



# XTime 900 Standard



G4S User Manual  
Fatigue Management



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## 1. REVIEW SEQUENCE

REVIEW SEQUENCE	REVISION DATE	RESPONSIBLE PERSON(S)
1	September 2014	Kevin Waters - Creation
2	January 2015	Kevin Waters - Updates
3	January 2015	Kevin Waters - Updates
4	March 2015	Kevin Waters - Updates
5	April 2015	Kevin Waters - Updates
6	September 2015	Cindy-Lee van der Walt - Updates
7	October 2015	Cindy-Lee van der Walt - Updates
8	November 2015	Cindy-Lee van der Walt - Updates



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## 2. OVERVIEW

- Legal Compliance Requirement:  
If a person works 16 hours (configurable) or more within a 24 hour (configurable) period he must have at least 16 hours off site before being permitted to report for another working shift.
- Functionality has been built into XTime900 to enable an Administrator to set a systems parameter to block a person from entering the premises if he/she has worked 16 hours or more within a 24 hour rolling period. A 24 hour rolling period will be seen as 24 hours into history from when the person clocks off site. A rolling shift constitutes a single shift with breaks where the accumulated actual time on site is 16 hours or more.
- The calculation of shift duration starts when a person moves from an "OFF SITE" area/zone onto an On site Zone and will only calculate if the person has clocked at Clock Point where Fatigue has been enabled. Fatigue hours will not be tracked or calculated on clock points that are not set.
- Functionality has also been built into XTime that will accrue Overtime worked from the Start of the Month to the end of the month. There is a parameter on the system that can be set which will be used to determine when the employee has reached his/her allowed Overtime for the month. When the total is reached and then exceeded the Employee will get blocked on XTime.
- The Calculation of the Overtime hours and Rest Periods uses the Employees clock transactions and also his/her shift including leeways or excluding leeways or the Shift Duration Parameter set on the fatigue control screen. It will also check for Planned Overtime and shift substitutions when doing all its calculations.
- When an employee tries to clock when he or she has a fatigue block the system will display a Fatigue event message on the reader and the employee will not be able to enter into the area
- A fatigue override badge will be used in emergency situation to allow an employee access if the employee has a rest or Overtime block and requires to enter through an area.
- When the employee has exceeded his maximum allocated fatigue hours for the month which is defined on the system then the employee will also get a Fatigue overtime block. The employee will also not be allowed to clock with this block. The employee will have to go to his supervisor and the Supervisor will clear the block. The employee will then be allowed to clock for his normal shift. If the employee after this works more overtime resulting in his overtime accrual to increase there will again be an Overtime block created and the employee will not be able to clock for his next shift.

## 3. SOFTWARE

XTFatigueService V2.15.01.507 or later

XTime900 V2.15.01.504 or later

XTFatigueRest Add-in V2.15.01.505

XTControllerInterface V2.15.01.502 or later

XTServicesDashboard V2.15.01.501 or later

ECII Controller Firmware V2.72 or later

IPB Controller Firmware V4.52 or later

Note: It is always advisable to use the latest release versions available. These can be obtained on the ftp site at the following address: <ftp://ftp.za.g4s.com>

## 4. LICENCING

Please note that a new license needs to be issued in order for the Fatigue module to be activated.

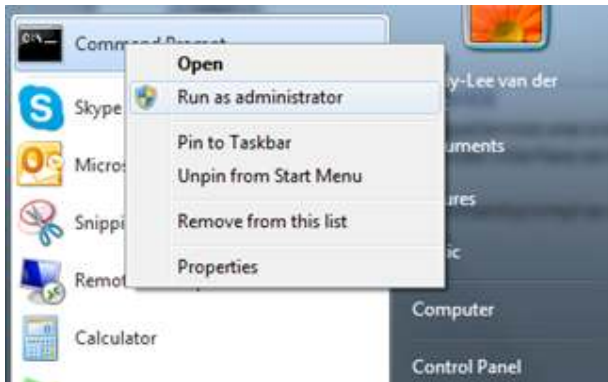
## 5. FATIGUE SERVICE

This service is responsible for all the validations for the fatigue feature. If the service is not running, the fatigue feature will not function at all. The service is also responsible for emailing the reports at configured times.

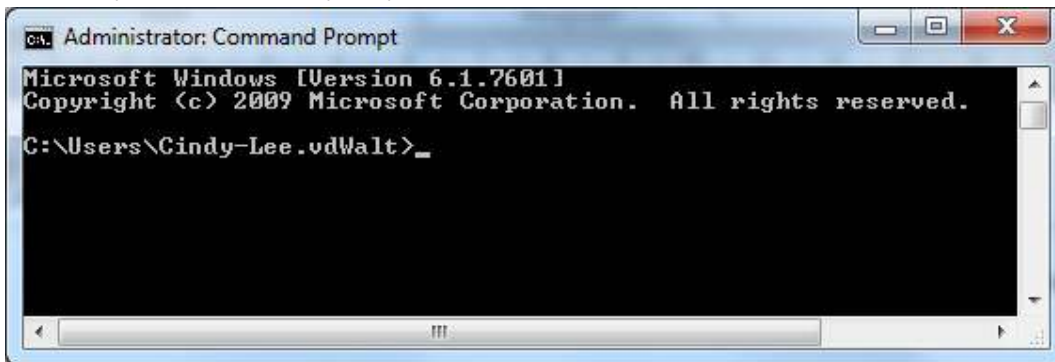


## 5.1 INSTALLING THE SERVICE

- Ensure that the XTFatigueService.exe is located in the XTime folder. It is best to load the service on the same server where the controller interface service is installed.
- Open the windows command prompt as an administrator by right-clicking on the Command Prompt shortcut and selecting “run as administrator”.



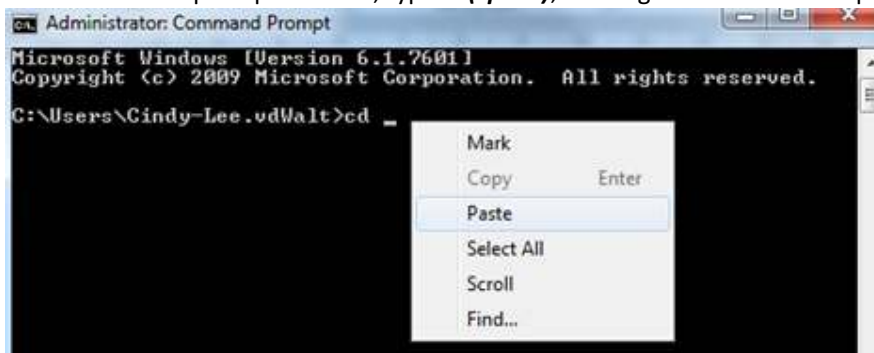
This will open the command prompt window.



- In your file explorer, navigate to where the XTFatigueService.exe is located and copy the file path.

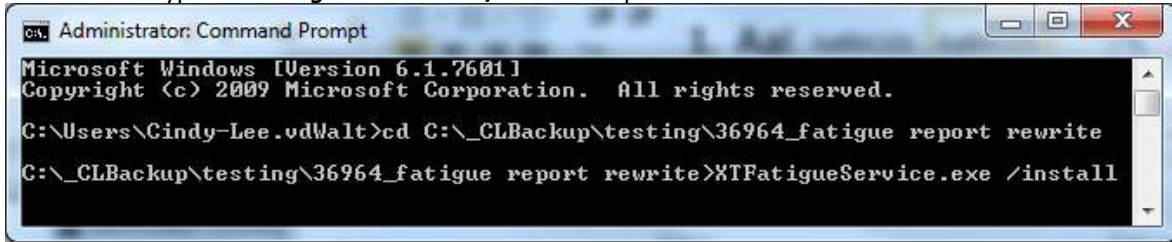


- In the command prompt window, type **cd(space)**, then right click and select paste to insert the file path.

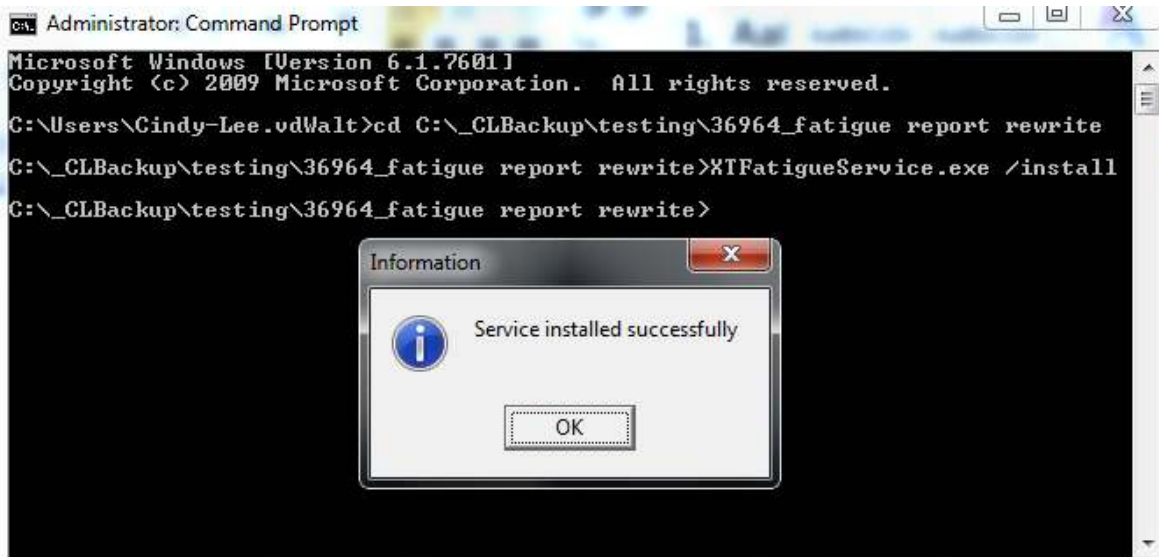




- Press enter. Type in *XTFatigueService.exe /install* and press enter:



- After a few moments a message will pop-up informing you that the service has been successfully installed. Click the OK button to remove the message:

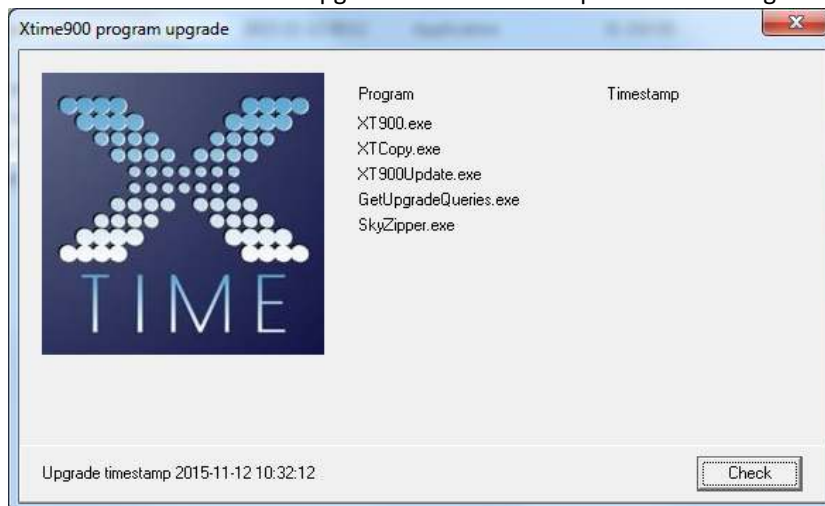


- Do not start the service yet as not all the configuration has been done.

## 6. UPGRADING XTIME

### 6.1 UPGRADING XTIME

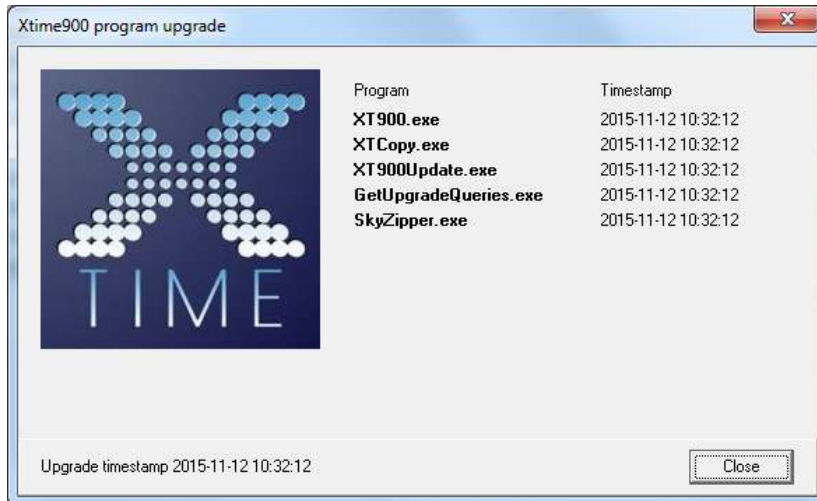
- Double click on the *XTUpgrade.exe* . This will open the following window:



- Click on the “Check” button. This performs a check on the XTime suite of applications to see if they are different to the ones you are going to install.



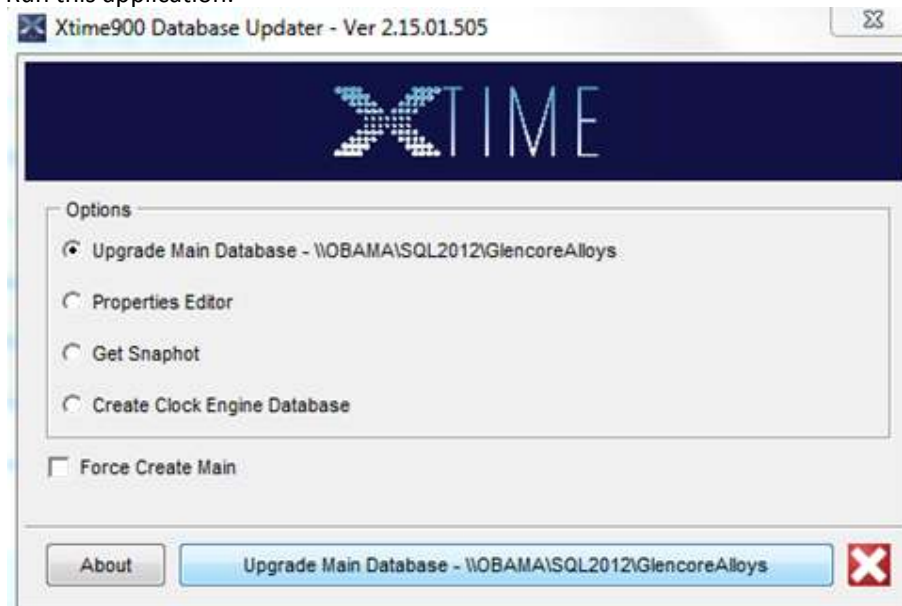
- The “Check” button will change to an “Upgrade” button if the versions installed are older than the upgrade you want to run. Click on the “Upgrade” button:



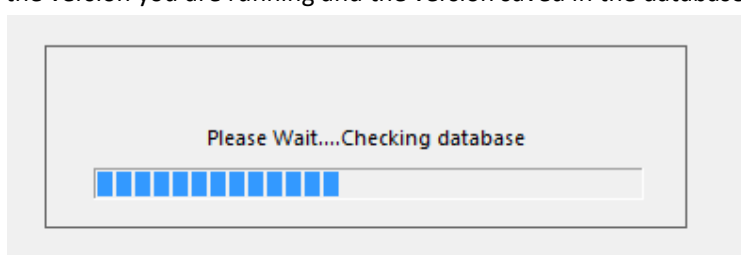
- The exes will be updated in your XTime folder. Click on the “Close” button to remove the program upgrade window.

## 6.2 UPGRADING THE DATABASE

- With all new development, new tables and fields are added to the database by means of an application called Get Upgrade Queries. This application is in your XTime folder and is called GetUpgradeQueries.exe. Run this application:




- Select the first option “Upgrade Main Database - [\\nnn](#)” and then click on the “Upgrade Main Database - [\\nnn](#)” button at the bottom of the window. The Updater will check for new database additions between the version you are running and the version saved in the database.

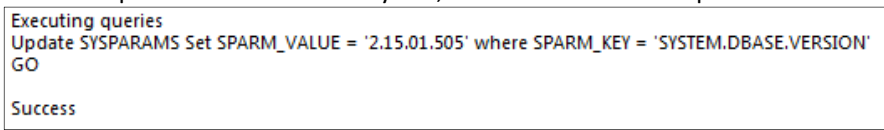




- It will display the differences in the upgrade window:



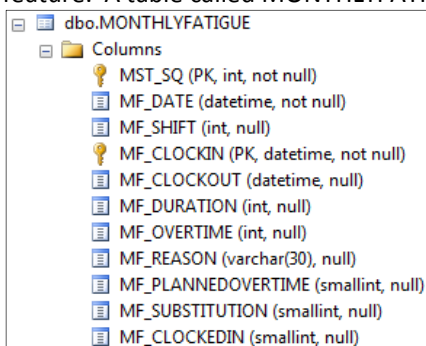
- Click on the  button to run the queries and update the database. Please note that only a user with access to the database can run this. Speak to your system administrator if you do not have sufficient rights.
- Once the queries have successfully run, the database will be updated.



- If you run the “Upgrade Main Database - [\nnn](#)” again you will see that the system is up-to-date:

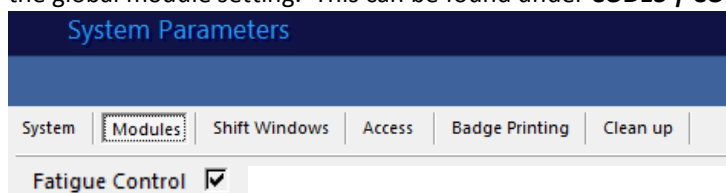


- For the Fatigue feature, any version after 1.2014.08.0 will have the database changes required to run this feature. A table called MONTHLYFATIGUE was added.



## 7. XTIME CONFIGURATION

There are a number of parameters that need to be activated when wanting to use the fatigue feature. The first is the global module setting. This can be found under **CODES | CONFIGURATION | SYSTEM PARAMETERS | MODULES**



Once you have obtained your new licence which incorporates the fatigue, the “Fatigue” parameter will be ticked. If not, you do not have the correct licence. To get the correct licence, contact your branch specialist.



## 7.1 SYSTEM PARAMETERS – FATIGUE CONTROL

- Navigate to **CODES | CONFIGURATION | SYSTEM PARAMETERS | SYSTEM | FATIGUE CONTROL TAB**

If you cannot see this tab, click on the right arrow to move along the tabs:

These rules will be used by XTime to do all the calculations regarding fatigue. These rules are used by the Fatigue Service program and from there calculations and blocks are either enforced or removed.

### System Parameters

System | 
 Modules | 
 Shift Windows | 
 Access | 
 Badge Printing | 
 Clean up

Terminal Port | 
 User Config | 
 Additional Info Setup | 
 Badge Issue | 
 Fatigue Control | 
 Biometrics

Fatigue Control | 
 Fatigue Reporting

Validate excessive overtime

Validate fatigue rest

Fatigue Period (00:00 disable)

Fatigue On Site Max

Fatigue Off Site Min

Excessive Overtime Max

Include planned overtime

Include Substitutions

Employee Leeway

Shift  Custom

Contractor Leeway

Shift  Custom

Employee start clock

Shift  1st clock

Contractor start clock

Shift  1st clock

Employee duration

Shift  Custom

Contractor duration

Shift  Custom

PARAMETER	EXPLANATION
Validate Excessive Overtime	Calculate and Accrue Overtime in order to enforce excessive overtime rules.
Validate Fatigue Rest	Enforce the criteria for fatigue rest according to the maximum time onsite and the minimum rest period.
Fatigue Period	The timeframe in which the employees will be assessed on for fatigue and excess overtime rules.
Fatigue on Site Maximum	The amount of time an employee can be onsite before the fatigue rules are enforced.
Fatigue off Site Minimum	The minimum time period that an employee must be offsite (rest) if a fatigue state has been reached.
Excessive Overtime Maximum	The allowable amount of accrued Overtime before the system starts enforcing blocks.
Include Planned Overtime	Include planned overtime in the Fatigue Overtime Calculation.
Include Substitutions	Include shift substitutions be used in the Fatigue Overtime Calculation.
Employee Leeway	The way Excessive Hours calculations must be applied to for Employees: Shift = uses the shift leeway Custom = the user can enter a time period to be used
Employee start clock	The clock to be used when applying fatigue and excess overtime rules: Shift = the employees shift start time 1 <sup>st</sup> clock = the employees actual first clocking





<b>Employee duration</b>	The amount of time to be used in the calculation of the fatigue onsite maximum and excessive overtime start. Shift = use the employee shift duration Custom = the user can enter a different time period
<b>Contractor Leeway</b>	The way Excessive Hours calculations must be applied to for Contractors: Shift = uses the shift leeway Custom = the user can enter a time period to be used
<b>Contractor start clock</b>	The clock to be used when applying fatigue and excess overtime rules: Shift = the contractors shift start time 1 <sup>st</sup> clock = the contractors actual first clocking
<b>Contractor duration</b>	The amount of time to be used in the calculation of the fatigue onsite maximum and excessive overtime start. Shift = use the employee shift duration Custom = the user can enter a different time period

## 7.2 FATIGUE REPORTING

- There are 2 reports included in the feature:
  - Excessive Monthly Overtime
  - Fatigue Rest
- These reports can be set to email automatically a 3 different times of the day and to one or more people.

**System Parameters**

System | Modules | Shift Windows | Access | Badge Printing | Clean up

Terminal Port | User Config | Additional Info Setup | Badge Issue | **Fatigue Control** | Biometrics

Fatigue Control | **Fatigue Reporting**

SMTP Host: secure\_casarray.za.group4securicor.com

SMTP User: cindy-lee.vanderwalt@za.g4s.com

SMTP Password: \*\*\*\*\*

SMTP port: 25

Email Sender: cindy-lee.vanderwalt@za.g4s.com

Email Recipient: cindy-lee.vanderwalt@za.g4s.com

Send time: 08:00 | 13:56 | 16:30

Send weekend:

<b>SMTP User</b>	User registered to send the emails with that has a valid email account.
<b>SMTP Password</b>	Password used for email account above.
<b>SMTP Port</b>	Port used for outgoing emails.
<b>Email Sender</b>	Email address from where the email originates.
<b>Email Recipient</b>	The email address for the report recipients. If more than 1 person is to receive the reports, a group must be created and the group name inserted here.
<b>Send Time</b>	The time at which the service will send the reports. Maximum of 3 times per day.
<b>Send Weekend</b>	Tick if the reports be sent out on weekends.

## 7.3 CLOCK POINT SETTINGS

- In order for the validations set above to be enforced, the Validate Fatigue and Validate overtime parameters must be checked. Click on the yellow spanner (edit) button at the bottom right of the screen and tick both



boxes. If you do not see a yellow spanner it means that you do not have sufficient rights to update clockpoints and need to contact your system administrator.

PARAMETER	EXPLANATION
Validate Fatigue	This must be enabled for the system to check and block if an employee has a rest period defined on XTime
Validate overtime	This must be enabled for the system to check and block if an employee has exceeded the allowed Fatigue Overtime parameter defined on the Fatigue Control tab

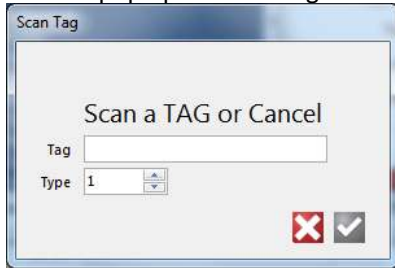
- **PLEASE NOTE:** These parameters must only be enabled on clockpoints where you want to enforce the rule of Fatigue blocking.

#### 7.4 OVERRIDE FUNCTION BADGE

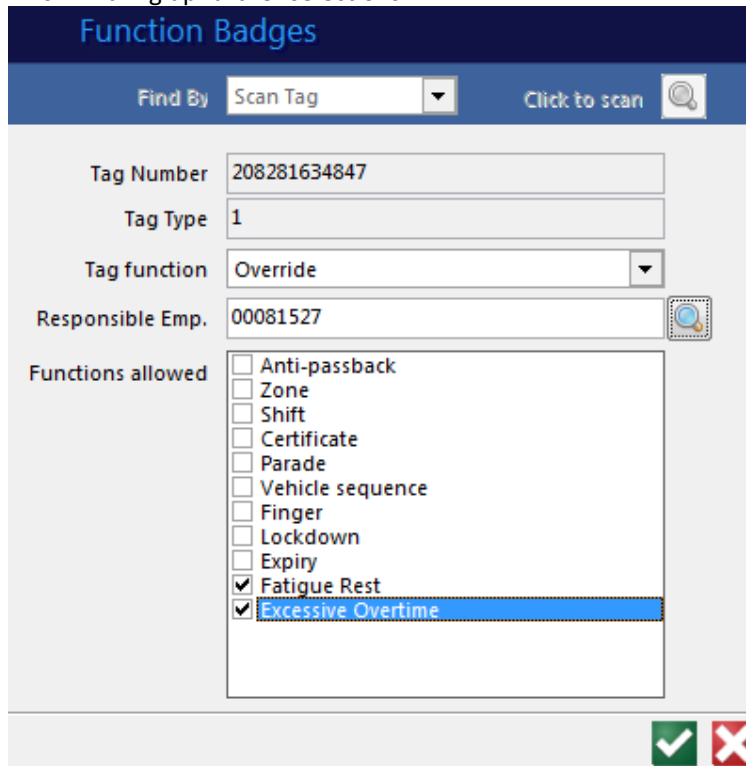
- An override badge can be used if an employee has fatigue blocks on the system and in an emergency is required to access an area that checks for Fatigue rules.
- To create an Override Function Badge, navigate to **TAGS | FUNCTION BADGES**. Click on the blue plus (add) button to capture a new tag. Note that the IXP220 registration reader must be plugged in and the drivers loaded. If there is no add button, it means that you do not have sufficient user functions to create a tag.



- This will pop up the scan tag window. Place the tag on the IXP220 registration reader to load the tag:



- This will bring up further selections:



PARAMETER	EXPLANATION
Tag Number	This must be enabled for the system to check and block if an employee has a rest period defined on XTime
Tag Type	This must be enabled for the system to check and block if an employee has exceeded the allowed Fatigue Overtime parameter defined on the Fatigue Control tab
Tag Function	Drop down selection of the different types of functions. Select Override here and a Functions Allowed list will appear.
Responsible Emp.	This function tag can be linked to an employee or contractor. This way an audit can be drawn and a person can be identified with a specific tag for accountability.
Functions Allowed	This drop down shows all the events that can be overridden with the tag. The 2 that are necessary for the fatigue control are Fatigue Rest and Excessive Overtime so check the tick boxes to the left of the label.

- Once you have made all the selections mentioned above, click on the green tick (save) button to save the function tag.



## 7.5 OVERTIME BLOCK SCREEN OVERRIDE

- There is a manual override function on the employee screen for the Overtime Block only. Navigate to **EMPLOYEES | ACCESS | GENERAL TAB:**

The screenshot shows the 'Employees' interface for employee 00049503. The 'Access' tab is active. The 'Fatigue Rest Time' is currently 'Not set'. The 'Current zone' is 'Mining Admin Office'. Other settings include 'Ignore APB' (checked), 'Free Movement' (checked), and 'Excessive overtime exceeded' (checked).

- Supervisors can clear the Fatigue Overtime Block on the screen. This function will only allow the user to clear the Excessive Overtime exceeded parameter. It won't clear the rest period block parameter below it.
- When the employee works his normal shift and then works overtime which results in the accrued Fatigue overtime increasing beyond the set limit, this block will be activated again. The process must then be followed again on the XTime screen to clear the block should the employee need to access the site while the block is set.
- The fatigue rest time block, if active (shown below) must be cleared using an Override Card and cannot be cleared from the above screen.

Fatigue Rest Time 2014-12-11 05:58:28

## 8. REPORTS

XTime will have two new reports that will display the fatigue information. They are located under **COMMON REPORTS | GENERAL REPORTS:**

- Common Reports
  - General Reports
    - Access Group Access
    - Access Parameters Setup
    - Audit
    - Badges Not Returned
    - Block Certificates
    - Clock Point Access
    - Device Status History
    - Excessive Monthly Overtime
    - Fatigue Rest



## 8.1 EXCESSIVE MONTHLY OVERTIME

Requested By : Cindy-Lee.vdWalt		Excessive Monthly Overtime										
Exported : 13/11/2015 11:53:56 Ve		Max 40:00 : Planned overtime : Substitutions										
All Departments - All Gangs												
Employee	Surname	Name	Date	Exp Shift	Act IN	Act OUT	Dur	Ovt	Acc Ovt	Reason		
G4S01	van der Walt	C L	01/11/2015	Normal Day Off (00102)	01 08:01	01 19:04	00:00	11:03	11:03	Day off worked		
G4S01	van der Walt	C L	02/11/2015	Default shift (00101)	02 08:01	02 19:04	08:00	03:03	14:06	Substitution		
G4S01	van der Walt	C L	03/11/2015	Default shift (00101)	03 08:01	03 19:04	08:00	03:03	17:09	Substitution		
G4S01	van der Walt	C L	04/11/2015	Default shift (00101)	04 08:01	04 19:04	08:00	03:03	20:12	Substitution		
G4S01	van der Walt	C L	05/11/2015	Default shift (00101)	05 08:01	05 19:04	08:00	03:03	23:15	Substitution		
G4S01	van der Walt	C L	08/11/2015	Normal Day Off (00102)	08 08:01	08 19:04	00:00	11:03	34:18	Day off worked		
G4S01	van der Walt	C L	09/11/2015	Default shift (00101)	09 08:01	09 19:04	08:00	03:03	37:21	Substitution		
G4S01	van der Walt	C L	10/11/2015	Default shift (00101)	10 08:01	10 19:04	08:00	03:03	40:24	Substitution		
G4S01	van der Walt	C L	11/11/2015	Default shift (00101)	11 08:01	11 19:04	08:00	03:03	43:27	Substitution		
G4S01	van der Walt	C L	12/11/2015	Default shift (00101)	12 08:01	12 19:04	08:00	03:03	46:30	Substitution		

- Employee G4S01 has exceeded the set limit of 40 hours excessive Overtime Max on the Fatigue control setup:

Fatigue Control
Fatigue Reporting

Validate excessive overtime

Validate fatigue rest

Fatigue Period (00:00 disable)

Fatigue On Site Max

Fatigue Off Site Min

Excessive Overtime Max

Include planned overtime

Include Substitutions

Employee Leeway

Shift  Custom

Contractor Leeway

Shift  Custom

Employee start clock

Shift  1st clock

Contractor start clock

Shift  1st clock

Employee duration

Shift  Custom

Contractor duration

Shift  Custom

- The employee is now flagged and should not be allowed to clock in on terminals flagged to validate excessive overtime:

G4S01 van der Walt (C L) CL

General
Personnel
Access
Groups
Clocks
Pay History
Post Dates
Hostel
Tags

Finger prints
Equipment
Service History
Assets allowed
Allowances
Offenses

General
Access Groups
Time Recording Groups
Certificates
Permit
Restrict Clock Reasons

Ignore APB  (Anti-Passback)

Ignore Shift

Ignore Level

Free Movement

Inherit Access Groups

Inherit Time Recording Groups

Employee is a Guard

Overrides guard requirement

Clock w/o Fingerprint

Excessive overtime exceeded



- The clockings from the Dashboard:

Controller Id	1A	Address	192.168.104.48	Ping	
Name	1A_S1E1 ECII	Status	Up	Reset	
Version	2.72	Status time	13-11-2015 11:59:27	Reset Time	13-11-2015 11:40:02
Model	ECII with IXP	Connected	None	Reload tables	Upload Time 13-11-2015 11:30:07
Comms	20151113-2157				

Terminals	Clocks	Interface
-----------	--------	-----------

Contr	Time	Terminal	Master	Tag	Dir	Event
	13-11-2015 11:33:43	Connected				
1A	13-11-2015 11:55:41	_EC2 TRT In	EmpNo:G4S01	1/206162027118	In	Excessive Overtime
1A	13-11-2015 11:55:44	_EC2 TRT Out	EmpNo:G4S01	1/206162027118	Out	Time Recording Off
1A	13-11-2015 11:55:47	_EC2 TRT In	EmpNo:G4S01	1/206162027118	In	Excessive Overtime
1A	13-11-2015 11:55:50	_EC2 TRT In	EmpNo:G4S01	1/206162027118	In	Excessive Overtime
1A	13-11-2015 11:55:54	_EC2 MDTA IN	EmpNo:G4S01	1/206162027118	In	First Aid - Expired
1A	13-11-2015 11:55:56	_EC2 PTA Out	EmpNo:G4S01	1/206162027118	Out	Time Recording Off
1A	13-11-2015 11:55:58	_EC2 TRT In	EmpNo:G4S01	1/206162027118	In	Excessive Overtime

- NOTE:** the employee will always be allowed to clock offsite, and on terminals that are not flagged for fatigue control.

## 8.2 FATIGUE REST (ADD-IN)

Due to further additions, the Fatigue Rest report was made an add-in to avoid the full upgrade on an existing site. This will only be available as an add-in until Release V2.15.10.8 and V2.15.01.505. This report runs from the following location in the main menu: **ADD INS | CUSTOM REPORTS | FATIGUE REST – DO NOT USE THE FATIGUE REST REPORT UNDER COMMON REPORTS | GENERAL REPORTS**

Requested By : Cindy-Lee.vdWalt		Glencore									
Exported : 13-11-2015 12:32:45 Veld											
		All Departments - All Gangs									
Employee	Surname	Name	Roll 24 In	Act IN	Act OUT	Exp Out	Dur	Acc Dur	Reason	Rest Time	Candidate fatigue time
G4S01	van der Walt	CL	2015-11-12 12:32		2015-11-12 21:04		08:32	08:32	Fatigue Block Rolling 24 Hr IN	2015-11-13 22:22	
				2015-11-13 03:01	2015-11-13 12:20		09:19	17:51	Normal Work		
				2015-11-13 12:22	2015-11-13 12:22		00:00	17:51	Fatigue Block		

The “adjust rolling 24” has been added and is defaulted to checked:

- The Roll calculations are worked from when the report is drawn for 24hrs into the past from on site to off site.
- If no ON clocking is found then the time the report is drawn will be placed into the Roll 24Hr column.
- If an IN clock is found within the rolling 24 hours, this clocking will be used and placed in the Act IN column.
- This is a new requirement that is used when a person is still clocked in.
- Still At Work - the employee has clocked IN but has not clocked OUT at the time the report was drawn for the rolling 24Hrs and means the employee is a possible candidate for Fatigue.
- Employees who have worked a Fatigue shift or possible Fatigue shift will be displayed on this report.
- See **With adjust not set** and **With adjust set** images below

Adjust Roll 24  ( Use rolling 24 hours ending estimated clock out .... Persons on site )

### With adjust not set

Employee	Surname	Name	Roll 24 In	Act IN	Act OUT	Exp Out	Dur	Acc Dur	Reason
00044905	Tshepe	Tiisetso Hendrick	2015-09-10 09:15		2015-09-10 19:43		10:28	10:28	Rolling 24 Hr IN
				2015-09-11 05:44		2015-09-11 14:44	09:00	19:28	Still At Work - Fatigue shift Worked

### With adjust set; he will not be on report. Seen here because I selected the show all option

Employee	Surname	Name	Roll 24 In	Act IN	Act OUT	Exp Out	Dur	Acc Dur	Reason	Rest Time	Candidate fatigue time
00044905	Tshepe	Tiisetso Hendrick	2015-09-10 14:44		2015-09-10 19:43		04:59	04:59	Rolling 24 Hr IN	ShowAll	
				2015-09-11 05:44		2015-09-11 14:44	09:00	13:59	Still At Work - Candidate for Fatigue	ShowAll	2015-09-11 11:16

- Show all option:  
This is for testing purposes. The purpose is to include the clock pairs that do not result in being reported.

Show all  ( Not normally checked. Check to include persons excluded from report )



- Change run time option

When not checked, the report runs now

Change run time  ( For testing . See how report would look later in the day)

When checked shows a time edit. This will simulate a report run later in the day on existing clock history. E.g.: If the user sets this to 14:00, the report will run as if it is 14:00 now. This was put there for testing purposes only, but can be useful in pre-empting fatigue candidates before they happen.

Change run time   ( For testing . See how report would look later in the day)

- Employee G4S01 has exceeded 12:00 onsite maximum and has a mandatory rest period of 10:00 from his last offsite clock being 2015-11-13 12:22

Fatigue Control	Fatigue Reporting
Validate excessive overtime	<input checked="" type="checkbox"/>
Validate fatigue rest	<input checked="" type="checkbox"/>
Fatigue Period (00:00 disable)	<input type="text" value="024:00"/>
Fatigue On Site Max	<input type="text" value="12:00"/>
Fatigue Off Site Min	<input type="text" value="10:00"/>

G4S01 van der Walt (C L) CL								
General	Personnel	Access	Groups	Clocks	Pay History	Post Dates	Hostel	Tags
Finger prints	Equipment	Service History	Assets allowed	Allowances	Offenses			
General	Access Groups	Time Recording Groups	Certificates	Permit	Restrict Clock Reasons			
Ignore APB	<input type="checkbox"/>	(Anti-Passback)						
Ignore Shift	<input checked="" type="checkbox"/>							
Ignore Level	<input type="checkbox"/>							
Free Movement	<input type="checkbox"/>							
Inherit Access Groups	<input checked="" type="checkbox"/>							
Inherit Time Recording Groups	<input checked="" type="checkbox"/>							
Employee is a Guard	<input type="checkbox"/>							
Overrides guard requirement	<input type="checkbox"/>							
Clock w/o Fingerprint	<input type="checkbox"/>							
Excessive overtime exceeded	<input checked="" type="checkbox"/>							
Fatigue Rest Time	2015-11-13 22:22:33							



### 8.3 DENIED ACCESS

The Fatigue Rest and Excessive Overtime denied event types are included in the report.

Requested By : Cindy-Lee.vdWal			Denied Access						
Exported : 13/11/2015 13:58:33 V			Period : 13/11/2015 to 13/11/2015 23:59:59						
All Departments - All Gangs									
Employee	Surname	Initials	Occupation	Date	Time	Reader	Response	Team	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:41:19	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:41:56	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:50:24	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:48	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:48	EC2 MDTA IN	First Aid - Expired	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:53	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:56	EC2 TRT Out	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:52:00	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:52:04	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:53:56	EC2 TRT In	Fatigue Rest	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:44:50	EC2 TRT In	Excessive Overtime	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:44:56	EC2 TRT In	Excessive Overtime	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:00	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:05	EC2 TRT In	Excessive Overtime	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:13	EC2 MDTA IN	First Aid - Expired	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:15	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:19	EC2 TRT In	Excessive Overtime	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:21	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:27	EC2 MDTA IN	First Aid - Expired	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:29	EC2 TRT In	Excessive Overtime	GCSA_CNGOGGVGGVGGGV_ORSO	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:34	EC2 TRT In	Override Tag	GCSA_CNGOGGVGGVGGGV_ORSO	

### 8.4 MOVEMENT REPORT

The movement report includes the new Fatigue rest and Excessive overtime event types:

Requested By : Cindy-Lee.vdWal			Movement						
Exported : 13/11/2015 13:55:51 V									
All Departments - All Gangs									
Employee	Surname	Initials	Occupation	Date	Time	Reader	Response	Gang Name	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	06:01:43	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:41:19	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:41:56	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:50:24	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:50:30	EC2 PTA Out	Time Recording Off	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:48	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:48	EC2 MDTA IN	First Aid - Expired	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:53	EC2 TRT In	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:54	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:56	EC2 TRT Out	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:51:57	EC2 TRT Out	Time Recording Off	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:52:00	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:52:04	EC2 TRT In	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:52:05	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	12:53:56	EC2 TRT In	Fatigue Rest	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:44:50	EC2 TRT In	Excessive Overtime	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:44:54	EC2 TRT Out	Time Recording Off	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:44:56	EC2 TRT In	Excessive Overtime	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:00	EC2 TRT In	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:01	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:05	EC2 TRT In	Excessive Overtime	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:09	EC2 TRT Out	Time Recording Off	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:10	EC2 PTA Out	Time Recording Off	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:13	EC2 MDTA IN	First Aid - Expired	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:15	EC2 TRT In	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:16	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:19	EC2 TRT In	Excessive Overtime	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:21	EC2 TRT In	Override Tag	Omega Risk Solutions (03826)	
G4S01	van der Walt	CL	Accountant(20042438)	13/11/2015	13:45:22	EC2 TRT In	Time Recording On	Omega Risk Solutions (03826)	





## 8.5 AUDIT REPORT

- Fatigue control parameter changes:

<b>Glencore Audit</b>		
Sysparams		Page : 4
Audit - Cindy-Lee.vdWalt - 13/11/2015 to 13/11/2015		Date : 13/11/2015 14:07:09
		Requested by : Cindy-Lee.vdWalt
		Version : 2.15.10.7
Time	User	Message
13/11/2015 11:19:41	Cindy-Lee.vdWalt	SYSPARAM data saved. <XTime User=Cindy-Lee.vdWalt><Workstation=D2RC54Y1><WindowsUser=Cindy-Lee.vdWalt><App=C:\_CLBackup\testing\36964_fatigue report rewrite\XT900.exe Version 2.15.10.7>
13/11/2015 11:19:41	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME2 from 985 to 750
13/11/2015 11:19:41	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME3 from 990 to 810
13/11/2015 11:19:41	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME1 from 980 to 720
13/11/2015 12:08:52	Cindy-Lee.vdWalt	SYSPARAM data saved. <XTime User=Cindy-Lee.vdWalt><Workstation=D2RC54Y1><WindowsUser=Cindy-Lee.vdWalt><App=C:\_CLBackup\testing\36964_fatigue report rewrite\XT900.exe Version 2.15.10.7>
13/11/2015 12:08:52	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.REST.MIN from 480 to 600
13/11/2015 12:08:52	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SITE.MAX from 960 to 720
13/11/2015 13:14:58	Cindy-Lee.vdWalt	SYSPARAM data saved. <XTime User=Cindy-Lee.vdWalt><Workstation=D2RC54Y1><WindowsUser=Cindy-Lee.vdWalt><App=C:\_CLBackup\testing\36964_fatigue report rewrite\XT900.exe Version 2.15.10.7>
13/11/2015 13:14:59	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME3 from 810 to 820
13/11/2015 13:14:59	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME2 from 750 to 810
13/11/2015 13:14:59	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.HOST from secure_casarray.za.group4secuicor to smtp.gmail.com
13/11/2015 13:14:59	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.PORT from 25 to 465
13/11/2015 13:14:59	Cindy-Lee.vdWalt	Sys Param -- FATIGUE.SMTP.TIME1 from 720 to 795
13/11/2015 13:18:38	Cindy-Lee.vdWalt	SYSPARAM data saved. <XTime User=Cindy-Lee.vdWalt><Workstation=D2RC54Y1><WindowsUser=Cindy-Lee.vdWalt><App=C:\_CLBackup\testing\36964_fatigue report rewrite\XT900.exe Version 2.15.10.7>

- Employee Excessive Overtime deactivate:

<b>Glencore Audit</b>		
Employee		Page : 1
Audit - Cindy-Lee.vdWalt - 13/11/2015 to 13/11/2015		Date : 13/11/2015 14:11:12
		Requested by : Cindy-Lee.vdWalt
		Version : 2.15.10.7
Time	User	Message
13/11/2015 14:10:49	Cindy-Lee.vdWalt	G4S01 -- Excessive Ovt from 1 to 0

- Clockpoint parameters:

<b>Glencore Audit</b>		
ClockPoint		Page : 1
Audit - Cindy-Lee.vdWalt - 12/11/2015 to 13/11/2015		Date : 13/11/2015 14:08:46
		Requested by : Cindy-Lee.vdWalt
		Version : 2.15.10.7
Time	User	Message
12/11/2015 16:00:22	Cindy-Lee.vdWalt	_ECII TRTs -- Changed : From ALCOHOL.ENABLE=True To ALCOHOL.ENABLE=False
12/11/2015 16:00:22	Cindy-Lee.vdWalt	_ECII TRTs -- Changed : From VALIDATE.OVERTIME=False To VALIDATE.OVERTIME=True
12/11/2015 16:00:22	Cindy-Lee.vdWalt	_ECII TRTs -- Changed : From VALIDATE.REST=False To VALIDATE.REST=True
12/11/2015 16:00:40	Cindy-Lee.vdWalt	_IPB7 -- Changed : From VALIDATE.OVERTIME=False To VALIDATE.OVERTIME=True
12/11/2015 16:00:40	Cindy-Lee.vdWalt	_IPB7 -- Changed : From VALIDATE.REST=False To VALIDATE.REST=True
13/11/2015 12:03:55	Cindy-Lee.vdWalt	_ECII TRTs -- Out Zone from Onsite to Off site
13/11/2015 12:03:55	Cindy-Lee.vdWalt	_ECII TRTs -- In Zone from _2015-04 TRT In to Onsite

## 9. AUTOMATIC REPORT EMAILS

The fatigue Service will send out emails as per the system configuration done on system parameters. These emails will appear on your inbox and they are sent at the times configured under System Parameters in XTime.

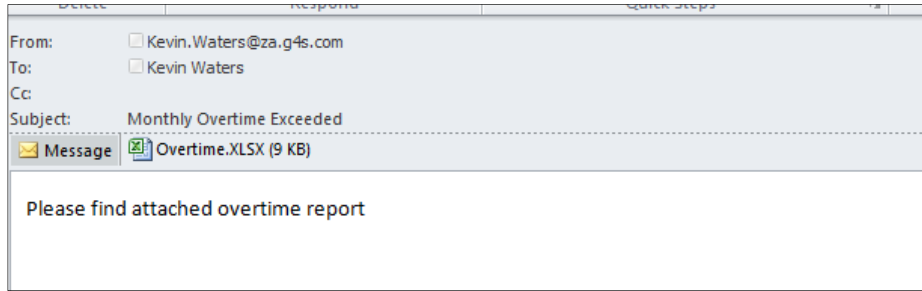
**NB:** You need to add an email distribution group on the email reporting tab. You cannot add more than one address in the email recipient box.

### Email Inbox

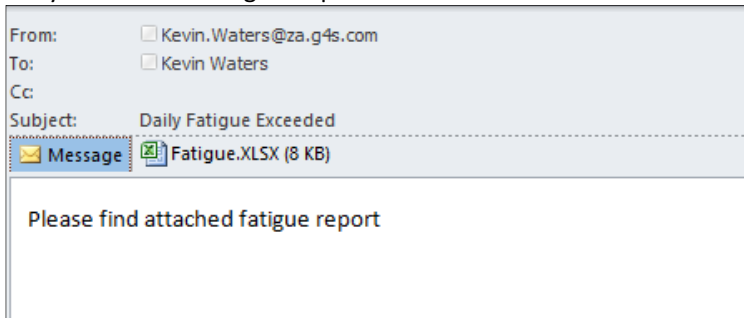
	Dumas, Patrys	RE: Interface Issues	Tue 2014/09/23 04:02 PM	190 KB
		Daily Fatigue Exceeded	Tue 2014/09/23 03:17 PM	14 KB
		Monthly Overtime Exceeded	Tue 2014/09/23 03:17 PM	15 KB
	Casper Swanepoel	Re: Export - Xtime	Tue 2014/09/23 02:53 PM	26 KB



### Body of Email for Overtime Exceeded Report



### Body of Email for Fatigue Report



## 10. BASIC FUNCTION

### 10.1 EXCESSIVE OVERTIME

When an employee has worked excessive time and has exceeded the allowed accrued Overtime for the month a record will be updated in the master table. The field name is `mst_fatgovt`. The value will be set to a 1. This value gets cleared when you remove the tick on the employee access general tab.

### 10.2 FATIGUE REST

When an employee has worked more than 16 hours for the day then he will receive a fatigue rest value. This value gets stored in the Master table in the field `mst_fatgrest`. Only an override card will allow an employee to bypass this date if it is in the future. If the date is in the past then they will be able to clock.

## 11. PREPARING THE SYSTEM FOR FATIGUE

- Ensure you have the latest released software and firmware
- Install the Fatigue Service
- Set up Fatigue control and reporting in System parameters
- Setup Fatigue control parameters on the clockpoint
- Create override badges
- Ensure that the Users that are required to clear the Overtime Block have the relevant permissions on the **Employee | Access | General** tab
- Decide from which date the system must start checking for Excessive Hours and then set the date in `SYSCONTROL` to this date minus one day. Fields `SC_LAST_FATIGUE = '2014-11-30 00:00:00.000'` and `SC_LAST_OVERTIME = '2014-11-30 00:00:00.000'` will mean that the checking will begin from the 1<sup>st</sup> of December.
- Clear MonthlyFatigue Table
- Disable update trigger on Master table then Update Master table for everyone for `mst_lastfclock= 'date you want to start from, mst_fatgrest = null, mst_fatgovt = 0`
- Enable Trigger on Master table when you are done with the step above.
- Most important part is ensuring that you have started your Fatigue Service.

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