Dual Inventive Test Optional	
	Project type *	RC TWS Regular	Project log remark Optional
	Operators can return project		(****
	Start Date (Europe/Amsterdam) *	Required Optional]
	Project Planner		
	Safety Coordinator		

Figure 33 Setup project - project info

- 1. Fill in a Project name.
- 2. Optional: add a Reference.
- 3. Select **RC** as Project type.
- 4. Select Yes/No if 'Operators can return RC projects'.
- 5. Fill in the Start date (this date is just used as an indication to know when the project is planned to start but does not actually do anything).
- 6. Optional: add a Site Leader.
- 7. Optional: add a Project Planner.
- 8. Optional: add a Safety Coordinator.
- 9. Optional: add a Description.
- 10. Optional: add a Project log remark.
- ➔) 11. Go to step 2.

6.10.1.2 Step 2 - Users

ථ	=				A Karlo Hering Foxiz testbedrijf
اھ بر	Setup project				
-	Home 📏 Projects 📏 U	ser manual MTinfo 3000 义	Project Setup Edit		v5.60.1 O
- 9	•	2	3		
	Project Info		Tasks		
۵ ۵	Filter	Users PROJECT USERS	19282	SELECTED USERS	
		S Name ∆⊽		Karlo Hering	
	Name	Karlo Hering		Peter Planner Sam Safety	
	Optional	Peter Planner		Sam Sarety	
	Project role	Sam Safety			
	Jecup 3 Design 3 Verify Design 3 Validate Design 3	« 1 »	1 - 3 of 3, selected 3	10 *	
	Plan 3 Verify Planning 3				
	More options User role				
			Figure 34 Setup pr	oject - users	

In step 2 of the project setup, select the project users (planners).

 1.
 Select the project users.

 Image: Output to the project user of the project user of

6.10.1.3 Step 3 - Tasks

In step 3 of the project setup, connect the project users and tasks.



WARNING

Never assign a single project user to all tasks. Verification and validation should be independent from the project design and planning. MTinfo 3000 recommends assigning at least two users to the setup stage.

) =	=										E Karle	Hering testbedrijf	2
s	Setup projec	t											
		Home > Projects >	User manual MTir	nfo 3000 👂 Project	Setup Edit								v5.60.1
	¢				3		×						
		Project Info	Users	-	Tasks								
		Name Karlo Hering	A	A Setup	Design		Validate Design	Plan	Verify Planning	Validate Planning	Release	Retur	n
		Peter Planner	A						S		S	0	
							_			-			
		Sam Safety	A A	\bigcirc	\Box	S	S	\bigcirc	S	2	Ο	\bigcirc	

Figure 35 Setup project - tasks

- Assign the project users to their tasks.
 If needed: change any entered data of the previous steps before saving the project setup.
- 3. Save the project setup.
 - 4. If needed: cancel the project setup at any point. The entered data will not be saved.

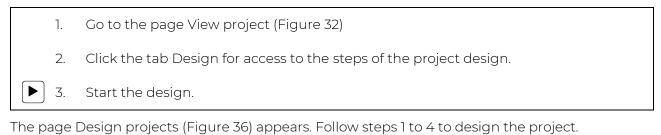
ΝΟΤΕ

×

It is recommended to assign a minimum of two people to the "Release" and "Return" to not being dependent on one person to release or return a project.

6.10.2 Design projects

Design projects is used to create protection zones and assign devices to them.



6.10.2.1 Step 1 - Devices

In step 1 of the project design, select which devices are to be switched on the project. Only switchable devices are displayed.



WARNING

Make sure that the devices on the project are located at the correct location in the track. Do not do this via the GPS tracking but check the actual position in the track.

ථ	=						٨	Karlo Hering Foxiz testbedrijf	3 :
د بر	Design project								
	Home > Projects > Us	er manual MTinfo 3000 🗦	Project Design Edit						v5.60.0 🔿
11 0 12	D			Optional 4	•				
	Devices	Protection zones	Setup	Message					
٥	Filter	SELECT DEVICES					In a list	On a map	
		1 rows selected							
	ID code 😑	ID code	Status	Туре	Remark	¢	PROJECT DEVICES		
	Optional	T0128	Active	ZKL 3000 RC			 T0128 (ZKL 3000 RC) 		
	Status Active Service	Showing 1 to 1 of 1 rows							
	Type 😑								
	ZKL 3000 RC Remark								
	Optional								
	oponer								

Figure 36 Design project - devices

Select the devices to be switched. See the selected devices on the right side of this screen: In a list or on a map.
 Go to step 2.

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In case the location of a device needs to be changed later on, contact the person with the project's Right *Design* and change the design according to the process.



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Ensure that before and during the design, connections are present with the devices that are to be used. If connections are not present a project can never be released.

6.10.2.2 Step 2 - Protection zones

In step 2 of the project design, create protection zones.

ථ	=					•	Karlo Hering Foxiz testbedrijf	≜ :
د بر	Design proj	ect						
		Home 🔰 Projects 🔰 User manual MTinfo 3000	> Project Design Edit					v5.60.0 🕑
9 9 12	¢	1 2	3	Optional 4	J R			
		Devices Protection zones	Setup	Message				
٠		CREATE PROTECTION ZONES						
		Protection zone name	Descriptions					
		Required	Optional					Û
		Required	Optional				1	Û
								+

Figure 37 Design project - protection zones

Create one or more protection zones.
Fill in a Protection zone name. The name must be unique within the project.
Optional: fill in a Description.
Go to step 3.

6.10.2.3 Step 3 - Setup

In step 3 of the project design, link the selected devices (step 1) and protection zones (step 2).

NOTE It is not possible within a project to add the same device to two protection zones.

¢			Optional			
	Devices	2 Protection zones	3 4 Setup Message	→ > ×		
Filter Serial n Optior Status	mber	SELECT DEVICE(S) Serial number △マ No results	Status ∆⊽ Device type ∆⊽	ADD TO PROTECTION ZONE LEEDS	PROTECTION ZONES LEEDS T0128 (ZKL 3000 RC) LONDON	1 ^
Act Device t ZKI	rpe	« 1 »	0 - 0 of 0, selected 0 10 -	LONDON		

Figure 38 Design project - setup

Select one or more devices.
 Click the button with the name of the protection zone to add the selected devices to the protection zone. At the right-side, see an overview of the linked devices and protection zones.
 If needed: remove a device from the linked protection zone.
 Go to step 4.

6.10.2.4 Step 4 - Message

In the optional step 4 of the project design, messages can be added. They will be displayed when a user opens protection zones in the app.

ථ	=						۵	Karlo Hering Foxiz testbedrijf	≜ :
اھ بر	Design proje	ct							
		Home 🔰 Projects 🗦 L	Jser manual MTinfo 3000 🗦	Project Design Edit		_			v5.60.1 🕑
9 8	¢				Optional 4				
		Devices	Protection zones	Setup	Message				
۰			ne user when they open the protect						
		Protection zone name			Message Optional				
		London			Optional				

Figure 39 Design project - message

1. Optional: add a message to each Protection zone name.

The last step is to save the project design (see 6.10.2.5).

6.10.2.5 Step 5- Save project design

Save the project design before starting the verification and validation. Or verify and validate the project design directly (see 6.10.3).



NOTE

To reduce risks, MTinfo 3000 uses the six-eyes principle. It is strongly recommended that a second authorized user should verify the design and a third authorised user should validate the design.



NOTE

You can verify and validate the design directly if you are authorized. Because of the six-eyes principle, Dual Inventive does not recommend this step in operational use.

1.	Click the icon.
----	-----------------

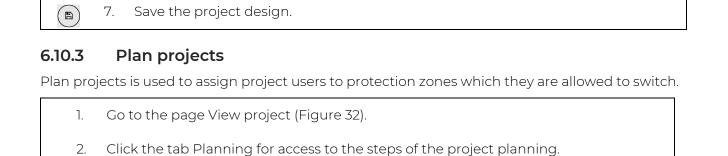
This screen appears:

Save design	×
Based on your assigned tasks with actions:	in the project, you are also allowed to perform the following
Possible actions	✓ Save
	+ Submit for verification + Verify + Validate
Project log remark	Optional
Current status	Not created
The new status will be	
	🖺 SAVE CLOSE

- 2. Tick the box Submit for verification. Authorised project users will be assigned to the task Verify project in My MTinfo.
 - 3. Tick the box Verify if you want to verify the project design directly.
 - 4. Tick the box Validate if you want to validate the project design directly.
 - 5. Optional: add a Project log remark. This will be shown in the Project log (see 10.4).
- 6. If needed: change any entered data before saving the design as final. Click on any of the previous steps and change the data accordingly.

+

Figure 40 Save design



3. Start the project planning.

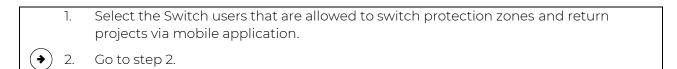
The page Plan project (Figure 41) appears. Follow steps 1 to 6 to plan the project.

6.10.3.1 Step 1 - Switch users

In step 1 of the project planning, select the switch users.

Home > Projects >	DL_A3 > Project Planning Ec	it Optional	Optional	Optional	Optional		v5.78.1 returnviaapp.20240319160	800.11.a973b4ca Ø
(2)	2		Optional	Optional	Optional		v5.78.1-returnvlaapp.20240319160	800.11.a973b4ca Ø
	2 Protection romes	Optional	Optional	Optional	Optional			
Switch users	Protection zones			5	6	•		
	Trotection zones	Instruction App	Documents	Access Levels	Devices			
Filter	SELECT SWITCH USE	RS		SELEC	TED SWITCH USERS			
-	Name 🛆	~	Can return project △▽		Project Operator			
Name	App RS		No		Jser 1			
Optional	App TWS		No					
	and the second se							
	-	i den Boom						
	User 1		Tes					
			1 - 7 of 7, selected 2	10 -				
		Project 0 Super Us Toine var User 1	Project Operator (non return) Super User Toine van den Boom User 1	Project Operator (non return) No Super User Yes Toline van den Boom Yes User 1 Yes	Project Operator (non return) No Super User Yes Toine van den Boom Yes User 1 Yes	Project Operator (non return) No Super User Yes Toine van den Boom Yes User 1 Yes	Project Operator (non return) No Super User Yes Tolne van den Boom Yes User 1 Yes	Project Operator (non return) No Super User Yes Toine van den Boorn Yes User 1 Yes

Figure 41 Plan project - switch users





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This icon shows users without access to the app or rights to view the project in MTinfo 3000. Users without switching rights are not shown in this step to begin with.

NOTE

If a scheduled switch user becomes ill or is absent, contact the person with the project's Right Planning and change the planning according to the process.

It is advised to schedule in a backup.

6.10.3.2 Step 2 - Protection zones

In step 2 of the project planning, assign the selected switch users (step 1) to the protection zones they are allowed to switch. The period wherein the switch users can switch the protection zone, can be determined in this step.

ථ						User 1 Dual Inventive	a (
∎ بر	Plan project						
a	Home > Projects > Dual Inventive > Pr	roject Planning Edit					v5.76.0 @
3 4 0		Optional 3	Optional	Optional 5	optional 6		
¢0.	Switch users Protection zones	Instruction App	Documents	Access Levels	Devices		
a 3 .	SELECT SWITCH USERS AD Name	DD TO PROTECTION INNE	PROTECTION ZONES			1	~
٠	User 1	DI_UK	Name Switchright	from / to (Europe/London)			
			User 1 🚺 Op	tional	Optional		
	Figu	ure 42 Plan pl	roject - proteci	tion zones			

- 1. Select one or more switch users.
- 2. Add switch users to the protection zone by clicking the button(s) with the name(s) of the protection zone(s). On the right side, the period for switching appears.
- 3. If needed: remove a user from a protection zone.
- 4. Optional: fill in the period (from/to). Switch users can only switch the protection zone within this period. If the fields are kept empty, switch users are not limited, in that case protection zones can be switched by the assigned user(s) until the project is returned.
- 5. Go to step 3.

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6.10.3.3 Step 3 - Instruction app

In the optional step 3 of the project planning, switch users are automatically selected. This step serves to select the non-switch users who need access to documentation. The instruction tile of the app tile contains all relevant instructions for the project.

NOTE
If switch users are assigned to protection zones within a switching period, they cannot be deselected.

ආ	=					Karlo Hering - Foxiz testbedrijf
ه بر	Plan project					
J.	Home 🔰 Projects 🔰 U	Jser manual MTinfo 3000 > Project Planning Edit				v5.60.0 🖸
1 3 12	•	2 Optional	Optional 4	Optional 5	Optional 6	
a	Switch users	Protection zones Instruction App	Documents	Access Levels	Devices	
۰	Filter	SET INSTRUCTION APP AUTHORISATION Name 쇼▽ Karlo Hering		• Karlo Hering		
	Optional	Peter Planner	1 - 2 of 2, selected 1 10 +			

Figure 43 Plan project - instruction app

Select the users who need access to the instruction tile of the app.
 Go to step 4.

6.10.3.4 Step 4 - Documents

In the optional step 4 of the project planning, upload documents that users can consult through the instruction tile of the app.

ථ	=						A Karlo Hering A Foxiz testbedrijf
ء بر	Plan project						
		Home 📏 Projects 📏 L	Iser manual MTinfo 3000 🔉	Project Planning Edit			v5.60.0 🔿
b				Optional	ptional Optional	Optional	
•	G			3	4 5		
(2							
•		Switch users	Protection zones	Instruction App	Access Levels	Devices	
٠				Document name		Size	
		Brop a	file here, or	Karlo Hering.jpg		0.6 M	3 🛱
			ICT FILE				

Figure 44 Plan project - documents

- 1. Upload one or more documents by dropping them into the indicated box or select files (max. 8 MB) manually. The names of the uploaded files appear after uploading.
- 2. If needed: change Document names.
- 3. If needed: delete files.
- 4. Go to step 5.

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6.10.3.5 Step 5 - Access levels

In the optional step 5 of the project planning:

- determine the user authorisation;
- determine the document authorisation levels;
- add users to the documentation mailing list.

ආ	=								Karlo Hering Foxiz testbedrijf	3 🗄
ء بر	Plan project									
		Home 📏 Projects 📏 User manual MTinfo 3000 📏 Project			ning Edit					v5.60.1 🕑
				Optic	onal	Optional	Optional	Optional		
3 1	¢						5			
		Switch users	Protection zones	Instruct	tion App	Documents	Access Levels	Devices		
٠	SET USER AUTHORISATION LEVEL			SE	ET DOCUMENT	AUTHORISATION LEVEL				
		Name	Level				Use document	Minimum required acces	ss level	
		Karlo Hering	000	G	General feedbac	k templates	Form 1	123		
							Form 3	123		
		DOCUMENTATION MAILIN	IG LIST	Lo	Logbook feedback templates		Form 2	123		
		Add additional users so they o	an receive documentation by emai	D	ocuments		Karlo Hering.jpg	123		
		Name								
				+						

Figure 45 Plan project - access levels

The black coloured numbers determine the authorization levels:

- **1** ② ③ Only users with level 1 have access to documents.
- 1 2 3 Only users with level 1 and 2 have access to documents.
- (1) (2) (3) All users have access to documents.
 - 1. Set the User authorisation level by clicking the level.
 - 2. Set the Document authorisation level by clicking the level.
 - 3. Optional: add users to the Documentation mailing list.
 - 4. Go to step 6.

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6.10.3.6 Step 6 - Devices



NOTE

This optional step 6 of the project planning is currently being decommissioned; you can skip this step.

an project Home > Proj	ects 📏 User	manual MTinfo 3000 义						
Home > Proj	ects 📏 User	manual MTinfo 3000 义						
			Project Planning Edit					v5.60.0 C
(*)			Optional	Optional 4	Optional 5	Optional		
Switch use	ers	Protection zones	Instruction App	Documents	Access Levels	Devices		
Filter	ſ	DEVICES				In a list	On a map	р
) rows selected					,	
		D code	Status		🔶 Remark	PROJECT DEVICES		
			No match	ing records found				
Status Active Service								
Remark	Θ							
Optional								
	Filter D code Optional Status Active Service Type CRTM 3000 - Gatew CRTM 3000 - Gatew CRTM 3000 ZRL 3000 Remark	Filter D code Optional Status Active Service Type CRTM 3000 - Gateway CRTM 3000 ZkL 3000 Remark	Filter DEVICES 0 rows selected 0 rows selected 10 code 10 code Optional 10 code Status 10 code Active 10 code Service 10 code Type 10 code CRTM 3000 - Gateway 10 code CRTM 3000 - Temperature 10 code GRB 3000 2/kL 3000 Remark 10 code	Filter DEVICES 0 rows selected Dptional Optional Status Active Service Type CRTM 3000-Gateway CRTM 3000-Temperature GRB 3000 ZxL. 3000 Remark	Filter DEVICES ID code o rows selected Optional iD code § Status Active service Status in the service Type in the service Type in the service CRTM 3000 - Gateway in the service CRTM 3000 - Temperature GRB 3000 ZNL 3000 Remark	Filter DEVICES orows selected Dptional Optional Status Active Service Type CRTM 3000 - Gateway CRTM 3000 - Temperature GRB 3000 ZxL, 3000	Filter DEVICES 0 rows selected 0 rows selected Dptional ID code Status Type Active Service Type CRTM 3000 - Temperature GRB 3000 ZxL, 3000	Filter DEVICES 0 rows selected 0 rows selected 0 ptional 0 ptional Satus 0 crtive 0 service Type 0 crtivacion PROJECT DEVICES PROJECT DEVICES Remark PROJECT DEVICES Remark Remark Crtivacion Remark Crtivacion Remark Crtivacion Remark Crtivacion Remark Crtivacion Crtivacion Remark Crtivacion Cr

Figure 46 Plan project - devices

The last step is to save the project planning.

6.10.3.7 Step 7 - Save project planning

Save the project planning and submit it for verification or validation. Or verify and validate the project planning directly (see 6.10.3).



NOTE

To reduce risks, MTinfo 3000 uses the six-eyes principle. It is strongly recommended that a second authorised user should verify the planning and a third authorised user should validate the planning.



NOTE

You can verify and validate the planning directly if you are authorised. Because of the six-eyes principle, Dual Inventive does not recommend this step in operational use.



Save.

This screen appears:

Save planning	×
Based on your assigned tasks with actions:	hin the project, you are also allowed to perform the following
Possible actions	✓ Save
Project log remark	+ Submit for verification + Verify + Validate
Current status	Not created
The new status will be	Concept

Figure 47 Save planning

Saving the project planning works similar as saving the project design (see 6.10.2.5).

6.10.4 Verification and validation

To utilise the six-eyes principle in MTinfo 3000, at least three people need to check both the project design and the project planning before releasing projects. When a project is ready to be verified or validated, My MTinfo shows the applicable actions to be performed.

ເວ	1.	Go to the Dashboard and go to My MTinfo (on the right side, see Figure 11) which
		shows an overview of the assigned tasks in MTinfo 3000.

2. Click the task Verify or Validate.

The page View project appears. Depending on the task, the tab Design or tab Planning is selected:

ආ									Foxiz testbedrijf
▲ ⊮	View project								
		Home 🔰 Projects 🔰 User mar	nual MTinfo 3000						v5.60.0 Ø
•		Setup	Design	Planning	Documents	Project log			
-									Design: Ready for verification
•		GORINCHEM							
•		Device			Service date		Status	Remark	
		T0128 (ZKL 3000 RC)			27/01/2022		Active		
		Descriptions: Station							
		Message: -							
		LEERDAM							
		Device	Service date			Status	Remark		
		No devices assigned to protection zon	le						
		Descriptions: Station							
		Message: -							
	1	REQUESTED DEVICES							
		Device	Service date			Status	Remark		
		All devices have been assigned							

Figure 48 View project - verify and validate

3.

Click the icon.



L)epending on the t	ack the screen ("	heck design or (The	ock nlanning annears.
Depending on the t	JSR, LINE SCIECTIE	neek design of end	eck planning appears:

Check design	×
Based on your assigned tasks with actions:	nin the project, you are also allowed to perform the following
Possible actions	✔ Verify
	+ Validate
Project log remark	Optional
Current status	Ready for verification
The new status will be	Ready for validation
	APPROVE REJECT CLOSE

Figure 49 Check design

- 4. Optional: fill in a reason in the field Project log remark.
- 5. Click to approve or reject the validation or verification.

6.10.5 Release, Return and Close projects

Once MTinfo 3000 projects have been set up, designed and planned, projects must be released before they can be operational. Return and close are two more functions for managing projects.



NOTE

For safety reasons, you can only change a project when it is not released. To change a released project, first it needs to be returned (see 6.10.5.2).

6.10.5.1 Release project

When a project is released, the assigned devices are locked to the project. They cannot be used simultaneously on different (released) projects.

To release a project:

	1.	Go to the page View project (Figure 32), tab Setup.
RELEASE	2.	Click the button.

This screen appears:

Release - User manual MTinfo 3000		
 Planning Design Device availability Request release Project released Inform users 		
	CANCEL	RELEASE

Figure 50 Release - start

RELEASE 3. Click this button.



MTinfo 3000 performs several checks before releasing a project:

Release - User manual MTinfo 3000	
 Planning Design Device availability Request release Project released Inform users 	
	CLOSE

Figure 51 Release - finished

Figure 51 explains the checks:

СНЕСК	EXPLANATION
Planning	Checking the project planning.
Design	Checking the project design.
Device availability	Checking the device availability.
Request release	Checking if the project can be released.
Project released	The project is released.
Inform users	Informing the project users through e-mails that a project has been released.

When a check is successful, a green checkmark appears next to it. When a check is not successful, a red cross appears in front of the specific step with its cause. Resolve the problem:

СНЕСК	PROBLEM	SOLUTION
Planning	The project planning is not completed. The planning is not verified and/or validated.	Complete the project planning. Verify and/or validate the project planning.
Design	The project design is not completed. The design is not verified and/or validated.	Complete the project design. Verify and/or validate the project design.
Device availability	The device is not available because of several reasons, e.g., the device is defect, empty batteries.	Check the real-time status of the device and resolve the problem.
Request release	The project cannot be requested for release for many reasons like: • the secure server is down;	Check if the device is not used in any other projects. Check if the device does not have any errors or else contact Dual Inventive to resolve the issue.

СНЕСК	PROBLEM	SOLUTION
	 the device is used in other projects; 	
	• the device has errors.	
Project released	The project cannot be released.	A project cannot be released when one or more devices are offline. Please check the device's batteries and reset the device. If this does not solve the issue, contact Dual Inventive.
Inform users	Users do not receive any SMS or email when the project has been released.	Check if the correct phone number and email is filled in. Also check if the email notifications are turned on. If so, then contact Dual Inventive.

Once the problem has been solved, attempt to release the project again. When all checks are successful, the project is released. All project users receive an e-mail.

During "project released" check MTinfo 3000 can give a warning when the critical maintenance date of a device expires during the project.

Device maintenance Details		×
T0129: Beware, this device requ use this device	ires service. We recommend not to	×

Figure 52 Release – warning service date of a devices expires

6.10.5.2 Return project

If you want to end or edit a released project, first it must be returned. This is for safety reasons and it prevents that devices are used simultaneously on multiple projects. As soon as a project has been returned, the devices can be released on other projects.

	Af ar	OTE Ter returning a project, users cannot switch protection zones on the project hymore. Any devices that have been switched on, will remain switched on even ter the project is returned.
6.10.5.2.1	Re	turn via web application
	1.	Go to the page View project (Figure 32), tab Setup.
RETURN	2.	Click the button.

This screen appears:

Return - User manual MTinfo 3000		
 Request return Project returned Inform users 		
	CANCEL	RETURN

Figure 53 Return - start

RETURN 3. Click this button.

MTinfo 3000 performs again several checks before returning a project:

Return - User manual MTinfo 3000	
 ✓ Request return ✓ Project returned ✓ Inform users 	
	CLOSE

Figure 54 Return - finished

When a check is successful, a green checkmark appears next to it. When a check is not successful, a red cross appears in front of the specific step with its cause. This will normally not happen because you can return a device in most circumstances, even when a battery is empty. When a red cross appears, please follow the section troubleshooting in the User Manual of your device. If that does not help, please contact Dual Inventive

When all checks are successful, the project is returned. All project users receive an e-mail. If the project cannot be returned, MTinfo 3000 will notify the user who is trying to return the project.

6.10.5.2.2 Return via mobile application

This feature allows **operators on site** to 'Return' a project through their mobile application once it is released. The purpose of this feature is to **free the device(s)** under the released project(s) so that the **device(s) are immediately available** for other projects.

To enable the 'Return' via mobile app, all the points in Table 3 must checked.

	Table 3 Enable Return via mobile application						
Checks	Company Level	User Role Level	Project Level	Outcome			
Enable Return via Mobile app	Check 1: Under 'Add Company' or 'Edit Company',	Check 2: User must be assigned to the 'Project: return (operator)' right (in one or more of	Check 3: Under 'Project Setup' or 'Project Edit', 'Operators can return' is enabled. (see Figure 33)	Operator can return via mobile application.			
	'Operators can return' is enabled. (see Figure 18, Figure 22)	their assigned user roles). (see Figure 26)	Check 4: Operator is appointed operator for minimum 1 protection zone. (see Figure 42)				

Other configuration for enabling returns:

The check under thse company level must be enabled, to enable the feature at the project level. The user role level check is independent of either setting.

To **disable the "Return"** functionality via the mobile app, follow these steps:

- 1. Uncheck any one of the points listed in Table 3.
- 2. Revoke the rights of all user(s) assigned to the 'Project: return (operator)' under the project.

Keep in mind that a user's right to "Return" via the mobile application can only be revoked if the user is **not an operator** for a **released project** with the feature enabled.



NOTE

Refer to MTinfo 3000 mobile app_User Manual_EN for more information on 'Return' function used in mobile application.

6.10.5.3 Close projects

Once a project has been completed, it remains on your list of available projects, so you can release a project again. If you want to delete projects on your list, close the project. It is only possible to close a project when it is not released.



NOTE

Closing a project is irreversible. Be aware that a closed project can still be duplicated (see Figure 32).

To close a project:

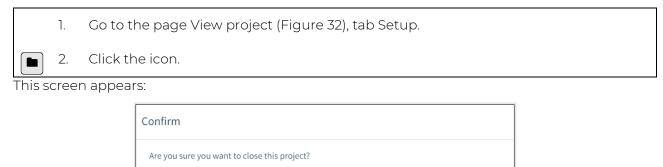


Figure 55 Close

ОК

CANCEL

3. Click OK to close the project permanently.

Closed project can be viewed for reference when you change your filter to 'closed'.

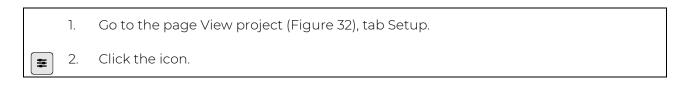
7 SWITCH PROTECTION ZONES

Switch protection zones remotely through the MTinfo 3000 web app and the mobile app. For remote switching, you must be authorised. This section explains how to select and switch protection zones through the MTinfo 3000 web app interface.



NOTE

For switching protection zones through the app, refer to the MTinfo 3000 mobile app_User Manual.



The page Switch protection zone(s) appears. Follow step 1 and 2 to select and switch protection zones.

7.1 Step 1 - Protection zone

In the first step, select the protection zone(s) to switch.

>	=			
a	Switch protect	tion zone(s) - Use	r manual MTinfo	3000
۶ ه		Home 🕻 Projects 🕻	User manual MTinfo 300) ≯ Sw
0	6		2	
	•	Protection zones	Switch	
۰			,	
		LEEDS		× 4
			1128 lide devices	×

Figure 56 Switching protection zone(s) - protection zones

1. Select the protection zones to switch.

The green shift symbol means that the protection zone has been switched. The red shift symbol means that the protection zone has not been switched yet.



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It is possible to switch multiple protection zones at once if you are authorised on company level. By default, only one protection zone can be switched each time.

In the case that you want to switch multiple protection zones at once, and one or more protection zones do not react, for example because of a temporary connectivity problem, it is possible to switch on a protection zone that is already on and vice versa.

2. Go to step 2.

7.2 Step 2 - Switch

In the second step, choose to turn the devices on (switchable) or off (not switchable).

ථ		٠	Karlo Hering Foxiz testbedrijf	4	
ا ب	Switch protection zone(s) - User manual MTinfo 3000				Î
	Home > Projects > User manual MTinfo 3000 > Switch protection zone(s)			v5.60.1 Ø	
9 1					
•	Protection zones Switch				
•	You are about to switch devices in the following protection zones: Leeds LEEDS			~	
	Select action 74 T0128 (ZKL 3000 RC)				
	Type 'on' or 'off' to continue *				l
	Enter pin code to execute action *				
	Required				
	SUBMIT				
					*

Figure 57 Switching protection zone(s) - switch

- 1. Select: ON or OFF
- 2. Type: on or off.
- 3. Enter your PIN code.
- 4. Submit.

On the right side, you see below the tab Devices whether the action was successful or not. You can also see this by opening the tab Real-time status (see 9.1).

When a switch action fails, warnings or an error will be shown.

Switch protection zone(s)	Switch protection zone(s)			
[2000512] There are one or more device errors or warnings ×	[2000512] There are one or more device errors or warnings ×			
A ^	A			
T0125: [2000513] Device has been switched, but the status cannot be guaranteed. Check the realtime status and switch again if necessary.	T0125: [2001025] A short circuit is still being detected after deactivation			
 ✓ Request switch ▲ Protection zone(s) switched 	 ✓ Request switch ▲ Protection zone(s) switched 			
CLOSE	CLOSE			

Figure 58 Warnings

Switch protection zone(s)	
[2000512] There are one or more device errors or warnings	×
A	^
T0125: [9] Device is offline. Check the device's batteries and reset the device solve the issue, contact Dual Inventive.	. If this does not
 ✓ Request switch X Protection zone(s) switched 	
	CLOSE

Figure 59 Error

7.3 Web application – Single zone switching

On the start page, click the 'Projects' tile or select 'Projects' in the 'Work management' menu at left of the screen. Search for the project for which you want to switch a protection zone and click the project to view it.

ආ		Super User Dual Inventive Test
• •	Good morning Super User Dual Inventive Test	My MTinfo Return - Test project 16 hours ago
1 0 1	Work management Projects Asset Management Templates Weld registrations	Release - RCO RC <i>3 weeks ago</i> Plan - FT Project RC 1 <i>6 months ago</i>
a 3 🔹	Real time status Users User Knowledgebase Reports Image: Companies	
	Timesheet	Super User
€ • ≁	Search project	Super User Dual Inventive Test
	Home > Projects Filter	dev-0.0.0 @
R D 7 0	Project name Project name Reference Company Type Status Start Date Test Dual Inventive Test RC Released 01-06-22 Showing 1 to 1 of 1 rows Showing 1 to 1 of 1 rows Status Status Status	Design Planning Actions One One
0	Project type Regular Regular TWS	

Figure 60 Search project page

•	Click the "Swite	ch Protectio	on zone"	📒 bı	utton.						
€) =									٨	User 1 Dual Inventive	4 :
View	project										
a l	Home > Projects > Dual Inventive										v5.76.0 🔘
•	Setup 🗸 Des	sign 🗸 Planning	Documents	Project log							
9 #	PROJECT INFO	RELEASE				PROJECT TASKS					
0 1	Co	ct name Dual Inventive				Task Setup Design Verify Design	User 1 User 1 User 1 User 1				
		ference ecttype RC .ondon) 14-09-23				 Validate Design Plan Verify Planning Validate Planning Release 	User 1 User 1 User 1 User 1 User 1				
	Site	Leader -				Return	User 1				
	Project F	Planner				UNASSIGNED SETUP USERS					
	Safety Coor	dinator -				All users assigned.					
	Desc	cription						<u>∑</u> e			
		Status Not released (Ready to release)						L3			
		Design Definitive									
	р	tanning Definitive									

Figure 61 Project view page You can only switch protection zones for a released project. If the project is not released the button will be disabled.

• Click on the "Switch" button of the protection zone you want to switch to continue.

ථ				A Super User Dual Inventive Test
*	Switch protection zone(s) - Test pro	ject RC		
43	Home > Projects > Test pr	roject RC > Switch protection zone(s)		
•				
1	Protection zones	Switch		
٩	A	в	c	D
• 8	₽ SWITCH	€ switch	₽ switch	
		C Deactivated	No devices assigned to protection zone	X2 Deactivated X3 simzkiv2_0030 X2 simzkiv2_0031 X2 simzkiv2_0032 X3 simzkiv2_0033 X3 simzkiv2_0034 X3 simzkiv2_0035 X2 simzkiv2_0036 X2 simzkiv2_0038 X3 simzkiv2_0039
	E	F	G	
	№ SWITCH	SWITCH	SWITCH	

Figure 62 Switch protection zone page



- If there are no devices assigned to the protection zone, you are not an operator assigned to the protection zone or you are not allowed to switch it at this time, it will be disabled. The "Switch" button will contain a closed lock icon and hovering over the button will show a tooltip why it disabled.
- Click "Show devices" to see which devices are contained in the protection zone.
- The status of the zone will be indicated by an icom
- A light grey colour indicates the status is unknown or no devices are assigned to the protection zone
- A green colour indicates all devices within the zone have been activated and have no errors.
- Red in all other cases.
- The status of each device will be indicated by an ico🔀
- A light grey colour indicates the status is unknown.
- Green indicates the device is activated and no problems are reported.
- Red in all other cases.
- Data is NOT updated in real time. It shows the last known status when the page opened.
- Click "on" or "off" to respectively switch the devices in the protection zone on or off. Confirm the action by typing "on" or "off", enter your pin code and click "Switch" to continue or "Cancel" to abort.

ථ		٨	Super User Oual Inventive Test	a 1
* *	Switch protection zone(s) - Test project RC			
a	Home > Projects > Test project RC > Switch protection zone(s)			v5.64.0 ©
۰				
1	Protection zones Switch			
•	You are about to switch devices in Devices Real-time status			
×	A			
۰	Select action A			~
	ON OFF X simzklv2_0000 (ZKL 3000 RC) X simzklv2_0010 (ZKL 3000 RC) X simzklv2_0010 (ZKL 3000 RC)			
	Type 'on' or 'off' to continue ' C simzklv2_0011 (ZKL 3000 RC)			
	on >2 simzklv2_0013 (ZkL 3000 RC) x simzklv2_0014 (ZkL 3000 RC) >2 simzklv2_0015 (ZkL 3000 RC) x simzklv2_0015 (ZkL 3000 RC) >2 simzklv2_0015 (ZkL 3000 RC)			
	Enter pin code to execute action * Similarity 2003 [CAL 3000 RC] Similarity 2003 [CAL 3000 RC] Similarity 2003 [CAL 3000 RC]			
	X sim2kiv2_002r (and 3000 RC)			
	SWITCH CANCEL			

Figure 63 Switch devices page

3. The result of the action is shown.

When the request is successful the result will be like the example below:



Switch protection zone(s)	
All devices have been switched successfully.	×
✓ Request switch	
 Protection zone(s) switched 	
	CLOSE

Figure 64 Switch successful message

In case there are errors and/or warnings, the result will be like the example below:

	CLOSE
 ✓ Request switch ✗ Protection zone(s) switched 	
A	~
[514] There are one or more device errors or warnings	×
Switch protection zone(s)	

Figure 65 Switch error/warning message

- A result message is shown:
- A green colour indicates everything went well.
- A yellow colour indicates switching succeeded, but one or more devices reported a warning.
- A red colour indicates one or more devices did not switch successfully and reported an error.

Switch protection zone(s)	
[514] There are one or more device errors or warnings	×
Α	~
simzklv2_0000: [1062] Key switch is not in the operational position. Remote suppossible. Change the key switch position to enable remote switching	witching is not
simzklv2_0000: [2001024] Short circuit was already present upon activation. A was already present in the immediate area at the time of activation (section is The short circuit is not guaranteed. Convince yourself of a good short circuit (section)	s not empty).
simzklv2_0012: [2001030] Main bat. status is low. Replace the battery	
 Request switch Protection zone(s) switched 	
	CLOSE

Figure 66 Device error/warning message

- 4. In case of errors/warnings: click the name of the protection zone to show the error / warning details.
- Errors and warnings are grouped per device.
- Follow the instruction provided in the error/warning to resolve the issue, if this does not solve the problem contact Dual Inventive Support.

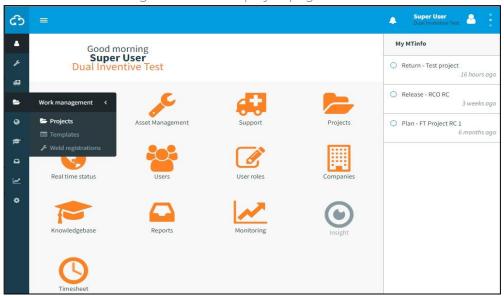
7.4 Web application – Multiple zone switching



NOTE

It is only possible to switch multiple zones at once if this setting is enabled for your company.

• On the start page, click the 'Projects' tile or select 'Projects' in the 'Work management' menu at left of the screen. Search for the project for which you want to switch a protection zone and click the project to view it.





ධ				Super User Dual Inventive Test
•	Search proje	ect		
ہر ج		Home 🕻 Projects		dev-0.0.0 @
=	Filter			
0	Project name	Project name Reference Company Type Status Start Date Image: Test project Dual Inventive Test RC Released 01-06-22	Design	Planning Actions
1	Test			
•	Reference	Showing 1 to 1 of 1 rows		
M	Optional			
o	Project type Regular RC TWS			

Click "Switch Protection Zone" Button. •

ථ	=				User 1 Dual Inventive	a :
۵ ب	View project					
4	Home > Projects > Dual Inventive		v5.76.0 O			
•	Setup 🗸 Design 🗸 Planning	Documents Project log				
0 ft 0	PROJECT INFO		PROJECT TASKS Task	Users		
Ľ	Project name Dual Inventive		🛕 Setup	User 1		
۰	Company Dual Inventive Reference		● Design ● Verify Design ● Validate Design ● Plan	User 1 User 1 User 1 User 1		
	Project type RC		Verify Planning Validate Planning	User 1 User 1		
	Start Date (Europe/London) 14-09-23		Release Return	User 1 User 1		
	Site Leader					
	Project Planner		UNASSIGNED SETUP USERS			
	Safety Coordinator		All users assigned.			
	Description					
	Status Not released (Ready to release)				ß	
	Design Definitive					
	Planning Definitive					

Figure 67 Project view page

You can only switch protection zones for a released project. If the project is not released the button will be disabled

- ථ 8 ٨ Switch protection zone(s) - Test project RC Home > Projects > Test project RC > Switch protection zone(s) 43 --1 Switch Prot Select all 🥶 A X -B 🗆 C • • X ۰ You are not an RC operator for protection zone 'C' D 💓 E 🥑 F × -74 X Show devices simzklv2_0046 x x simzklv2_0047 simzklv2_0048 x Hide device G × -
- Check the zone(s) you want to switch by clicking it and then click on "Switch" to continue. •

- Figure 68 Switch protection zone
- a. If a protection zone is disabled, the header will contain a closed lock icon and hovering over the header will show a tooltip why it is disabled.
- **b.** The protection zone will be disabled if:



- i. you are not an operator assigned to the protection zone
- ii. you are not allowed to switch it at this time
- iii. there are no devices assigned to the protection zone.
- c. Multiple zones can be selected.
- d. Click "Show devices" to see which devices are contained in the protection zone.
- e. The status of the protection zone will be indicated by an ico
- i. A light grey color indicates the status is unknown or there are no device assigned to the protection zone.
- ii. A green color indicates all devices within the zone have been activated and no errors are reported.
- iii. Red in all other cases.
- f. The status of each device will be indicated by an icom
- i. A light grey color indicates the status is unknown.
- ii. Green indicates the device is activated and no problems are reported.
- iii. Red in all other cases.
- g. Data is NOT updated in real time. It shows the last known status when the page opened.

ථ		٩	Super User Quel Inventiv	a	
*	Switch protection zone(s) - Test project RC				
۶ ه	Home >> Projects >> Test project RC >> Switch protection zone(s)			v5.64.0 C	D
a 0	Contraction zones				
R D W	You are about to switch devices in Devices Real-time status				
۰	E F A			~	
	Select action 22 simulative_0000 (2kL 3000 RC) ON OFF Type 'on' or 'off' to continue * 23 simulative_001 (2kL 3000 RC) on 23 simulative_001 (2kL 3000 RC) Enter pin code to execute action * 23 simulative_001 (2kL 3000 RC)			~	
	SWITCH CANCEL F			×	

Figure 69 Switching devices page

- Click "ON" or "OFF" to respectively switch the devices in the protection zone on or off. Confirm the action by typing "on" or "off", enter your pin code and click "Submit" to continue or "Cancel" to abort.
- The status of each device in the protection zone is indicated by an icon:
 - i. A light grey color indicates the status is unknown.
 - ii. Green indicates the device is activated and no problems are reported.
 - iii. Red in all other cases.
- The first protection zone is expanded, the other zones can be opened to show the devices contained within.
- Device data is updated in real time.

• The result of the action is shown.

When the request is successful the result will be like the example below:



Figure 70 Switch successful message

In case there are errors and/or warnings, the result will be like the example below:

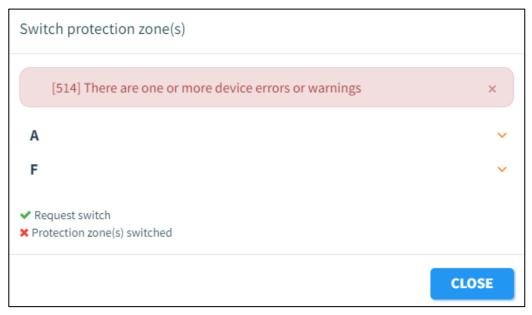


Figure 71 Switch error/warning message

A result message is shown:

- A green colour indicates everything went well.
- A yellow colour indicates switching succeeded, but one or more devices reported a warning.
- A red colour indicates one or more devices did not switch successfully and reported an error.
- In case of errors / warnings: click the name of the protection zone to show the error / warning details.

Switch protection zone(s)	
[514] There are one or more device errors or warnings	
A	
simzklv2_0000: [1062] Key switch is not in the operational position. Remote switching is not possible. Change the key switch position to enable remote switching	
simzklv2_0000: [2001024] Short circuit was already present upon activation. A short circuit was already present in the immediate area at the time of activation (section is not empty). The short circuit is not guaranteed. Convince yourself of a good short circuit (in an empty section)	
simzklv2_0012: [2001030] Main bat. status is low. Replace the battery	
F	
CLOSE Switch protection zone(s)	
Switch protection zone(S)	
[514] There are one or more device errors or warnings	
A	~
F	^
simzklv2_0026: [2001031] Main bat. status is critical. Replace the battery	
 ✓ Request switch ✗ Protection zone(s) switched 	
CLOSE	

Figure 72 Device error/warning message

Errors and warnings are grouped per zone and then per device.

- Click the zone to show the errors / warnings for that zone.
- Follow the instruction provided in the error/warning to resolve the issue, if thisdoes not solve the problem contact Dual Inventive Support.

8 **REPORTS**

Reports provide various aspects of project data, user rights, device performance, such as detection, location data, battery levels, and more. With MTinfo 3000 user can generate different types of reports:

There are two broad categories of reports:

- 1. Periodically generated reports
- User generated
- Runs periodically for an indefinite time
- Report data is available for 90 days only.
- 2. One-time generated reports
- User generated
- Runs only once
- Report data is available for 90 days only.

Additionally, there are different sub-categories of reports accessible under both:

Project

A project report is used when multiple devices of the same project need to be added to a report. In that case, the user can search for the relevant project and immediately select all the devices on that project instead. The data that will be generated in this report consists of a history or snapshot of the selected sensor data of devices, such as switch status, detection status and battery voltage.

Project switches

A project switches report shows the switch actions that are done on a project, per device, paired with:

- how long it took for the command to be executed (measurement of the time it took for the switch command to be sent to the device, and for the device to actually perform the switch action)
- whether this command was executed successfully.

Devices

Devices (periodical) reports show the same data as Project (periodical) reports. The only difference is that no project needs to be selected in the Devices (periodical) report. That makes this a faster option if a user only wants to generate the report of one device, or of multiple devices spread out over different projects.

Device switches

This is a detailed report that shows exactly how long and how often selected devices have been switched. It uses a different formula to determine these switches, so that it also includes different scenarios such as devices being offline, and key switch actions. Because of this, the switch data of this report may differ from other reports such as Devices and Project switches.

GPS

This report is exported as a .kml file, which is used to display geographic data in Earth browsers

such as Google Earth. In this report, users can see the geographic history of selected devices in such an Earth browser."

8.1 Periodical Reports

This section explains how to generate a periodical report. As an example, a Devices report is generated.



The page Reports appears:

ආ	=	٠	Karlo Hering Foxiz testbedrijf
▲ ,⊱	Reports		
	Home >	Reports	v5.60.0 🛛
۲	Filter	+· • • *·	
	Description	+ Project (Periodical) epetition △▽ Period from / to △▽ Report type △▽ Send by email △▽ + Devices (Periodical)	Actions
•	Optional	+ Device switches (Periodical)	
٠	Report type	+ User rights (Periodical)	0-0 of 0 10 -
		+ Device Overview (Periodical)	

Figure 73 Reports - periodical

+ 2.	Click the icon.
3.	Select Devices (Periodical).

The page View Report appears. Follow steps 1 to 5 to generate a report.

8.1.1 Step 1 - Report info

In step 1 of generating a report, add basic information.

=							User 1 Dual Inventive	۵.,
View Report								
Home 📏 Reports 📏 Devices								v5.76.0 🕑
					\rightarrow \times			
Report Info User	rs Devi	ices Disp	lay	General				
Description *	Description							
Time zone	Europe/Amsterdam			~				
Repeat *	Daily	Weekly	Monthly					
Daily on *	All days		Workdays					
Start at (Europe/Amsterdam) *	14-01-24							
End report *	No end	After N times	End date					
Generate report on *	Required							
	View Report Home > Reports > Devices	View Report Home & Reports & Devices Peport Info Description · Description Time zone Europe/Amsterdam Repeat · Daily Daily · All days Start at (Europe/Amsterdam) · All days	View Report Home > Reports > Devices Report Info Description * Description Time zone Europe/Amsterdam Repeat * Daily Weekly Daily 00 * All days Start at (Europe/Amsterdam) * 1 + 01-24 End report * No end After N times	View Report Home > Reports > Devices Image: Constraint of the second s	View Reports Home & Reports & Devices	View Report Home > Reports > Devices	fiew Report Home > Reports > Devices Image: Contract of the state of the st	Jiew Reports > Devices Home > Reports > Devices

Figure 74 View report - report info

- 1. Fill in the Description of the report.
- 2. Choose the preferred time zone.
- 3. Choose the frequency of report generation: Daily, Weekly or Monthly.
- 4. Choose when the report is generated: All days or Workdays.
- 5. Choose when the report must be started.
- 6. Choose when the report must end: No end, After a number (N) times or End date.
- 7. Choose the daily time when the report must be generated.
- ♦)8. Go to step 2.

8.1.2 Step 2 - Users

ථ	=						•	Karlo Hering Foxiz testbedrijf	2	
د بر	View Report									
	Home 📏 Reports 📏 Devic	ces							v5.60.0	0
3 1	• •	2				→ ×				
•	Report Info	Users	Devices	Display	General					
•	Filter Name Optional User roles Super user (Safety Work planner (Pete	 Name △▽ Karlo Hering Peter Planner α μ 	1-	2 of 2, selected 1	SELECTED USERS • Karlo Hering					
				View report - 1						

In step 2 of generating a report, select the users who will receive the report.

Select at least one user.
 Go to step 3.

8.1.3 Step 3 - Devices

In step 3 of generating a report, select the devices where you want to receive the report from. When the devices are selected, they will appear automatically under the tab in a list and the tab On a map.

ය	-											User 1 Dual Inventi	
•	View Report	- DualInventive											
		Home > Reports > Du	allnventiveTest2	Edit									v5.79.0 O
1 0 1 P	¢	1 Report Info	2 Users	3 Devices	4 Display	5 General	••						
a N	F	ilter		1 rows selected						in a list	On a map		
•	IF	code	Θ	CON-999	Status Active	Type ZKL 3000 RC	Remark	© Company Dual Inventive	•				
	_	Optional		110.0004	Active	ZKL 3000 RC		Dual Inventive		 116.0104 (ZKL 3000 RC) 			
		tatus		CON-003	Active	ZKL 3000 RC		Dual Inventive					
		Active	8	110.0006	Active	ZKL 3000 RC		Dual Inventive					
		Service		CON-010	Active	ZKL 3000 RC		Dual Inventive					
	-	ype	8	110.0014	Active	ZKL 3000 RC		Dual Inventive					
		RDI 3000		CON-015	Active	ZKL 3000 RC		Dual Inventive					
		DUM 3000		110.0025	Active	ZKL 3000 RC		Dual Inventive					
		DUU 3000		CON-029	Active	ZKL 3000 RC		Dual Inventive					
		WUM 3000 CRTM 3000 - Gateway		110.0035	Active	ZKL 3000 RC		Dual Inventive					
		CRTM 3000 - Gateway CRTM 3000 - Temperature senso RSS 3000 ZKL 3000 RC ZKL 3000 RC-C	r	Showing 1 to 10 of 4709 rows 10.	rows per page				2 3 4 5 471 +				
	R	emark	8										
	4	Optional											
		ompany											
		AnyWare Company A Company B Demo USA											

Figure 76 View report - Devices

- 1. Select one or more devices.
 - 2. Go to step 4.

≯

8.1.4 Step 4 - Display

In step 4 of generating a report, select the report type and the data to be reported.

ආ	=							٠	Karlo Hering Foxiz testbedrijf	a :
اھ ب	View Report	:								
•		Home 📏 Reports 📏	Devices							v5.60.0 🕑
1 3 1	¢						• ×			
•	-	Report Info	Users	Devices	Display	General				
٥		ZKL 3000 RC								^
		Possibilities								
		Backup bat. volt.								
		Sackup bat. status								
		Main bat. volt.								
		Main bat. status								
		GPS position								
		ber-counter								
		ber-average								
		Detection quality								
		Detection OK								
		amplitude								
		Switch status								
		Key position								
		temp-switch								
				Figure 77	/iew report - D	isplay				

Select the needed data.
 Go to step 5.

8.1.5 Step 5 - General

In step 5 of generating a report, select some general options and save the report.

Choose to generate one overview with only the latest status of all selected devices or the history. The device's history is shown until the last time the report was generated. The first report will be based on the specified interval. When you have set up a weekly report, the first report will display the data from the last week.

ΝΟΤΕ

A PDF report can only store a limited amount of data. Choose CSV file for reports with a lot of devices and/or history.

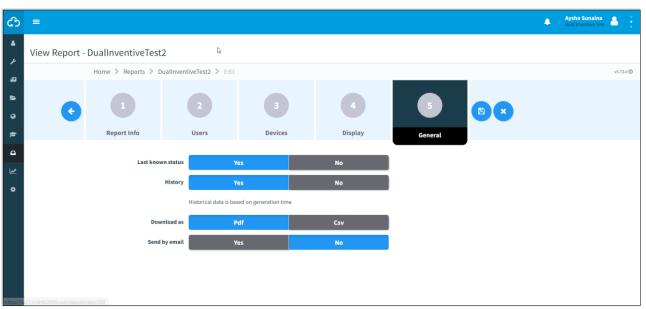


Figure 78 View report - General

- 1. Choose the last known status: Yes or No.
- 2. Choose the history: Yes or No.
- 3. Choose to download as: PDF or CSV.
- 4. Choose to send by email: Yes or No.
- 5. Save the report.

B

Now, the report will be generated as specified. If the report is ready to be downloaded, MTinfo 3000 will show this through a blue pop-up in the top right corner of the user's screen.

8.2 One-time Reports

This section explains how to generate a one-time report. The difference between a periodical report and a one-time report is that first two steps of a periodical report (Report info, Users) are not applicable for a one-time report.

As an example, a devices report is generated:

The page Reports appears:

ආ	=					A Kai Fox	rlo Hering iz testbedrijf
ء بر	Reports						
	Home >	Reports					v5.60.0 🛛
9	Filter	+ 2-					
	Description	Desc 🚨 GPS (Once) User 🖸 Project (Once)	Repetition △▽ Daily: Workdays at 21:18:00	Period from / to △▽ 25/06/2022	Report type △マ Devices	Send by email ∆⊽ No	Actions
	Optional Report type Devices 1	Devices (Once) Opevice switches (Once)				1-	- 1 of 1 10 -
		User rights (Once)Device Overview (Once)					

Figure 79 Reports - once

- 2. Click the icon
 - 3. Select Devices (Once).

The page View Report appears:

ආ	=					٨	Karlo Hering Foxiz testbedrijf
▲ بر	View Report						
a l	Home 📏 Reports 📏 De	vices					v5.60.0 Ø
1 3 12				e			
	Devices	Display	General				
•	Devices						
Ŷ	Filter	1 rows selected				In a list	On a map
		🗹 ID code 🔶 St	tatus 🔶 Type	Remark	Company		
	ID code 😑	V T0128 A	ctive ZKL 3000	RC	Foxiz testbedrijf	 T0128 (ZKL 3000 RC) 	
	Optional	Showing 1 to 1 of 1 rows					
	Status 😑						
	Active						
	Туре 🖯						
	ZKL 3000 RC						
	Remark 🖂						
	Optional						
	Company 🖯						
	Foxiz testbedrijf						

Figure 80 View report - one-time report

A one-time report is generated in three steps which are similar to the steps for a periodical report:

- Step 1 Devices (Figure 76);
- Step 2 Display (Figure 77);
- Step 3 General (Figure 78).

One-time report will use the time zone set by the user under his profile in MTinfo 3000 as default setting.

8.3 Download Reports

Download the generated reports

ເວ	1.	Go to the Da	shboard and cli	ick My N	MTinfo 3	000			
	2.	Go to My rep	orts.						
*	3.	Click the icor	٦.						
دي ▲	E My MTir	Ifo							User 1 Such Inventive
* a a		Home > My MTinfo New actions	My reports						v5.78.1 0
۰		Filter	Report name	Report type	Description	Generated on	Period from	Period to	Actions
=		1	report_device_20240314_14_02_00.pdf	Devices	Dualinventive	14-03-24 13:02:02 UTC+00	12-03-24 23:00:00 UTC+00	13-03-24 22:59:59 UTC+00	40
		a present designed and the	and a fee beaution of the second	Devices	DualInventive	13-03-24 13:02:01 UTC+00	11-03-24 23:00:00 UTC+00	12-03-24 22:59:59 UTC+00	40
•			report_device_20240313_14_02_00.pdf	Devices	Dualinventive	12-03-24 13:10:01 UTC+00	10-03-24 23:00:00 UTC+00	11-03-24 22:59:59 UTC+00	A 0
2		Optional	report_device_20240311_14_02_00.pdf	Devices	Dualinventive	11-03-24 13:02:01 UTC+00	07-03-24 23:00:00 UTC+00	10-03-24 22:59:59 UTC+00	40
•		Description	report_device_20240308_14_02_00.pdf	Devices	Dualinventive	08-03-24 13:02:01 UTC+00	06-03-24 23:00:00 UTC+00	07-03-24 22:59:59 UTC+00	± 0
•		Optional	report_device_20240307_14_02_00.pdf	Devices	Dualinventive	07-03-24 13:02:01 UTC+00	05-03-24 23:00:00 UTC+00	06-03-24 22:59:59 UTC+00	≜ 0
		Generated on (Europe/London)	report_device_20240306_14_02_00.pdf	Devices	Dualinventive	06-03-24 13:02:01 UTC+00	04-03-24 23:00:00 UTC+00	05-03-24 22:59:59 UTC+00	± 0
		Doptional	report_device_20240305_14_02_00.pdf	Devices	Dualinventive	05-03-24 13:02:02 UTC+00	03-03-24 23:00:00 UTC+00	04-03-24 22:59:59 UTC+00	± 0
		- Optional	report_device_20240304_14_02_00.pdf	Devices	DualInventive	04-03-24 13:02:01 UTC+00	29-02-24 23:00:00 UTC+00	03-03-24 22:59:59 UTC+00	A 0
						01-03-24 13:02:01 UTC+00	28-02-24 23:00:00 UTC+00	29-02-24 22:59:59 UTC+00	± 0
			report_device_20240301_14_02_00.pdf	Devices	DualInventive	01-03-24 13:02:01 01C+00	20-02-24 23.00.00 010-00		
		Period from (Europe/London)	Teport_bevice_20240301_14_02_00.put		Dualinventive	01-03-24 13:02:01 01 C+00	20-02-24 23.00.00 010-00		2 3 4 5 12 +
		Doptional	<pre>report_device_20240301_14_02_00.pdf Showing 1 to 10 of 112 rows 10 * rows per page</pre>		Dualinventive	01-03-24 15:02:01 01 04:00	28-02-24 23.00.00 010-500	3	2 3 4 5 12 /
		Doptional	Showing 1 to 10 of 112 rows 10 + rows per page		Dualinventive	01-05-24 1802/01 01 0-00	28/02/24 23:00:00 010/400	8	2 3 4 5 12 +
		Image: Optional Period to (Europe/London) Image: Optional Image: Optional Optional	Showing 1 to 10 of 112 rows 10 + rows per pag		DualInventive	01-03-54 1805/01 01 C400	20-0-24 230000 0 NC-90	0	2 3 4 5 12 +
		Optional Period to (Europe/London) Image: Optional Report type	Showing 1 to 10 of 112 rows 10 + rows per page		Dualinventive	01-03-04 1802/01 01 C400	2012/2012/2012/2010	0	2 3 4 5 12 +
		Image: Optional Period to (Europe/London) Image: Optional Image: Optional Optional	Showing 1 to 10 of 112 rows 10 + rows per pag		Dualinventive	0143524 120201 010400	2012 - 200 00 0 10 10		2 3 4 5 12 +
		Optional Period to (Europe/London) Optional Report type Project Project Project anitches	Showing 1 to 10 of 112 rows 10 + rows per pag		Dualinventive	01-03-24 120201 010-00			2 3 4 5 - 12 +
		Optional Period to (Europe)(London) Period to (Europe)(London) Report type Polyces Polyces Polycet Polycet P	Showing 1 to 10 of 112 rows 10 + rows per pag		Dualinventive	01402412020101040			2 3 4 5 12 +
		Optional Period to (Europe/London) Optional Report type Project Project Project anitches	Showing 1 to 10 of 112 rows 10 + rows per pag		Dualinventive	014024 120201010400			2 3 4 5 _ 12 +

Figure 81 My reports

It also possible to download a pre-defined report:

4. Go to the Dashboard and click Reports.

The page Reports appears:



ථ	=					٨	Karlo Hering Foxiz testbedrijf	
ه ب	Reports							
1	Home 3	Reports					1	/5.60.0 🥝
	Filter	+· ¤· ±·						
ęn.	Description		Repetition ∆⊽	Period from / to △▽ 25/06/2022	Report type △▽ Devices	Send by email △▽	Action	
٩	Optional	User manual 📩 Download Hierarchy	Daily: Workdays at 21:18:00	25/06/2022	Devices	NO	ď	1
۰	Report type Devices						1-1 of 1 10	

Figure 82 Reports - download

- 5. Click the icon.
 - 6. Select Download User or Download Hierarchy.



ථ	=				٠	Karlo Hering Foxiz testbedrijf	2	•
∎ ۶	Create Report							
	Home > Reports						v5.60.0	00
9 12	<u> </u>	2 3 8						
•	Companies	Users						
٠	Filter	SELECT COMPANY		SELECTED COMPANIES				
		Company name △▽		Foxiz testbedrijf				
	Company name Optional	Foxiz testbedrijf						
	Optional	« 1 »	1 - 1 of 1, selected 1 10 -					

By choosing Download User, first the company's user(s) must be selected:

Figure 83 Download report - select users.

By choosing Download Hierarchy, the report is downloaded to the user's local download folder.

9 ADDITIONAL FUNCTIONS

MTinfo 3000 has several additional functions for monitoring and logging:

- real-time status of devices;
- adding data to devices;
- creating and managing templates (forms);
- project documentation;
- project log.

9.1 Real-time status

Monitor the devices in real time through MTinfo 3000. It depends on the product which real-time information is presented, see the applicable appendix:

- ZKL 3000 RC (see 11);
- RDI 3000 (see 12).

There are different ways to view the real-time status:

- from the Dashboard (Figure 11);
- from the page View project (Figure 32);
- from the page Switching protection zone(s) (Figure 57).

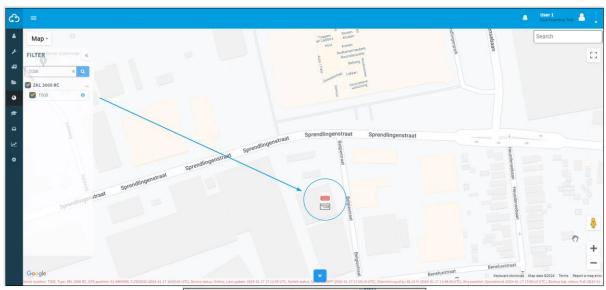
In general:

0

1. Click the icon to show a screen with the location of the device.

- 2. Use the filter (left top corner) and the search function (right top corner) to search for devices.
- 3. Customise the map with:
 - map options (left top corner);
 - zooming in/out (bottom right corner);
 - dragging Pegman onto the map to open street view (bottom right corner).
- 4. Click the symbol of the device to show a screen with data of the device.





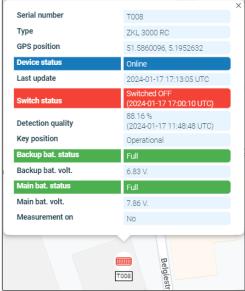


Figure 84 Real-time location and data

9.2 Adding data to devices

Attach labels and notes to devices to identify them easily.

1. Go the Dashboard and go to Asset management:



_										
ථ								٨	User 1 Dual Inventive Tes	. 🔺
* *	Search devices	vices								v1.64.0 Ø
69										
•	Filter		•							
•	Search	8	1 rows selected							
1	T0128		Unique id	Serial number	Owner ID	0 Type	Company	Status	Actions	
			000fc2413c0036001650315239353920	T0128		ZKL 3000 RC	Dual Inventive Test	Active	1	
•	Type - Other	Ð	-							
Ľ	Type - Warning	æ	Showing 1 to 1 of 1 rows							
۰	Type - Sensing	Ð								
Ŷ	Type - Switching	Ð								
	Contains AFTC improvement	Θ								
	Ves									
	Status	Θ								
	Active									
	Service									
	Status customer	Θ								
	Active									
	Inactive									
	Lost									
	Search within hierarchy	Θ								
	🕑 Yes									
	Company	Θ								
	Dual Inventive Test									
	AnyWare									
_	Company A									
	Company B									

Figure 85 Dashboard - asset management

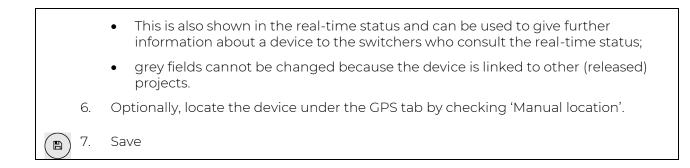
Select Devices in the left menu.
 Select the devices you want to attach a label or comment to.
 Click the icon.

The page Edit device appears:

ථ	=				•	User 1 Dual Inventive	▲ :
≜ ۶	Edit device - CON-999						
۔ ج	Home > Devices > CON-999 > Edi						v1.63.0 🛛
8 0							
6	Data GPS	PS					
•	Unique id 0100000	00000000000000000002249	Service	No			
•	Type ZKL 300	000 RC	Written off	No			
	Version 2		Status customer *	Active			~
	Serial number 1001		Contract subgroup				~
	Owner* Dual In	Inventive	GPS position	51.5859872 5.1952732 (Automatically set)			
	Owner ID CON-S	1-999	Autocorrect latitude (correction for	No			
	Remark Option	ional	DNCM v1.4.0 bug)				
	Service date 15-04-20	-20	Autocorrect longitude (correction for DNCM v1.4.0 bug)	NO			
			Contains AFTC improvement	No			

Figure 86 Edit device

5. Edit the device's data. Note:



9.3 Templates

MTinfo 3000 offers the possibility to manage and create company specific templates (forms).



1. Go to the Dashboard (left side, see Figure 11) and go to Work Management – Templates.

The page Search template appears:

ථ	=				Karlo Hering Foxiz testbedniji
* *	Search template	Translater & Source			v5.60.1 O
-	Work management V	Templates > Searc			v5.60.1 O
9	Projects Templates	-			
1	✗ Weld registrations	Name	🗘 Туре	Version	Actions
•	6	Form 1	Project feedback template	4	10
٠	Optional	Form 2 Form 3	Logbook feedback template Project feedback template	6	/ 0 / 0
	Type E	Showing 1 to 3 of 3 n		~	

Figure 87 Search templates

Follow steps 1 and 2 to create a new template.

9.3.1 Step 1 - General

ථ	(≡):				User 1 Dual inventive
≜ ⊁	Create template				
æ	Home 💙 Templates 💙 Create template				v5.76.0 🛇
•					
9					
1	General Questions				
٩	Name	Nederlands * Deutsch	English	Français (BE)	Français (FR)
Ľ					
٥		Optional			li.
	Type *	Project feedback template		Logbook feedback te	emplate
	Valid from (Europe/London) *	17-01-24			
	Valid to (Europe/London)	Dptional			

In step 1 of creating templates, add the required template information.

Figure 88 Creating templates - general

- 3. Select the language (name).
 - 4. Select the type: Project feedback template or Logbook feedback template.
- 5. Fill in the valid from date and valid to date.
- 6. Go to step 2.

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The Logbook feedback template is used in the MTinfo 3000 mobile app and can be filled out multiple times by one user. This is not possible for the Project feedback.

How to make a Project feedback template is explained in this section.

9.3.2 Step 2 - Questions

In step 2 of creating templates, drag and drop predefined questions to create a new template.

ආ	=		A Karlo Foxiz to	Hering estbedrijf	a :
۵	Create template				
F	Home 🔊 Templates 🔊 Edit			v!	/5.60.1 🥝
1) 3 12	General Questions				
•					
٠	Nederlands *	English *			
	Date and time Required	t⊡ Text Field # Number Telephone			
	Label Date and time	Email			
	Dependencies AND OR + Add rule • Add group	O Time			
		Date and time			
	Close	Checkbox Group			
	Telephone	Radio Group			
		C Repeatable questi	ons		
	Email				

Figure 89 Creating templates - questions

- Drag and drop the predefined questions. Change the order of questions by moving them up or down.
- 2. Click this icon to edit a predefined question:
 - required, the user of the template must answer the question: yes/no;
 - label, change the name of the question;
 - dependencies, the question only appears on the template when meeting the conditions:
 - o and/or;
 - o by adding a new rule;
 - o by adding a new group.
 - if needed, delete a dependency.

3. Save the template.

۵)

QUESTION	EXPLANATION
Text Field	An open-ended question that allows users to formulate their own answer. It is possible to select default values that will be filled in automatically when these values are entered in MTinfo 3000 projects.
Number	A question that requires entering a number. It is possible to indicate what the minimum and default value of this number must be, and which increment is needed (for example 'per 10').
Telephone	A field that requires entering a telephone number. The option to add the country code appears in the form automatically.
Email	A field for entering an email address.
Date Field	A field for entering a date.
Time	A field for entering a time.
Date and time	A field for entering simultaneously a date and time.
Select	A drop-down menu for choosing one answer.
Checkbox Group	A list of options for ticking one or more answers. The creator of the template can set a minimum and maximum number of options to tick.
Radio Group	A list of options from which just one answer can be selected.
Repeatable questions	A bundle of questions which can be created and completed multiple times.

Table 9-1 explains the types of predefined question:

Table 9-1: Question types

After saving the template, it can be used in MTinfo 3000 projects. It is always possible the edit or delete templates (see Figure 87).



NOTE

Editing or deleting templates does not affect released projects. Only after a project is returned and released again, template modifications are realized.

9.4 Project documentation

In step 4 of the project planning, documents have been added optionally. Use the documents menu to view added or filled out documents that are used during a project.

Whenever a user adds or fills out forms via the app, it will be shown on the page View project (Figure 32), tab Documents.

9.4.1 General

You can choose to download:

- Project data;
- Project data + feedback/logbook;
- Archive (ZIP);
- Document acceptance;
- Project log (CSV).

NOTE Downloading the Archive (ZIP) may take a while.

1. Go to the page View project (Figure 32) and click the tab Setup.

The screen View project appears:

ථ							٠	User 1 Dual Inventive	4
	View project								
F	Home > Projects > DL_A								v5.79.0 🖸
æ	Setup	Design 🗸 Planning	Documents	Project log					
•									
9	🖊 🔍 🖿 🚎 🖉 📥	RELEASE RETURN							
1	PROJECT INFO	Project data		PROJECT	TASKS				
•	Project	Project data + feedback / logbook		Task	Use	ers			
		Archive (ZIP)		🛕 Setup	Use				
2	Corr 🛃	Document acceptance		• Design					
•				O Verify D					
•	Refe 🔼	Project log (CSV)		O Validate					
	Project type	> RC		Plan	Use				
	Project type			Verify Pl Validate	-				
	Start Date (Europe/London)) 17-01-24		Release	Use Planning Use				
				Return	Use				
	Site Leader	r -			00				
	Project Planner	r -		UNASSIG	NED SETUP USERS				
	Safety Coordinator	r -		All users ass	signed.				
	Description	1							
	Status	s Not released							
	Design	n Concept							
	Planning	g Definitive							

Figure 90 Project documentation - general

₹.

Click the icon.

3. Choose an option.

The project documentation will be downloaded to the user's local download folder.

9.4.2 Documents through the app

When a user uploads or fills in a document through the app, it will be shown here.

1. Go to the page View project (Figure 32) and click the tab Documents.

The page View project appears:

ථ	=							User Dual Inventive	۵	
* }	View proje	ct								
a		Home > Projects >							v5.76.0 Ø	
•		Setup	🗸 Design	🗸 Planning	Documents	Project log				
3 10		Feedback	Logbook	Uploads	Sign in list					
•		Documents		User	Date		Thumbnail			
• 2		1620638687441.jpg		User	10-05-21 11:24:59 UTC+02		251		*	
		cdv_photo_001.jpg		User	10-05-21 12:49:09 UTC+02				*	
										_

Figure 91 Project documentation - through the app

- 2. Select a tab: Feedback, Logbook, Uploads, Sign in list.
 - 3. Select documents.

*

9

- 4. Click the icon to download documents.
- 5. Click the icon to add comments to a document.

The project documents will be downloaded to the user's local download folder.

9.5 Project log

The project log shows the history of the performed tasks within a project.

) =						•	User 1 Dual Inventive
View	project						
	Home > Projects >	Dual Inventive Test2					vS
	Setup	✓ Design	✓ Planning	Docum	ents Project log		
	Filter	PROJECT LOG REMARK		User 🕯	Message		
	Keyword E			User 1	Project release failed (Web)		
	Optional	21-09-23 11:52:02 UTC+01		User 1	Project release requested (Web)		
	User E	21-09-23 11:52:00 UTC+01		User 1	Project release initiated (Web)		
	Optional	21-09-23 11:51:48 UTC+01		User 1	Planning changed (Web)		
		21-09-23 11:51:48 UTC+01		User 1	Planning ready for verification (Web)		
	From (Europe/London)			User 1	Planning verified; Ready for validation (Web)		
	Optional	21-09-23 11:51:48 UTC+01 21-09-23 11:51:04 UTC+01		User 1 User 1	Planning validated; Ready for release (Web) Design validated; Ready for release (Web)		
	To (Europe/London)	21-09-23 11:51:04 UTC+01		User 1	Design validated; Ready for release (Web)		
	Dptional	21-09-23 11:51:03 UTC+01		User 1	Design ready for verification (Web)		
		Showing 1 to 10 of 71 rows					5 8 →

Figure 92 Project log

2. Search the Project log remark by using a keyword, user or period (from/to).

9.6 Knowledgebase

This section shows how to add documents to the Knowledgebase in MTinfo3000. By adding a document to the knowledgebase in MTinfo 3000, it will be visible in the MTinfo 3000 mobile app for all logged in users. This makes it easy to share important documents with users that they should always have at hand, such as safety *instructions* and manuals. In order to add documents to the knowledgebase, follow these steps:

• From the MTinfo 3000 dashboard, select "Knowledgebase"

ථ	=						٨	Preethi Murali Foxiz testbedrijf
▲ ⊁ 8		Good morning Preethi Murali Foxiz testbedrijf	<u></u>	11°C Haagse Beemden			My MTinfo	
9 0	Ny MTHO Liter roles	Asset Management	Seport Knowledgebase	Projects Reports	Real time status	Users Insight		
	Tritsbet							

Figure 93 Dashboard page

The knowledgebase space will show all documents that have been uploaded already:

ආ						🔺 Preethi Murali 🐣 🔒
* ,>	Knowledgebase					
	Home >	Knowledgebase > Search				V5.67.0 @
	Filter	1				
₽	Document name	Document name ∆⊽ No results	Uploaded by $\Delta \nabla$	Company ∆⊽	Date uploaded $\Delta \nabla$	Actions
	Optional Uploaded by	« 1 »				0-0of0 10-
	Company					

Figure 94 Knowledgebase space

- Press the 'Upload Documents' icon
- From the below screen, you can search for or drag and drop the file

ථ				Preethi Murali &
*	Upload documents			
* •	Home > Knowledgebase > Create			v5.67.0 ©
۲		Document name	Size	
F	Drop a file here, or SELECT FILE			+ SUBMIT DOCUMENTS
•				
Ŭ				

Figure 95 Upload documents page

• Click 'Select File' and select the file you wish to upload, or click and hold the file, then drag it to the box as shown below

ථ	-		🐥 Preethi Murali 🛔 🛔
	Upload documents		
	Home 🔰 Knowledgebase 🎽 Create	■ □ X	v5.57.0 @
	Document name	File Home Share View ✓	Size
•	Drop a file here, or SELECT FILE	Date modified Name Ty	+ SUBMIT DOCUMENTS
8		B 31/03/2023 10:59 How to Add A document to Knowledgebase M C A document to Knowledgebase M I item 1 item selected 58,5 K8	

Figure 96 Uploading documents

• Select '+ Submit documents' to add the documents to the knowledgebase. Additionally, the uploaded documents can be renamed in this screen as well

ථ				A Preethi Murali 🔒
٠	Upload documents			
* •	Home 🗦 Knowledgebase 🍃 Create			v5.87.0 0
		Document name	Size	
۲	Drop a file here, or SELECT FILE	How to Add A document to Knowledgebase pub	58.5 KB	Ċ
٩				+ SUBMIT DOCUMENTS
۰				

Figure 97 Uploaded documents

• The uploaded document is visible to all users in your company

ථ	=					A Preethi Murali &
• }	Knowledgebase					
	Home >	Knowledgebase 🔰 Search				v5.67.0 🕲
۰	Filter	4				
ø		Document name ∆⊽	Uploaded by $\Delta \nabla$	Company ∆⊽	Date uploaded $\Delta \nabla$	Actions
٩	Optional	How to Add A document to Knowledgebase.pub	Preethi Murali	Foxiz testbedrijf	31/03/2023 11:29:14	±/ 0
۰	Uploaded by Preethi Murali					1-1 of 1 10-
	Company Foxiz testbedrijf					

Figure 98 Knowledgebase space

10 SYSTEM MAINTENANCE AND SYSTEM HEALTH

As a user of our system, it is imperative to remain informed about any maintenance and system health that may impact your experience. To facilitate this, we have established an internet status page that provides real-time information regarding the health of our systems.

To access the status page, please navigate to <u>https://mtinfo3000.status.io/</u>. On this page, you will find information pertaining to any ongoing incidents or scheduled maintenance. Additionally, you can view the history of past incidents on this page.

In order to ensure that you are apprised of all updates, **we strongly recommend subscribing to our status page**. By doing so, you will receive notifications via email whenever there is an update to the status of our system. To subscribe, please click the "Subscribe" button on our status page and follow the prompts.

By remaining informed through our status page and subscribing to updates, you will always be aware of the current state of our system and can plan accordingly.

11 APPENDIX ZKL 3000 RC

11.1 Explanation real-time status ZKL 3000 RC

A	- AURPIS	×
Serial number	T008	
Туре	ZKL 3000 RC	
GPS position	51.5860096, 5.1952632	
Device status	Online	
Last update	2024-01-17 17:13:05 UTC	
Switch status	Switched OFF (2024-01-17 17:00:10 UTC)	
Detection quality	88.16 % (2024-01-17 11:48:48 UTC)	
Key position	Operational	
Backup bat. status	Full	
Backup bat. volt.	6.83 V.	
Main bat. status	Full	
Main bat. volt.	7.86 V.	
Measurement on	No	
	Belgiestr	

Figure 99 Real-time status ZKL 3000 RC

ITEM	EXPLANATION	
Serial number	Serial number of the selected device.	
Туре	The type of the device that is being displayed, in this case a ZKL 3000 RC.	
GPS position	GPS position of the selected device.	
Device status	Status of the device. When it is offline, it is not connected with MTinfo 3000 or both batteries are empty.	
Last update	Last received message from the device.	
Switch status	Device is switched ON or OFF.	
Detection OK	The detection is OK or not OK.	
Detection quality	Detection quality (%) between the ZKL 3000 RC and the track. Anything > 0% is considered as OK. The detection quality only becomes not OK when the value is exactly 0%.	
Key position	OPERATIONAL: device can be switched remotely.	
	• ON: manual switched is shorted, cannot be switched remotely.	

ITEM	EXPLANATION
	OFF: manual switched is not-shorted.
Battery status	• Full: sufficient power (66-100%).
(backup, main)	• Half: adequate power (33-66%).
	• Low: low in power (15-33%).
	Critical: almost empty (3-15%).
	 Depleted: completely empty (0-3%).
	Removed: completely empty (0%).
Battery voltage	Shows the voltage of the batteries of the ZKL 3000 RC.
(backup, main)	



NOTE

For a more in-depth explanation, see the User Manual ZKL 3000 RC, section Troubleshooting. When an error appears in the real-time status, it is very important to consult the manual.

12 APPENDIX RDI 3000

12.1 Explanation Real-time status RDI 3000

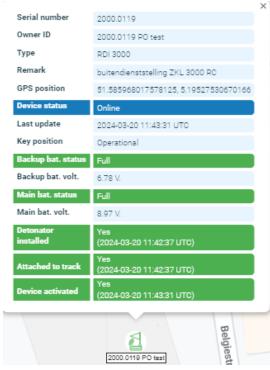


Figure 100 Real-time status RDI 3000

ITEM	EXPLANATION	
Serial number	Serial number of the selected device.	
Туре	Type of the device that is being displayed, in this case a RDI 3000.	
GPS position	GPS position of the selected device.	
Device status	Status of the device. When it is offline, it will not connect with MTinfo 3000 or both batteries are empty.	
Last update	Last received message from the device.	
Key position	 OPERATIONAL: device can be switched remotely. ON: manual switched is shorted, cannot be switched remotely. OFF: manual switched is not-shorted. 	
Battery status (backup, main)	 Full: sufficient power (66-100%). Half: adequate power (33-66%). Low: low in power (15-33%). Critical: almost empty (3-15%). 	

ITEM	EXPLANATION	
	• Depleted: completely empty (0-3%).	
	 Removed: completely empty (0%). 	
Battery voltage	Shows the voltage of the batteries of the RDI 3000.	
(back-up, main)		
Detonator installed	• Yes: detonator is on the rail.	
	• No: detonator is not on the track, lies next to the rail.	
Attached to track	• Yes: the RDI 3000 is attached to the rail.	
	• No: the RDI 3000 is not attached to the rail.	
Device state	• Yes: The RDI 3000 is activated.	
	No: The RDI 3000 is not activated.	



NOTE

For a more in-depth explanation, see the RDI 3000 User Manual, section Troubleshooting. When an error appears in the real-time status, it is very important to consult the manual.

13 APPENDIX NOTIFICATION MESSAGES

13.1 General

NOTE

A notification is a message or a reminder of a message sent by MTinfo 3000 to a users' mobile device (tablet, phone).

A reminder for a safety related notification is an extra service to help the user. It is not explicitly considered as mitigation of an identified risk.



WARNING

SMS will not be delivered to the user if a wrong telephone number is deviceed or when the user blocks the sender's phone number in the MTinfo 3000.

Verify if you have entered your correct telephone number and do not block the sender.

WARNING

In order to receive the non-safety related push notifications, the following prerequisites should be met:

- Latest MTinfo 3000 mobile app installed on the users' mobile device.
- Push notifications should be allowed in phone settings.
- User must be logged into the MTinfo 3000 mobile app.

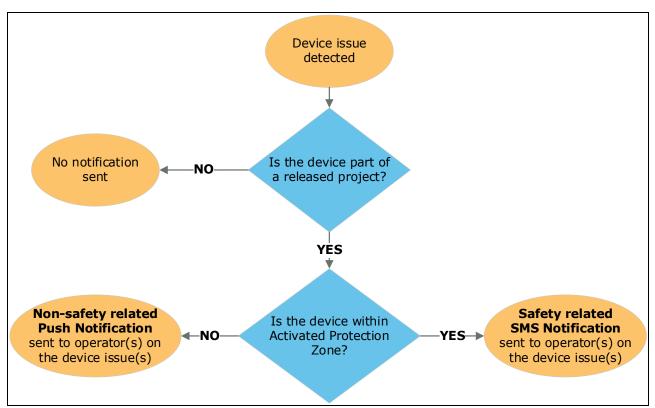


Figure 101 Notification logic diagram

13.2 Notifications ZKL 3000 RC

13.2.1 Errors and Notifications

Users with switching rights on a released project will automatically receive push notifications. Note the prerequisites to receive push notifications is stated in section 13.1.

Alerts from devices in activated protection zones will be sent via **text messages (SMS).** Users' mobile phone number is entered as alarm number within the user profile to enable this.

The notification service starts as soon as the ZKL 3000 RC has been assigned to a project and the project is released. It is the responsibility of the recipient to act upon these notifications (more information is available in the ZKL 3000 RC Installation Manual, reference [2]).

The notifications that require action are:

S/N	NOTIFICATIONS	EXPLANATION
1.	ZKL 3000 RC "Serial Number" * Detection NOT ok. Please check manual for more information.	ZKL 3000 RC with ID "Serial Number" is no longer creating a proper short circuit in the track. The detection is not OK.
2.	ZKL 3000 RC "Serial Number" * is offline. Please check manual for more information.	ZKL 3000 RC with ID "Serial Number" is offline. The ZKL3000 RC cannot make a connection to MTinfo 3000.
3.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery is CRITICAL. Please check manual for more information.	Both batteries of ZKL 3000 RC with ID "Serial Number" arecritical. The system will send a new notification as soon as one ofthe batteries is getting depleted.

S/N	NOTIFICATIONS	EXPLANATION
4.	ZKL 3000 RC "Serial Number" * The backup battery has sufficient power, the main battery is CRITICAL. Please check manual formore information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is critical and the backup battery is ok (either fullor half full). The system will send a new message as soon as one of the batteries will reach the next depletion level.
5.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery has sufficient power. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is critical and the main battery is ok (either full or half full). The system will send a new message as soon as one of the batteries will reach the next depletion level.
6.	ZKL 3000 RC "Serial Number" * The backup battery has sufficient power, the main battery is DEPLETED. Please check manual for more information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the backup battery is ok (eitherfull or half full). The system will send a new message as soon as the ok battery reaches the next depletion level.
7.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery has sufficient power. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the main battery is ok (either full or half full). The system will send a new message as soon as the ok battery reaches the next depletion level.
8.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery is CRITICAL. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the main battery is critical. The system will send a new Notification as soon as the main battery is depleted.
9.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery is DEPLETED. Please check manual for more information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the backup battery is critical. The system will send a new Notification as soon as the backup battery is depleted.
10.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery is DEPLETED. Please check manual for more information.	Both batteries of ZKL 3000 RC with ID "Serial Number" are depleted.
11.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery has been REMOVED. Please check manual formore information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is critical and the main battery has been removed, The system will send a new notification as soon as thebackup battery is depleted.
12.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery has been REMOVED. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "SerialNumber" is depleted and the main battery has been removed.

S/N	NOTIFICATIONS	EXPLANATION	
13.	ZKL 3000 RC "Serial Number" * The backup battery has been REMOVED, the main battery is CRITICAL. Please check manual formore information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" has been removed and the main battery is critical, The system will send a new notification as soon as themain battery is depleted.	
14.	ZKL 3000 RC "Serial Number" * The backup battery has been REMOVED, the main battery is DEPLETED. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "SerialNumber" has been removed and the main battery is depleted.	
15.	ZKL 3000 RC "Serial Number" * Detection NOT ok. Please check manual for more information.	ZKL 3000 RC with ID "Serial Number" is no longer creating a proper short circuit in the track. The detection is not OK.	
16.	ZKL 3000 RC "Serial Number" * is offline. Please check manual for more information.	ZKL 3000 RC with ID "Serial Number" is offline. The ZKL3000 RC cannot make a connection to MTinfo 3000.	
17.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery is CRITICAL. Please check manual for more information.	Both batteries of ZKL 3000 RC with ID "Serial Number" arecritical. The system will send a new notification as soon as one ofthe batteries is getting depleted.	
18.	ZKL 3000 RC "Serial Number" * The backup battery has sufficient power, the main battery is CRITICAL. Please check manual formore information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is critical and the backup battery is ok (either fullor half full). The system will send a new message as soon as one of the batteries will reach the next depletion level.	
19.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery has sufficient power. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is critical and the main battery is ok (either full orhalf full). The system will send a new message as soon as one of the batteries will reach the next depletion level.	
20.	ZKL 3000 RC "Serial Number" * The backup battery has sufficient power, the main battery is DEPLETED. Please check manual for more information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the backup battery is ok (eitherfull or half full). The system will send a new message as soon as the ok battery reaches the next depletion level.	
21.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery has sufficient power. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the main battery is ok (either fullor half full). The system will send a new message as soon as the ok battery reaches the next depletion level.	
22.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery is CRITICAL. Please check manual for more	The backup battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the main battery is critical. The system will send a new notification as soon as the main battery is	

S/N	NOTIFICATIONS	EXPLANATION
	information.	depleted.
23.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery is DEPLETED. Please check manual for more information.	The main battery of the ZKL 3000 RC with ID "Serial Number" is depleted and the backup battery is critical. The system will send a new notification as soon as the backup battery is depleted.
24.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery is DEPLETED. Please check manual for more information.	Both batteries of ZKL 3000 RC with ID "Serial Number" are depleted.
25.	ZKL 3000 RC "Serial Number" * The backup battery is CRITICAL, the main battery has been REMOVED. Please check manual formore information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" is critical and the main battery has been removed, The system will send a new notification as soon as thebackup battery is depleted.
26.	ZKL 3000 RC "Serial Number" * The backup battery is DEPLETED, the main battery has been REMOVED. Please check manual formore information.	The backup battery of the ZKL 3000 RC with ID "SerialNumber" is depleted and the main battery has been removed.
27.	ZKL 3000 RC "Serial Number" * The backup battery has been REMOVED, the main battery is CRITICAL. Please check manual formore information.	The backup battery of the ZKL 3000 RC with ID "Serial Number" has been removed and the main battery is critical, The system will send a new notification as soon as themain battery is depleted.
28.	ZKL 3000 RC "Serial Number" * The backup battery has been REMOVED, the main battery is DEPLETED. Please check manual for more information.	The backup battery of the ZKL 3000 RC with ID "SerialNumber" has been removed and the main battery is depleted.
29.	ZKL 3000 RC "Serial Number" is switched off with a key. Please check the Real-Time Status in MTinfo 3000. Refer to the user manual for details.	The key position of the ZKL 30000 RC with ID "Serial Number" in an activated protection zone has been turned to the 'OFF' (overruled) position.

13.2.2 Text Notifications - Reminders

For the offline and the detection safety related events a reminder system is introduced. The reminders are helping the user to remind that there is an unresolved issue with a specific ZKL 3000 RC.

Battery notifications already have an implicit reminder system as the user is notified when the main or backup battery reaches critical or depleted levels.

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Reminders do not relieve the user of his responsibility to go immediately to the device to inspect it!

Please, always consult the Real Time Status for the up-to-date situation.

A reminder is sent after a 15-minute interval. A maximum of 3 reminders are sent for one continuously 'detection NOT ok' or 'offline' situation. Reminders are only sent when the device is in active state (i.e. in an activated protection zone).

The reminder text messages are:

NOTE

NOTIFICATIONS	EXPLANATION	
Reminder: ZKL 3000 RC "Serial Number" * Detection NOT ok. Please check manual for more information.	Reminder message when the detection is not ok and the device is in an activated protection zone.	
Reminder: ZKL 3000 RC "Serial Number" * is offline. Please check manual for more information.	Reminder message when the device is offline and the device is in an activated protection zone.	

13.3 Notifications RDI 3000

13.3.1 Errors and Notifications

Users with switching rights on a released project will automatically receive notifications via push notifications. Note the prerequisites to receive push notifications stated in chapter 13.1.

Alerts from devices in activated protection zones will be sent via text messages (SMS). The user's mobile phone number is entered as an alarm number within the user profile to enable this.

The notification service starts as soon as the RDI 3000 has been assigned to a project and the project is released. It is the responsibility of the recipient to act upon these notifications.

The notification notifications that require action are:

S/N	NOTIFICATIONS	EXPLANATION
1.	RDI 3000 "Serial Number" * is offline. Please check manual for	RDI 3000 with ID "Serial Number" is offline. The RDI 3000 cannot make a
	more information	connection to MTinfo 3000.
2.	RDI 3000 "Serial Number" is NOT against the track. Pleasecheck the manual for more information	RDI 3000 with ID "Serial Number" * is NOT against the track. The RDI 3000 might have been removed from track.
3.	RDI 3000 "Serial Number" has a broken led group. Please check the manual for more information.	RDI 3000 with ID "Serial Number" * has a broken led group. One or more red LED light elements are faulty. Red LED brightness no longer meets specifications.
4.	RDI 3000 "Serial Number" * detonator state is NOT ok. Please check manual for moreinformation.	RDI 3000 with ID "Serial Number" * detonator state is NOT ok. The RDI 3000 cannot guarantee the detonator is placed correctly on the track.

S/N	NOTIFICATIONS	EXPLANATION
5.	RDI 3000 "Serial Number" * The backup battery is CRITICAL, the main battery is CRITICAL. Please check manual for more informationBoth batteries of RDI 3000 with ID "Serial Number" are critical. The syst will send a new notification as soon one of the batteries approaches depletion.	
6.	RDI 3000 "Serial Number" *The backup battery has sufficient power, the main battery is CRITICAL. Please check manual for more information	The main battery of the RDI 3000 with ID "Serial Number" is critical and the backup battery is ok (either full or half full). The system will send a new message as soon as one of the batteries approaches the next depletion level.
7.	RDI 3000 "Serial Number" * The backup battery is CRITICAL, the main battery has sufficient power. Please check manual for more information	The backup battery of the RDI 3000 with ID "Serial Number" is critical and the main battery is ok (either full or half full). The system will send a new message as soon as one of the batteries approaches the next depletionlevel.
8.	RDI 3000 "Serial Number" *The backup battery has sufficient power, the main battery is DEPLETED. Please check manual for more information full). The system will send a n message as soon as the ok backup battery is depleted full). The system will send a n	
9.	RDI 3000 "Serial Number" *The backup battery is DEPLETED, the main battery has sufficient power. Please check manual for more information	The backup battery of the RDI 3000 with ID "Serial Number" is depleted and the main battery is ok (either fullor half full). The system will send a new message as soon as the ok battery reaches the next depletion level.
10.	RDI 3000 "Serial Number" * The backup battery is DEPLETED, the main battery is CRITICAL. Please check manual for more information	The backup battery of the RDI 3000 with ID "Serial Number" is depleted and the main battery is critical. The system will send a new notification as soon as the main battery is depleted.
11.	RDI 3000 "Serial Number" * The backup battery is CRITICAL, the main battery is DEPLETED. Please check manual for more information	The main battery of the RDI 3000 with ID "Serial Number" is depleted and the backup battery is critical. The system will send a new notification as soon as the backup battery is depleted.
12.	RDI 3000 "Serial Number" * The backup battery is DEPLETED, the main battery is DEPLETED. Please check manual for more information	Both batteries of RDI 3000 with ID "Serial Number" are depleted.

S/N	NOTIFICATIONS	EXPLANATION	
13.	RDI 3000 "Serial Number" * The backup battery is CRITICAL, the main battery has been REMOVED. Please check manual for more information.	The backup battery of the RDI 3000 with ID "Serial Number" is critical and the main battery has been removed. The system will send a new notification as soon as the backup battery is depleted.	
14.	RDI 3000 "Serial Number" * The backup battery is DEPLETED, the main battery has been REMOVED. Please check manual for more information.	The backup battery of the RDI 3000 with ID "Serial Number" is depleted and the main battery has been removed. The system will send a new notification as soon as the backup battery is removed.	
15.	RDI 3000 "Serial Number" is switched off with a key. Please check the Real- Time Status in MTinfo 3000. Refer to the user manual for details.	The key position of the RDI 3000 with ID "Serial Number" in an activated protection zone has been turned to the 'OFF' (overruled) position.	

13.3.2 Errors and Notifications - Reminders

For the offline and safety related events a reminder system is introduced. The reminders are helpingthe user by reminding that there is an unresolved issue with a specific RDI 3000.

Battery notifications already have an implicit reminder system as the user is notified when the main or backup battery reaches critical and depleted levels.



NOTE

Reminders do not relieve the user of his responsibility to go immediately to the device to inspect it!

Please, always consult the Real Time Status for the up-to-date situation.

A reminder is sent after a 15-minute interval. A maximum of 3 reminders are sent for one continuously 'not ok'-situation. Reminders are only sent when the device is in active state (i.e.in an activated protection zone).

The reminder text messages are:

NOTIFICATIONS	EXPLANATION	
Reminder: RDI 3000 "Serial Number" * is offline. Please check manual for more information	Reminder message when the deviceis offline and the device is in an activated protection zone.	
Reminder: RDI 3000 "Serial Number" is NOT against the track. Please check the manual for more information	Reminder message when the device might have been removed from trackor moved to a different place or is not correctly installed.	
Reminder: RDI 3000 "Serial Number" has a broken led group. Please check the manual for moreinformation.	Reminder message when the devicelight indication is not sufficient any longer.	
Reminder: RDI 3000 "Serial Number" * Detonator state is NOT ok. Please check manual formore information.	Reminder message when the device cannot guarantee the detonator is ontrack.	

13.4 Notifications RSS 3000

13.4.1 Errors and Notifications

Users with switching rights on a released project will automatically receive notifications via push notifications. Note the prerequisites to receive push notifications stated in the chapter 13.1.

Alerts from devices in activated protection zones will be sent via text messages (SMS). Users' mobile phone number is entered as alarm number within the user profile to enable this.

The notification service starts as soon as the RSS 3000 has been assigned to a project and the project is released. It is the responsibility of the recipient to act upon these notifications.

The notification notifications that require action are:

S/N	NOTIFICATIONS	EXPLANATION	ACTION
1.	RSS 3000 "Serial Number" * Detection NOT ok. Please check manual for more information.	RSS 3000 with ID "Serial Number" is no longer creating a proper short circuit for the relay. The detection is not OK.	Check the device connector and cable to the Relay and replace if damaged. If this doesn't solve the issue replace the device with another device and return for service.
2.	RSS 3000 "Serial Number" is offline. Please check manual for more information.	RSS 3000 with ID "Serial Number" is offline. The RSS 3000 cannot make a connection to MTinfo 3000.	Check the power source of the RSS 3000 or check the Status page for network outage. If this doesn't solve the issue contact Dual inventive.

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S/N	NOTIFICATIONS	EXPLANATION	ACTION
3.	RSS 3000 "Serial Number" is switched off with a key. Please check the Real-Time Status in MTinfo 3000. Refer to the user manual for details.	The key position of the RSS 3000 with ID "Serial Number" in an activated protection zone has been turned to the 'OFF' (overruled) position.	Check the Real-Time Status of the device. Refer to Section <u>11.1</u> for more information.

13.4.2 Errors and Notifications - Reminders

For the offline and the detection safety related events a reminder system is introduced. The reminders are helping the user to remind that there is an unresolved issue with a specific RSS 3000.



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Reminders do not relieve the user of his responsibility to go immediately to the device to inspect it when receiving the first notification massage!

Please, always consult the Real Time Status for the up-to-date situation.

A reminder is sent after a 15-minute interval. A maximum of 3 reminders are sent for one continuously 'not ok'-situation. Reminders are only sent when the device is in active state (i.e. in an activated protection zone).

The reminder text messages are:

NOTIFICATIONS	EXPLANATION	ACTION
Reminder: RSS 3000 "Serial Number" * Detection NOT ok. Please check manual for more information	Reminder message when the detection is not ok and the device is in an activated protection zone.	Check the device connector and cable to the Relay and replace if damaged. If this doesn't solve the issue replace the device with another device and return for service.
Reminder: RSS 3000 "Serial Number" is offline. Please check manual for more information	Reminder message when the device is offline and the device is in an activated protection zone.	Check the power source of the RSS 3000 or check the Status page for network outage. If this doesn't solve the issue contact Dual inventive.