

**TOYOTA**

MATERIAL HANDLING

## Toyota I\_Site – Pre-Operational Checklists Guide

Setting up, Publishing and Updating Pre-Operational Checklists.



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MATERIAL HANDLING

Table of Contents

- 1. Introduction – Pre-Operational Checklists within I\_Site. .... 3**
- 2. Creating a New Checklist. .... 3**
- 3. Publishing a Checklist. .... 6**
- 4. Configuring the Pre-operational Checklist Machine  
Configuration Settings..... 8**
- 5. Republishing a Checklist..... 12**
- 6. Unpublishing a Checklist. .... 12**
- 7. Copying/Updating an existing checklist. .... 12**
- 8. Toyota I\_Site Training Courses. .... 14**

## 1. Introduction – Pre-Operational Checklists within I\_Site.

This I\_Site guide will show you how to setup pre-op checklists questions and how to apply them to your machines, also how to update existing checklists with new questions or settings.

During the pre-operation check drivers will have full use of the truck to allow them to check all functionality of the truck.

Each checklist can have **up to 20 questions per checklist** and these can be **Positive or Negative questions**.

We would **recommend to have 1/3 of the questions as Negatives** to ensure a mixture of positive and negative questions.

We can have **Critical questions which will produce a Lockout** if answered incorrectly by drivers or **Non-Critical questions which will produce a warning** if answered incorrectly by drivers.

Each checklist **must have at least 1 Critical question** to produce a Lockout on the truck, if no Critical questions are set all failed results will show as warnings only and not produce lockouts.

We recommend to set as many if not all questions as critical questions, this will then produce a Lockout if the incorrect answer is selected indicating something is wrong with the truck.

Each checklist has its own **minimum duration setting** which can be set to ensure drivers are spending at least a certain amount of time completing the full checklist.

Each Machine has a **Time until Timeout** setting which will force the truck to fail the pre-operational check due to inactivity if no questions are being answered.

These options can help you identify drivers rushing through the checklist or not completing them.

The pre-operational check results will also show you the total duration the driver took to complete the full pre-operational check.

On the Machine Configuration page for each truck we can choose the frequency of the pre-operational questions depending on how often you want the drivers to complete the pre-operational checklist.

**Once per 24 hours, all drivers** = Once per truck, per day at a set start time.

**Once per 12 hours, per driver** = Each driver needs to complete their own pre-operational checklist on each machine they use but it will last them for a 12hour period from the point they complete the checklist.

**Every new driver** = Each driver needs to complete a new pre-operational checklist if they weren't the last driver to use the truck.

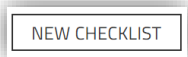
We can **randomise the order of the questions** so they always display in a different order forcing drivers to pay attention and read the questions correctly before answering them.

This is designed to capture the drivers who are just trying to press the green button to pass pre-operational checklist without actually reading the questions.

## 2. Creating a New Checklist.

To Setup a new checklist login to the I\_Site Portal and click on the Pre-Op Check icon at the top of the page and then select Checklists on the left side menu to go to the Checklist overview page.

Click the New Checklist button to start creating a new checklist.



Enter a title for the checklist you are creating, we recommend to give each checklist a Version number so you can track the history of your pre-operational checklists.

For example – CBE V1, then if we update the checklist we can call the newer version CBE V2.

If you have already published a checklist you can use the Copy Questions From dropdown menu to copy all of the existing questions from an existing checklist in to a new one.

The 'New Checklist' form contains three input fields: 'Title' with the value 'CBE V1', 'Site' with a dropdown menu showing 'LEICESTER WAREHOUSE LEICESTER', and 'Copy Questions From' with a dropdown menu showing '-- Select a Checklist--'. A 'CREATE NEW CHECKLIST' button is located at the bottom right of the form.

If you have access to multiple sites you can use the Site dropdown menu to choose which site you want to create the checklist on.

Once you have selected the site Click the Create New Checklist button to go to the checklist setup page.

The 'CBE V1' checklist setup page features a text box with the placeholder 'Select existing or write new question', a dropdown arrow, and an 'ADD' button. Below this is a 'Minimum Duration (1 - 250 seconds)' field with the value '30'.

At the bottom of the checklist setup page will be a text box where you can create your own checklist questions.

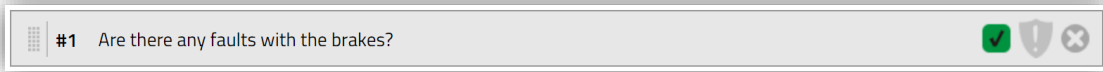
Type in the question you want to add in to the question box or use the drop down arrow to display all previously published questions you have used.

Once you have typed in your question or selected an existing one you can then click the Add Button to add the question to the checklist.

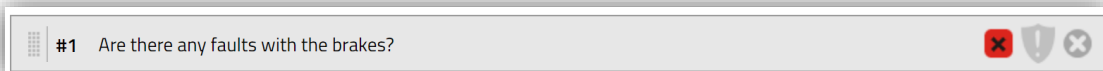
The question 'Are there any faults with the brakes?' is entered into the text box, with a dropdown arrow and an 'ADD' button to its right.

This will then add the question on to the checklist and allow you to configure the expected answer. In this example we have created a negative question by asking "Are there any faults with the brakes?".

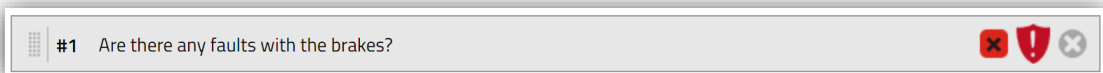
The expected answer we are wanting would be “No” there are no faults with the brakes. We could of asked are the brakes working, but we want to have a mixture of positive and negative questions to ensure drivers are having to pay attention when answering the questions. By default any new questions will be set to a positive result (Yes) and Non-Critical, we need to adjust these to get the correct results we want to our question.



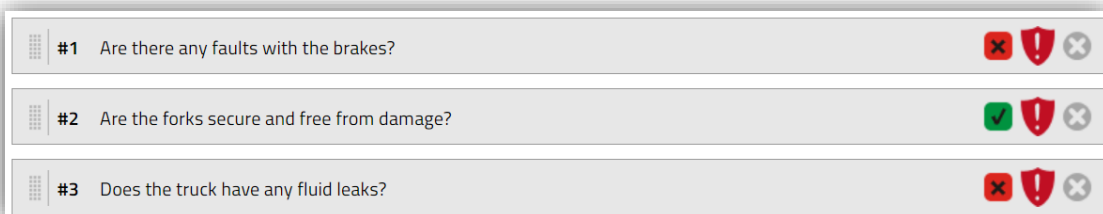
If you click on the green tick this will change the expected answer to a negative result (No). If you click on it again it will switch back to a positive result, this is how you can adjust the expected answer to your question.



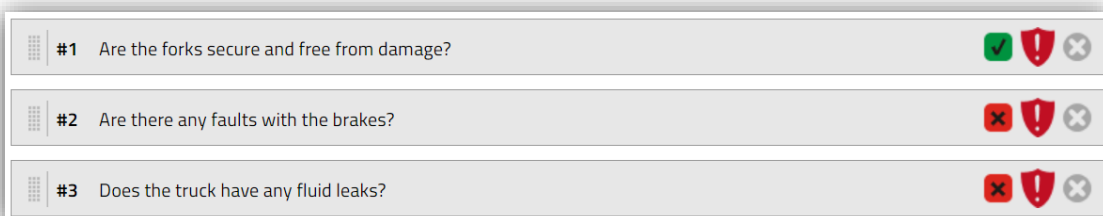
If you click on the Grey shield next to it, this will enable the question to also be a critical question. If you click on it again it will switch back to a Non-Critical question, this is how you can adjust the severity of your question.



If the Red Critical Shield is active and an operator answers the question incorrectly this will produce a lockout and require a Lockout Reset driver to reset the truck back in to normal state. Each checklist can have a total of 20 questions, by default the questions will be displayed in order they appear within the list of questions.



You can adjust the order of the questions by holding down the left mouse click on the question box and dragging it up or down to change the order of the questions.



You can also randomise the questions to always appear in a different order to ensure drivers can't learn a pattern, forcing them to pay attention and read the questions each time the checklist is started.

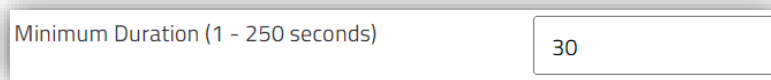
We recommend to enable randomising the questions on the machine configuration page.



To enable this option see Section 4 “Configuring the Pre-op Checklist Machine Configuration Settings” for more details on how to enable it.

Each checklist also has a Minimum Duration setting at the bottom of the checklist. This is unique to each checklist but can be adjusted depending on how many questions your checklist has or the size of the truck the checklist is designed for, bigger trucks for example will require a longer time to safely check all the functions.

By default this setting is set to 30 seconds but can be adjusted to force drivers to spend at least a minimal amount of time completing the full checklist. If a driver completes all the checklists questions faster than the minimum duration this will produce a failure and produce a lockout on the truck.



A screenshot of a user interface element for setting the minimum duration. It consists of a rectangular box with a light gray border. On the left side of the box, the text "Minimum Duration (1 - 250 seconds)" is displayed in a dark gray font. On the right side of the box, the number "30" is displayed in a dark gray font, indicating the current value of the duration in seconds.

We would recommend setting this duration to 45-60 seconds at a minimal to begin, depending on how many questions your checklist contains.

Most detailed checklists should have around 15-20 questions and we base our recommendations on 3 seconds per questions.

This will highlight which drivers are rushing through the questions too quickly and allow you to retrain the drivers to ensure they are completing the pre-operation check correctly.

Take in to consideration a good trainer will teach drivers to complete a walk around inspection of the truck before they start the pre-operation check.

If drivers are reading the question, checking the truck and answering the question no one should be completing the checklist too quickly.

Once you have highlighted and retrained drivers you could always increase the minimum duration to ensure drivers take longer to complete the checks.

We recommend to gradually increase this to avoid causing too many lockouts at once.

If you want to increase the minimum duration you will need to create a new version of your checklist and set the duration to your new desired duration before publishing the checklist.

### **3. Publishing a Checklist.**

Before you publish the checklist always double check your answers are set correctly and ensure you have set the desired minimum duration for the checklist.

Once a checklist has been published to the system you are unable to amend the checklist.

You would need to create a new checklist to make any adjustments so ensure everything is set correctly before you publish.

You can publish checklists to the server, direct to a machine family, or a group of machines.

For new setup's we would recommend to publish the checklist to the server first and manually apply it to a single machine to test.

Once you have tested the checklist on one machine, you could then publish the same checklist to a machine family or group of machines.

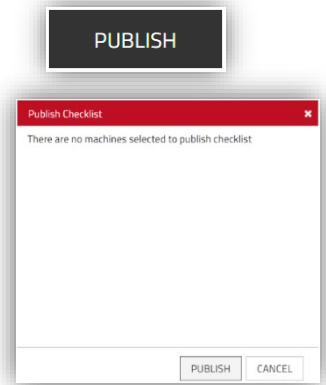
To publish the checklist to the server you can click on the Publish Button.

The will display the Publish Checklist window, if no group was selected it should confirm no machines was selected to publish the checklist to and give you the option to publish.

Ensure your checklist is setup correctly before publishing as once published the checklist cannot be adjusted.

Once you click publish this will save the checklist to the system and allow you select the checklist under the machine configuration page if you wanted to test it on a single truck.

See Section 4 “Configuring the Pre-op Checklist Machine Configuration Settings” for more details on how to select a checklist on the trucks using the machine configuration page.

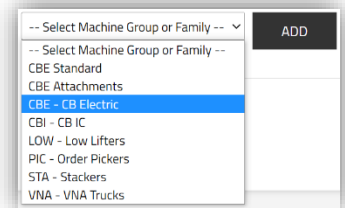


To publish a checklist to a group of machines we can use the pre-defined machine family or a machine group if you want to select a certain group of machines.

For example if you had 2 Counter balance trucks with additional attachments, but the rest of the fleet was standard Counter Balance trucks.

You could create a machine group to allow you to have separate checklists covering the additional questions which could relate to the extra attachments on the different trucks.

To select a machine group or family click on the drop down menu to show you the groups available to select from and then click on the add button to add the group to the checklist.



You can add a single group or multiple groups if you wanted to use the same checklist across different groups of machines.

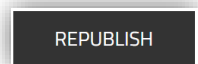
Once you have added the group it will display the group as a red box, if you want to remove a group you can click on the x to remove it.



Once you have selected the groups you can then publish the checklist to the group of machines by clicking on the publish button.

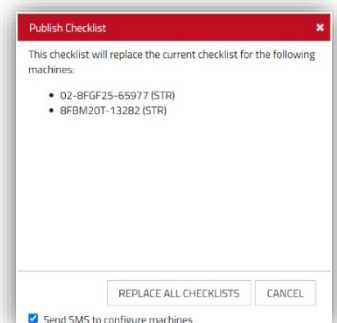


If the checklist has already been published before adding the groups for testing, you will have an option to republish the checklist instead of the publish option.



When a group of machines has been selected and we publish the checklist we will be displayed a list of the machine serial numbers which the checklist will be sent to.

If we want to configure the trucks with the new checklist straight away tick the “Send SMS to configure machines” option before clicking the replace all checklists button.



If this option is not selected the checklists will need to be applied manual to the trucks via the machine configuration page.

#### 4. Configuring the Pre-operational Checklist Machine Configuration Settings.

Once a checklist has been published to the system or sent to the group of machines using the "Send SMS to configure machines" option you then want to configure the pre-op checklist settings on the machine configuration page.

To do this go to the Manage Site-> Machines and click search to display all the trucks on your site. Once we have the list of trucks we can either configure one machine by clicking on the machine serial number, or we can configure multiple machines together by using the tick box on the left side to select which trucks we want to configure.

If configuring multiple machines only select trucks which share the same checklist, otherwise you might apply the wrong checklist to the wrong machines. If we have selected multiple machines we can then use the Configure Selected button to open the Machine configuration for multiple machines at once.

The screenshot shows a web interface for machine configuration. At the top right are buttons for 'SEARCH' and 'CLEAR'. Below them are 'SELECT ALL' and 'CONFIGURE SELECTED' buttons. A 'Total Summary' section indicates 'Number of Selected Machines: 2'. A dropdown menu is set to 'Fleet Number'. The main area is a table of machines with columns for Machine, Fleet Number, Machine Family, and Model. Two machines are selected with checkboxes.

Machine	Fleet Number	Machine Family	Model
<input type="checkbox"/> 6001658		PIC - Order Pickers	OSE100
<input type="checkbox"/> 173107		LOW - Low Lifters	LT2200
<input type="checkbox"/> 6068690		STA - Stackers	SPE160
<input type="checkbox"/> 6246694		VNA - VNA Trucks	VCE150A
<input type="checkbox"/> 738941		VNA - VNA Trucks	C15
<input checked="" type="checkbox"/> 02-8FGF25-65977	STR	CBI - CB IC	8FGF25
<input checked="" type="checkbox"/> 8FBM20T-13282	STR	CBE - CB Electric	8FBM20T

Once the machine configuration page has loaded if you scroll down to the Machine Settings section we can view the Recommended, Current Configuration or Desired Configuration Columns.

The screenshot shows a table header for 'Machine Configuration'. The table has three columns: 'Recommended', 'Current Configuration', and 'Desired Configuration'. A red arrow icon is visible in the top right corner of the table header.

Machine Configuration	Recommended	Current Configuration	Desired Configuration
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The Current Configuration column will show the settings currently applied to the machine. The Desired Configuration column is where we can set the settings we want to apply the machine. If a truck is fully updated both the Current Configuration and Designed Configuration should match. If there are differences between the two columns the truck is awaiting to update settings from the server.









Once the new setting have been applied to the truck, both columns will correctly match up showing the same settings in both columns.

Each machine can be configured with different settings if required, but we would recommend to have the same settings across each type of machine if possible to avoid confusion.

Under the Machine Configuration page is a section titled Pre-Operation Check, this is where we can adjust the settings for the pre-op checklist on each machine.

If we are configuring multiple machines these settings will be applied to all machines selected.

To adjust these settings we need to use the Designed Configuration column to set the options we want for the truck.

Pre-Operational Check			
Enable Pre-Op. Check		Yes, every new driver	Yes, every new driver 
Start time			
Time until Timeout		5 minutes	5 minutes 
For Lockout Reset profile		Yes	Yes 
Randomized questions		No	No 
Checklist		I_site team demo v2	I_site team demo v2 

**Enable Pre-Op Check** – This option enables us to select the frequency of the pre-op checklist questions.

We recommend “Yes, Every new driver” for the most traceability for damages, but for trucks which have several drivers using them for short periods we recommend “Yes, once per 12h, per driver”.





**No** – Would disable the truck from asking the pre-operational check questions for all drivers.

**Yes, once per 12h, per driver** – Would ask each driver to complete a pre-operational check the first time they logon to the truck, once they have completed a pre-operational checklist on the truck it will be 12 hours before they are asked to complete another pre-operational check on the truck.

Each driver will need to complete their own check once per truck but it will last them for 12 hours.

**Yes, every new driver** – Would ask each new driver to complete a pre-op check if they wasn’t the last driver to operate the truck, if they was the last person to operate the truck they can logoff and logon to the truck without completing another pre-operational check. If another driver uses the truck after them, they will then need to re-complete another pre-operational check the next time they logon.

Every new driver will need to complete a pre-operational check if they weren’t the last person to use the truck.

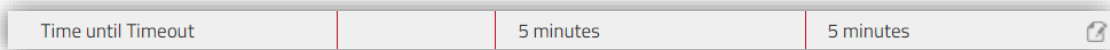
Enable Pre-Op. Check		Yes, every new driver	Yes, once per 24h, all drivers  
Start time			06:00  

**Yes, once per 24h, all drivers** – Would ask the first driver that logs on to the truck after the start time set to complete the pre-operation checklist, once completed no other drivers will be asked the pre-operational checklist questions on this truck.

The start time can be set by adding the time you require the checklist to start at by entering it in the Start time row.

Only the first driver to logon after the start time will need to complete the pre-operational checklist questions.

**Time until Timeout** – The time until timeout setting is the total time of inactivity during the pre-operation check before the truck will produce a pre-op failure as timed out.



If a driver answers no questions on the pre-operation check within this period, the checklist will timeout and produce a lockout.

If a driver was halfway through their checklist and stopped answering the questions, once this time limit is reached the truck will timeout and produce a lockout.

The idea of this setting is to ensure drivers are not being distracted during the pre-operation check and are completing the checklist on the truck as soon as they start using the truck.

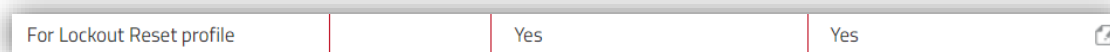
By default this setting is set to 5 minutes, we would recommend setting this to 3 minutes.

Take in to account could a driver be off the truck longer than this period checking the truck?

For example removing some shrink wrap which might be on the mast chains.

**For Lockout Reset Profile** – The for Lockout Reset Profile option will enable the pre-operational checklist questions for any drivers setup as a Lockout Reset Profile.

If set to No any drivers with the Lockout Reset profile will not be asked the pre-operational questions when they logon to the trucks.



We recommend to set this option to yes to ask the Lockout Reset Profile drivers the pre-operational checklist questions.

If any Lockout Reset drivers are using the equipment they should complete a pre-operation check like a normal driver to ensure the truck is safe to use.

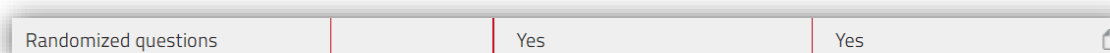
If this option is set to yes anyone with a Lockout Reset profile would be able to lock a truck out by failing a pre-op checklist question.

For example if you was walking around site and noticed a truck which is damaged or faulty, you could login using a Lockout Reset profile and fail the pre-operation checklist to record what is wrong with the truck.

This way you would have the name of the person who used the Lockout Reset profile and the pre-operational checklist results to explain why the truck has been locked out.

Locking a truck out by failing the pre-operation check will highlight the problems which need to be checked on the truck and avoid having to do a full investigation of the truck, allowing you to only check the problems which have been reported on the truck.

**Randomized Questions** – The Randomized Questions option will enable the checklist to randomly display the questions in a different order every time the pre-operational checklist is started.



We recommend to set this option to Yes to force your drivers to pay attention and read the questions correctly.

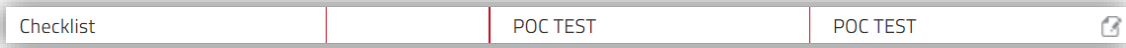
If the questions are always in the same order drivers could learn a pattern to cheat the checklist without completing the questions correctly.

This should help identify which drivers are paying attention and reading the questions correctly.

**Checklist** – The checklist section is where we can see what checklist is applied to the truck. If you have just published your checklist to the server this section should be blank.

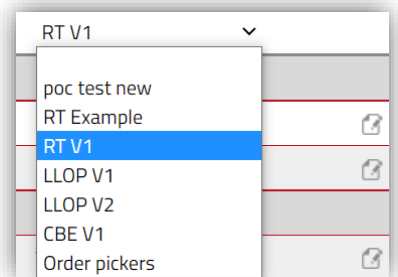


If the truck has just been delivered to site, a POC test checklist will be applied to the machine and will need to be replaced with your own checklist.



If you published your checklist with a group selected and used the “Send SMS to configure machines” when publishing this would of applied your checklist direct to the machine.

If you just published the checklist to the server without a group selected, in the right hand desired configuration column you can click on the box to display a list of checklists to select for the truck. Select the desired checklist you want to apply to the trucks from the drop down menu.



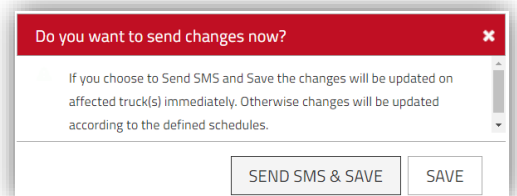
Once all settings have been applied and the correct checklist is selected we can then update the truck to send the checklist to the truck.

At the top or bottom of the machine configuration page will be the update button, when we click on update we will be prompted with two options.

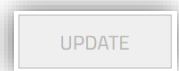


**Send SMS and Save** – This will force a communication with the truck to update the truck straight away with the new machine settings and apply the checklist.

**Save** – Will save the settings to the server and the next time the truck communicates with the server it will download the checklist to the truck.



Once the truck has finished updating the update button will become inactive.



Once the checklist and settings have been applied to the truck they will be shown in the current configuration column aswell as the expected configuration colum.

Once both columns match this is confirmation the truck has downloaded the checklist and settings.

Pre-Operational Check			
Enable Pre-Op. Check		Yes, every new driver	Yes, every new driver
Start time			
Time until Timeout		5 minutes	5 minutes
For Lockout Reset profile		Yes	Yes
Randomized questions		No	No
Checklist		I_site team demo v2	I_site team demo v2

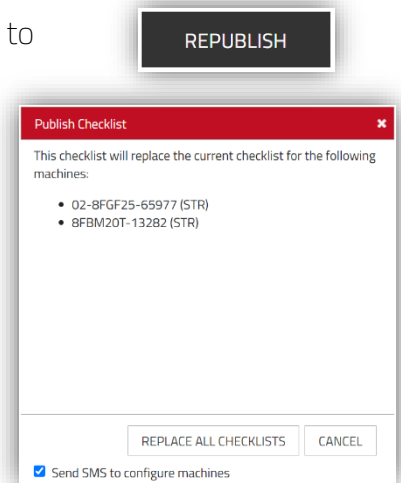
## 5. Republishing a Checklist.

If you have published your checklist just to the server without selecting a group and have completed your testing and the checklist is functioning correctly, you could then add a group of machines to the checklist and republish the checklist to send it to the group of machines.

Once you have added the correct group you want to apply the checklist to you can then click the republish button.

This will then display the publish checklist page for you, ensure the correct serial numbers are listed for the machines you are wanting to apply the checklist to, tick the "Send SMS to configure machines" and then click the Replace All Checklists button.

This will then republish the checklist to all the machines within the group and apply the checklist directly to the machines settings. If you don't tick the "Send SMS to configure machines" tickbox, you will need to manually select the checklist on the machine config page shown in the last section.

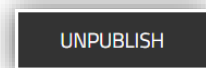


## 6. Unpublishing a Checklist.

If you have published your checklist to the machines and realized it's not functioning as expected and is causing you problems, you can unpublish a checklist which will remove the checklist from all machines it's assigned to this can be an easy way to roll back and remove the checklist from the machine if having problems.

Go to Pre-op Check-> Checklists, find the checklist you want to unpublish from the list of checklists.

Click on the name of the checklist you want to unpublish, scroll to the bottom of the checklist and use the unpublish button.

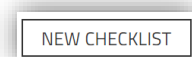


This will unpublish the checklist from all trucks which have the checklist applied to them, this option will also remove all groups added to the checklist.

## 7. Copying/Updating an existing checklist.

If you have published a checklist but need to make adjustments to it, you will need to create a new version of the checklist to enable you to edit the checklist.

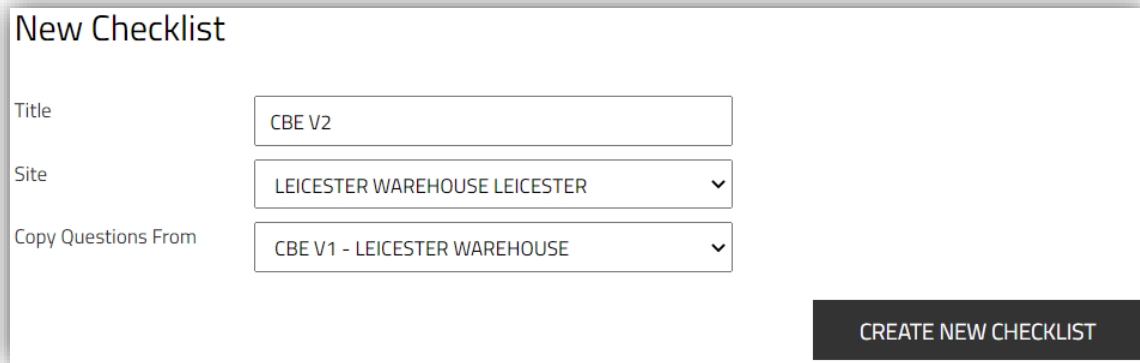
We can use the copy questions from option during the create checklist option to copy questions from an existing checklist to save you having to create a new checklist from scratch.



Go to Pre-op Check-> Checklists, click on the create checklist button.

On the new checklist page give your checklist a new title, we recommend giving each checklist a version number so you can track which is your latest version easily.

In this example we will call the new checklist CBE V2 and select the CBE V1 checklist to copy questions from.



**New Checklist**

Title

Site

Copy Questions From

**CREATE NEW CHECKLIST**

If you have access to multiple sites you can also use this method to copy a checklist from one site to another site if you wanted to duplicate the checklist to each of your sites so all sites are using the same questions.

In the Site drop down menu select the site you want to create the checklist on and choose which questions you want to copy them from.

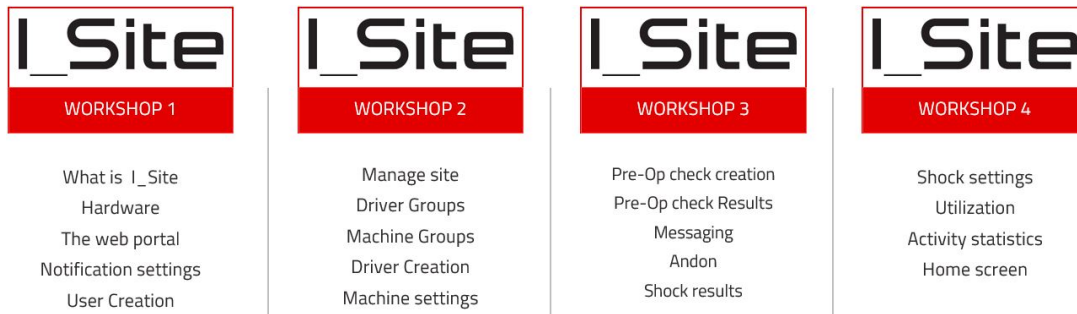
This will then create a new copy of that checklist on the new site you selected.

Please note the Minimum Duration setting will reset back to 30 seconds when you are a new checklist, make sure to reset the desired minimum duration before you publish your new checklist. If published you will need to create a new copy to adjust the minimum duration, so ensure this is set correctly before you publish the checklist.

Once the checklist has been created you will be able to adjust the questions as required, once you have made your changes you can then publish the checklist back to the trucks.

## 8. Toyota I\_Site Training Courses.

If We also have I\_Site Training Courses available to train users on how to use the I\_Site system which can be completed on-site or remotely depending on your company requirements.



### **Virtual User Training Course – Shared with other Customers.**

The Virtual User Training Course is aimed at training individual users from multiple customers together.

Training is hosted remotely via Microsoft Teams and the training is split across 4 days in one week, each day consisting of 1.5 hours of training covering one workshop per day.

These courses are hosted once per month and training is completed using a demo site.

### **Virtual Company Training Course – 1-on-1 Training – Unlimited Number of Attendees.**

The Virtual Company Training Course is aimed at training a single customer with unlimited attendees from that business. The course is aimed at both new I\_Site users and refreshing existing users.

Training is hosted remotely via Microsoft Teams and the training is split across 4 days, each day consisting of 1.5 hours of training covering one workshop per day.

The company training is completed using the customers own site and the Toyota Trainer will assist in setting up your site during the training

The dates and times can be booked in advance to fit customer requirements and the training workshops can be completed across multiple weeks if required (depending on trainer availability).

Course can be tailored towards how the customer would like to use the I\_Site system.

### **1 Day On-Site Company Training Course – 1-on-1 Training – Limited Number of Attendees..**

The On-Site training will be hosted at the customers own site but would be limited attendees depending on meeting room capabilities for safe social distancing

For the best experience we would require a large meeting room with a large TV or Projector that could be used to present the training

The On-Site training is completed using the customers own site and the Toyota Trainer will assist in setting up your site during the training

The training day can be booked in advance to fit the customer requirements.

Course can be tailored towards how the customer would like to use the I\_Site system.

For further information, bookings or other I\_Site queries please contact the UK I\_Site Helpdesk: [I\\_Site@uk.toyota-industries.eu](mailto:I_Site@uk.toyota-industries.eu).