O P E N   W A V E™
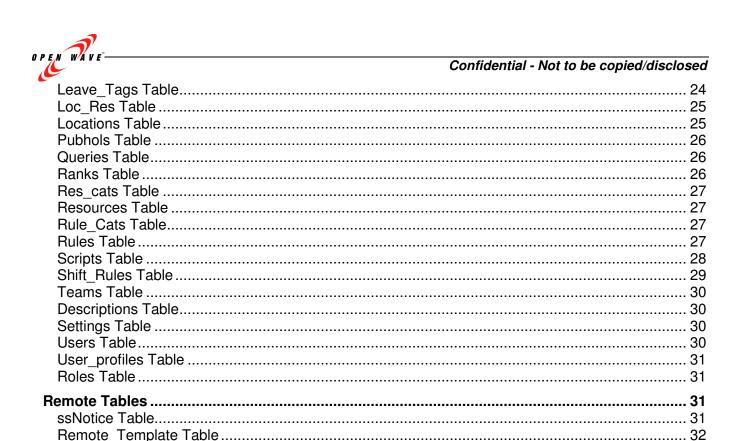
ShiftTrack

Database Schema - Version 47

Purpose: This document describes the structure of the tables in the standard ShiftTrack database.

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Introduction

This document describes the structure of the tables in the standard ShiftTrack database. The tables described here are the tables that are used to store user-defined information. ShiftTrack uses other tables for temporary storage and for formulating report data. In general these table start with "temp" or "prt" and are not described here.

The data types used are not specific to a particular database type – it is assumed that the reader will map these types to their specific database.

Where a column is a foreign key, this is noted in the comments to that column.

Note: If a text field does not have a length specified, then this indicates that the size can be variable and ShiftTrack adjusts automatically to suit the database column size. This is true of most text columns, but the user should always check with Open Wave before altering the size of any text column.

Validity

Database Version 47 corresponds to Version 5.4.3 of ShiftTrack Client.

Applications

The following applications in the ShiftTrack Suite connect to the ShifTrack Database:
- ShiftTrack Plus
- ShiftTrack Remote
- ShiftTrack Adherence Service
- ShiftTrack Adherence Logger
- ShiftTrack Hub Server
- ShiftTrack Agent Server
- ShiftTrack RTS (if so configured)

Roster Tables

Templates Table

This table is the base table for all rosters in the database. There is one row for each roster. There are two unique identifiers: 1) *key*, and 2) *location, start* and *strand*.

Column Name	Data Type	Description
Location	Text 10	The location of the roster. Foreign key into *locations*.
Start	Date	The starting date of the roster.
Cycle	Text 20	The name of the roster.
Finish	Date	The finish date of the roster.
Strand	Integer	The strand of the roster. With location, this is a foreign key into *shift_labels*.
Notes	Memo	Any notes for this roster.
Key	Long	Unique identity. Generated by the database.
Forecast	Text 20	If non-empty, then the name of the forecast that matches this roster. Foreign key into *fcast_header* in the ShiftTrack/Plus database.
State	Integer	Indicates the state of the roster in a multi-user environment.
Current_username	Text 20	Indicates the current user who has the table opened.
Current_userDate	Date	Indicates when the roster was opened for modification.

Roster Table

Contains one row for each shift in a roster.

Column Name	Data Type	Description
Location	Text 10	The location of the roster. Foreign key into *locations*.
Start	Date	The date the shift starts on.
Strand	Integer	The strand of the roster.
Shift	Text 20	The name of the shift. This may be a foreign key into *shifts*.
On	Time	The start time of the shift.
Off	Time	The finish time of the shift. If it is less than *On*, then it is assumed that the shift crosses midnight.
Split	Boolean	If true, then the shift has two start and finish times, but *On* and *Off* are still the beginning and end of the shift.
On2	Time	If the shift is split, then this is the second start time.
Off2	Time	If the shift is split, then this is the first finish time.
Cycle	Text 20	The name of the roster (this is not required).
Seq	Integer	A sequence number that determines the order shifts are

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ShiftTrack Database Schema Version 47

		displayed in rosters.
Cycle_Start	Date	The start date of the roster.
Day	Integer	The day the shift starts relative to the start of the roster (this is redundant and not required).
Key	Long Integer	Unique identifier generated by the database.
Notes	Text	Notes relating to this shift.

The combination of *Location*, *Cycle_start*, and *Strand* link this shift with the parent row from *templates*.

Roster_Staff Table

The Roster_staff table contains the list of staff that are rostered on each shift. There is one row in this table for each person allocated to a shift in a roster.

Column Name	Data Type	Description
Roster_key	Long Integer	Foreign key into *roster.key*
Payroll	Text 10	Payroll identifier of the person. Foreign key into *personnel*.
Substitute	Text 10	If non-empty, then the person that was originally on this shift before they were substituted.
Reason	Text	Any notes relating to the substitution.
Transfer_Reason	Text	Not used.
Duty_Type	Text 1	Indicates the shift type. One of "N" for Normal, "D" for a day off, "L" for leave or "T" for training.
Start	Time	The start of the shift for the individual person.
Finish	Time	The end of the shift for this individual person.
Split	Boolean	If true, then the shift has two start and finish times, but *Start* and *Finish* are still the beginning and end of the shift.
Start2	Time	If the shift is split, then this is the second start time.
Finish2	Time	If the shift is split, then this is the first finish time.
Hours	Float	The nominal hours that are worked for this shift. Note that this includes any overtime.
Worked	Float	The actual hours that were worked on this shift. (Not used).
Notes	Text 10	Any notes for this person for the shift.
A_Start	Time	The actual start time for the person.
A_Finish	Time	The actual finish time for the person.
A_Start2	Time	The actual start of the second work period in a split shift.
A_Finish2	Time	The actual finish time of the first work period in a split shift.
A_Hours	Float	The actual hours worked.
Dst_offset	Float	If set, then the number of hours that the shift needs to

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		be adjusted to bring the times into local time.
Seat	Text 10	The seat identifier for the person. This is not used by ShiftTrack.
Colour	Long	The colour used to display the shift in the Quick Roster Editor. If it is not set, then the default colour from *shifts* will be used.
Optimised	Boolean	If set, then the Micro Roster Editor has adjusted the start time of the shift.
Overtime	Float	The number of hours that are considered as overtime hours for the shift.
Current_Us erName	Text 20	Indicates the user who is modifying the roster.
Current_Us erDate	Date	Indicates when the roster was opened for modification.
Rdate	Datetime	Timezone modified date of the roster
LastModify	Datetime	Automatically records the last insertion/update of corresponding records (via roster_key and payroll) in roster_breaks
IsPreferred	Tiny Integer	Flag to show if shift has been allocated because it fits with the person's preferred availability

Roster_Breaks Table

This table contains the information about what a person may do during an individual shift. There is one row in this table for each activity that occurs for a person within a single shift.

Column Name	Data Type	Description
Roster_key	Long Integer	Identifies the shift. Foreign key into *roster.key*
Person	Text 10	Payroll identifier. Foreign key into *personnel*.
From	Date/Tim e	The start time of the activity.
To	Date/Tim e	The finish time of the activity.
Break	Boolean	If set, then this activity is a break (non-work activity).
Label	Text 10	For a break, the name of the break. If *break* is false, then it is a foreign key into *duties*.
Paid	Text 10	If *break* is true, then this indicates whether the break is paid or not. If *break* is false, then this indicates whether the activity is an *active* duty. Only active duties are counted in the staff totals by the Micro Roster Editor.
A_From	Date	The actual start time of the activity.
A_To	Date	The actual finish time of the activity.
Notes	Text 30	Notes added to the activity.
Colour	Integer	Colour for the activity.

Roster_Profiles Table

This table stores the staff requirements for each shift in a roster. There may be zero or more rows for each row in roster. If a shift doesn't have an entry in this table, then ShiftTrack will look for a default profile in the *shift_profile* table.

Column Name	Data Type	Description
Key	Long Integer	Identifies the shift. Foreign key into *roster.key*
Shift	Long Integer	Not used.
Rank	Text 10	The position code for this requirement. Foreign key into *ranks*.
Rank2	Text 10	An additional position code for this requirement. Foreign key into *ranks*.
Rank3	Text 10	An additional position code for this requirement. Foreign key into *ranks*.
Staff	Integer	The number of staff required on this shift that match one of the positions.

Roster_skills_profile Table

This table holds the skill requirements for each shift in a roster. If there are no entries in this table for a shift, then ShiftTrack will look for a default skill requirement in *shift_skills*.

Column Name	Data Type	Description
Roster_Key	Long Integer	Identifies the shift. Foreign key into *roster.key*
Skill	Text 10	The skill required for the shift. Foreign key into *competencies*.
All	Boolean	Not used.
Reqd	Integer	The number of staff required with this skill.

Resource_Roster Table

Stores information about resources allocated to shifts within a roster.

Column Name	Data Type	Description
Resource	Text 10	Resource identifier. Foreign key into *resources*.
Start, Finish	Date	The start and finish times that the resource will be required. Defaults to the shift start and finish times.
Roster_key	Long Integer	Defines the specific shift that this resource is allocated to. Foreign key into *roster*.

Personnel Tables

Personnel Table

This table stores information about individual people in the database.

Column Name	Data Type	Description
Payroll	Text 10	Unique identifier for the person.
Number	Text or Integer	Secondary identifier. If used, then it must be unique.
Surname	Text	Second name
Firstname	Text	First name.
Initial	Text 5	Middle initial.
DOB	Date	Date of birth.
Joined	Date	The date the person commenced employment.
Finished	Date	The date the person terminated their employment.
Rank	Text 10	The position code of the person. Foreign key into *ranks*.
Location	Text 10	The main location for the person. Foreign key into *locations*.
Status	Text 10	Current status of the person – always set to "ACTIVE".
Bus_phone	Text 15	Work telephone number.
Home_phone	Text 10	Home telephone number.
Addr1	Text 30	Address line 1
Addr2	Text 30	Address line 2
Addr3	Text 30	Address line 3
Eligible	Boolean	Not used.
Emp_status	Text 10	Set to either "PERMANENT" or "CASUAL"
Eft	Float	The nominal hours that the person will work in a single roster.
Team	Text 20	If set, then the team that the person belongs to. Foreign key into *teams*.
Re_employ	Boolean	Set to indicate that the person may be re-employed in the future.
Sex	Text 1	Set to either "M" or "F". Any other value is assumed to be "not known".
Strand	Integer	The roster strand that the person belongs to. Foreign key into *shift_labels*.
Email	Text 255	The email address for this person.
Notes	Memo	Any arbitrary notes.
Minhrs	Float	The minimum number of hours that the person should work in a single roster.
Minslen	Float	The minimum shift length that the person should work.
Maxslen	Float	The maximum shift length that the person shold work.
Award	Text 20	The name of the person's employment contract. Foreign key into *awards*.

Appt_folder	Text 255	Directory that will be used to store Outlook appointments. Not currently used.
Toil	Float	Accrues Time off in Lieu according to rules.
Vlock	Integer	Indicates if the virtual cycles should be locked by shift name.
Seniority	Integer	Indicates level of seniority achieved.
Active	Integer	Indicates whether a staff member is active or not. 1 is active.
BaseCycle	Text 20	The name of the base cycle
BCdate	Datetime	The date the base cycle was modified
Date_Scheduled	Datetime	The date the person is to be rostered from.
Adh_Actual	Text 20	
Adh_Rostered	Text 20	
Adh_shift	Text 50	
Adh_status	Text 20	
Adh_period	Integer	
Adh_tstamp	Datetime	
Mobile_phone	Text 15	Stores the person's mobile phone number
Adh_pct	Float	
TrackEquity	Tiny Integer	A flag used to inidacate whether the person will have their equity tracked. (0 for no, 1 for yes)
minSCnt	Integer	The minimum number of shifts for a roster period
maxSCnt	Integer	The maximum number of shifts for a roster period

Aca_Record Table

This table stores information about skills that staff have attained. There is one row for each skill that a person holds.

Column Name	Data Type	Description
Person	Text 10	Payroll identifier. Foreign key into *personnel*.
Course	Text 10	The skill identifier. Foreign key into *competencies*.
Location	Text 10	Not used.
Start_date	Date	Not used.
Score	Integer	The skill rating for the person.
Max	Integer	The maximum skill rating allowed for this person.
Pass	Boolean	If set, then the person has attained this skill. Always set to True in ShiftTrack.
Competency	Boolean	If set, then the skill is a competency, rather than a course. Always set to True in ShiftTrack.
Name	Text	Not used.
Level	Integer	Competency level – always set to 1 in ShiftTrack.
Cert_no	Text	The certificate number presented to the person. Not used by ShiftTrack.

Cert_award ed	Date	The date the skill was attained.

Staff_avail Table

Stores information about staff availability.

Column Name	Data Type	Description
Payroll	Text 10	Payroll identifier. Foreign key into *personnel*.
Day	Date	If set, then this availability only applies to the particular day.
Available	Boolean	Not used.
Dow	Integer	The day of the week this restriction applies to (1 = Sunday to 7 = Saturday).
Rtype	Text 1	Restriction type. Must be either "O" for Only or "N" for Never.
Pref	Integer	If set, then this clause is a preference rather than a rule. 2 indicates availability for Ovetime

Appointments Table

Holds individual appointments for staff. An appointment is a period of time that is booked for a person that may not necessarily be part of a roster. Note that this table may be dropped in future releases.

Column Name	Data Type	Description
Payroll	Text 10	Payroll identifier. Foreign key into *personnel*.
Appt_date	Date	Date the appointment occurs.
Appt_time	Date	Time the appointment occurs.
Finish	Date	Time the appointment finishes.
Notes	Text 255	Description of the appointment.
Str_start,str _finish	Text 20	Text versions of the appointment start and finish times. These columns are no longer used.
Mailed	Boolean	If set to true, then ShiftTrack assumes that the staff member has seen the appointment reminder. This is set by ShiftTrack/Agent Server when an appointment has been acknowledged by the user.
Private	Boolean	If true, then only the nominated user can see the appointment. This column is no longer used.

Vcycles Table

Holds the header information for staff base cycles. There is one row in this table for each person that has a base cycle.

Column Name	Data Type	Description
Cycle	Text 20	Number of days in the cycle.
Payroll	Text 10	Payroll identifier of the person. Foreign key into *personnel*.
Start	Date	The nominal start date of the cycle. Once set, it repeats after the number of days in *cycle*. If null or empty, then there is no nominal start date.
Virtual	Integer	A flag indicating whether the person is on a virtual cycle.
CName	Text 20	The name of the cycle the person is on (where applicable)

Leave Table

Stores leave dates for staff.

Column Name	Data Type	Description
Payroll	Text 10	Person for which this leave applies. Foreign key into *personnel*.
Start	Date	Start date of the leave period.
Stop	Date	Finish date of the leave period.
Days	Integer	The number of days of leave that is taken during this period.
Roster_flg	Boolean	If set, then ShiftTrack may roster the person. Otherwise they will not be rostered.
Notes	Memo	Notes.
Hours	Float	The number of hours of leave that is taken during this period.
Type	Text 10	The type of leave taken. Foreign key into *leave_cats*.

Requests Table

Stores specific shift requests for staff. The Roster Wizard uses this information to lock staff to specific shifts when a roster is generated.

Column Name	Data Type	Description
Payroll	Text 10	Person requesting the shift. Foreign key into *personnel*.
Sdate	Date	The date of the request.
Shift	Text 20	The shift requested. Foreign key into *shifts*.
Reason	Text 100	Explanatory notes.
Compulsory	Boolean	Not used.
Approved	Boolean	If not set, then the request is ignored. ShiftTrack sets this to true when a request is created. ShiftTrack/Remote sets it to false when a request is created.

Vcycles2 Table

Contains one row for each shift in a base cycle for a person.

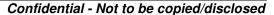| Column Name	Data Type	Description
Payroll	Text 10	Payroll identifier. Foreign key into *personnel*.
VDay	Integer	The day on which the base shift occurs. Must be from 1 to the total length of the cycle.
Shift	Text 20	Name of the shift that occurs on this day. Foreign key into *shifts*.
VStart, vFinish	Date	The start and finish times of the shift. Defaults to the shift start and finish times.
Hours	Float	The nominal hours for this shift.
ID	Long integer	Unique numeric value.
Upto	Datetime	Indicates when an person may have their Base cycle start time moved to (for flexi base cycle purposes). The end time will be moved by the same margin.

Vcycles3 Table

Contains one row for each locked activity that is associates with a base shift in *vcycles2*. The MRE uses this information to lock staff to particular activities.

Column Name	Data Type	Description
ID	Long integer	Foreign key into *vcycles2*.
Activity	Text 20	The label for the given activity. May be a foreign key into *duties*.
VStart, vFinish	Date	The start and end times of the activity.
VPaid	Boolean	If true, then the activity is paid.
VBreak	Boolean	If true, then the activity is considered to be a break, e.g. Lunch.
Aflg	Boolean	If true, then the activity is considered "active", and will be counted in the staffing count in the MRE.
VDate	Date	If set, then the specific date that the activity will occur on. If it is empty, then activity repeats whenever the shift occurs.

P_Moves Table

This table is used to store pending staff transfers

Column Name	Data Type	Description
Payroll	Text 10	This is the payroll of the staff member being transferred
Location	Text 10	The location the person is being transferred to.
Strand	Integer	The strand the person is being transferred to.
Team	Text 20	The team the person is being transferred to.
mDate	Datetime	The date this transfer is set for.
mDone	Integer	A flag indicating whether the transfer has completed (0 for no, 1 for yes)
nonActive	Integer	A flag indicating whether this person will become non-active (0 for active, 1 for non-active)

Employment Category Tables

These tables store information relating to employment categories. This is typically used to generate payroll information for external payroll systems, and also holds rules relating to hours of work and overtime.

Awards Table

Defines the employment categories.

Column Name	Data Type	Description
AName	Text 20	Name of the employment category. Must be unique.
ADesc	Text 255	Description of the employment category.
Defrate	Float	The default pay rate (units/hours).
Defpcode	Text 10	Default pay code.
OtScript	Text 64	If set, then overtime is calculated by the script specified here. Foreign key into *scripts*.
Method	Integer	Determines the method of calculating which type of day a shift falls on if it crosses midnight, (weekend, public holiday etc). 0 indicates the entire shift is deemed to start on the start date of the shift, 1 indicates that the pay codes should be calculated proportionally based on when the period occurs, 2 indicates that the shift is deemed to start on the day where the majority of the shift occurs.
MinHrs	Float	The minimum number of hours between shifts for this contract.
aRemPref	Integer	
aRemRule	Integer	

Award_Cats Table

Defines the leave types and allowances applicable to employment contracts.

Column Name	Data Type	Description
AName	Text 20	Name of the employment category. Foreign key into *awards*.
Leave_cat	Text 10	Leave category. Foreign key into *leave_cats*.
Allowance	Float	The amount of leave allowed of this type.
Unit	Integer	If 1 then the allowance is measured in days, if 2 then the allowance is measured in hours.
Reset	Integer	Defines when the accrued leave should be set to zero. If 0, then the accrued leave is never reset. If 1 then it resets at the end of the calendar year, if 2 then it resets on the anniversary date of employment.

Cap	Float	If non-zero, then the maximum amount of leave of this type that can be accrued.
Paycode	Text 10	The payroll code to be generated for external payroll systems.
Rate	Float	Indicates the rate paid for the code.
alCode	Text 20	
alAccAmt	Float	
alAccUnit	Small Int	
alAccRate	Small Int	
alAccMax	Float	
alResetBal	Float	
alResetDate	Datetime	See Open Wave for details -not currently utilised
alSun	Float	
alMon	Float	
alTue	Float	
alWed	Float	
alThu	Float	
alFri	Float	
alSat	Float	

Award_Rates Table

Defines the pay rates and codes that apply to employment contracts.

Column Name	Data Type	Description
AName	Text 20	Name of the employment category. Foreign key into *awards*.
ADay	Integer	Day that this rate applies. Valid values are: 8 – Weekdays 9 – Weekends 10 – Public Holidays 1 to 7 – Sunday to Saturday.
Afrom, Ato	Date	The time range that this pay rate applies.
ARate	Float	Pay rate (currency units per hour).
APayCode	Text 10	The pay code to be generated for external payroll systems.

Award_Rules

Defines overtime rates and when they apply.

Column Name	Data Type	Description
AName	Text 20	Name of the employment category. Foreign key into *awards*.
ARule	Integer	Rule type. Valid values are:

		0 – Shift length. Shifts over the specified length incur overtime. 1 – Hours in the roster. Hours workd over this amount in a roster incur overtime. 2 – Hours in the week. Hours worked over this amount in a week incur overtime. 3 – Hours between shifts. If a shift occurs in less that this time between shifts, then overtime will apply to the second shift.
ADay	Integer	Day on which this rule will apply. Valid values are: 0 – All days. 8 – Weekdays 9 – Weekends 10 – Public Holidays 1 to 7 – Sunday to Saturday.
ARate	Float	The percentage loading to apply. This will be applied to the pay rate applicable at the time.
Entire	Boolean	If true, then the overtime rate will apply to the whole shift, not just the overtime component.
APayCode	Text 10	The pay code generated for external payroll systems.

RS_Audit Table

The table that helps track changes made to records.

Column Name	Data Type	Description
tStamp	Datetime	Not null. The timestamp of when the record was added, modified or deleted.
Username	Text 20	Not null. The connected user. (either db or Windows user)
Terminal	Text 20	The machine the record was added, modified or deleted.
App	Text 20	The Application the change was made in.
Object	Text 50	The table that had the records added, modified or deleted.
Amode	Text 10	The type of change made, eg update, delete, etc.
Value1	Text 20	
Value2	Text 20	
Payroll	Text 20	The payroll the record change effects.
Notes	Text 50	Any additional notes made.

Shift Tables

Cycles Table

A Cycle is the pattern of shifts that will be populated into a roster. If ShiftTrack/Plus is installed, then it is replaced by a ShiftTrack/Plus *template*.

Column Name	Data Type	Description
Name	Text 20	Name of the Cycle. Must be unique.
Days	Integer	The number of days in the cycle. This can be calculated from the individual shifts defined for the cycle.
Rank	Text 10	Not used.
Staff	Integer	Not used.

Shift_cycles Table

Stores the individual pattern of shifts for a particular cycle. There is one row in this table for each occurrence of a shift within a cycle.

Column Name	Data Type	Description
Cycle	Text 20	Name of the cycle. Foreign key into *cycles*.
Shift	Text 20	Name of the shift. Foreign key into *shifts*.
Day	Integer	Day on which the shift occurs. A shift cannot occur more than once on the same day in the cycle.
Seq	Integer	Sequence – determines the order the shifts are displayed when the cycle is edited within ShiftTrack.

Shifts Table

A Shift is the basic unit of work that staff are allocated to.

Column Name	Data Type	Description
Start	Date	Shift start time.
Finish	Date	Shift finish time.
Start2, Finish2	Time	If the shift is a split shift (split <> 0) then these are the intermediate finish and start times.[1]
Hours	Float	The nominal hours that the shift occupies. Note that this is not necessarily the elapsed hours. Staff allocated to this shift are deemed to have worked this value.

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[1] If the shift is split, then the sequence of times is *start -> finish2, start2 -> finish*. In this way the start and finish times are always store in the same columns.

Name	Text 20	Unique name for this shift.
Staff	Integer	Not used.
OffDuty	Boolean	If set, then the shift is assumed to be a day off. This is only used where accrued time off modules are implemented.
Str_start, str_finish, str_start2, str_finish2	Text 10	Text representations of the shift start and finish times. Not used.
Auto	Boolean	Not used.
Applies_to	Text 20	Not used.
Breaks	Float	The amount of time (in minutes) that is assumed for breaks. This value is used if no breaks have been defined for the shift (in the *shift_breaks* table). Note that it is not included in the hours value.
Split	Boolean	If set, then the shift is broken into two distinct units of work defined by start/finish2 and start2/finish.
Label	Text 20	Short description for the shift.
Category	Text 20	A free-form text field used for grouping shifts.
Colour	Long integer	The colour the QRE will use to display this shift.
Notes	Text 16	Short description of the shift. This text is copied to the roster notes when a roster is created.

Stores links that the Roster Wizard uses to roster staff together.

Column Name	Data Type	Description
Payroll1	Text 10	First person to be linked. Foreign key into *personnel*.
Payroll2	Text 10	Second person to be linked. Foreign key into *personnel*.
Op	Text 1	Link type. If op = "A" (always) then the two people must be rostered together. If op = "N" (never) then the two people must not be rostered on to the same shift.

Shift_Breaks Table

This table stores any activities that are defined for a shift – including scheduled breaks. There may be more than one pattern defined, and the Roster Wizard allocates the patterns to staff in rotation when they are assigned to the shift. I.e. the first person will get the breaks with seq = 1, then second with seq = 2 and so on. When the last sequence is used, then sequence 1 is used again.

Column Name	Data Type	Description
Shift	Text 20	Shift that this activity applies to. Foreign key into *shifts*.
Seq	Integer	Break pattern that this activity applies to.
From	Date	Start time of the activity.
To	Date	Finish time of the activity.
Break	Boolean	If set, then the activity is assumed to be a break, otherwise it is assumed to be a duty (activity). It may be a foreign key into *duties*.
Paid	Boolean	If the activity is a break, then this flag determines whether the break is paid or not.

Shift_profile Table

Stores the range of staff positions (ranks) that are required for this shift. Each row represents one position on the shift that allows for between 1 and 3 different positions. In other words, in order to qualified to work a particular shift, a person must have one of the position codes specified in a particular row in this table.

Column Name	Data Type	Description
Shift	Text 20	Shift that this profile applies to. Foreign key into *shifts*.
Rank, Rank2, Rank3	Text 10	The range of positions that a person must hold in order to be eligible to work the shift. There must be at least one non-empty value between these columns.
Staff	Integer	The number of staff required that fill the given position profile.

Shift_Skills Table

Defines the skills that a person must have in order to be eligible to work this shift.

Column Name	Data Type	Description
Shift	Text 20	Shift that this profile applies to. Foreign key into *shifts*.
Skill	Text 10	Skill that a person is required to have to fit this profile. Foreign key into *competencies*.
All	Boolean	If set, then staff are expected to have all the skills required for the shift. No longer used.
Reqd	Integer	The number of staff required to work the shift with this skill.

Shift_res Table

Stores the resources required for a shift. Resources are any additional equipment that may be allocated to a shift.

Column Name	Data Type	Description
Shift	Text 20	Shift that this profile applies to. Foreign key into *shifts*.
Resource	Text 10	Category of resource required. Foreign key into *res_cats*.
Seq	Long integer	Determines the order the resource requirements are displayed in ShiftTrack.
Qty	Integer	The number of these resources required for ths shift.

Reference Tables

The tables in this section provide the base information on which other tables depend.

Competencies Table

Stores the list of skills that can be allocated to staff.

Column Name	Data Type	Description
Code	Text 10	Unique competency identifier.
Description	Text 50	Competency description.
Level	Integer	Used by SkillTrack.
Valid	Integer	Used by SkillTrack.
Core	Boolean	Used by SkillTrack.
Applies_To	Text 10	Used by SkillTrack.
Max_rating	Integer	The maximum rating that can be awarded to a person for this skill.

DST Table

Stores daylight saving information for locations.

Column Name	Data Type	Description
Location	Text 10	Location for which this offset applies. Foreign key into *locations*.
Dst_start	Date	Date and time when the daylight saving period begins.
Dst_finish	Date	Date and time when the daylight saving period finishes.
Offset	Float	The number of hours by which the daylight saving time is shifted.

Duties Table

Stores information relating to duties, or activities, that may be assigned to a shift, or a person on a shift.

Column Name	Data Type	Description
Code	Text 10	Unique duty identifier.
Description	Text 50	Description of the activity.
Skill	Text 20	Skill required in order to be allocated this duty. Foreign key into *competencies*.
Active	Boolean	If set, then the duty is considered "active", i.e. the MRE will count this in the staffing level.
Sfactor	Text 20	If set, then it is the shrinkage factor that this duty belongs

		to. Foreign key into *sfactors* in the ShiftTrack/Plus database.
Colour	Long integer	Colour used to display this activity in the QRE and the MRE.
Paid	Boolean	If set, then the activity is paid, otherwise it is unpaid.
Priority	Integer	If two duties clash, then the priority determines which one has precedence. Not yet implemented.
Acd_duty	Text 20	If ShiftTrack/Plus is installed, then this is the activity code supplied by the ACD. ShiftTrack/RT uses this information for mapping adherence data to ShiftTrack duty codes.
Bflag	Integer	
Locked	Integer	If set, the duty/activity allocated to a staff member can not be moved by the system. Only manually by a user.

LeaveRules Table

This table is used to store all of the leave rules that are defined using the Leave Planner

Column Name	Data Type	Description
ID	Integer	This field is automatically populated with a unique ID for each new rule
LeaveCat	Text 20	The name of the Leave category used for each rule
Location	Text 10	The location the leave rule applies to. (can be default)
Strand	Integer	The number of the strand the rules applies to. (can be default)
StrandName	Text 10	The name of the strand the rules applies to. (can be default)
Team	Text 20	The team which the leave rule applies to. (can be default)
Skill	Text 10	The skill which the leave rule applies to. (can be default)
Rank	Text 12	The position which the leave rule applies to. (can be default)
Sdate	Datetime	The start date of th leave rule.
Finish	Datetime	The finish of the leave rule.
Applies	Integer	-1 indicates the rule is used when people apply for leave, 0 indicates the rule is not checked.
Override	Integer	
Sun	Float	Percentage or number of staff allowed on leave for Sunday
Mon	Float	Percentage or number of staff allowed on leave for Monday
Tue	Float	Percentage or number of staff allowed on leave for Tuesday
Wed	Float	Percentage or number of staff allowed on leave for Wednesday
Thu	Float	Percentage or number of staff allowed on leave for Thursday
Fri	Float	Percentage or number of staff allowed on leave for Friday
Sat	Float	Percentage or number of staff allowed on leave for

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		Saturday
RuleDesc	Text 100	The name of the rule.
Parent	Integer	

Leave_Blocks Table

Stores periods of time where leave may be restricted. When leave is allocated by ShiftTrack this table is checked to ensure that the staff limits are not exceeded.

Column Name	Data Type	Description
Start	Date	The start of the leave block period.
Finish	Date	The end of the leave block period.
Reason	Memo	Arbitrary notes.
Factor	Float	The maximum number of staff that may be on leave during this period. If less than 1, then the number represents the percentage of staff that may be on leave during this period.
Location	Text 20	The location for which this leave block period applies. Foreign key into *locations*. If empty, then the block applies to all locations.
Lcat	Text 20	If set, then the leave category for which this leave block period applies. Foreign key into *leave_cats*. If empty, then the block applies to all leave types.
Strand	Integer	Used for blocking leave to a strand (of a location)

Leave_cats Table

Defines the categories of leave that staff may take.

Column Name	Data Type	Description
Leave_Cat	Text 20	The leave category. Must be unique.
Days_per_year	Float	The number of days per year that can be taken by staff for this leave type. From database version 43 this has been replaced by the award_cats table value.
Notes	Memo	Arbitrary notes.
Applies_to	Text 10	No longer used.
Colour	Long integer	The colour that the QRE uses to display leave of this type.
Paid	Integer	Indicates whether a leave category is paid or not.

Leave_Tags Table

Comment

Column Name	Data Type	Description

ID	Integer	Unique identifier of the row
Location	Text 20	Location that applies to the record. Foreign key to *locations* table
Strand	Integer	Strand that applies to the record. Foreign key to *shift_labels* table
LCat	Text 20	Category that applies to the record. Foreign key to *Leave_cats* table
LGroup	Text 20	
StartDate	Date	Start date of the record
EndDate	Date	End date of the record
Description	Text 255	Description of the record

Loc_Res Table

Stores information about specific resources at locations.

Column Name	Data Type	Description
Location	Text 20	The location of this particular resource. Foreign key into *locations*.
Resource	Text 20	Specific resource identifier. Must be unique.
Qoh	Float	Quantity on hand. Used by SkillTrack.

Locations Table

Stores base information for locations. All staff and rosters must belong to a specific location.

Column Name	Data Type	Description
Code	Text 10	Unique identifier for the location.
District	Text 10	The district to which this location belongs. Foreign key into *districts*. The user sees this value as the *location group*.
Addr1, addr2	Text 30	Two address lines for the location.
Phone	Text 15	Location telephone number.
Max_size	Integer	Not used.
Fixed_cost	Float	Not used.
Var_cost	Float	Not used.
Budget	Float	Not used.
Roster_start	Date	The nominal start date of the first roster at this location.
Rostlen	Integer	The number of days in a standard roster for this location.
Hours_per_ cycle	Float	The number of hours in a standard roster for a person at this location.
Tz_offset	Float	The number of hours by which the time zone for this location differs from a nominal "base" zone.
Email_addr	Text 128	The email address of this location.
Capacity	Integer	The maximum size of the location

Pubhols Table

Stores information about public holidays. These are also known throughout the system as special days.

Column Name	Data Type	Description
Holiday	Date	Date of the holiday
Description	Text 30	Description of the day.
Year	Integer	The year that the date falls into. E.g. if the public holiday date is 5 November 2000, then the Year column will contain 2000.
Name	Text 20	The "official" name of the holiday, e.g. Easter Thursday.
Location	Text 10	If set, then the location that this holiday applies to. If empty, then the holiday applies across all locations.
RateFlg	Boolean	Not used.

Queries Table

Stores save sql queries from the Isql screen. If this table is not present then no error is generated, but the user will not be able to save and run stored queries.

Column Name	Data Type	Description
Name	Text 20	The name of the query. Must be unique.
Sqlstr	Memo	The actual sql text to execute.

Ranks Table

Stores information about staff positions.

Column Name	Data Type	Description
Code	Text 10	Position code. Must be unique.
Name	Text 30	Position description.
Level	Integer	Not used.
Assessment	Text 10	Not used.
Comp_level	Integer	Not used.
Electives	Integer	Not used.
Drate	Float	Not used.
Next	Text 10	The position that this position reports to. Foreign key into *ranks*.

Res_cats Table

Stores information about resource categories. All resources must belong to one of these categories.

Column Name	Data Type	Description
Category	Text 20	Unique category code.
Description	Text 50	Description of the category.

Resources Table

Stores information about specific resources (equipment).

Column Name	Data Type	Description
Code	Text 10	Unique resource code.
Name	Text 30	Description of the resource.
Comments	Memo	Long description.
Fixed_cost	Float	Represents a once off cost for using this resource.
Var_cost	Float	Represents the time-based cost for using this resource (in units/hour).
Category	Text 10	Category to which this resource belongs. Foreign key into *res_cats*.
Location	Text 10	Location to which this resource belongs. Foreign key into *locations*.

Rule_Cats Table

Stores information about which rule categories can be defined by the user. This table should never be altered from the data installed by Open Wave.

Column Name	Data Type	Description
Category	Text 10	Unique rule category code.
Description	Text 50	Rule name as presented to the user.
Exclusive	Boolean	If set, then only one instance of that rule can be defined by the user.

Rules Table

Contains the parameters relating to specific rules. Note that the contents of the columns may vary depending on the type of rule.

Column Name	Data Type	Description
Category	Text 10	Rule category. Foreign key into *rule_cats*.

Value_I_1	Integer	First numeric parameter.
Applies_to	Text 10	Not used.
Exclusive	Boolean	If set, then only one instance of the rule category can be defined. Inherited from the *rule_cats* table.
Value_I_2	Integer	Second numeric parameter.
Value_c_1	Text 50	Text parameter.
Seq	Long Integer	Unique numeric identifier defined by the database.

Scripts Table

Stores the scripts that users may run from within ShiftTrack.

Column Name	Data Type	Description
Name	Text 20	Name of the script. Must be unique.
Category	Text 10	Category to which this script belongs. Some categories have a special meaning to ShiftTrack.[2]
Language	Text 10	Script language. Must be either "VB Script" or "J Script".
Script	Memo	The actual text of the script that will be executed.
Entry	Text 50	The name of the initial routine to call to execute the script.
Sortkey	Text 10	Determines the order the scripts are displayed in ShiftTrack.
Version	Integer	Version number of the script. Incremented automatically by ShiftTrack when the script is saved.
Tstamp	Date	The date and time the script was last saved.
VbaProject, vbaModule	Text 255	If set, then the script is a VBA application rather than a script.
Type	Integer	The type of script. 0 is .NET, 1 is ActiveX

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[2] If the category is "Special", then the script will appear under the Special menu. If the category is "Server", then the script will appear under the Server menu. If the category is "Reports", then the script will appear under the User Reports menu.

Shift_Rules Table

Defines the break rules for shifts. These are used to both generate break patterns, and validate existing break patterns.

Column Name	Data Type	Description
MinLen	Float	Minimum shift length, in hours, for which this rule applies.
MaxLen	Floag	Maximum shift length, in hours, for which this rule applies.
MinNumBreaks	Integer	The minimum number of breaks allowed in this pattern.
MaxNumBreaks	Integer	The maximum number of break allowed in this pattern.
MinBreakSize	Float	The minimum size of this break in minutes.
MaxBreakSize	Float	The maximum size of this break in minutes.
AppliesTo	Text 20	If specified, then the employment category that this rule applies to. Foreign key into *awards*.
RuleSeq	Integer	Sort key so that rules are displayed in the same order.
Seq	Long integer	Database generated unique value.
Label	Text 20	The label to give this break when it is generated.
MinStart	Date	The earliest time that this break can occur, in minutes from the start of the shift.
MaxStart	Date	The latest time that this break can occur, in minutes from the start of the shift.
Paid	Boolean	If true, then this break is a paid break.
Locked	Boolean	Used internally.
Location	Text 20	If set, then the location for which this rule applies. Foreign key into *locations*.
MinFrom	Date	If set, then the earliest shift start time that this rule will apply to.
MaxFrom	Date	If set, then the latest shift start time that this rule will apply to.
MinTo	Date	If set, then earliest shift finish time that this rule will apply to.
MaxTo	Date	If set, then the latest shift finish time that this rule will apply to.

Teams Table

Defines the teams for each location.

Column Name	Data Type	Description
Location	Text 10	Location for the team. Foreign key into *locations*.
Team	Text 20	Name of the team.

Descriptions Table

Column Name	Data Type	Description
Type	Text 10	The type of the description
Value	Text 30	The value of the type/category combination
Category	Text 15	The category within the type
Location	Text 20	The Location that applies to the description, if any. Foreign key to *locations* table

Settings Table

Stores settings for certain areas of functionality. In some cases replaces the descriptions table

Column Name	Data Type	Description
Section	Text 50	The section of the functionality that the setting applies to
Location	Text 10	The Location that the setting applies to. Foreign key to *locations*.
Keyword	Text 50	The specific setting
Value	Text 255	The actual setting

Users Table

Contains information about ShiftTrack/Plus users and their permissions.

Column Name	Data Type	Description
ID	Long integer	Unique numeric identifier.
Username	Text 20	Login code for the user. Must be unique.
Permiss	Text 20	The role of the user. Foreign key into *user_profiles*.
Passwd	Text 50	ShiftTrack login password.
Location	Text 20	If set, then the user is restricted to information relating to that location. Foreign key into *locations*.
Team	Text 20	If set, then the user is assumed by ShiftTrack/Remote to be a team leader for that team. Foreign key into *teams*.
Strand	Integer	Reserved for future use.
LastUsed	Datetime	The last time the user logged on.

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LastComput er	Text 50	What machine the user logged onto last time.
Configurer	Integer	Flags the user as able to use the application STConfig
Heidi	Integer	Flags the user as able to use the application HEIDI
Autoleave	Integer	Flags the user as able to configure AutoLeave – not currently in widespread use.
Tzlocation	Text 20	The location of the user for Time Zone purposes within ShiftTrack RT Client

User_profiles Table

Defines the "roles" or menu options that can be seen by users.

Column Name	Data Type	Description
Name	Text 20	Name of the user role. Must be unique.
Menus	Memo	The list of menu options that are visible to this role. The list is tab delimited.
Menus_FRE	Memo	The list of Full Roster Editor menu options that are visible to this role. The list is tab delimited.
Menus_MR E	Memo	The list of Micro Roster Editor menu options that are visible to this role. The list is tab delimited.
Menus_QR E	Memo	The list of Quick Roster Editor menu options that are visible to this role. The list is tab delimited.
Leave	Text 255	

Roles Table

Defines the "roles" or menu options that can be seen by users. Supercedes user_profiles table

Column Name	Data Type	Description
Role	Text 20	The name of the role
Component	Text 20	The component that the role applies to
Seq	Integer	The sequential number of the record as it applies to the role
XMLRole	Text 4000	The definition of the role in XML format

Remote Tables

ssNotice Table

This table stores all of the shifts that go onto the Noticeboard via ShiftTrack Remote.

Column Name	Data Type	Description
Payroll	Text 10	The payroll ID of the person placing their shift on the

		noticeboard.
Rosterkey	Integer	The roster key indicates the shift they are advertising.
Sdate	Datetime	Is the date the shift was advertised
Used	Datetime	
Notes	Text 100	Any notes the person may wish to enter when submitting the swap request.

Remote_Template Table

This table stores all of the email templates used for ShiftTrack Remote.

Column Name	Data Type	Description
Avail1	Text	The email template that is used to be sent to people informing them of their successful Availability application
Avail2	Text	The email template that is used to be sent to people informing them of their unsuccessful Availability application
Leave1	Text	The email template that is used to be sent to people informing them of their successful Leave application
Leave2	Text	The email template that is used to be sent to people informing them of their unsuccessful Leave application
Shift1	Text	The email template that is used to be sent to people informing them of their successful Shift Swap application
Shift2	Text	The email template that is used to be sent to people informing them of their unsuccessful Shift Swap application
LastUpdate Date	Datetime	
LastUpdate User	Text 20	The last ShiftTrack user to update the template.
Location	Text 10	The location the template applies to. Foreign Key to *locations*.

Staff_avail_pending Table

This table stores all of the staff availability change requests submitted by people via ShiftTrack Remote.

Column Name	Data Type	Description
Payroll	Text 10	The payroll number of the person applying to change their availability
Day	Datetime	A date here indicates a Date specific availability restriction
available	Bit	A tick for availability, unticked for unavailability
dow	Integer	This number indicates the day of week of the availability clause
from	Datetime	The start time of the availability clause

to	Datetime	The end time of the availability clause
rtype	Text 1	O indicates Only on, N indicates never on.
pref	Integer	0 indoates a rule, 1 indicates a preference. 2 inidcates overtime
processed	integer	1 indicates the request has been processed, 0 indicates it is unprocessed.

Leave_pending Table

This table stores all of the Leave requests submitted by people via ShiftTrack Remote.

Column Name	Data Type	Description
Payroll	Text 10	Not Null. The payroll number of the person applying for leave
Start	Datetime	Start date of the period of the leave application
Stop	datetime	End date of the period of the leave application
days	Integer	The number of days of leave applied for.
Roster_flg	Datetime	
Notes	Datetime	Notes added in the leave application
Hours	Text 1	Indicates the hours of leave requested.
Type	Integer	The leave category applied for.
ts	Datetime	The time the leave application was made.
processed	integer	1 indicates the request has been processed, 0 indicates it is unprocessed.
emailnotes	text	Notes added to the email

ShiftSwap_pending Table

This table stores all of the Leave requests submitted by people via ShiftTrack Remote.

Column Name	Data Type	Description
Payroll	Text 10	Not Null. The payroll number of the person applying for the Shift Swap
Rosterkey	Integer	This key indicates the shift the staff member
SwapPayroll	Text 10	This is the payroll of the person they wish to swap with.
SwapRosterKey	Integer	This is the other parties rostered shift (indicated by key)
SDate	Datetime	
Approved	Tiny Int	1 inidicates it has been approved. Nothing means has not been reviewed, 0 indicates it has been rejected.
Matched	Tiny Int	1 indicates the swap has been matched by the other party. Nothing means has not been matched, 0 indicates it has been rejected.
ts	Datetime	The time the leave application was made.
Reminder	datetime	
ShiftName	Text 30	The name of the shift being swapped from

| ShiftSwapN ame | Text 30 | The name of the shift being swapped to |
| Notes | Text 100 | Any notes the person may wish to enter when submitting the swap request. |

MOTD Table

This table stores the information for the Messages page in ShiftTrack Remote

Column Name	Data Type	Description
ID	Integer	The unique identifier for this row
UserName	Text 20	The username of the person who created this row. Foreign Key to *users*.
TStamp	Date	The date the row was created
StartDate	Date	The date from when the message is to be displayed
EndDate	Date	The date when the message is to stop displaying
Location	Text 20	If set, then the message will only display to people of that location, else will display to all people. Foreign Key to *locations*.
Title	Text 100	The title to be displayed on the page (if set)
MsgText	Text 1024	The content of the message

Settings Table

This table stores the information for the settings used by ShiftTrack Remote

Column Name	Data Type	Description
Section	Text 50	
Location	Text 10	If set, the location that the setting applies to. If not set, will apply to all locations. Foreign Key to *locations*.
Keyword	Text 50	The name of the setting
Value	Text 255	The value of the setting

Views

StaffView View

Column Name	Orginal Table	Original Column
Payroll	Personnel	payroll
Staff	Personnel	Surname + firstname separated by space
Surname	Personnel	Surname
Firstname	Personnel	Firstname
Initial	Personnel	Initial
Location	Personnel	Location
Strand	Personnel	Strand
StrandName	Shift_labels	Label
Team	Personnel	team