



User Manual

Equipment Control

V2.17.01.2



Workforce Management Solutions

Securing your time and resources

Contents















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1 REVISION

VERSION	DATE	AUTHOR	COMMENTS
V1.0	2015-11-24	Cindy-Lee vd Walt	Initial Version
V2.0	2015-12-01	Cindy-Lee vd Walt	Added NEDAP and Override tag
V2.16.06.0	2016-07-04	Cindy-Lee vd Walt	Test valid duration on clockpoint equipment
V2.17.06.5	2017-03-01	Cindy-Lee vd Walt	3 rd Party Equipment Control
V2.17.01.2	2017-03-15	Cindy-Lee vd Walt	Formatting

2 BUTTON DEFINITIONS

There are three states of the new buttons: browse, inactive and hover

	Insert	Add a new item to a selected category
	Edit	Enter into edit mode to allow you to make changes to a selected entry.
	Delete	Delete the entry you currently have selected. You will receive a warning box before the deletion becomes final.
	Save	Save the information you have entered / edited.
	Exit or Cancel	Exit without saving changes.
	Print Preview	Displays on screen a preview of that pages that will be printed.
	Print	Sends the information to the default printer.
	Print to Excel	Prints the Report to an Excel Workbook
	Save to csv	From the print preview the report can be saved as a csv file
	Down Arrow	Move selected data down
	Left Arrow	Move selected data left go back
	Right Arrow	Move selected data right go forward
	Up Arrow	Move selected data up
	Browse	Enables you to search the directories on the computer for a file / picture.

3 SOFTWARE AND FIRMWARE VERSIONS

The followings are the minimum versions required for the feature to work:

XTUpgrade V2.16.06.5

XTController Interface V2.16.06.5

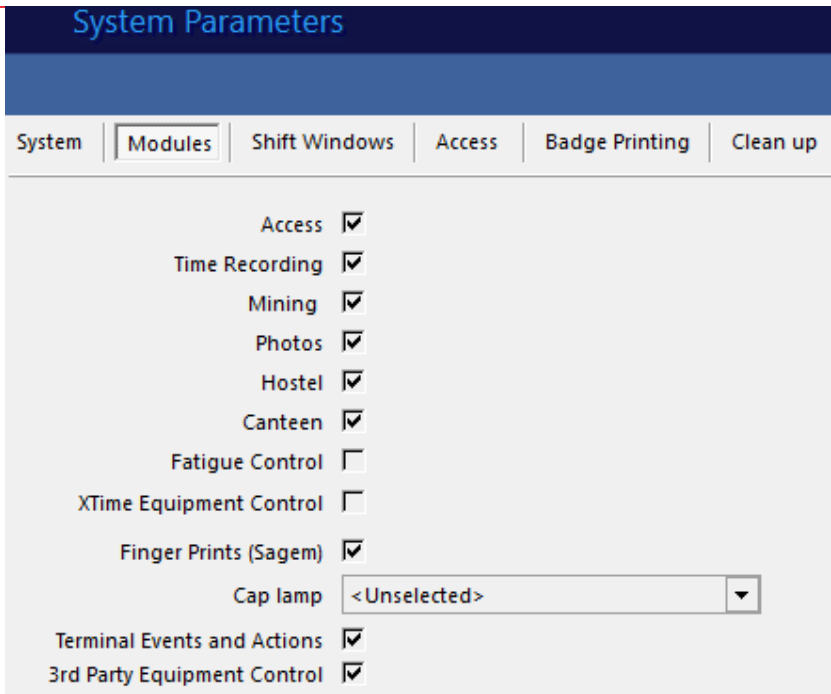
Controller Multithread Firmware: 7.28

NOTE: It is always advisable to use the latest release software and firmware available on the Skycom website.

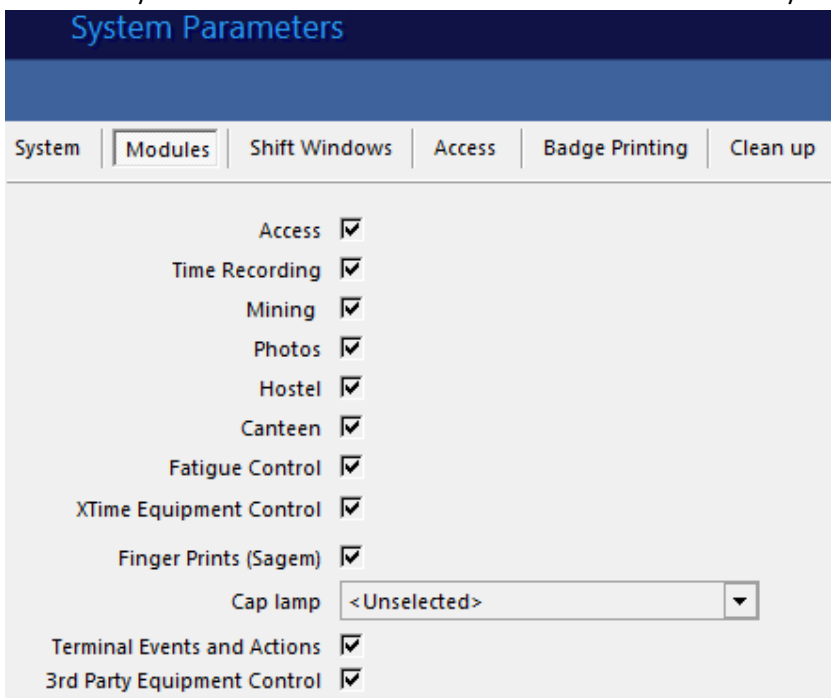
4 GLOBAL SETTINGS

There is a global setting that must be activated through the licence to use the Equipment Control feature. From the main menu on the left, navigate to the **CODES | CONFIGURATION | SYSTEM PARAMETERS | MODULES** and check if the XTime Equipment Control and Events and Actions modules are ticked. If not you may need to update your licence to include the XTime Equipment control. Contact your system administrator or system specialist at your nearest G4S Branch.

Below is the screen if the XTime Equipment Control is not included in the licence key.



Notice that if you can see the edit button and click it, the XTime Equipment control is greyed out and cannot be edited. Only the Terminal events and actions can be. Ensure that they are both on.

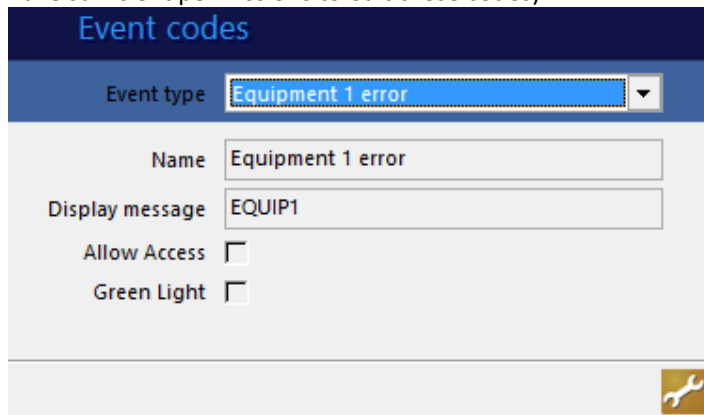


5 EQUIPMENT ERROR EVENT TYPE

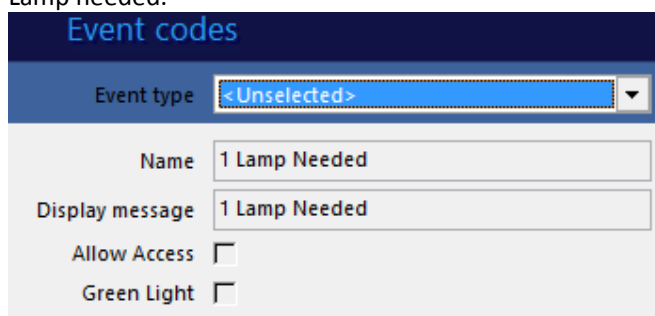
The default equipment error event is Equipment Needed. However, there are 9 individual equipment error codes that can be assigned to different types of equipment. This makes it easier for the employees to see which type of equipment is not validated.

Navigate to **CODES | ACCESS | EVENT TYPE:**

Select the Equipment Error 1 event and click on the edit button: (if you cannot see the edit button, you may not have sufficient permissions to edit these codes)



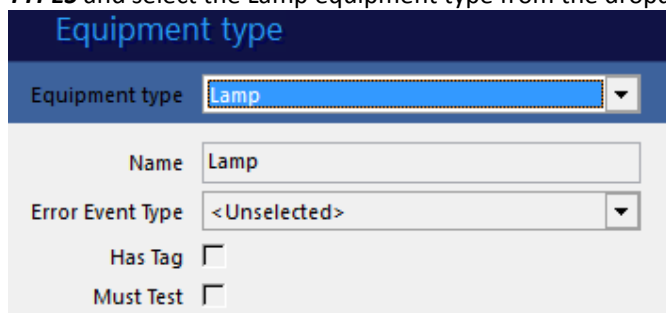
Change the name and display message to something more meaningful. In this example, I will change this to the Lamp needed.



PARAMETER	DESCRIPTION
Name:	This is the event that is displayed in the Dashboard and on the employee's clock record.
Display Message	This is the message that is seen on the terminal when clocking
Allow Access	If not ticked, this is a denied event type
Green Light	If ticked, a green light will come on if attached

6 EQUIPMENT TYPE

Next, link the event codes to the different equipment types. Navigate to **CODES | CONFIGURATION | EQUIPMENT TYPES** and select the Lamp equipment type from the dropdown selection:



Click on the edit button (again if this is not visible, you do not have sufficient user rights and need to contact your system administrator). Select the "1 Lamp Needed" event type created in the previous step. Tick the "Has Tag" checkbox to tell the system that the equipment will have a tag. If the equipment needs to be tested, like a GDI unit, the "Must Test" checkbox must also be ticked. Save the equipment type once the changes have been done. Ensure to edit all the equipment types used.

Equipment type

Equipment type

Name

Error Event Type

Has Tag

Must Test

7 CAPTURING EQUIPMENT

Equipment needs to be captured in XTime before it can be allocated to employees. Navigate to **EQUIPMENT** from the main menu:

Equipment issued

Find By Equipment Type Number

Equipment Type

Number

Status

Description

Serial Number

Issued To

To edit a piece of equipment, select the equipment type from the dropdown, and type in the number if you have it. If not, select the find by Tag and click the scan button. Place the equipment tag on the scanner and the equipment will be displayed on the screen:

Equipment issued

Find By Equipment Type Number

Equipment Type

Number

Status

Description

Serial Number

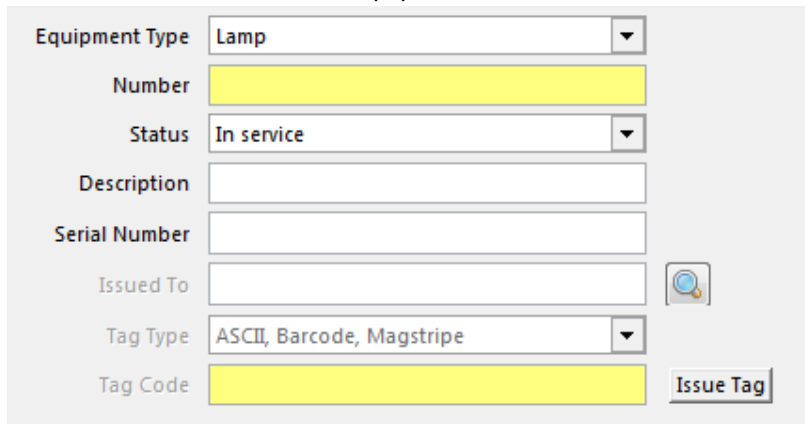
Issued To

Tag Type

Tag Code

Click on the edit button to change the details.

Click on the add button to add equipment:



The form contains the following fields:

- Equipment Type: Lamp (dropdown)
- Number: (highlighted yellow)
- Status: In service (dropdown)
- Description: (text input)
- Serial Number: (text input)
- Issued To: (text input with search icon)
- Tag Type: ASCII, Barcode, Magstripe (dropdown)
- Tag Code: (highlighted yellow)
- Issue Tag: (button)

The fields highlighted in Yellow are mandatory fields and must be filled in:

PARAMETER	DESCRIPTION
Equipment type:	Select the type of equipment from the dropdown menu
Number:	Enter the equipment number (this may be the same as the serial)
Status:	Select one of the options from the dropdown. Working equipment must be set to In Service
Description:	Enter a description of the equipment
Serial Number:	Enter the serial number
Issued To:	If the equipment is to be issued to an employee, click on the search button and enter the employee number, then click on the search button again to save.
Tag Type:	This field is auto-populated when the tag is scanned.
Tag Code:	Click on the issue tag button to pop up the tag issue window. Place the tag on the IXP220 Registration reader or the NEDAP Issue reader to scan the tag.

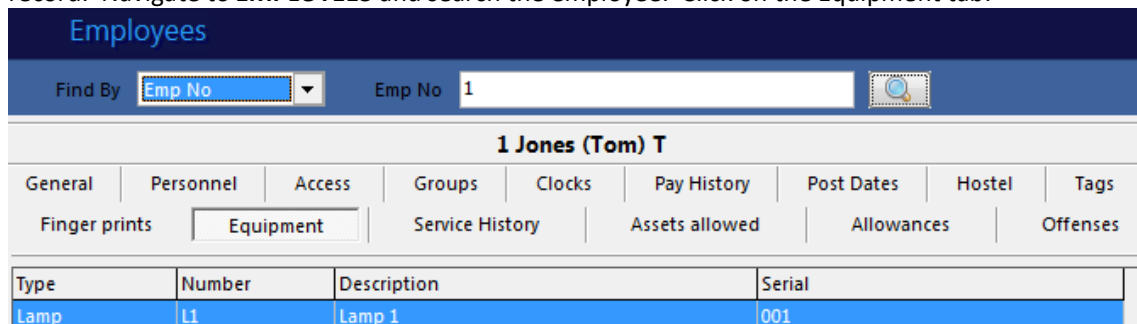
Once all the fields are complete, click the save button to save the record.

If the NEDAP scanner is to be used for equipment, ensure that the drivers have been installed and the following entry is in the properties file:

Scanner.Type.EQ = NEDAP

8 EMPLOYEE EQUIPMENT

If you assigned the equipment in the above step to an employee when capturing it, it will show under the employee record. Navigate to **EMPLOYEES** and search the employee. Click on the Equipment tab:



The screenshot shows the 'Employees' interface. The search criteria are 'Emp No' with the value '1'. The employee record for '1 Jones (Tom) T' is displayed. The 'Equipment' tab is selected, showing a table with the following data:

Type	Number	Description	Serial
Lamp	L1	Lamp 1	001

See the Lamp that was issued in the section above. So once equipment has been captured, it can be assigned to employees from the equipment menu or from the employee equipment menu. Remember that just adding the equipment does not automatically assign it to an employee. It must be linked to the employee from either of these screens.

9 CLOCK POINT SETTINGS

From the main menu on the left, navigate to **CODES | CONFIGURATION | CLOCKPOINTS | CLOCKPOINTS** and select the clockpoint from the selection dropdown. This is the access terminal where the employee clocks after passing by the validation readers. At this clock point's terminal, access is only granted if all the equipment required by the settings on the clockpoint is validated.

On the Params tab, the XTime Equipment validation must be activated. To do this, click on the edit button and check the XTime Equipment validation checkbox and then save. This activates the equipment validation on this clockpoint.

Clock Points

Clock Points: **MDTA PTA**

Settings | Certificates | **Params** | Equipment | Restrict Clock Reasons

Visitor retrieve card on expire only
 Multi Badge Sequencing:
 Emergency
 Lockdown
 Validate Leave
 Tag Only if no fingers
 Visitor expires on exit
 Delete visitor tag on expiry
 Alcohol testing
 Validate Fatigue
 Validate overtime

3rd Party Equipment Control

Third party system: Disabled LMS

Third party equipment validation:

Allow access when offline

XTime Equipment Control

Validation enabled:

Next, click to the Equipment tab. Here you must add all the equipment types that must be validated before the employee is allowed underground.

Clock Points

Clock Points: **MDTA PTA**

Settings | Certificates | Params | **Equipment** | Restrict Clock Reasons

Equipment Type	Required In	Required Out	Auto Issue	Auto Return

Click on the add button to insert an equipment type. (If there is no add button then you might not have sufficient rights to perform this function)

Equipment Type: **PDI**

Required In: **Must be present if allocated**

Required Out: **No Check**

Auto Issue:

Auto Return:

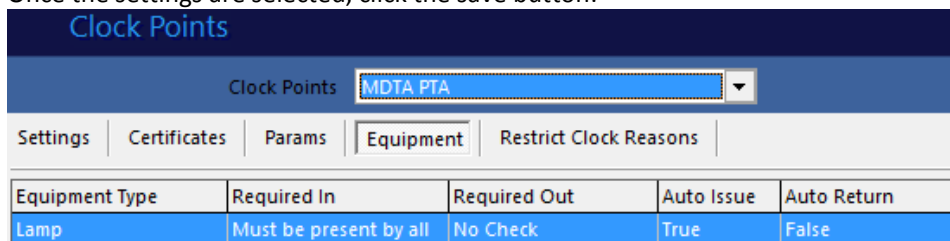
Equipment Test Expires on In Clock:

Equipment Test Expires on Out Clock:

Test Valid Duration: **00:02**

PARAMETER	DESCRIPTION
Equipment Type:	All the types that have been added under Equipment types
Required In:	This is set to "Must be present by all" before entering. This means that everyone must have this equipment
Required Out:	If the equipment is to be validated before exiting, then a setting will be selected here.
Auto Issue:	If the equipment is not actually issued to the employee, the auto issue must be ticked. This will issue and validate the equipment at the same time.
Auto Return:	Same as above, only the equipment will be automatically returned on validation.
Equipment Test Expires on In Clock	Check this box if the equipment test expires when the employee clocks in at this clockpoint. This will mean that after clocking in the equipment will have to be retested.
Equipment Test Expires on Out clock	Check this box if the equipment test duration expires if the employee clocks out at this clockpoint. This will mean that the equipment must be retested when the employee tries to clock in again.
Test Valid Duration	This is the duration the test is valid for before having to be retested. It is hh:00 and defaults to 08:00

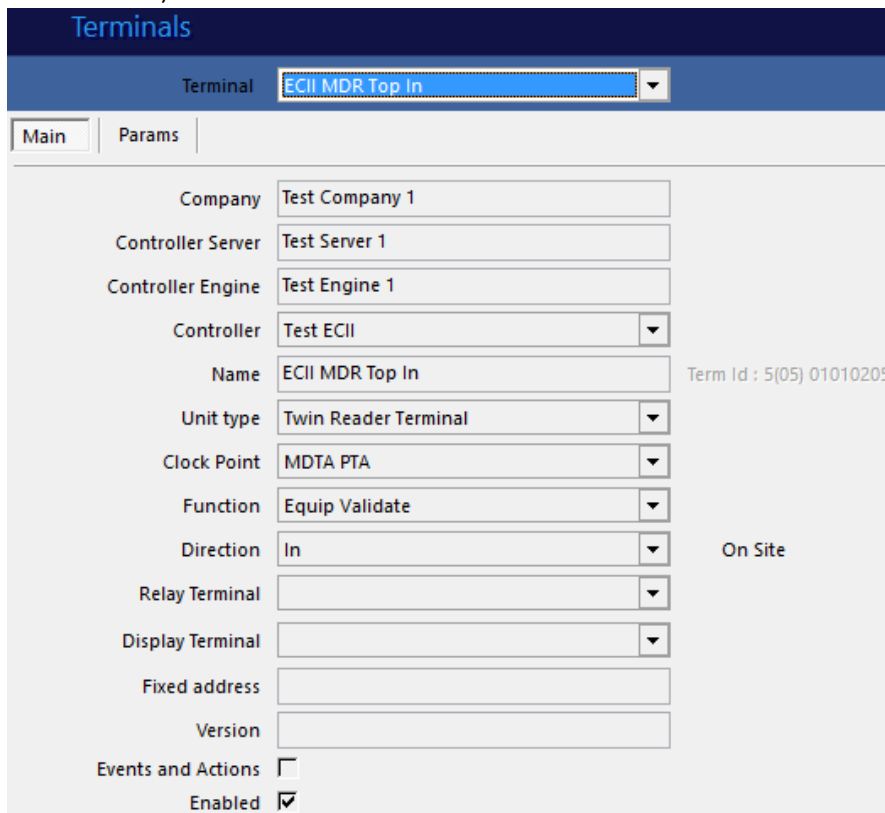
Once the settings are selected, click the save button:



Equipment Type	Required In	Required Out	Auto Issue	Auto Return
Lamp	Must be present by all	No Check	True	False

10 VALIDATE TERMINALS

Navigate to **CODES | CONFIGURATION | TERMINALS** and click on the add button. (If you cannot see the menu item or the add button, you may not have sufficient user rights to configure the terminals. Contact your system administrator)



Terminal: ECII MDR Top In

Term Id : 5(05) 01010205

On Site

Company: Test Company 1
 Controller Server: Test Server 1
 Controller Engine: Test Engine 1
 Controller: Test ECII
 Name: ECII MDR Top In
 Unit type: Twin Reader Terminal
 Clock Point: MDTA PTA
 Function: Equip Validate
 Direction: In
 Relay Terminal:
 Display Terminal:
 Fixed address:
 Version:

Events and Actions
 Enabled

The important settings on this Main tab are:

Controller: This terminal must be on the same controller as the access and output terminals.

Function: Equip Validate must be selected.

Direction: This must be the same as the direction of the access terminal.

Display Terminal: This must be the access terminal where the equipment will be validated. This is the link between the validator and the equipment checking set on the access terminals clockpoint.

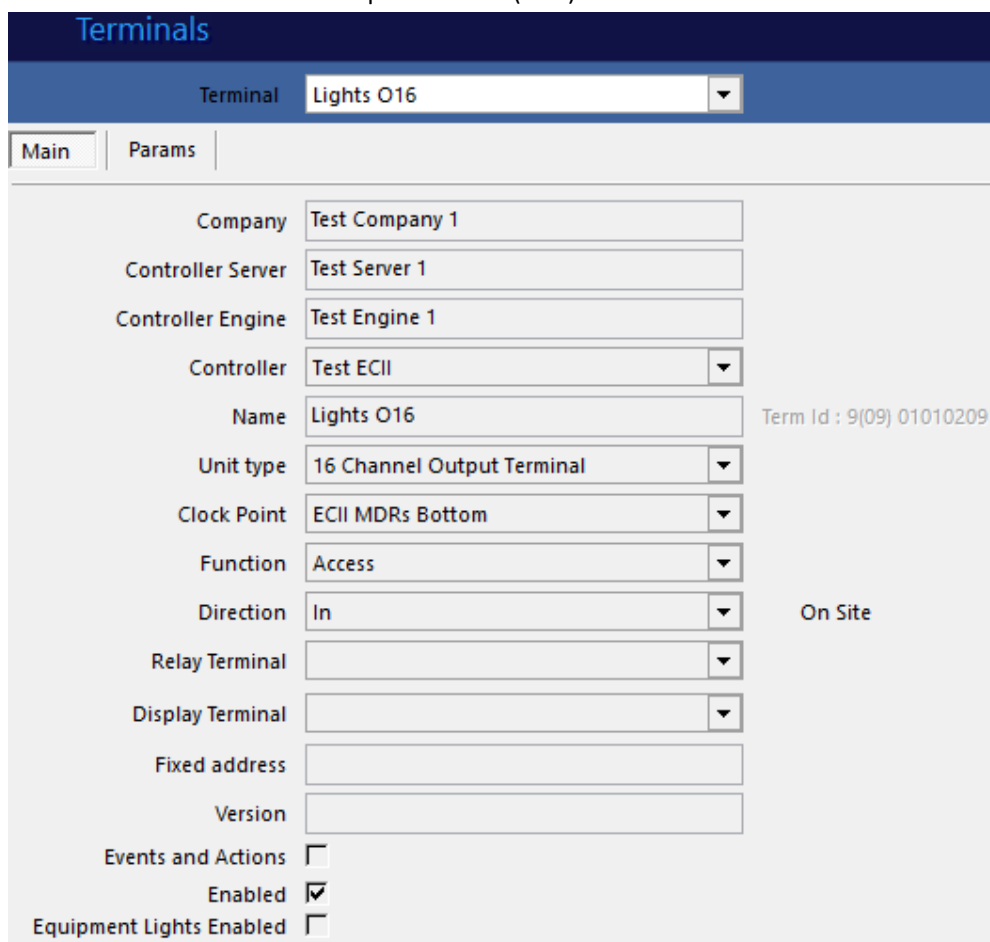
Fixed address: This is used by the controller interface to identify the terminal.

Enabled: The terminal must be enabled in order to function.

More than one validation terminal can be set up per access point. The link is the clockpoint so ensure that this is the same for all validation terminals that are configured.

11 EQUIPMENT LIGHTS

If there are lights that get switched on as the each equipment type is validated, they need to be configured on the access terminal linked to an Output terminal (O16).



The screenshot shows the 'Terminals' configuration page in the Xtime interface. The 'Terminal' dropdown is set to 'Lights O16'. The 'Main' tab is active, showing various configuration fields:

- Company: Test Company 1
- Controller Server: Test Server 1
- Controller Engine: Test Engine 1
- Controller: Test ECII
- Name: Lights O16 (Term Id: 9(09) 01010209)
- Unit type: 16 Channel Output Terminal
- Clock Point: ECII MDRs Bottom
- Function: Access
- Direction: In (On Site)
- Relay Terminal: (empty)
- Display Terminal: (empty)
- Fixed address: (empty)
- Version: (empty)
- Events and Actions:
- Enabled:
- Equipment Lights Enabled:

The important settings on the Main tab are:

Controller: This terminal must be on the same controller as the access and validate terminals.

Unit type: This must be set as a 16 Channel Output Terminal.

Fixed address: This is used by the controller interface to identify the terminal.

Enabled: The terminal must be enabled in order to function.

Equipment Lights configuration:

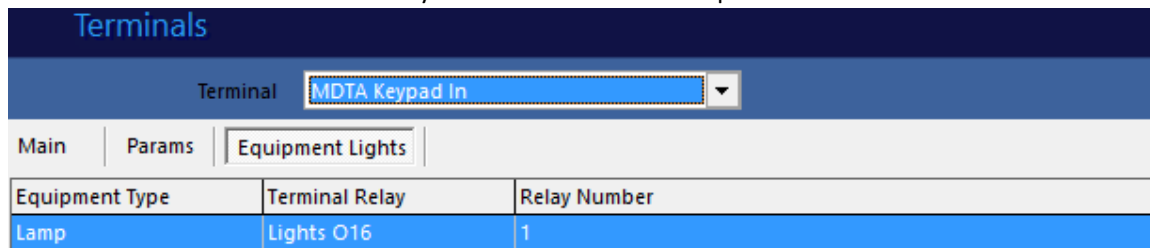
Click on the edit button. (If you cannot see the menu item or the add button, you may not have sufficient user rights to configure the terminals. Contact your system administrator)

Tick the “Equipment Lights Enabled” checkbox. This will make the Equipment Lights tab visible. Click the save button first before selecting this tab.

Equipment Type	Terminal Relay	Relay Number

Click on the edit button. The following selections will need to be set. The selections are all mandatory and that’s why the boxes are yellow. To ensure that the selection is accepted on the last box, press the tab key. This will enable the save button. The only equipment types that will be available for selection are those that are set on the clockpoint for validation:

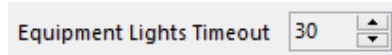
Ensure to click the save button once you have selected all the options:



Equipment Type	Terminal Relay	Relay Number
Lamp	Lights O16	1

The above settings will pull relay 1 on the O16 when a lamp is validated.

The final setting for the equipment lights configuration is the Equipment Lights Timeout on the params tab:



Equipment Lights Timeout 30

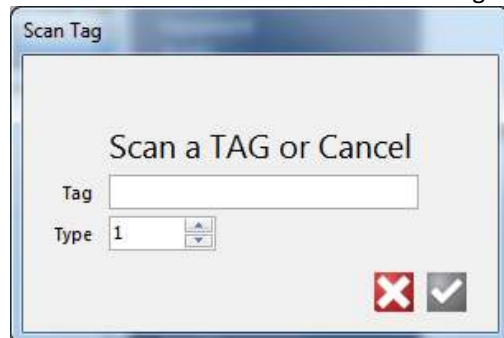
This setting is the time the employee has to go from the validation of the equipment to the access terminal. If the time set passes before the employee clocks at the access tab, he will have to go back through the validation station to validate his equipment again. Once he passes through the access clockpoint, the lights will be switched off.

12 OVERRIDE FUNCTION BADGE

An override function badge can be loaded to override key validations in cases where a controller may be down and the return of a key is not sent to the controller. This would prevent the employee from exiting as he would constantly get a Return Key error.

Navigate to **TAGS | FUNCTION BADGES**:

Click on add to create a new function badge:



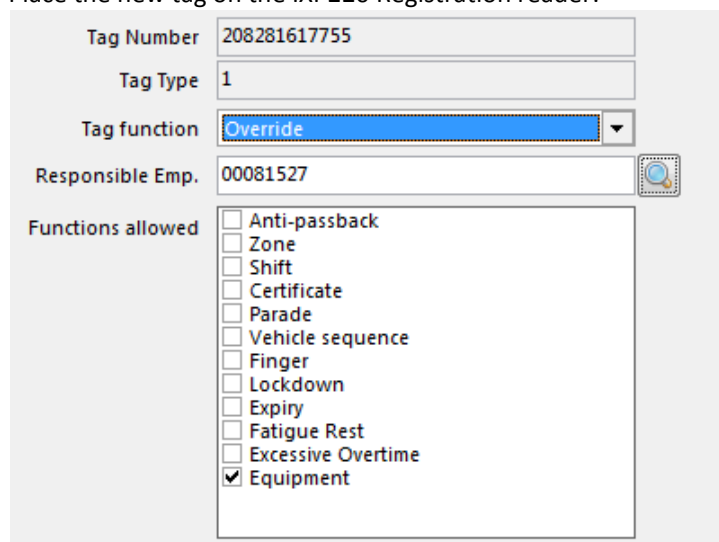
Scan Tag

Scan a TAG or Cancel

Tag

Type 1

Place the new tag on the IXP220 Registration reader:



Tag Number 208281617755

Tag Type 1

Tag function Override

Responsible Emp. 00081527

Functions allowed

- Anti-passback
- Zone
- Shift
- Certificate
- Parade
- Vehicle sequence
- Finger
- Lockdown
- Expiry
- Fatigue Rest
- Excessive Overtime
- Equipment

Select the Tag function as Override:

Select the functions allowed by checking the box to the left of the function description:

Then click the save button

If there is already an override tag that you just want to add the function to, scan the tag in and click the edit button. Select the Equipment function and click the save button.

PLEASE NOTE:

This function overrides ALL equipment validation and should be issued and used with caution. There should always be a Responsible Employee assigned to the tag for auditing purposes.

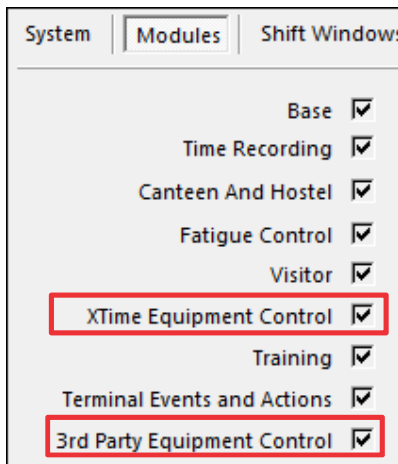
13 ECOS KEY MANAGEMENT

This is a separate module that can be purchased and plugged into the Equipment control to issue | return and validate Keys.

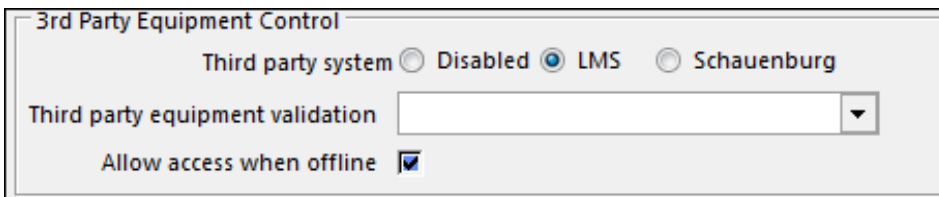
Refer to the Feature Guide – ECOS Key Management

14 3RD PARTY EQUIPMENT CONTROL

3rd Party systems like Schauenburg and LMS can plug into XTime. In order to use this feature, the XTime equipment Control and the 3rd Party Equipment Control modules are necessary and require a licence. These are additional licenced modules.



On the Clock point where the checking is to be done (usually the underground clock points) navigate to the Params tab:

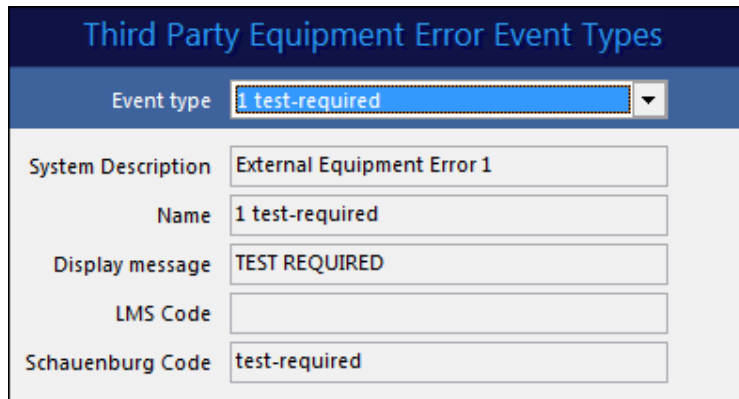


PARAMETER	DESCRIPTION
Third party system:	Select the system that will control the equipment
Third party equipment validation:	Select the direction that the checking must occur. The choices are: In only checking , Both directions or Out only checking
Allow access when offline:	If this is selected, access will be allowed if the lamp control system is offline.

There are scripts that need to be run to create the views as both systems need to connect to the controllers. These scripts will be part of Get Upgrade queries from the V2.17.04.0 major release.

There are event messages that can be configured to interpret the messages sent from the systems that we can display on the readers:

Navigate to **CODES | ACCESS | EVENT TYPES | Third Party Equipment Event Types**



Select an event type from the dropdown and click on the edit button.

PARAMETER	DESCRIPTION
System Description:	This field is not editable and is our system description
Name:	The name can be changed to whatever you like
Display Message:	This is the message that will be displayed on the reader when the employee clocks. This is limited to 16 characters
LMS Code:	This is not yet in use.
Schauenburg Code:	This is the Schauenburg code we receive.

Below is a list of some of the codes received from Schauenburg:

```

item key="test-required"
item key="test-failed"
item key="assets-assignment-required"
item key="assigned-assets-missing"
item key="extra-asset-present"
item key="assets-present"
item key="spares-assigned"
item key="assets-not-returned"
item key="asset-not-operational"
item key="unknown-location"
item key="unknown-person"
item key="allocated"
item key="unallocated"
item key="unallocated"
item key="pass"

```

The client should have received a full list from the Schauenburg consultant.

******* END OF DOCUMENT *******