

Manual for using the web interface

MTinfo 3000 Version 5

to prepare for use of the ZKL 3000 RC system



ti DualInventive
Ubiquitous Rail

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1. INTRODUCTION

This manual describes how to prepare and manage MTinfo 3000 projects for the ZKL 3000 RC Remote Control (RC) Line Blockage System using MTinfo version 5. For MTinfo 3000 version 4, please see the “Using the webinterface MTinfo 3000” manual. MTinfo 3000 version 4 can be accessed by going to <https://mtinfo.dualinventive.com/>.

MTinfo 3000 provides remote access to the ZKL 3000 RC system, which safeguards a section of track by producing and monitoring a short circuit, simulating a train in the section. This causes the circuit to be ‘OCCUPIED’, placing the protecting signals at danger. The section will be immediately closed to rail traffic, enabling rail workers to perform work on the track both safely and efficiently.

This manual is one of three that detail the entire ZKL 3000 RC system:

- The web interface MTinfo 3000 V5
- Installing the ZKL 3000 RC
- Switching the ZKL 3000 RC

This document describes how to:

- Create, design and plan projects in MTinfo 3000 V5
- Release, return and close MTinfo 3000 projects
- View the real time status of one or more ZKL 3000 RC('s)
- Switch a period with one or more ZKL 3000 RC('s) through MTinfo 3000

To view the general features of MTinfo 3000, such as the use of My MTinfo, generating reports and using the knowledgebase, please see the general MTinfo 3000 user manual. These can be found on our website: <https://www.dualinventive.com/en/downloads>

2. DEFINITIONS AND TECHNICAL SPECIFICATIONS

a. Application area of MTinfo 3000

MTinfo 3000 can be used on any computer with an internet connection, once a user's account has been authenticated. MTinfo 3000 is an online application and does not require any software to be installed on your computer.

b. Minimum requirements

MTinfo 3000 is een online toepassing waarvoor u niets hoeft te installeren op uw computer.

Minimale vereisten voor uw computer, internetverbinding en software zijn:

- 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 1366p by 768p
- Webbrowser:
 - Google Chrome (recommended)
 - Internet Explorer version 11 or above
- Recommended software:
 - Adobe Acrobat as PDF reader to view reports
 - Google Earth (for projects GPS-Track)

Dual Inventive does not take responsibility for the above mentioned equipment or software being incorrect or absent

3. CONDITIONS AND SAFETY INSTRUCTIONS

**WARNING!**

Please carefully read all safety instructions before using MTinfo 3000 to ensure you fully understand the system and how it works. When precautionary measures and safety instructions are not properly followed by the users there is a risk of electrocution, fire or even death due to the railway environment.

a. Conditions for use

You may only use MTinfo 3000 when the following criteria are met:

- You hold the MTinfo 3000 competency, and it is in date
- You have been assigned the appropriate user rights on MTinfo 3000
- You have been authorised to do so

As an MTinfo 3000 **manager** you are responsible for:

- Creating and managing users, and their respective rights for competent ZKL 3000 RC users in such a manner that misuse is avoided

As a **competent user** you are responsible for:

- User names and passwords
- Managing your password and pincode. Sharing this information with others is **not allowed**
- The safety of the ZKL 3000 RC. **You should respond to alerts from the devices when something is not working correctly**

b. Instructions

Other important instructions

- Dual Inventive will create the company and the user account (administrator) for the company. This user will be the nominated contact person inside your company
- There are certain situations where you may be prevented from switching the ZKL 3000 RC. For more information about these, see ZKL 3000 RC Installation manual, chapter "Troubleshooting"
- Ensure that the software on your computer system is kept up-to-date, including your internet browser, Google Earth and the PDF reader. No additional maintenance is required
- The hardware you use could limit the connection to MTinfo 3000. Please discuss this with your IT administrator should you encounter any issues

Instructions for first use

- Ensure you have been certified and have the appropriate rights to use MTinfo 3000
- Do not go on or near the line without the appropriate competencies or authorisation
- Always take care of our own safety within the track environment using the current applicable legislation
- Always use a secure connection to MTinfo 3000. The connection is safe to use when the web address is preceded by "https://"

4. BASIC FEATURES

MTinfo 3000 uses a set of recurring icons, actions and features. This chapter explains how to use each of these functions.

Icon/Action	Explanation
 Create	Allows you to create a new item.
 Cancel	Allows you to cancel or close an item, the item will not be saved.
 Close project / show closed projects	Allows you to close an MTinfo 3000 project when you are on that specific project page. You can also view all closed projects when clicking on this icon while in the project overview.
  Download	Allows you to download a report or other document. Upon clicking on this icon a menu will be opened in which you can select the type of report or document.
  Duplicate	Allows you to duplicate an item.
 Users	Sends you back to the users overview.
 Generate	Allows you to generate a report. Upon clicking on this icon, a menu will be opened in which you can select the type of report you wish to generate.
 Check	Allows you to check and approve or reject the performed step.
 Your profile	Sends you to your personal MTinfo 3000 profile.
 New	Allows you to create a new item (project, user, company...).
 Save	Allows you to save an item.
 Switch period	Allows you to switch the devices of a period.

4. BASIC FEATURES CONTINUED

Icon/action		Explanation
	Project overview	Sends you back to the project overview.
	Reports	Sends you back to the reports overview.
	Realtime status	Allows you to view the real time status of the selected project.
	View task	Allows you to view the tasks you can perform.
	Perform task	Allows you to perform the specific task.
	Upload	Allows you to upload a file.
	Delete	Allows you to delete the selected item.
	Next	Allows you to continue to the next step.
	Previous	Allows you to go back to the previous step.
	Edit	Allows you to edit the selected item.
	Search	Allows you to search for a specific item.

4. BASIC FEATURES CONTINUED

Filter and sort

Within MTinfo 3000 you have the option to filter and/or sort items.

Filter

As a filter example we will use the knowledgebase.

The screenshot shows the 'Filter' sidebar on the left with the following options:

- Document name:** A text input field containing 'Optional'.
- Uploaded by:** Two radio buttons: 'Super User' (selected) and 'jel tst'.
- Company:** Two radio buttons: 'Dual Inventive Test' (selected) and 'Super User'.

The main table displays the following data:

Document name	Uploaded by	Company	Date uploaded	Actions
Rules and regulations.pdf	Super User	Dual Inventive Test	2017-08-02 14:44:42	[Icons]
Language check.docx	jel tst	Dual Inventive Test	2017-10-26 14:08:25	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:35:27	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:26:05	[Icons]
Picture with lines that has a really long name for testing purposes and is notting more then just a few lines drawn in paint.png	Super User	Dual Inventive Test	2018-04-05 09:39:05	[Icons]
Contactpunten.jpg	jel tst	Dual Inventive Test	2017-10-26 14:07:26	[Icons]
Instructiemiddelen.docx	jel tst	Dual Inventive Test	2017-10-26 14:07:26	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:35:15	[Icons]
Track switch state.jpg	Super User	Dual Inventive Test	2017-08-02 14:44:42	[Icons]

At the bottom of the table, there is a pagination bar showing '1' and a total of '1-9 of 9' items.

On the left side you will see "Filter". By entering the document name (partially or as a whole) you can filter documents by name. By using the selection buttons you can choose to only view documents uploaded by certain users or companies.

The filter option is available for many overviews. The filter criteria differ per overview.

Sort

Within certain overviews you have the option to sort items. We will once again use the knowledgebase as an example.

The screenshot shows the 'Filter' sidebar on the left with the following options:

- Document name:** A text input field containing 'Optional'.
- Uploaded by:** Two radio buttons: 'Super User' (selected) and 'jel tst'.
- Company:** Two radio buttons: 'Dual Inventive Test' (selected) and 'Super User'.

The main table displays the following data, sorted alphabetically by document name:

Document name ▼	Uploaded by	Company	Date uploaded	Actions
Contactpunten.jpg	jel tst	Dual Inventive Test	2017-10-26 14:07:26	[Icons]
Instructiemiddelen.docx	jel tst	Dual Inventive Test	2017-10-26 14:07:26	[Icons]
Language check.docx	jel tst	Dual Inventive Test	2017-10-26 14:08:25	[Icons]
Picture with lines that has a really long name for testing purposes and is notting more then just a few lines drawn in paint.png	Super User	Dual Inventive Test	2018-04-05 09:39:05	[Icons]
Rules and regulations.pdf	Super User	Dual Inventive Test	2017-08-02 14:44:42	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:35:27	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:26:05	[Icons]
Test document knowledge.txt	Super User	Dual Inventive Test	2018-03-13 13:35:15	[Icons]
Track switch state.jpg	Super User	Dual Inventive Test	2017-08-02 14:44:42	[Icons]

At the bottom of the table, there is a pagination bar showing '1' and a total of '1-9 of 9' items.

When clicking on "Document name" above the table, a downwards pointing arrow ▼ will appear. This means that the list has been alphabetically sorted in ascending order. If you click on "Document name" once more, the list will be alphabetically sorted in descending order. Upon clicking on "Document name" again, the list will go back to its original, unsorted state. This way of sorting applies to each of the categories you see in above image and can be found throughout most overviews in MTinfo 3000.

5. PROJECT ROLES MTINFO 3000

MTinfo 3000 projects utilise a role based access control system. For security reasons we will only discuss the assignment of these roles with your company's contact person directly. If you require more information, please contact your local Dual Inventive supplier.

Project user roles in MTinfo 3000

These tasks can be assigned to a right-bearing user per project.

User tasks:	Explanation:
Setup	The setup task consist of creating the project and assigning tasks to other users.
Design	Assign devices to the project.
Design verification	Verify the project design. Do not assign this task to a user in the project who is also responsible for "design".
Design validation	Validate the project design. Do not also assign this task to a user in the project who is responsible for "design" or "design verification".
Planning	Assign users that switch the devices to the period.
Planning verification	Verify the planned project. Do not assign this task to a user in the project who is also responsible for "planning".
Planning validation	Validate the planned project. Do not assign this task to a user in the project who is also responsible for "planning" or "planning verification".
Project release	Release the project
Project return	Return the project

6. USING MTINFO 3000

This chapter explains how to create an MTinfo 3000 project. A project allows you to easily monitor and control a ZKL 3000 RC. In order to create a project in MTinfo 3000 you will need to hold the required user roles.

Always ensure a secure connection to MTinfo 3000.

a. Logging in


- Go to www.mtinfo3000.com.
- Click 'Login' in the top right corner
- Enter your user name, company code and password
- Read the general terms & conditions and accept them
- Log in

Attention, you will only be able to log in when you have had the appropriate user rights assigned. If you require more information, please contact your company's contact person.

b. Setup project

The steps below (1-3) are all part of the project setup. The design and planning of a project also consist of multiple steps which need to be completed in order to fill in the design and planning.

To set up a project once logged in, please follow these steps:

- Click on "Projects" on your MTinfo Dashboard
- Click on  to create a new MTinfo 3000 project

6. USING MTINFO 3000 CONTINUED

1. Project info

Setup project

Home > Projects > Project Setup

1 Project Info 2 Users 3 Tasks

Project name* ZKL 3000 RC manual

Company Dual Inventive Test

Reference

Type* RC TWS Regular

Protection Controller None

Safety Planner None

Description

Project log remark

- Enter a project name
- If required, enter a reference (optional)
- Select "RC" as project type
- Add a protection controller and safety planner, if required (optional)
- Lastly, add a description and project log remark, if required (optional)

Some of the steps or fields in MTinfo 3000 are not mandatory. These do not have to be filled in to continue on to the next step. Other steps, such as a project name, are mandatory. Mandatory fields are marked with a **red asterisk ***. These must be filled in before the system will allow you to progress to the next stage.

2. Users

- Select the project's project users

Setup project

Home > Projects > Project Setup

1 Project Info 2 Users 3 Tasks

Filter

Name

Optional

Project role

☐ Release 4

☐ Return 4

☐ Design 2

☐ Setup 2

☐ Plan 2

☐ Validate Design 2

☐ Validate Planning 2

☐ Verify Design 2

☐ Verify Planning 2

User role

PROJECT USERS

Name ▾

☐ App RS

☐ App TWS

☒ Project Designer

☒ Project Leader

☒ Project Operator

☒ Project Planner

☒ Project Validator

☒ Project Verifier

☒ Super User

SELECTED USERS

- Project Designer
- Project Leader
- Project Operator
- Project Planner
- Project Validator
- Project Verifier
- Super User

1 - 9 of 9, selected 7

10

6. USING MTINFO 3000 CONTINUED


3. Tasks

- Assign users to their required project tasks

Name	<input checked="" type="checkbox"/> Setup	<input type="checkbox"/> Design	<input type="checkbox"/> Verify Design	<input checked="" type="checkbox"/> Validate Design	<input checked="" type="checkbox"/> Plan	<input type="checkbox"/> Verify Planning	<input type="checkbox"/> Validate Planning	<input checked="" type="checkbox"/> Release	<input checked="" type="checkbox"/> Return
Project Designer		<input checked="" type="checkbox"/>							
Project Leader	<input checked="" type="checkbox"/>								
Project Operator								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project Planner					<input checked="" type="checkbox"/>				
Project Validator				<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Project Verifier			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
Super User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

You should never assign the same user all of the design/plan/verify/validate rights.


Save the project by clicking 

You can also cancel the project setup at any point, by clicking  In this case, the entered data will **NOT** be saved.

To change any entered data before saving the project, you can click on any of the previous steps and change the data accordingly.

c. Project design

Once the project has been set up, the devices to be controlled need to be added to the project. Proceed to click on the "Design" tab and then on  to start the project design.

Attention, you can only access this button when you have had the appropriate user rights assigned. You can cancel the design at any moment by clicking  In this case, the entered data will **NOT** be saved.

6. USING MTINFO 3000 CONTINUED

1. Devices

Design project

Home > Projects > ZKL 3000 RC manual > Project Design Edit

v5.8.3

1 Devices 2 Periods 3 Setup 4 Message

Filter

ID code: Optional

Status: ☒ Active 14 ☐ Service 1

Type: ☒ ZKL 3000 RC 15

SELECT DEVICES

ID code Δ▽	Status Δ▽	Type Δ▽
<input type="checkbox"/> 99.9999 (Service date: 2018-05-24)	Active	ZKL 3000 RC
<input type="checkbox"/> oldzkl01 (Service date: 2019-07-12)	Active	ZKL 3000 RC
<input type="checkbox"/> owner lbl (Service date: 2019-01-01)	Active	ZKL 3000 RC
<input checked="" type="checkbox"/> T005 (Service date: 2018-01-01)	Active	ZKL 3000 RC
<input checked="" type="checkbox"/> T006 (Service date: 2018-02-01)	Active	ZKL 3000 RC
<input type="checkbox"/> T016 (Service date: 2017-06-02)	Active	ZKL 3000 RC
<input type="checkbox"/> T017 (Service date: 2017-06-02)	Active	ZKL 3000 RC
<input type="checkbox"/> T200 (Service date: 2018-04-04)	Active	ZKL 3000 RC
<input type="checkbox"/> Test Owner (Service date: 2017-04-25)	Service	ZKL 3000 RC
<input type="checkbox"/> tstsym9999 (Service date: 2017-08-21)	Active	ZKL 3000 RC

1 - 10 of 15

PROJECT DEVICES

- T005 (ZKL 3000 RC)
- T006 (ZKL 3000 RC)

- In the first step the devices you want to add to the project are selected. You can see the selected devices on the right side, either in a list, or on a map

2. Periods

Step two consists of creating periods which the devices will be assigned to.

By bundling ZKL 3000 RC's together through the use of periods, users can switch multiple devices at once.

- Create one or more periods (at least one period needs to be created). And, if required, add a remark to the period(s).

Design project

Home > Projects > RC project > Project Design Edit

v5.8.3

1 Devices 2 Periods 3 Setup 4 Message


CREATE PERIODS

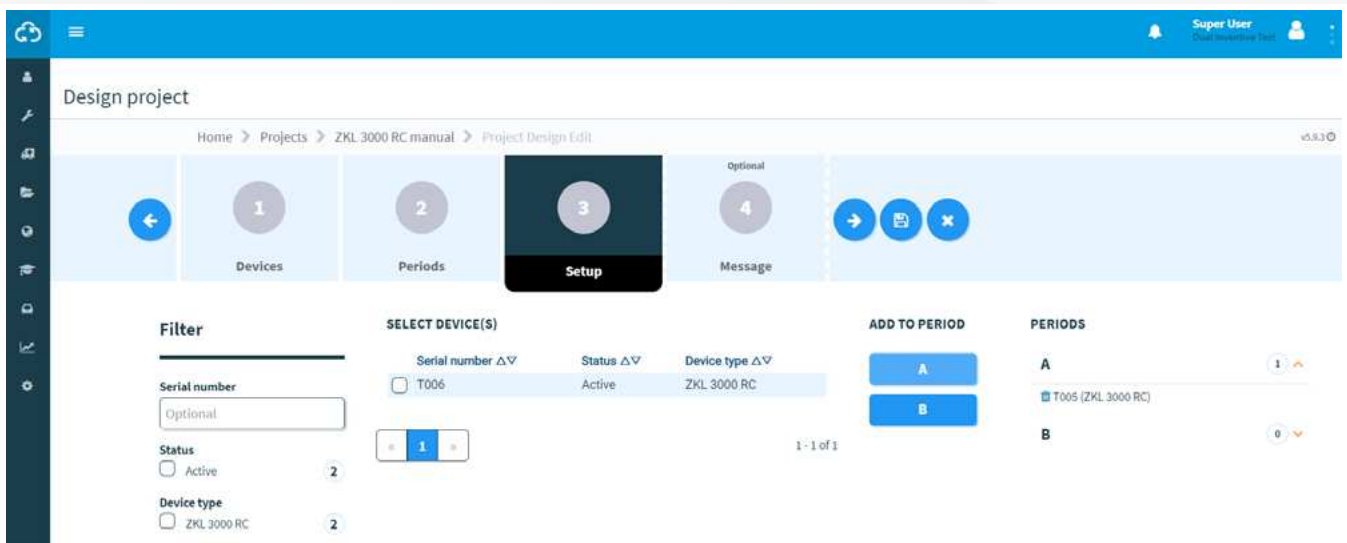
Period name	Remarks
A	Period A remark
B	Optional
C	Optional

6. USING MTINFO 3000 CONTINUED

3. Setup


In the next step the periods that have just been created will be linked to the devices by assigning each ZKL 3000 RC device to one of those periods.

- Select a device, then press on any of the created period names to assign it to that specific period. An overview of the periods and their assigned devices will be shown on the right
- To remove a device from a period, press the  button of the device you wish to remove
- All devices need to be assigned to a period before you can continue



4. Message – Optional

Add a remark for the operator, if required. These remarks will be shown on each period in the MTinfo 3000 app.

- Save the design so that it can be verified, by clicking on 

The following screen will appear:

- You can save the design as a draft by choosing “Save”. The design will be saved, but not submitted for verification
- By checking the “Submit for verification” box, authorised project users can verify and validate the design. In order to reduce risks, MTinfo 3000 uses the six eyes principle which means that a second authorised user should verify the design and a third to validate the design. Subsequently, a project is designed and checked by a total of three different users. More information can be found in [paragraph g. Validate and verify](#)
- Alternatively, you can bypass the project verification and validation by checking the “Verify” and “Validate” boxes also. You will only be able to do this if authorised on MTinfo 3000.

Dual inventive does not recommend this step in operational use.

Save design

Based on your assigned roles within the project, you are also allowed to perform the following actions:

Possible actions ☒ Save ☐ Submit for verification

Project log remark

Current status Concept

The new status will be

SAVE

CLOSE


To change any entered data before saving the project, you can click on any of the previous steps and change the data accordingly.

6. USING MTINFO 3000 CONTINUED

d. Projectplanning

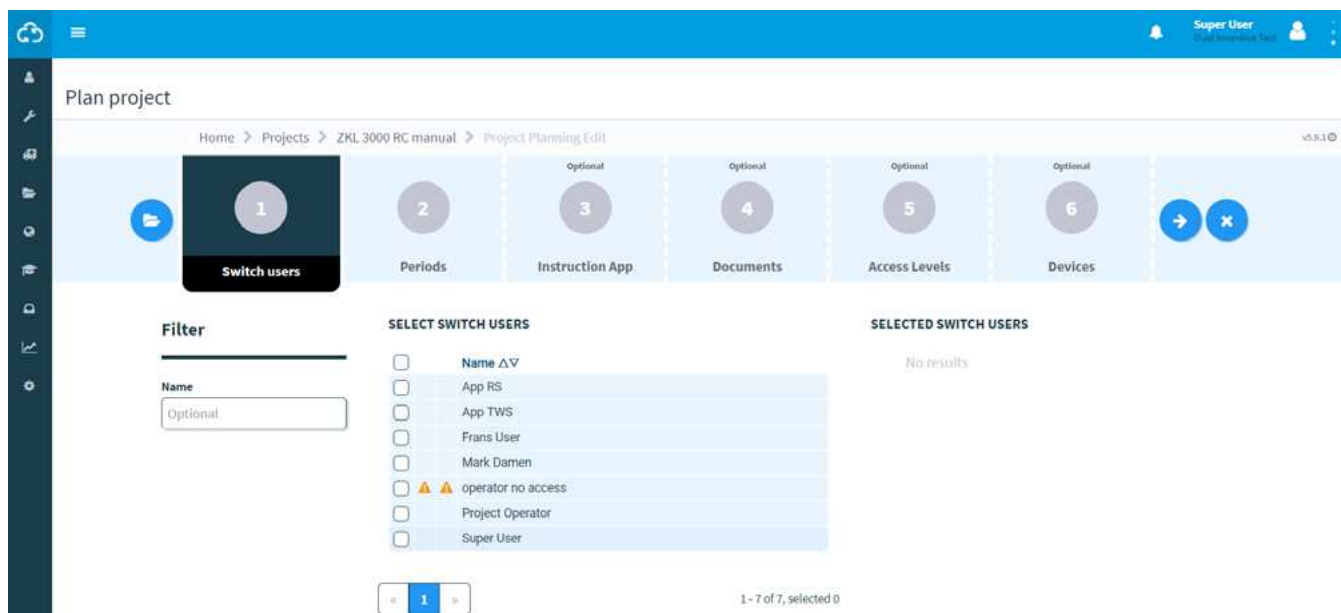
This step is used to assign the users and the times in which they are allowed to operate the ZKL 3000 RC('s).

Click on the planning tab and then on  to start planning the project.

Attention, you can only access this button when you have had the appropriate user rights assigned. You can cancel the planning at any moment by clicking . In this case, any entered data will NOT be saved.

1. Switch users

The switch users are responsible for switching the ZKL 3000 RC periods.



- Select the users that are allowed to operate the created periods. Users without switching rights will not be shown. If a user does not have access to the RS 3000 tile in the app, or does not have access to switch the devices in MTinfo 3000 this will be indicated with a warning icon

6. USING MTINFO 3000 CONTINUED

2. Periods

- Assign the selected users to the periods they are allowed to switch. This is done by selecting a user and then pressing the period name you want to add them to
- Select the operation period in which the operator is allowed to use the devices, if required.

Plan project

Home > Projects > RC project > Project Planning Edit v5.28.1-rc.2

←

1
Switch users

2
Periods

3
Instruction App

4
Documents

5
Access Levels

6
Devices

→

SELECT SWITCH USERS

Name

☐ App RS

☐ Super User

ADD TO PERIOD

A

B

C

PERIODS

A

Name	Switchright from / to
App RS	Optional Optional
Super User	2019-03-11 09:49 2019-03-13 09:49

B

3. Instruction App – Optional

Besides the switch users, there are also regular users. These users can view the project through the app and download/upload project related documents and forms and can be added here.

4. Documents – Optional

Operators and users can add documents to the project, if required. These documents can be items such as rules and regulations that need to be followed while performing specific maintenance tasks. Such documents can be uploaded through this step.

Drop a file here, or

SELECT FILE

Document name

Screenshot_20180327-140249.jpg

Size

0.2 MB

6. USING MTINFO 3000 CONTINUED

5. Acces levels – Optional

Users are required to fill in a feedback form after finishing their track work. This step is used to add documents and users to the project by selecting the documents and their required access levels and the users and users' access levels.

SET USER AUTHORIZATION

Name	Level
App Instructions	① ② ③
App RS	① ② ③
Super User	① ② ③

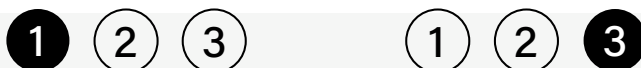
RECEIVERS DOCUMENTATION BY MAIL

Extra users can be added which will receive the submitted documents of the project by mail

SET DOCUMENTS AUTHORIZATION

	Use document	Minimum required access level
General feedback templates	<input type="checkbox"/> Dual Inventive General template	① ② ③
	<input checked="" type="checkbox"/> BAM Infra Rail (LWB)	① ② ③
	<input checked="" type="checkbox"/> Accepteer documentatie	① ② ③
	<input checked="" type="checkbox"/> Strukton Rail (LWB)	① ② ③
	<input checked="" type="checkbox"/> Strukton Rail (LLV)	① ② ③
	<input checked="" type="checkbox"/> BAM Infra Rail (FA/GW/PW)	① ② ③
	<input type="checkbox"/> ASSET Rail (Evaluatie PW)	① ② ③

- Using the numbers 1, 2 and 3 next to the documents, you can add a required access level to each document. Users can only view the documents if their access level corresponds or exceeds the required level for said documents.
- When a document's number 1 is colored black, only users with access level 1 will be able to access that document.
- When the number 3 of a document is colored black, the document can be accessed by all users (with access to the specific project).



6. USING MTINFO 3000 CONTINUED

6. Devices – Optional

You can add additional Dual Inventive 3000 products to a ZKL 3000 RC project. This allows you to have one overview with all your assigned devices.

- Add any additional devices (such as a ZKL 3000 or CRTM 3000) to the project if required.

Filter

ID code

Optional

Status

☐ Active 24

Type

☐ CRTM 3000 - Gateway 1

☐ CRTM 3000 - Temper... 22

☐ GreenHUB 3000 1

DEVICES

ID code	Status	Type
<input type="checkbox"/> 704.0035	Active	CRTM 3000 - Gateway
<input type="checkbox"/> 714.0069	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 714.0070	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0015	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0017	Active	CRTM 3000 - Temperature sensor
<input checked="" type="checkbox"/> 737.0024	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0028	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0030	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0039	Active	CRTM 3000 - Temperature sensor
<input type="checkbox"/> 737.0043	Active	CRTM 3000 - Temperature sensor


1 2 3 »

1 - 10 of 24

In a list **On a map**

PROJECT DEVICES

- 737.0024 (CRTM 3000 - Temperature sensor)

- Save the project so that it can be verified, using .
- You can save the planning as a draft by choosing “Save”. The planning will be saved, but not submitted for verification.
- By checking the “Submit for verification” box, authorised project users can verify and validate the planning. In order to reduce risks, MTinfo 3000 uses the six eyes principle. This means that a second authorised user should verify the planning and a third user is to validate the planning. Subsequently, a project is planned by a total of three different users. More information can be found in [paragraph g. Validate and verify](#)
- Alternatively, you can bypass the project verification and validation by checking the “Verify” and “Validate” boxes also. You will only be able to do this if authorised on MTinfo 3000. Dual inventive does **not** recommend this step in operational use.

e. Documents

The documents tab is used to view all the documents that are added or filled in, during use of the project. Whenever a user adds or fills in a document or item through the MTinfo 3000 app, it will be shown here.

f. Project log

The project log shows the history of the tasks performed within the project. Through the project log you can see which user performed which task within the project.

6. USING MTINFO 3000 CONTINUED

g. Validate and verify

To utilise the six eyes principle in MTinfo 3000 a minimum of three people need to check both the project design and the planning, before it is ready for release. When a project is ready to be verified or validated, an action to perform these tasks will appear underneath “My MTinfo”. Upon clicking on this action, you will be taken to the screen below:

View project

Home > Projects > ZKL 3000 RC manual v5.9.3

Setup Design **Planning** Documents Project log

Planning status: Definitive

PROJECT USERS

Name	Email address	Alarm number	Access level	Doc. accepted
Project Operator	testing@dualinventive.com	+31627151473	① ② ③	-
Super User	testing@dualinventive.com	+31627151473	① ② ③	?

A

Name	Switchright from / to
Project Operator	2018-07-24 09:51:13 - 2018-07-27 09:51:13
Super User	-

REQUESTED DEVICES

No devices requested

B

Name	Switchright from / to
Project Operator	2018-07-23 09:51:13 - 2018-07-27 09:51:13
Super User	-

- Click on to approve or reject the validation or verification. You can leave a reason in the 'remark' field, if required

h. Edit project

A project can be edited by going to the project setup and clicking on Edit the project as required, and save it by clicking on

Attention, for safety reasons, you can only edit a project when it is not in the 'released' state. In case you want to edit a released project, it first needs to be returned (see [paragraph 7.b Return](#)).

7. RELEASING, RETURNING AND CLOSING A PROJECT

Once an MTinfo 3000 project has been set up, designed and planned, the project will need to be released before it can be used. When a project is released, the assigned devices are locked to this project, so that they cannot be released on a different project simultaneously. It is important to note that they can still be added to a project, but that the project cannot be released before the current project has been returned. This is for safety reasons, and it prevents ZKL 3000 RC's from being used on multiple projects at once. As soon as a project has been returned, the devices are available for release on other projects.

a. Release

To release a project in MTinfo 3000, please follow the steps below:

- Starting from project setup, click on "Release" to release the project.

The following screen will pop up:

Release - ZKL 3000 RC manual

- ✓ Planning
- ✓ Design
- ✓ Device availability
- ✓ Device battery status
- ✓ Request release
- ⊗ Project released
- ? Request unlock
- ? Project unlocked
- ? Inform users

MTinfo 3000 performs a series of checks before releasing the project and once released, the users can switch the assigned ZKL 3000 RC's. Once a check has been completed successfully, a green checkmark will appear next to it, and when all checks are completed successfully, the project is released. In the event that the release of the project is not successful, MTinfo 3000 will notify the user of the error that has occurred.

Explanation of check stages

Planning → Checking project planning (see [paragraph 6d. Project planning](#))

Design → Checking project design (see [paragraph 6.c Project design](#))

Device availability → Checking device availability

Device battery status → Checking batteries (see Installation manual ZKL 3000 RC)

Request release → Start releasing the project

Project released → Project is released

Request unlock → Start reserving device(s) for the project

Project unlocked → Device(s) are reserved for the project

Inform users → Inform project users that project has been released

In case a check is not completed successfully, a red cross will appear in front of the specific step with its cause. Once the step in question has been solved, the user can attempt to release the project again.

7. RELEASING, RETURNING AND CLOSING A PROJECT CONTINUED

b. Return

- To return a project, navigate to that specific project. The “Release” button will now be replaced with a “Return” button

Attention, after returning the project, users cannot activate the devices on the project anymore.

- Upon clicking on “Return”, MTinfo 3000 will again perform a series of checks for returning a project. Once all these checks have been completed successfully, the project will be returned. In case the return of the project is not successful, MTinfo 3000 will notify the user of the error that has occurred.

Return - ZKL 3000 RC manual


- ✓ Request lock
- ✓ Project locked
- ✓ Request return
- ✓ Project returned
- ✓ Inform users

CLOSE

c. Close

Once a project has been completed, it will still remain in your list of available projects in case you want to re-release it. To permanently close the project, please see below:

Attention, closing a project is irreversible.

- Go to the project you wish to close
- In the project’s setup, click on 
- The message below will pop up

Confirm

Are you sure you want to close this project?

OK

CANCEL


- Click on “Ok” to permanently close the project

8. ADDITIONAL FUNCTIONALITIES

Within MTinfo 3000 you can easily monitor and control the devices you assigned to the projects. Besides creating projects in MTinfo 3000 you can also monitor the status of any device real time and switch periods through MTinfo 3000 without needing the MTinfo 3000 app.

a. Realtime status

You can monitor the project devices in real time through MTinfo 3000, this is done as follows:

- From the main menu, navigate to “Real Time Status”
- Choose which devices you want to monitor real time
- When clicking on a device, a window with the device’s data will pop up (see image below)
- You can also press  when viewing a project and this will open the real time status of all the devices assigned to that specific project







Serialnumber	T005
Device type	ZKL 3000 RC
GPS position	51.5860176, 5.1952567
Device status	Standby
Last update	2018-07-05 12-54:48
Switch status	No
Switch status date/time	2018-07-05 12-54:48
Key switch	Operational
Detection quality	99.1
Detection status	No
Battery 1 status	Full
Batterij 1 voltage	6.67V
Battery 2 status	Full
Batterij 2 voltage	6.57V
Measurement	No

Explanation on real time status ZKL 3000 RC

Status	Explanation
Serial number	The serial number of the selected device.
Device type	The type of the device that is being displayed, in this case a ZKL 3000 RC.
GPS position	The GPS position of the selected device.
Device status	The status of the device.
Switch status yes	Switch status yes indicates that the device is switched ON.
Switch status: no	Switch status no indicates that the device is switched OFF.
Switch status date/time	The date and time of when the device was last switched ON successfully.

8. ADDITIONAL FUNCTIONALITIES CONTINUED

Explanation on real time status ZKL 3000 RC



Status		Explanation
Key switch: Unknown		MTinfo 3000 cannot retrieve the key switch state of the device. Contact Dual Inventive.
Key switch: Operational		The key switch of the device is set to operational. The device can now be switched remotely through the MTinfo 3000 app.
Key switch: On		The key switch of the device is set to ON. This means it is overruled and therefore the device cannot be switched remotely.
Key switch: Off		The key switch of the device is set to OFF. This means it is overruled and therefore the device cannot be switched remotely.
Detection quality		This percentage shows the detection quality between the ZKL 3000 RC and the track.
Detection status: yes		A short circuit between the ZKL 3000 RC and the track is detected.
Detection status: no		No short circuit has been detected.
Back-up battery status:		The back-up battery has sufficient power.
Back-up battery status:		The back-up battery has adequate power.
Back-up battery status:		The back-up battery is low in power.
Back-up battery status:		The back-up battery is almost empty.
Back-up battery status:		The back-up battery is empty.
Back-up battery status:		The back-up battery has been removed or is completely empty.
Back-up battery voltage		Shows the voltage of the back-up battery of the ZKL 3000 RC.
External battery status:		The external battery has sufficient power.
External battery status:		The external battery has adequate power.
External battery status:		The external battery is low in power.
External battery status:		The external battery is almost empty.
External battery status:		The external battery is empty.
External battery status:		The external battery has been removed or is completely empty.
External battery voltage		Shows the voltage of the external battery.

For a more in-depth explanation, please see the ZKL 3000 RC Installation manual, chapter "Troubleshooting".

8. ADDITIONAL FUNCTIONALITIES CONTINUED


b. Adding remarks to devices

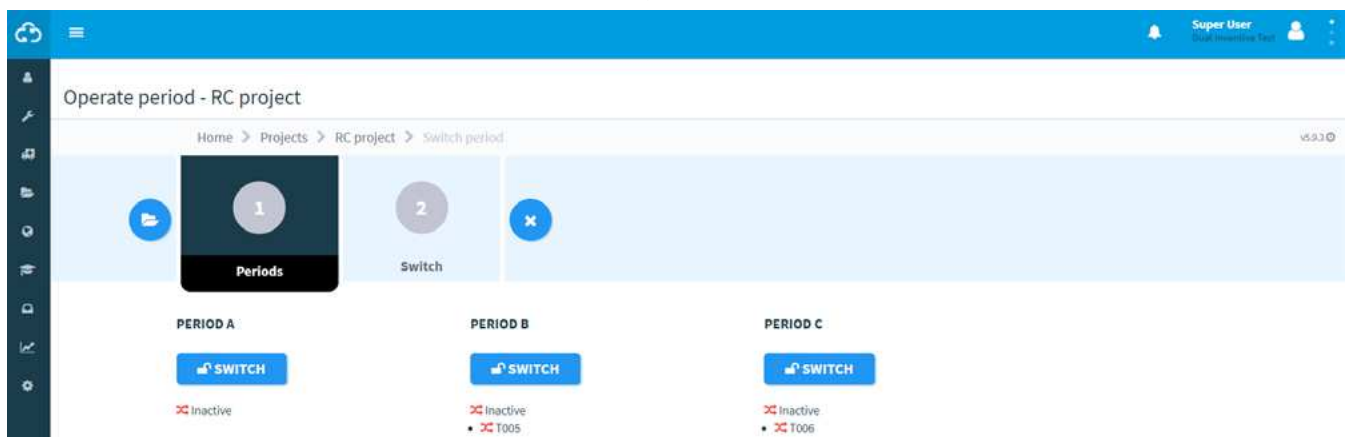
You can add remarks to devices to help identify them easier. This can be done by following these steps:

- From the home menu, go to "Asset management"
- In the left menu of Asset management, select "Devices"
- Select the device which you want to add a remark to
- Press  to edit the device
- Change the device's label by adding an owner label. Or add a remark to the device by entering this in the remark field
- Press  to save the edit

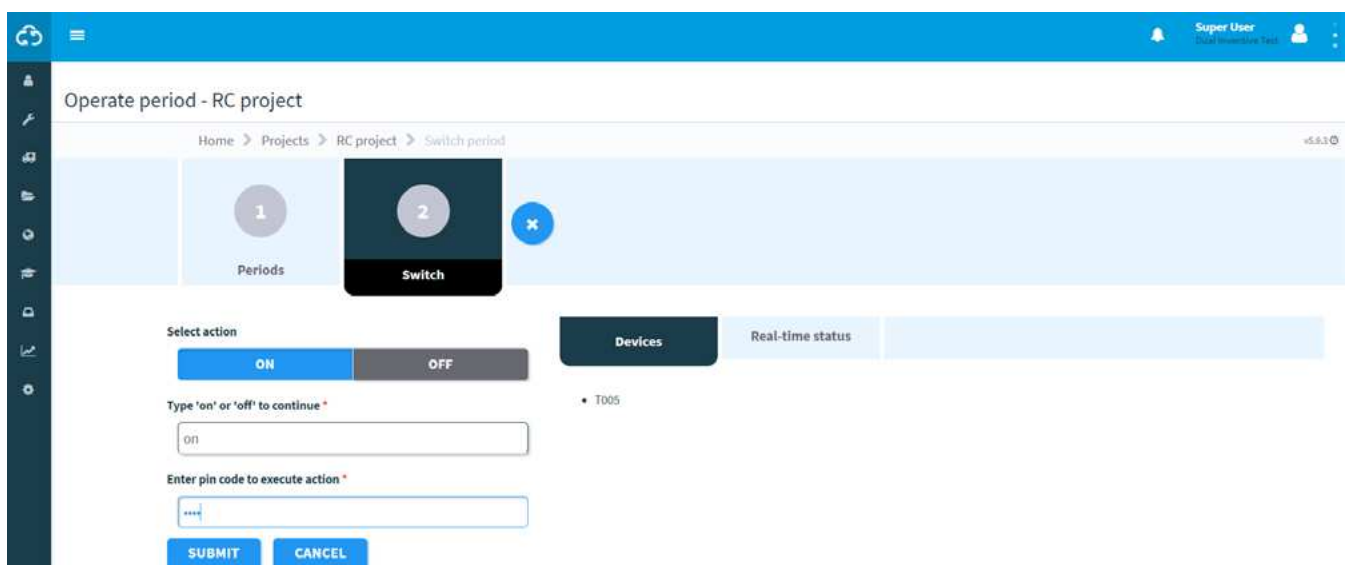
c. Switching ZKL 3000 RC through MTinfo 3000

You can switch a ZKL 3000 RC through the MTinfo 3000 web interface (can also be done through the app) by following these steps:

- Navigate to the project that you wish to switch.
- Press  the following screen will appear (this button only appears if you are a user who has been given the right to switch the devices):



- Select the period you wish to switch
- You can view the real time status of the device(s) that you want to switch at step 2
- Proceed to select your action, either switch the devices ON or OFF
- Enter your pin code and press submit to switch the device(s)



8. ADDITIONAL FUNCTIONALITIES CONTINUED

d. Project documents

You can view a project's documents by opening the project and pressing .

You can then choose to either download the project data, the project archive or the document acceptance logs.

Attention, downloading the archive may take a while.

9. SERVICE ALERTS

Users can opt-in to receive service alerts via email. In order to receive them, the nominated contact person at your company needs to make some changes on MTinfo 3000, such as entering your email address as the service email address. Monitoring starts as soon as the ZKL 3000 RC has been powered on. More information can be found in the ZKL 3000 RC Installation Manual. These alerts are comparable to the alerts you see in My MTinfo.

These notifications can be turned off by visiting My profile.

Alert	Alert via	Action
The battery of the ZKL 3000 RC is almost empty	E-mail	Replace battery, see ZKL 3000 RC Installation Manual, chapter "Preparation"
The ZKL 3000 RC is nearing service date	E-mail	Return the ZKL 3000 RC to Dual Inventive for calibration

For additional information, please see the ZKL 3000 RC Installation manual, chapter "Significance of alerts".

10. MAINTENANCE & SERVICE

Please contact Dual Inventive for service and repairs.

CONCLUSION

If you encounter any problems when using MTinfo 3000 or are unsure of anything in this manual, please report this to us via info@dualinventive.com or by phone.

Ultimately, customer satisfaction and your safety are our top priority and therefore we take all feedback very seriously. We use this to improve the safety and design of our products. On behalf of the Dual Inventive team, we wish you all the best.

ti DualInventive

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