

Understanding, Configuring and Troubleshooting CA Service Desk Manager “Auto-close” Functionality



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Introduction

The Auto-close functionality closes Resolved type tickets, after a specified number of the client's business hours have passed. This helps businesses to manage tickets more effectively, by quickly closing tickets that meet requirements, without further Analyst intervention.

Although the functionality is simple, some complexities can arise. The concepts outlined here will allow you to easily understand, configure and troubleshoot the Auto-close functionality in any environment.

The concepts here are applicable to all versions of CA Service Desk Manager and IT Service Management at the time of writing.

Understanding Auto-close

Before looking at the detail of configuring and troubleshooting Auto-close, it is worth noting at a high level how Auto-close works, and some key concepts.

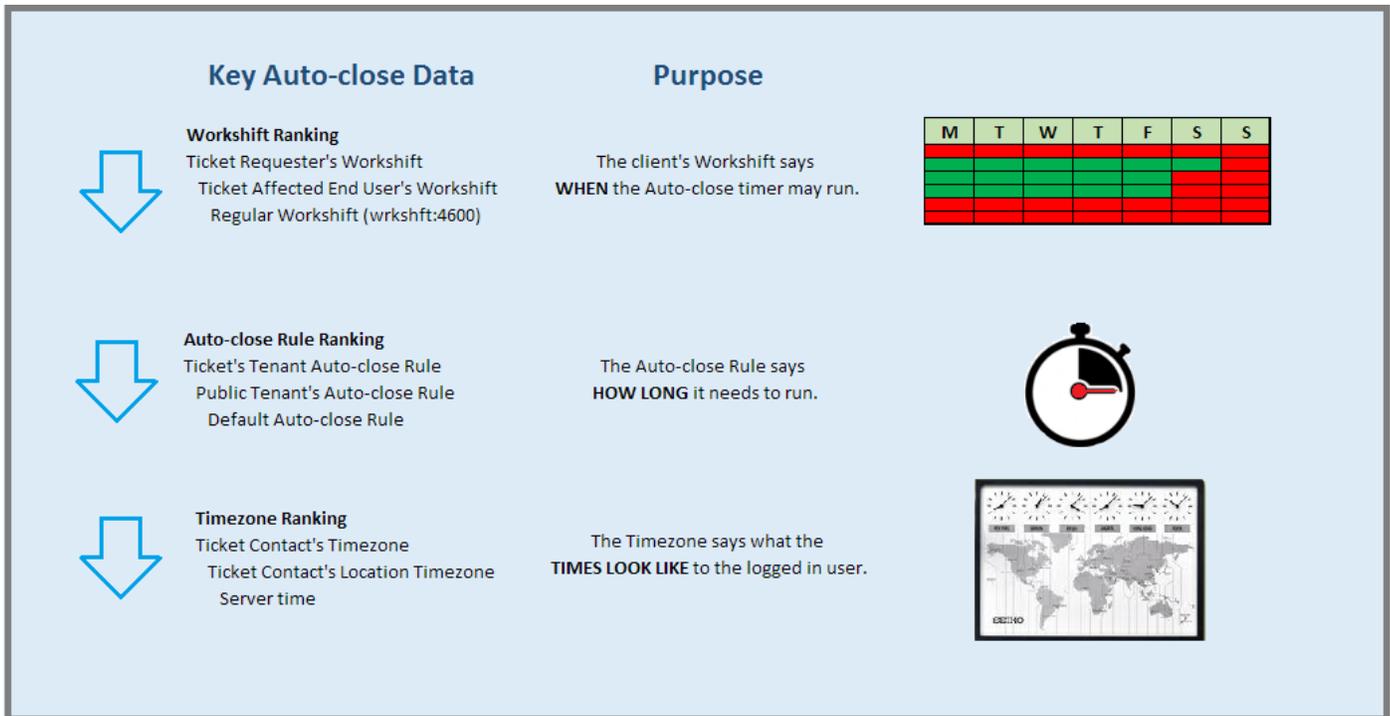
Flow of Auto-close

This is the flow of a ticket under an Auto-close Rule:

- Ticket Status is changed to a Resolved Type Status
- Auto-close looks at the ticket to determine key information:
 - Contact
 - Workshift
 - Timezone
 - Auto-close Rule
- Auto-close uses this to determine:
 - Length of the Auto-close period
 - Start of the Auto-close period
- Auto-close updates the system:
 - Animator entry to fire the Auto-close at the right time
 - Activity Log entry to record the setting of the Auto-close
 - Stdlog.n log update if required eg Failure
- Animator fires the Auto-close at the scheduled time
 - Appropriate field updates, log entries and notifications occur
 - Ticket Status is moved to Closed
 - Animator entry is removed as completed

Key Concepts

This diagram illustrates the purpose of some key Auto-close data.



Complex systems often have multiple potential sources of information. It is important to consider which source data you wish Auto-close to consider as it functions. Setting out a clear, consistent data setup prior to configuring Auto-close will prevent much confusion later.

For example, which Workshift should be used by the Auto-close? Which Auto-close Rule will be used?

If there are multiple sources of the same data, then Auto-close uses a ranking system to determine which it will use in the Auto-close calculation. It will start at the top and keep dropping down until it finds a valid source.

For example, Auto-close will first look at the ticket to see:

- Is there is a Requester present?
 - Yes - use the Requester's Contact record Workshift.
 - No - drop down.
- Is there an Affected End User present?
 - Yes - use the Affected End User's Contact record Workshift.
 - No - drop down.
- Is there a Regular Workshift on the system?
 - Yes - use the Regular Workshift.
 - No - failure. Workshift not available.

The same “drop down” approach applies to the Auto-close Rule choice and Timezone choice as well.

It is important to note that Auto-close is centred around the customer. It is the customer’s workshift and timezone that are most important, as the change of Status of the ticket to Closed is most important to them. Understanding this makes it easier later to answer questions such as “Why did the Auto-close clock start running now?”

Let us look at key fields.

Workshift

The client’s Workshift determines *WHEN* the Auto-close may run.

For example, you may have a client who works Monday to Friday, 8:00am - 5:00pm.

The clock can start during this workshift, and will suspend when it moves out of this workshift - such as at nighttime or on weekends.

The Workshift Ranking looks as follows:

Workshift Ranking

Ticket Requester's Workshift

Ticket Affected End User's Workshift

Regular Workshift (wrkshft:4600)

WARNING: Special Case - the Regular Workshift

- The Regular Workshift must exist.
- It need not be called “Regular Workshift”, however, there must be a Workshift with the out-of-the-box default id of “4600”. Failure to do so can lead to Auto-close failing.
- It does not matter if the Regular Workshift is Active OR Inactive. It will still be used by the system as its “default last resort” if a better Workshift choice cannot be found.

Tips:

- Populate your Contact’s Workshifts so that no surprises occur.
- Leave the default Regular Workshift Active so that it is clear that it may be used, if Auto-close functionality is present on the system.
- Avoid renaming Regular Workshift, to avoid confusing colleagues and others.
- Choose a sensible “default” for Regular Workshift, such as 24 x 7, to catch unexpected cases.

Auto-Close Rules

On a system without Multi-Tenancy, the choice of the Auto-close Rule is clear - there can only be one.

On a Multi-Tenancy system, the same drop down ranking applies. Each Tenant may optionally have their own Auto-close Rule, and the Public Tenant provides the Auto-close Rule if the individual Tenants do not have theirs.

Auto-close Rule Ranking

Ticket's Tenant Auto-close Rule
 Public Tenant's Auto-close Rule
 Default Auto-close Rule

WARNING: Workshift hours apply, not a full 24 hours per day

- If the Workshift is 9:00am - 5:00pm (eight hour day), and a “three day Auto-close” is required, the correct Auto-close hour setting is:
- 3 business days x 8 hour/business day = 24 hours.
- NOT 3 full days x 24 hours/full day = 72 hours.

Tips:

- Remember that Auto-close uses Workshift hours, not full days.
- Populate your Public Tenant on a Multi-Tenanted environment to catch unexpected cases.

Timezones

The principal purpose of the Timezone is to determine when the Auto-close Rule *may start*.

This should always be the customer’s timezone. So if the customer has a day that runs from 9:00am - 5:00pm, Monday to Friday and is based in Paris. Then the Timezone tells the Auto-close Rule that the hours are valid in Paris time, and not in the server time if it is located elsewhere.

However, all times are stored on the server in server time. They are adjusted from the client’s hours to the server time.

Timezone Ranking

Ticket Contact's Timezone
 Ticket Contact's Location Timezone
 Server time

WARNING: The Auto-close time in the Activity Log “Description” is NOT adjusted.

It is often confusing to read when an Auto-close entry will fire in a multi-timezone setup.

- Date fields are converted to the logged in user’s time.
- String fields are not converted.

This is because the Auto-close time stored in the Activity Log Description is a string field and is not converted to the logged in user's time. See "Reading Auto-close Activity Logs" below for more detail. If the Contact had a Timezone though, then the Timezone is displayed.

Tips:

- Always populate the Contacts' Timezones if you can. It is the clearest, simplest record of which Timezone is active.
- Populate your Locations' Timezones with sensible defaults, to catch any cases where the Contacts do not have Timezones.
- The server time will be used if there is not a Timezone detected from the Contact or their Location. This is least preferable, as it makes the Activity Log confusing to read as there is no Timezone shown in the description - and the logged in user may not know where the server is located.

Status

Only tickets of a "Resolved type" Status may be Auto-closed.

The key field on the Status is "Make Resolved?" set to "Yes."

The out-of-the-box Status which is used is "Resolved." However, any new Status may be created with this flag checked.

Configuring Auto-close

The following example steps through all of the key menus and locations to set up Auto-close.

Example scenario.

The Service Desk is geographically dispersed across many timezones.

- Our Customer “Paris” is in Paris, France.
- The Analyst “Sydney” is in Sydney, Australia.
- Our Server “Server” is in New York, America.

Our customer works in the education system, and the types of Incidents that are logged through the Service Desk can only be resolved during the classroom hours of 9:00am to 3:00pm (six hours), Monday to Friday.

An optional special “Status” of “Resolved - School” is required for reporting. The standard “Resolved” Status is not being used for any other purpose, and cannot be reached by other users due to the transition being blocked.

The system is CA IT Service Manager 14.1 (Formerly CA Service Desk manager)

Multi-Tenancy is not being used.

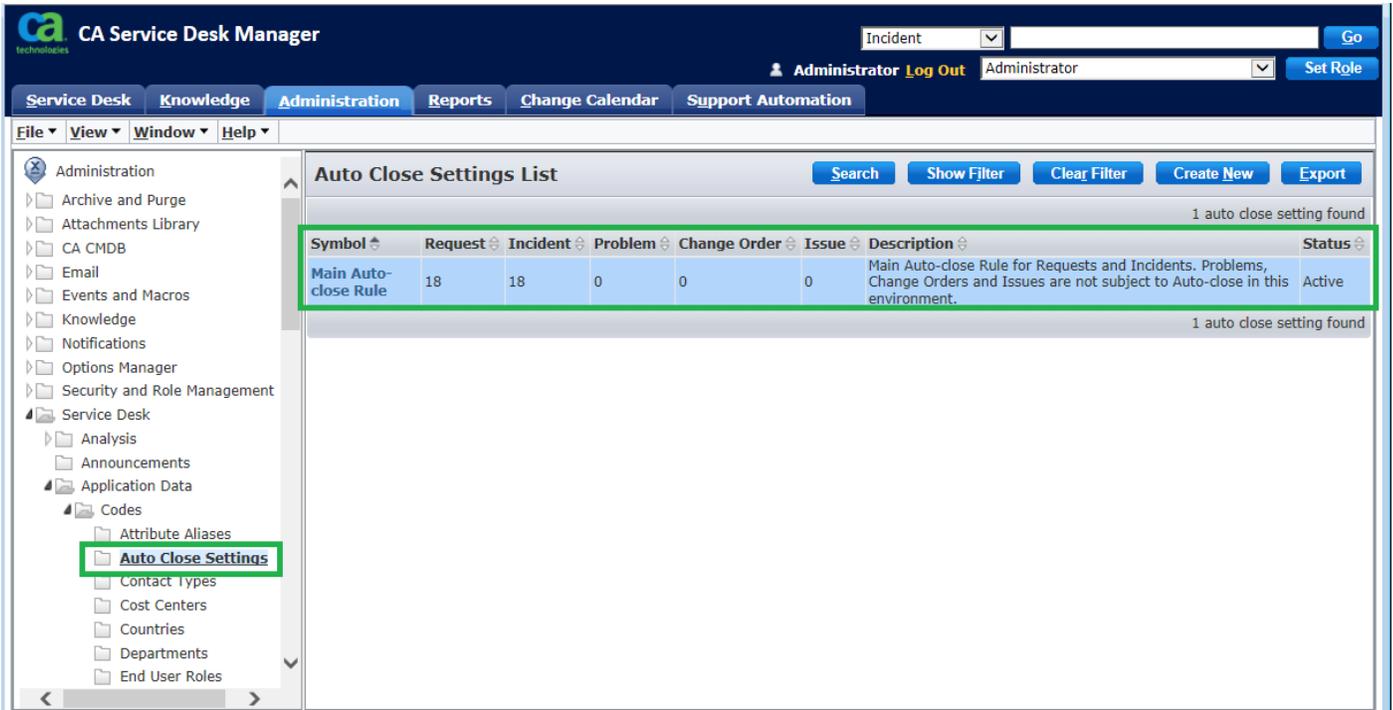
Aim: A three school day automatic closure is required.

Method

Screenshots and only a brief text description will be given, as the meaning of the fields is covered in more detail above.

Auto-close Settings

- Administration, Service Desk, Application Data, Codes, Auto Close Settings
- 3 business days x 6 business hours/business day = 18 hours
- Update the “Incidents” to “18”. (Note - Requests were done as well. This is not required for this example.)

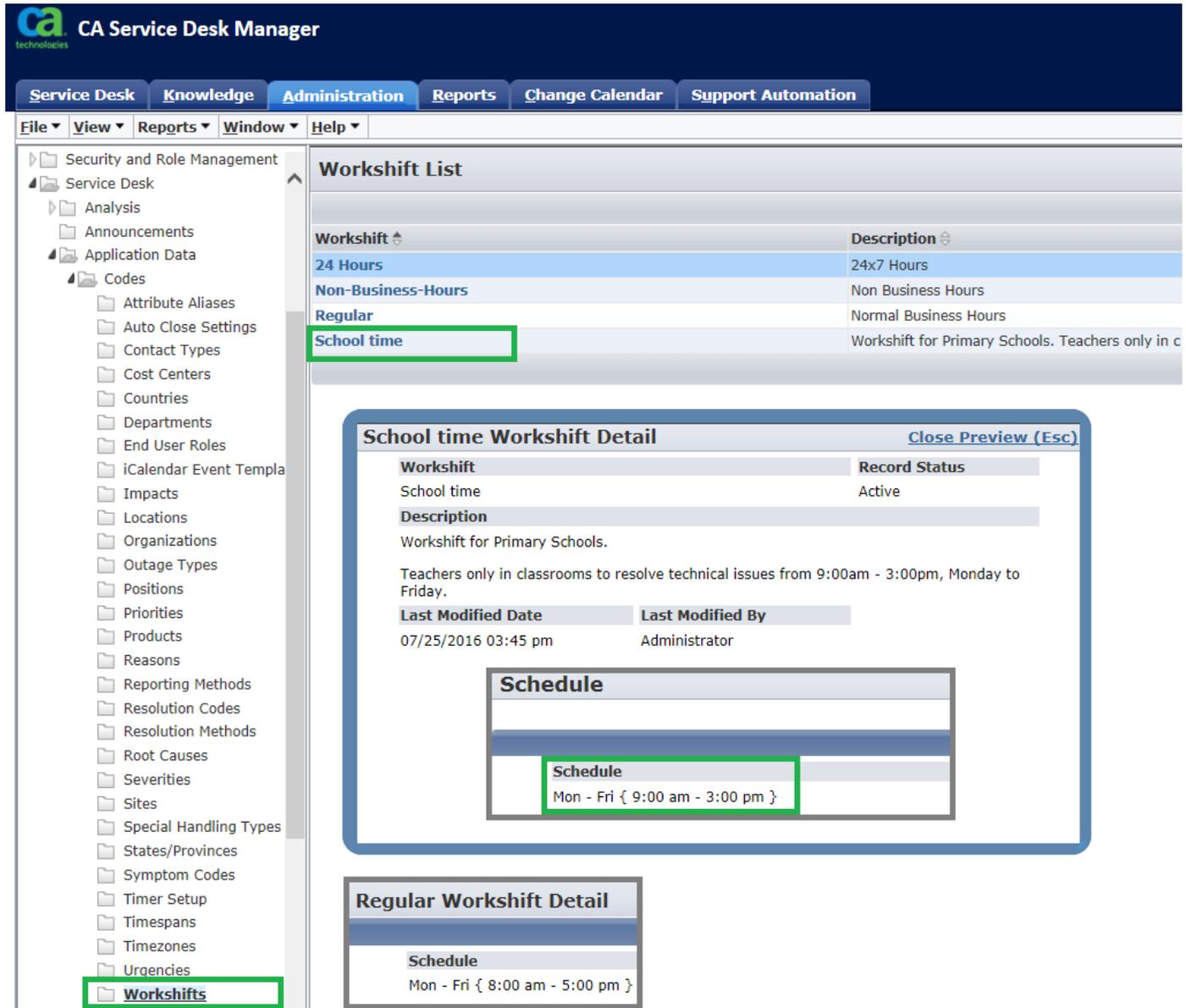


The screenshot shows the CA Service Desk Manager Administration interface. The left-hand navigation pane is expanded to 'Service Desk' > 'Application Data' > 'Codes' > 'Auto Close Settings', which is highlighted with a green box. The main content area displays the 'Auto Close Settings List' with a table containing one entry: 'Main Auto-close Rule'. The table columns are Symbol, Request, Incident, Problem, Change Order, Issue, Description, and Status. The values for the 'Main Auto-close Rule' are 18 for Request, 18 for Incident, 0 for Problem, 0 for Change Order, and 0 for Issue. The Description states: 'Main Auto-close Rule for Requests and Incidents. Problems, Change Orders and Issues are not subject to Auto-close in this environment.' The Status is 'Active'. Above the table, there are buttons for Search, Show Filter, Clear Filter, Create New, and Export. Below the table, it indicates '1 auto close setting found'.

Symbol	Request	Incident	Problem	Change Order	Issue	Description	Status
Main Auto-close Rule	18	18	0	0	0	Main Auto-close Rule for Requests and Incidents. Problems, Change Orders and Issues are not subject to Auto-close in this environment.	Active

Workshift Settings

- A new Workshift for the school week is created.
- Monday to Friday, six hours long starting at 9:00am.
- The Regular Workshift is not used in this example, but is shown for completeness.



The screenshot shows the CA Service Desk Manager Administration interface. The left sidebar contains a tree view with 'Workshifts' highlighted. The main content area displays a 'Workshift List' table and two detail panels.

Workshift	Description
24 Hours	24x7 Hours
Non-Business-Hours	Non Business Hours
Regular	Normal Business Hours
School time	Workshift for Primary Schools. Teachers only in c

School time Workshift Detail

[Close Preview \(Esc\)](#)

Workshift	Record Status
School time	Active

Description
Workshift for Primary Schools.
Teachers only in classrooms to resolve technical issues from 9:00am - 3:00pm, Monday to Friday.

Last Modified Date	Last Modified By
07/25/2016 03:45 pm	Administrator

Schedule

Schedule
Mon - Fri { 9:00 am - 3:00 pm }

Regular Workshift Detail

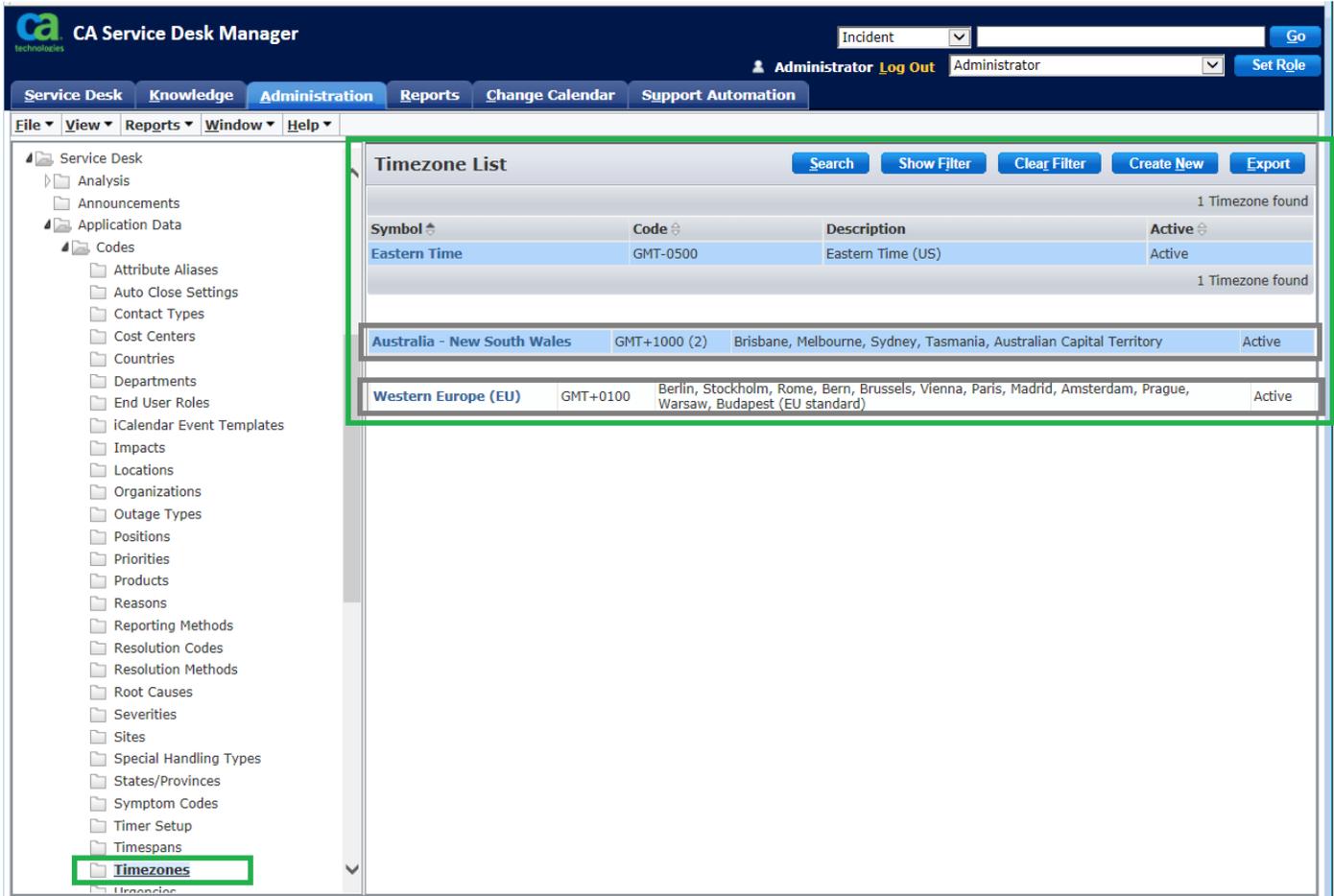
Schedule

Mon - Fri { 8:00 am - 5:00 pm }

Timezone Settings

- Make sure that the required Timezones are present, and add them in if not.
- We require a Timezone for Paris, Sydney and New York, which have counterparts as shown.

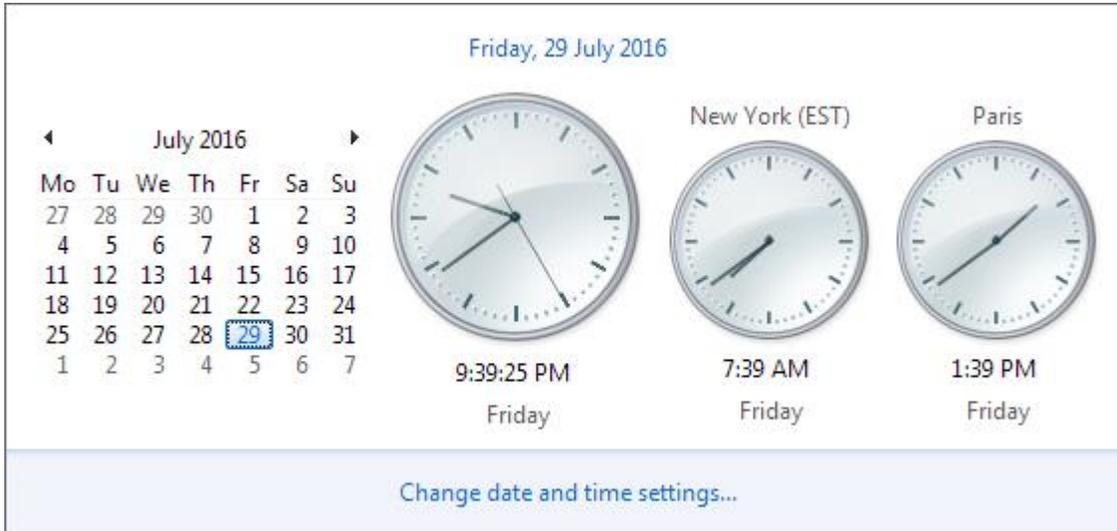
- Note the time offsets of “-500”, “+1000” and “+0100” respectively.
- TIP: The “Code” column will be seen again in the Activity Log Description. An end user should be able to understand what it is referencing. This field may be edited if required for clarity.



The screenshot shows the CA Service Desk Manager Administration console. The left-hand navigation pane is expanded to 'Timezones'. The main content area displays a table titled 'Timezone List' with the following data:

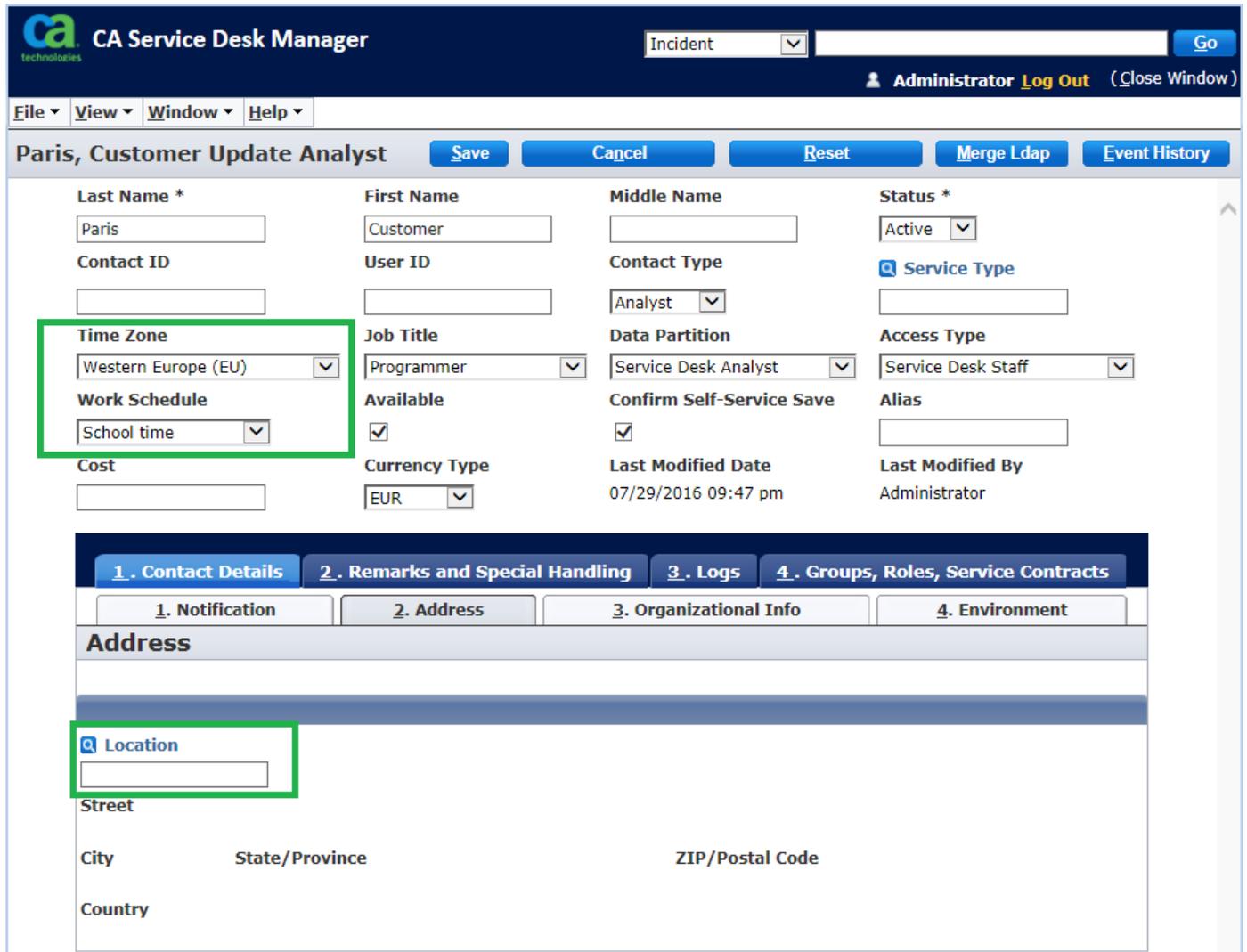
Symbol	Code	Description	Active
Eastern Time	GMT-0500	Eastern Time (US)	Active
Australia - New South Wales	GMT+1000 (2)	Brisbane, Melbourne, Sydney, Tasmania, Australian Capital Territory	Active
Western Europe (EU)	GMT+0100	Berlin, Stockholm, Rome, Bern, Brussels, Vienna, Paris, Madrid, Amsterdam, Prague, Warsaw, Budapest (EU standard)	Active

- A look at the Windows System Tray clock shows the three key times.
- Tip - it is useful to add additional clocks to this for test purposes.



Contact Settings

- Set the Time Zone and Work Schedule.
- Note that “Work Schedule” is on the “Work Shift.” The term is often used interchangeably.
- In this example, we are *not* using a Location with an attached Timezone.



The screenshot shows the CA Service Desk Manager interface. At the top, there is a search bar with 'Incident' selected and a 'Go' button. The user is logged in as 'Administrator'. Below the search bar is a menu with 'File', 'View', 'Window', and 'Help'. The main header displays 'Paris, Customer Update Analyst' with buttons for 'Save', 'Cancel', 'Reset', 'Merge Ldap', and 'Event History'.

The contact details form includes the following fields:

- Last Name *: Paris
- First Name: Customer
- Middle Name: (empty)
- Status *: Active
- Contact ID: (empty)
- User ID: (empty)
- Contact Type: Analyst
- Service Type: (empty)
- Time Zone: Western Europe (EU) (highlighted with a green box)
- Job Title: Programmer
- Data Partition: Service Desk Analyst
- Access Type: Service Desk Staff
- Work Schedule: School time (highlighted with a green box)
- Available:
- Confirm Self-Service Save:
- Alias: (empty)
- Cost: (empty)
- Currency Type: EUR
- Last Modified Date: 07/29/2016 09:47 pm
- Last Modified By: Administrator

Below the main form is a navigation bar with tabs: 1. Contact Details, 2. Remarks and Special Handling, 3. Logs, and 4. Groups, Roles, Service Contracts. Under '1. Contact Details', there are sub-tabs: 1. Notification, 2. Address, 3. Organizational Info, and 4. Environment. The 'Address' sub-tab is active, showing a 'Location' field (highlighted with a green box) and fields for Street, City, State/Province, ZIP/Postal Code, and Country.

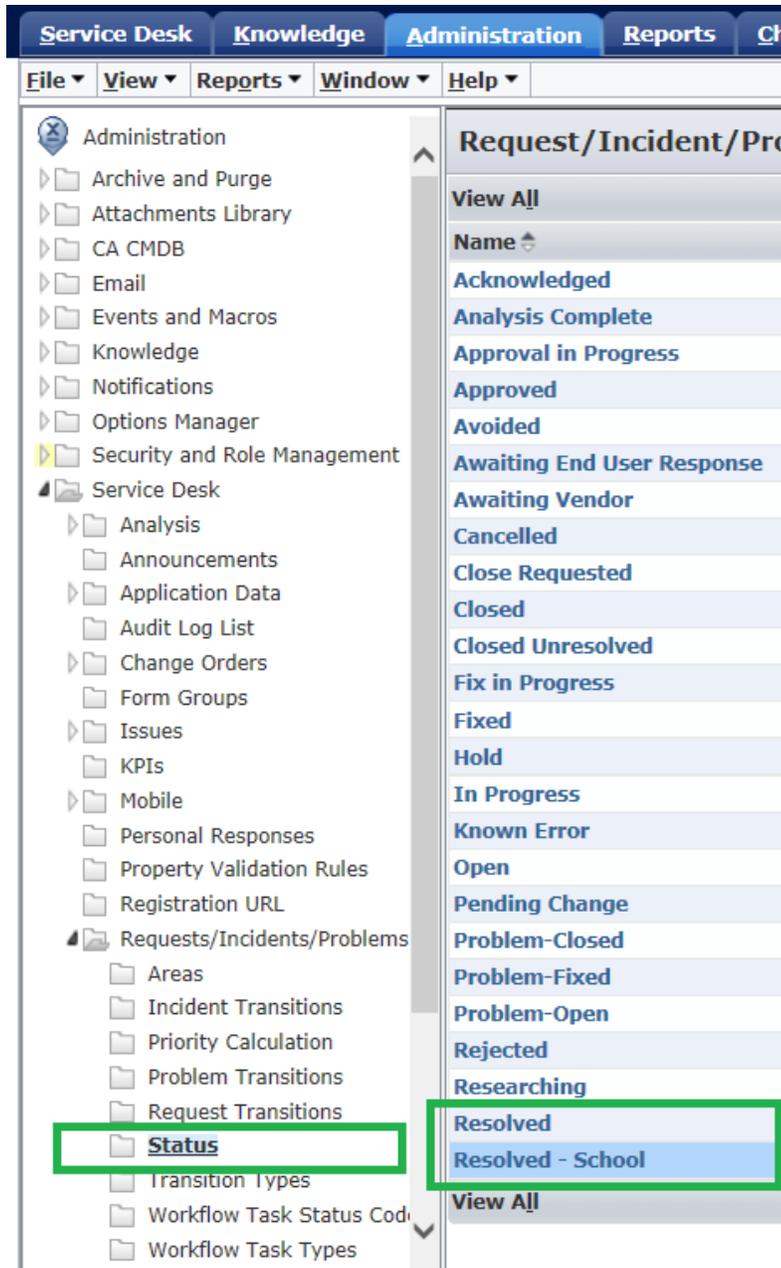
- The Timezones and Workshifts of the Analyst and Server Contacts are shown also, although they do not impact how the Auto-close run time is calculated or set.
- The Timezone only determines how the Activity Log “On” timestamp will look when viewed by these Contacts.

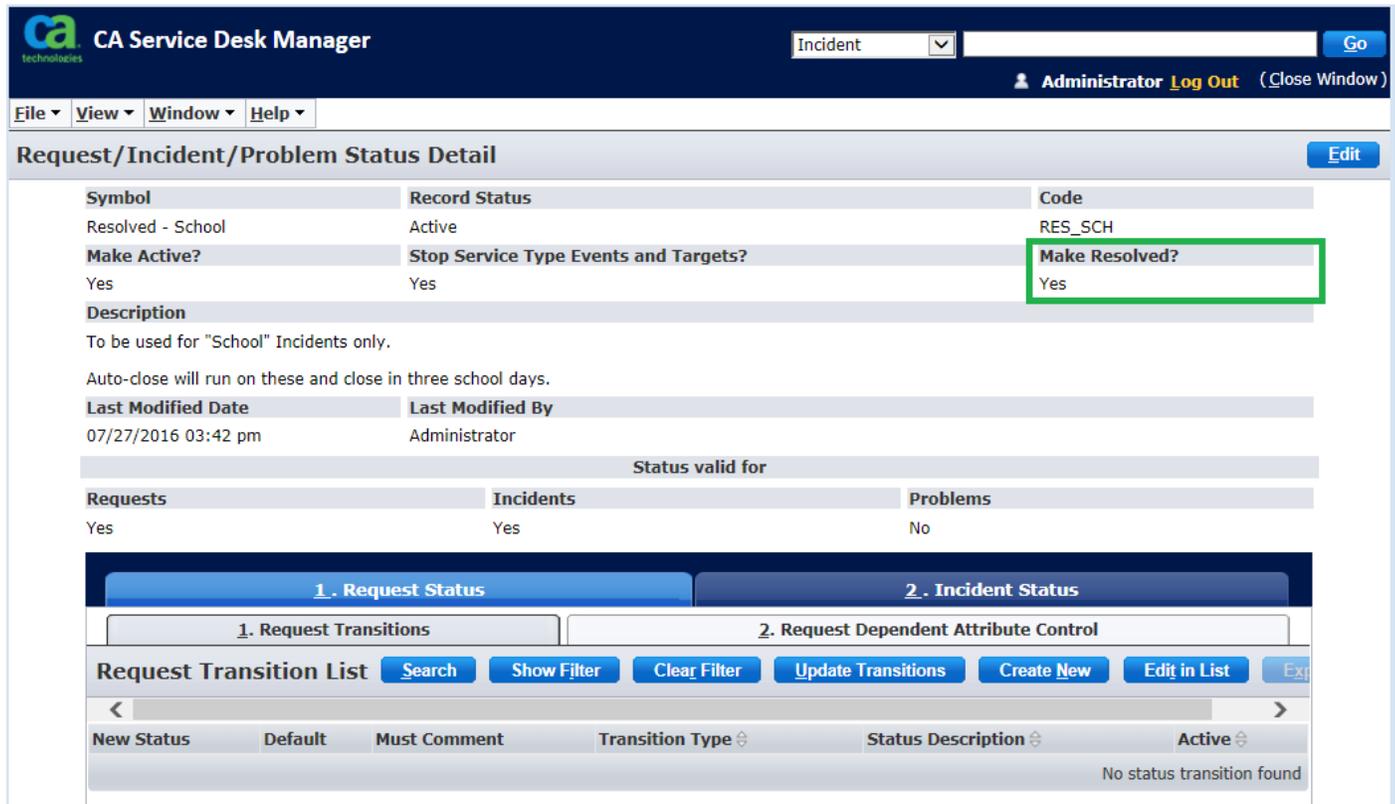
Sydney, Analyst Analyst Detail	
Last Name	Sydney
Contact ID	
Time Zone	Australia - New South Wales
Work Schedule	Regular
Cost	

New York, Server Analyst	
Last Name	New York
Contact ID	
Time Zone	Eastern Time
Work Schedule	24 Hours
Cost	

Incident Status

- A new Incident Status is made at Administration, Service Desk, Requests/Incidents/Problems, Status.
- It must have the flag “Make Resolved?” set to “Yes.”
- Note: This is an optional step for this example only. Normally, use of the default “Resolved” Status is fine.





The screenshot shows the CA Service Desk Manager interface. At the top, there is a header with the CA logo and 'CA Service Desk Manager'. A search bar contains 'Incident' and a 'Go' button. The user is identified as 'Administrator' with 'Log Out' and '(Close Window)' options. A menu bar includes 'File', 'View', 'Window', and 'Help'. The main content area is titled 'Request/Incident/Problem Status Detail' with an 'Edit' button.

Symbol	Record Status	Code
Resolved - School	Active	RES_SCH
Make Active?	Stop Service Type Events and Targets?	Make Resolved?
Yes	Yes	Yes

Description
 To be used for "School" Incidents only.
 Auto-close will run on these and close in three school days.

Last Modified Date	Last Modified By
07/27/2016 03:42 pm	Administrator

Status valid for

Requests	Incidents	Problems
Yes	Yes	No

Below the status table are two tabs: '1. Request Status' and '2. Incident Status'. Under '1. Request Status', there are sub-tabs for '1. Request Transitions' and '2. Request Dependent Attribute Control'. The 'Request Transition List' is visible, featuring buttons for Search, Show Filter, Clear Filter, Update Transitions, Create New, Edit in List, and Export. The list header includes columns for New Status, Default, Must Comment, Transition Type, Status Description, and Active. The current view shows 'No status transition found'.

Test Entry

- An Incident is created and Saved.
- Requester and Affected End User are both for customer "Paris" in our example.
- Update Status is used to change to our new Resolved - School Status.
- An entry is written to the Activity Log. The "On" time is an adjusted Server time that it was set, and the Description is the unchanging text string client time that it will fire.

Adjusting the Out-of-the-Box Timezone Settings and Daylight Saving Time (DST)

CA Service Desk Manager comes pre-populated with Timezone data.

It may sometimes be necessary to update this Timezone data to reflect the correct requirements.

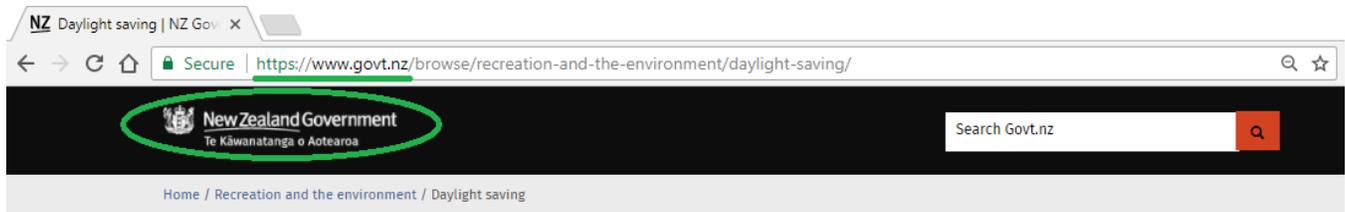
The Daylight Savings Time is the value that is most likely to need adjusting.

You may need to configure new Timezones for the different regions that your organization works in.

It is best to search for a local government website to confirm accurate local data. For example, this search for New Zealand Daylight Savings Time identified this official site:

<https://www.govt.nz/browse/recreation-and-the-environment/daylight-saving/>

Note that the address is www.govt.nz, and is not a private enterprise address.



Recreation and the environment

Freedom camping

Hunting and fishing

NZ's natural resources

Daylight saving

Governing legislation

History of daylight saving in NZ

Public attitudes to daylight saving

Contact

Department of Internal Affairs

Daylight saving

Daylight saving starts when clocks go forward by 1 hour at 2am on 30 September 2018.



Future dates

Daylight saving starts each year on the last Sunday in September, and ends on the first Sunday in April.

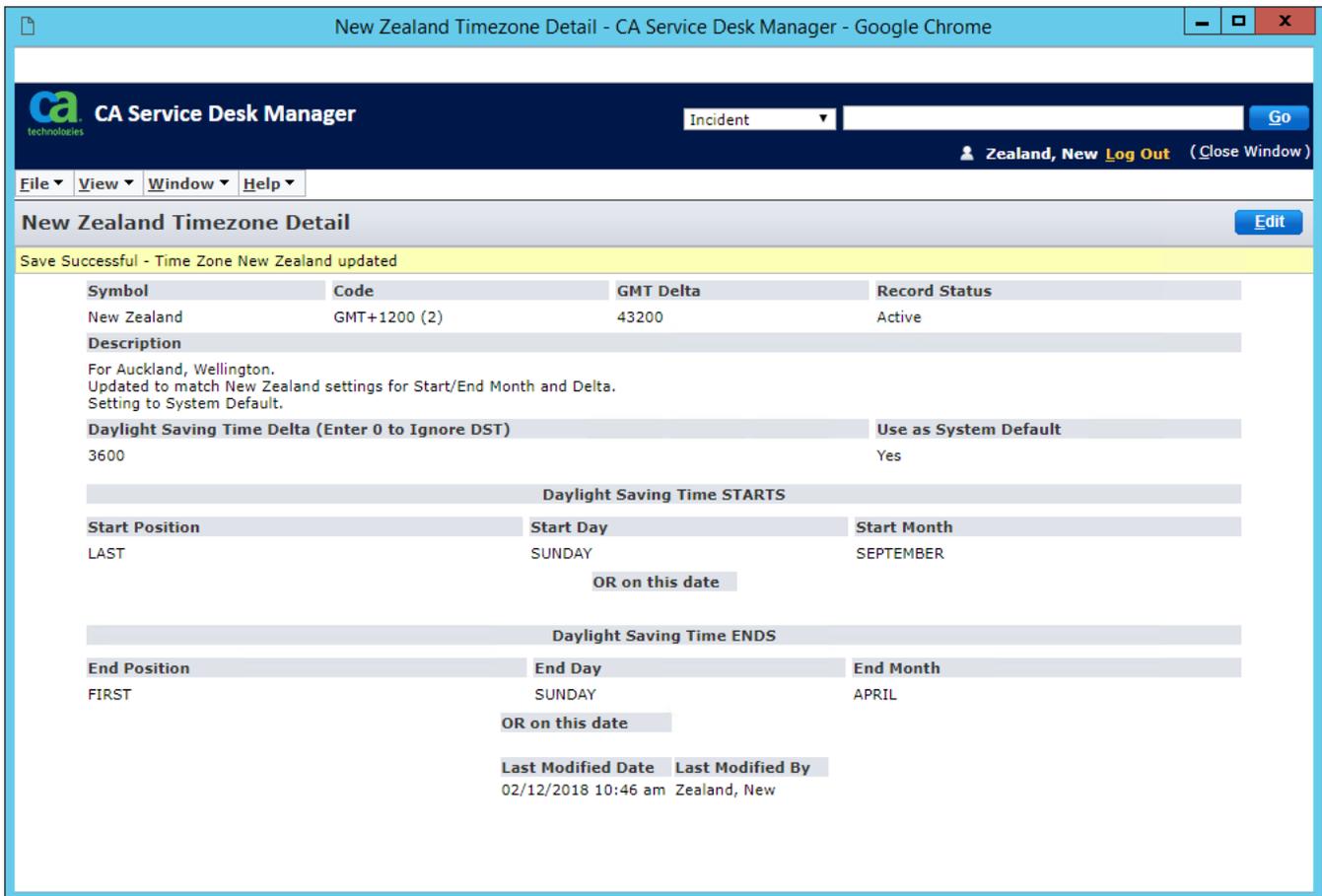
Year	Daylight saving ends	Daylight saving starts
2018	1 April	30 September
2019	7 April	29 September
2020	5 April	27 September

During the daylight saving months we are on 'New Zealand daylight time', which is one hour ahead of New Zealand standard time.

These dates and the time of the change are heavily publicised in the lead up to the change through television and radio advertisements, local council websites and national newspapers.

This information needs to be entered into the Timezone fields. In the following example for New Zealand, almost all of the fields have been updated.

- The Daylight Saving Time offset is one hour. This is entered as the “Daylight Saving Time Delta” in the Timezone setup. The Delta is entered in seconds, without units. So one hour is recorded as “3600”.
- The Daylight Saving Time Start and End are entered in this example using the “Last” and “First” Sunday in their respective months, rather than as a fixed date - which would change in this case.
- “Use as System Default” is used on this system, as the master Timezone. This has little impact if the order of the rules laid out earlier is understood.



The screenshot shows the 'New Zealand Timezone Detail' page in the CA Service Desk Manager. At the top, there is a navigation bar with the CA logo, 'CA Service Desk Manager', a search bar with 'Incident' selected, and a 'Go' button. Below this is a menu bar with 'File', 'View', 'Window', and 'Help'. The main content area has a title 'New Zealand Timezone Detail' and an 'Edit' button. A yellow message bar at the top of the content area says 'Save Successful - Time Zone New Zealand updated'. Below this is a table with the following data:

Symbol	Code	GMT Delta	Record Status
New Zealand	GMT+1200 (2)	43200	Active

Below the table is a 'Description' section with the text: 'For Auckland, Wellington. Updated to match New Zealand settings for Start/End Month and Delta. Setting to System Default.'

There are two main sections for Daylight Saving Time:

Daylight Saving Time STARTS

Start Position	Start Day	Start Month
LAST	SUNDAY	SEPTEMBER

OR on this date

Daylight Saving Time ENDS

End Position	End Day	End Month
FIRST	SUNDAY	APRIL

OR on this date

At the bottom, there is a 'Last Modified Date' and 'Last Modified By' section with the following data:

Last Modified Date	Last Modified By
02/12/2018 10:46 am	Zealand, New

Note:

If an out-of-the-box Timezone setup for a region is wrong, please log an issue with [CA Support](#) with a link to an official source, so that a review may be performed to include this into the default Timezone data.

If there is no official source available, but the information may help other sites, please consider creating a post to CA Communities at [CA Service Desk Manager](#).

Reading Auto-close Activity Logs

Pay attention to the type of field. This is possibly the biggest source of potential confusion.

Fields stored as “Date and time” – such as “On” - will automatically adjust to *reflect the logged in user’s local timezone*.

“String” fields – such as “Description” will contain *hard-coded time fields that relate to the server timezone*.

Being aware that there are “three points of view” will go some way to understanding the times.

- Server timezone
- Logged in user’s timezone
- Requester/Affected End User’s timezone

Troubleshooting Auto-close

1. Understand the setup
2. Simplify where possible to test, such as having the same timezone in use for server, logged in user and Requester/Affected End User.
3. Know which timezone is being used.
4. Consult the stdlogs for Auto-Close entries.
5. **Identify where and when the point of failure occurred:**
 - **At setup**
 - When the Auto-close entry was **first written**
 - When the Auto-close entry was **due to fire**

Setup Issues

Simplification can greatly help with spotting “setup” issues:

- Place all parties in the same timezone
- Simplify the Contact to not have a Location. Set Workshifts to be Default.
- Only use one Contact field on the ticket, or make the Requester and Affected End User the same user.
- Use the Default Workshift.
- Set the Auto-close period to be something clear and recognisable, such as “three hours.”

Wrong Auto-close time set at time of Writing

Auto-close entries that are wrong *when they are written* are seen *immediately* by looking at the Activity Log – there is no need to wait for them to fire. Most likely the setup is wrong.

Failure to Fire

Auto-close entries that *fail to fire* at the time that the Activity Log says they should fire, will most likely write an entry to the stdlog.

This is an example of a Auto-close entry that failed to fire:

```
04/21 09:00:00.37 MY_SERVER_03 spelsrvr 2144 ERROR cr.spl 8154 Unable to
automatically close ticket: cr:1119464 - INVALID
```

Auto-close entries are processed by the Animator, so anything that can interrupt the Animator may also impact Auto-close. The Animator Table should still contain the entries of Auto-close events that are yet to fire.

Examples of things that may slow or interrupt the Animator, include but are not limited to:

- Excess system load
- Customisation issue
- Fields that are mandatory at Close

Reading the Animator Table - the raw Auto-close information

All information accessed through the CA Service Desk Manager web client comes through the filters mentioned earlier, such as the Timezone of the logged in user.

It can be helpful to look at the raw data of the Auto-close. This is particularly useful to see what time an Auto-close event should fire. The time shown in the Animator table should match to that shown in the (adjusted if needed) Activity Log. If no entry is present in the Animator table, then no Auto-close can occur.

Steps to gather the Animator entries

To identify the Auto-close entry from the Animator table, first identify the "persid" of the ticket.

1) Identify the "persid" of the ticket.

Example. The Auto-close issue is known to be **Incident 170**.

Go to a command prompt and run the following command:

```
pdm_extract -f "Select ref_num, id, persid from Call_Req where ref_num='170'"
```

Result:

```
TABLE Call_Req
ref_num id persid
{ "170" , "402051" , "cr:402051" }
```

2) Take the "persid" of "**cr:402051**" and place it into the "t_persid" search of the Animator table:

```
pdm_extract -f "select * from Animator where t_persid='cr:402051'"
```

Result:

```
TABLE Animator
a_act a_delta a_lock a_name a_org a_string a_time id t_method t_persid t_type
tenant
{ "0" , "0" , "cr:402051" , "auto_close_ticket" , "01/01/1970 13:00:00",
"cr:402051" , "02/14/2018 10:00:00" , "406052" , "do_auto_close" , "cr:402051", "1"
, "" }
```

3) (Optional) You may refine the query to look at only specific types of Auto-close events.

This is useful for tickets with lots of Animator Events.

Or you may wish to only pull Auto-close Events from the Animator table.

NOTE: It is possible that Auto-close may write entries other than "do_auto_close", which is why it is best to start with a general query against the ticket first.

Example: This will pull only the "do_auto_close" entries for Incident 170:

```
pdm_extract -f "select * from Animator where t_persid='cr:402051' AND
t_method='do_auto_close'"
```

Result:

```
TABLE Animator
a_act a_delta a_lock a_name a_org a_string a_time id t_method t_persid t_type
tenant
{ "0" , "0" , "cr:402051" , "auto_close_ticket" , "01/01/1970 13:00:00",
"cr:402051" , "02/14/2018 10:00:00" , "406052" , "do_auto_close" , "cr:402051", "1"
, "" }
```

Example: This will pull all "do_auto_close" entries from Animator.

```
pdm_extract -f "select * from Animator where t_method='do_auto_close'"
```

Result:

```
TABLE Animator
a_act a_delta a_lock a_name a_org a_string a_time id t_method t_persid t_type
tenant
{ "0" , "0" , "cr:402051" , "auto_close_ticket" , "01/01/1970 13:00:00",
"cr:402051" , "02/14/2018 10:00:00" , "406052" , "do_auto_close" , "cr:402051", "1"
, "" }
```

4) Review the results. Points to observe are:

A) Are there one (or more) Auto-close entries *present or missing*?

B) Does the time (a_time) *match to the Activity Log* time, or is there a discrepancy.

NOTE: Prior comments about time adjustments for the logged in user apply when reading the Activity Log.

This is why it is easiest to troubleshoot Auto-close issues by using a logged in user that matches to the server time, and to minimise different timezones in the test scenario.

Additional Information.

The ITSM DocOps contains many sections and should be a primary reference source:

ITSM 14.1:

[Time Zone Setup](#)

[Automatic Closure of Tickets](#)

ITSM 17.1

[Time Zone Setup](#)

[Automatic Closure of Tickets](#)

This CA Communities post contains further information: [CA SDM - How to do Auto-close](#)

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