

Campaign Manager API Specification Version 2.0.6

This document is intended for technical personnel who wish to directly access Sign-Up.to's Campaign Manager API over HTTP. Note that in order to directly utilise this functionality, it is essential that you have a Sign-Up.to account.

The Campaign Manager API allows you to create, edit, preview, duplicate and delete both Email and SMS campaigns. In addition to this functionality you can also Schedule and Cancel sending of these campaigns. This API can be accessed via a HTTP request. It should be noted that this API suite will run over SSL (https), and we recommend that it should be if possible.

Set-up

All clients who have access to the main web interface (<http://secure.sign-up.to/>) can find their API access details under the 'Accounts' tab. The hash and cid are listed, and the IP addresses of any servers accessing the API can be added there. If you have any queries or difficulties using this web interface, please contact support@sign-up.to.

Functions

The Campaign Manager API provides the following functions:

- Creating Email Campaigns
- Editing Email Campaigns
- Creating SMS Campaigns
- Editing SMS Campaigns
- Previewing Campaigns
- Duplicating Campaigns
- Deleting Campaigns
- Scheduling Campaigns
- Split Testing
- Cancelling Campaigns
- Campaign Statistics
- Subscriber Searches
- Target Subscribers by Action

Creating Email Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/email.php>

For the script to work correctly, you will need to pass seven GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
name	-	Campaign name, for internal application use only.
subject	-	Email subject.
from_name	-	Email from name.
reply_to	-	Email reply-to address.

One of the following must be included also:

url	-	Fully formatted URL of the location of HTML email code.
plain_text	-	Fully formatted URL of the location of the plain text file.

We will provide you with the cid and hash values.

Optional Parameters:

target_html	-	Option to enable HTML targeting for plain text only campaigns.
track_plain	-	Option to enable link tracking for plain text campaigns.
personalised	-	Option to enable email personalisation in the email body.
friend	-	Option to add "send to a friend" link in the email footer.
from_address	-	Email from address. (Restricted)

twitter - A message that will be posted to any number of Twitter accounts.

twitter_user - The usernames for the Twitter accounts

target_html, track_plain, personalised and friend can be set to 1 or 0 and will be enabled or disabled respectively.

'target_html' and 'track_plain' will only be supported if supplied in conjunction with 'plain_text'. Further more, 'target_html' is only supported should no HTML content have been supplied for the email.

'twitter' can have a maximum length of 140 characters. Sign-Up.to will automatically create a Short Url that can be embedded anywhere in to the message with the %twiturl% token.

To use any number of Twitter accounts, place square brackets after each, e.g. ``twitter_user[]=twit1&twitter_user[]=twit2`` to send to ``twit1`` and ``twit2``. All usernames must have been successfully integrated under Account Integration in → the web interface or an error will be generated.

Because of potential size and legibility issues, ``twitter`` and ``twitter_user`` can instead be passed as POST variables if the API user wishes.

Parameter Exceptions:

By default the `from_address` setting is not allowed and is set to the standard SignUp.to system from address. Should you wish to be able to set this parameter, please contact solutions@sign-up.to who will discuss the "Change 'from' address" options with you.

Should you already have this option enabled for your account, you can use this parameter, in which two options are supported:

Fixed Email:

In this instance, you are only allowed to use the fixed email address(es), as setup with your account manager. If an invalid from address is set, the campaign will be set up to be sent from the standard Sign-Up.to system from address.

Domain:

In this instance, you are only allowed to use the domain(s), as setup with your account manager. If an invalid domain is set, the campaign will be set up to be sent from the standard Sign-Up.to system from address. Should you have this option enabled, the username portion is not restricted.

Results:

Once invoked, this script will create the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Editing Email Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/email.php>

For the script to work correctly, you will need to pass four GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of the campaign you would like to edit.

In addition to the above parameters, at least one of the optional parameters must be supplied.

We will provide you with the cid and hash values.

Optional Parameters:

url	-	Fully formatted URL of the location of HTML email code.
plain_text	-	Fully formatted URL of the location of the plain text file.
name	-	Campaign name, for internal application use only.
subject	-	Email subject.
from_name	-	Email from name.
reply_to	-	Email reply-to address.
target_html	-	Option to enable HTML targeting for plain text only campaigns.
track_plain	-	Option to enable link tracking for plain text campaigns.
personalised	-	Option to enable email personalisation in the email body.
friend	-	Option to add "send to a friend" link in the email footer.
from_address	-	Email from address. (Restricted)

target_html, track_plain, personalised and friend can be set to 1 or 0 and will be enabled or disabled respectively.

'target_html' and 'track_plain' will only be supported if supplied in conjunction with 'plain_text'. Further more, 'target_html' is only supported should no HTML content already exist or have been supplied for the email.

Parameter Exceptions:

By default the from_address setting is not allowed and is set to the standard SignUp.to system from address. Should you wish to be able to set this parameter, please contact solutions@sign-up.to who will discuss the "Change 'from' address" options with you.

Should you already have this option enabled for your account, you can use this parameter, in which two options are supported:

Fixed Email:

In this instance, you are only allowed to use the fixed email address(es), as setup with your account manager. If an invalid from address is set, the campaign will be set up to be sent from the standard Sign-Up.to system from address.

Domain:

In this instance, you are only allowed to use the domain(s), as setup with your account manager. If an invalid domain is set, the campaign will be set up to be sent from the standard Sign-Up.to system from address. Should you have this option enabled, the username portion is not restricted.

Results:

Once invoked, this script will edit the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Creating SMS Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/sms.php>

For the script to work correctly, you will need to pass six GET parameters in the URL.

The parameters are as follows:

Standard SMS Messages:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
type	-	Type of SMS message. In this instance 'sms'.
name	-	Campaign name, for internal application use only.
sender	-	Sender name.
message	-	SMS message

We will provide you with the cid and hash values.

Optional Parameters:

sub_info	-	Appends optional unsubscription information to the end of the SMSmessage.
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Parameter Exceptions:

sub_info	-	This parameter defaults to 0 if not passed. To activate set to 1, to deactivate set to 0.
message	-	A standard SMS message is restricted to 160 characters in length. Should you append the unsubscription information to the message the limit will then be 130.
sender	-	This parameter can either be up to 11 alphanumeric characters long or a 13 digit number.

Results:

Once invoked, this script will create the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Static WAP Messages:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
type	-	Type of SMS message. In this instance 'wap'.
name	-	Campaign name, for internal application use only.
sender	-	Sender name.
wap_message	-	WAP message
wap_url	-	WAP URL

We will provide you with the cid and hash values.

Optional Parameters:

None.

Parameter Exceptions:

sender - This parameter can either be up to 11 alphanumeric characters long or a 13 digit number.

wap_message and wap_url –

A standard WAP message and WAP URL are restricted to 160 characters in length.

Results:

Once invoked, this script will create the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Editing SMS Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/sms.php>

For the script to work correctly, you will need to pass four GET parameters in the URL. The parameters are as follows:

Standard SMS Messages:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of the campaign you would like to edit.

In addition to the above parameters, at least one of the optional parameters must be supplied.

We will provide you with the cid and hash values.

Optional Parameters:

name	-	Campaign name, for internal application use only.
sender	-	Sender name.
message	-	SMS message
sub_info	-	Appends optional unsubscription information to the end of the SMS message.

Parameter Exceptions:

sub_info	-	This parameter defaults to 0 if not passed. To activate set to 1, to deactivate set to 0. NOTE: If sub_info is passed when the script is invoked, the message parameter is compulsory.
message	-	A standard SMS message is restricted to 160 characters in length. Should you append the unsubscription information to the message the limit will then be 130.
sender	-	This parameter can either be up to 11 alphanumeric characters long or a 13 digit number.

Results:

Once invoked, this script will edit the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Previewing Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/preview.php>

For the script to work correctly, you will need to pass four GET parameters in the URL. The fourth parameter will depend on what type of campaign you would like to preview. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of campaign you would like to preview.

For email campaigns:

email	-	Correctly formatted email address. Multiple email addresses can be separated by comma.
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For SMS campaigns:

mobile	-	Correctly formatted international mobile number.
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We will provide you with the cid and hash values.

Optional Parameters:

None.

Results:

Once invoked, this script will send the preview message and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Duplicating Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/duplicate.php>

In the event that a campaign message has been used, you will not be able to edit it. In order to edit the campaign message you must duplicate it and work on the copy.

For the script to work correctly, you will need to pass three GET parameters in the URL. The parameters are as follows:

Require Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of campaign you would like to duplicate.

We will provide you with the cid and hash values.

Optional Parameters:

duplicate_name	-	New name for campaign.
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Results:

Once invoked, this script will duplicate the campaign and upon success, the new campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Deleting Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/delete.php>

For the script to work correctly, you will need to pass three GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of the campaign you would like to delete.

We will provide you with the cid and hash values.

Optional Parameters:

None.

Results:

Once invoked, this script will delete the campaign and upon success, the campaign id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Scheduling Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/send.php>

For the script to work correctly, you will need to pass three GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
campaign_id	-	Id of the campaign you would like to send.

We will provide you with the cid and hash values.

Optional Parameters:

list_id	-	Id of the list you'd like to send to.
search_id	-	Id of the subscriber search you'd like to send to.
send_time	-	Time you would like the message to be sent. Format: yyyy-mm-dd%20hh:mm (UK time)
locale (see appendix)	-	Region to which send_time corresponds (e.g. 'Europe/Paris') [If omitted, send_time will be considered as UK time]
num_hours	-	The overall number of hours the campaign should take
num_per_hour	-	The number of messages that should be sent per hour
google_analytics	-	If set to a non-zero value Google Analytics will be enabled

NOTE: list_id and search_id cannot be used in conjunction with each other.

NOTE: num_hours and num_per_hour cannot be used in conjunction with each other.

Parameter Exceptions:

list_id/search_id	-	If both are omitted the campaign will be scheduled to be sent to 'All Subscriber'. Otherwise use the id of the list/search you want to send to.
send_time	-	If omitted, the campaign will be scheduled immediately.
num_hours/num_per_hour	-	If both are omitted or set to zero, messages will be sent as fast as possible.

Results:

Once invoked, this script will schedule the campaign and upon success, the task id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

NOTE: If you are using email credits, and do not have enough to send to the specified subscribers, it will return an error and refuse to send the campaign.

NOTE: Due to the nature of this script its execution time can vary. This mainly depends on the size of the list you are attempting to send the campaign to. Please bear this in mind when invoking this script.

Scheduling a Split Test

The URL for the script you will need to call is: https://api.sign-up.to/split_test.php

For the script to work correctly, you will need to pass the following parameters:

GET Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.

We will provide you with the cid and hash values.

Other Parameters:

list_id	-	Id of the list you'd like to send to.
search_id	-	Id of the subscriber search you'd like to send to.
send_time	-	Time you would like the message to be sent. Format: yyyy-mm-dd%20hh:mm
name	-	The name of the split test
segment	-	A list of segments
split_type	-	Split the test by 'number' or 'percentage' of contacts
split_percentage	-	The percentage to split the target list by
split_number	-	The number of contacts to send to each split test
exclude	-	Exclude contacts added in less than this number of hours
criterion	-	The selection criteria – either 'open' or 'click'
action	-	The action to take after split testing, 'targetwinner' or 'tellme'
delay	-	The delay after the split test to check the results
num_hours	-	The overall number of hours the campaign should take
num_per_hour	-	The number of messages that should be sent per hour
google_analytics	-	If set to a non-zero value Google Analytics will be enabled

NOTE: list_id and search_id can not be used in conjunction with each other.

NOTE: num_hours and num_per_hour can not be used in conjunction with each other.

Parameter Exceptions:

list_id/search_id – These are mutually exclusive

segment – At least two different campaigns must be specified

Format: `segment[]=message1&segment[]=message2`

num_hours/num_per_hour – If both are omitted or set to zero, messages will be sent as fast as possible.

Results:

Once invoked, this script will schedule each segment and return the ID of the split test. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

NOTE: If you are using email credits, and do not have enough to send to the specified subscribers, it will return an error and refuse to send the campaign.

NOTE: Due to the nature of this script its execution time can vary. This mainly depends on the size of the list you are attempting to send the campaign to. Please bear this in mind when invoking this script.

Cancelling Campaigns

The URL for the script you will need to call is: <https://api.sign-up.to/cancel.php>

For the script to work correctly, you will need to pass four GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
task_id	-	Id of the task you'd like to cancel.
campaign_id	-	Id of the campaign associated with this task.

We will provide you with the cid and hash values.

Optional Parameters:

None.

Results:

Once invoked, this script will cancel the task and upon success, the task id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

NOTE: This task we be cancelled straight away. However, in the event that the task has already started, some messages will have already been sent. Therefore, the tracking results for this campaign will be incomplete.

Campaign Statistics

Campaign statistics and information can be retrieved in two ways. A HTML email containing all analysis can be assembled and despatched to a given address, or individual details can be obtained with discrete API calls.

To receive statistics by email - URL is: <https://api.sign-up.to/stats.php>

For the script to work correctly, you will need to pass four GET parameters in the URL. The parameters are as follows:
Required Parameters:

cid	-	account Identifier
hash	-	encrypted access hash
task_id	-	ID of the campaign you'd like to receive statistics for
email	-	email address to receive the statistics

We will provide you with the cid and hash values.

Optional Parameters:

None.

Results:

Once invoked, this script will email a copy of the campaign statistics for this campaign to the email address provided. Upon success, the task id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Individual campaign statistics – URL is:

<http://api.sign-up.to/campaignstats.php>

Required Parameters

cid	-	account identifier
hash	-	encrypted access hash
campaign	-	campaign id
mode	-	defines information required

Mode values

The required 'mode' parameter can be set as follows:

get_name	-	campaign name
get_type	-	campaign type (email or sms)
get_sendtime	-	time the campaign was scheduled to be sent
get_fromname	-	email or sms from field
get_username	-	username of the account that scheduled the campaign
get_userrealname	-	real name of the user that scheduled the campaign
get_subject	-	campaign email subject (n/a sms)
count_sent	-	messages sent
count_rejected	-	messages bounced (email) or failed (sms)
count_opened	-	emails opened with images, or sms reported delivered
count_softbounces	-	emails returned with a temporary error
count_hardbounces	-	emails returned with a permanent error
count_htmlclicks	-	total clicks on html links (email only)
count_textclicks	-	total clicks on text tracked links (email only)
count_clickers	-	number of subscribers who clicked any links
count_forwarders	-	number of subscribers who forwarded this campaign (email only)
count_webviews	-	number of campaign web views (email only)
count_spamcomplaints	-	number of complaints received from ISPs (email only)
count_goalconversions	-	number of subscribers who reached a tracking goal
count_goallinks	-	number of goal tracking links clicked

Subscriber Searches

The URL for the script you will need to call is: <https://api.sign-up.to/search.php>

For the script to work correctly, you will need to pass three GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account Identifier.
hash	-	Encrypted access hash.
mode	-	Mode defines which search feature you would like to use.

We will provide you with the cid and hash values.

Adding a Search

In order to add a search to your Sign-Up.to account you will need to set the mode to add (mode=add) and pass the following required parameters:

Required Parameters:

name	-	Search name, for internal application use only.
list_id	-	Ids of the lists you would like this search to target.

Optional Parameters:

not_list_id	-	Ids of the lists you would like to exclude from this search.
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This feature allows you to easily target subscribers who are on one group of lists but not on another.

Results:

Once invoked, this script will create a subscriber search based on the list ids provided. Upon success, the search id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Viewing a Search

In order to view a search in your Sign-Up.to account you will need to set the mode to view (mode=view) and pass the following required parameter:

Required Parameter:

search_id - Id of the search.

Results:

Once invoked, this script will return the list ids contained in the search. Upon success, the list ids will be returned in the format:

```
list_id:1234,5678;
```

If the subscriber search includes not list ids, the format will change to:

```
list_id:1234,5678;not_list_id:4321;
```

In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message. If you're unsure about the format of the results, please contact the author of this specification.

Deleting a Search

In order to delete a search from your Sign-Up.to account you will need to set the mode to delete (mode=delete) and pass the following required parameter:

Required Parameter:

search_id - Id of the search.

Results:

Once invoked, this script will delete the subscriber search. Upon success, the search id will be returned. In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact us at support@sign-up.to quoting the error message.

Target Subscribers by Action

This feature allows you to create a list of subscribers who've performed specific actions within a campaign.

The URL for the script you will need to call is: <http://api.sign-up.to/target.x>

For the script to work correctly, you will need to pass six GET parameters in the URL. The parameters are as follows:

Required Parameters:

cid	-	Account identifier.
hash	-	Encrypted access hash.
task_id	-	Id of the task you'd like to receive statistics for.
email	-	Email address.
mode	-	Mode defines which target feature you would like to use.

One of the following must be included also:

list_id - ID of the current list where you'd like to store the action results in.

list_name - Name of the new list where you'd like to store the action results in.

Note: In the event that both list_id and list_name are specified, list_id will take precedence and a new list will not be created.

We will provide you with the cid and hash values.

Optional Parameters:

None.

Opened

In order to select all subscribers who opened a campaign you will need to set the mode to opened (mode=opened)

Not Opened

In order to select all subscribers who received but did not open a campaign you will need to set the mode to not_opened (mode=not_opened)

Forwarded

In order to select all subscribers who forwarded a campaign you will need to set the mode to forward (mode=forward)

Link Clicks - HTML

In order to select all subscribers who clicked links in the HTML version of this campaign you will need to set the mode to html (mode=html_links)

Link Clicks - Text

In order to select all subscribers who clicked links in the Text version of this campaign you will need to set the mode to text (mode=text_links)

Results:

Once invoked, this script will perform a search on the specified task looking for subscribers who have performed the requested action.

If results are successfully found they will be added to your new or existing list, and the script will return that list ID. If no results are found, the script will return 0.

In the event of an error whilst the application processes your request, an error message will be returned. If you have difficulties interpreting this error message, please contact support@sign-up.to quoting the error message.

Contact Details

For technical help and support please contact:

support@sign-up.to

t: 020 3355 2630 (9.30am - 6.00pm UK weekdays)

Appendix A – permissible locales

US/Aleutian	Antarctica/DumontDUrville	America/Chicago
US/East-Indiana	Antarctica/Palmer	America/Tegucigalpa
US/Hawaii	Antarctica/Mawson	America/Thule
US/Arizona	Mideast/Riyadh87	America/New_York
US/Samoa	Mideast/Riyadh89	America/Dominica
US/Pacific	Mideast/Riyadh88	America/Atikokan
US/Alaska	America/Barbados	America/Grand_Turk
US/Central	America/Rankin_Inlet	America/Nassau
US/Michigan	America/Chihuahua	America/North_Dakota
US/Eastern	America/Guyana	America/Panama
US/Mountain	America/Edmonton	America/St_Lucia
US/Indiana-Starke	America/Marigot	America/Belize
Australia/Lord_Howe	America/Blanc-Sablon	America/Adak
Australia/NSW	America/Detroit	America/Mendoza
Australia/LHI	America/Whitehorse	America/Rio_Branco
Australia/Tasmania	America/Knox_IN	America/Curacao
Australia/Sydney	America/Virgin	America/Antigua
Australia/Yancowinna	America/Maceio	America/Goose_Bay
Australia/Darwin	America/Anguilla	America/Puerto_Rico
Australia/West	America/Mazatlan	America/Kentucky
Australia/ACT	America/St_Barthelemy	America/Santarem
Australia/Canberra	America/Hermosillo	America/Lima
Australia/Perth	America/Jamaica	America/Guatemala
Australia/Adelaide	America/Indiana	America/Ensenada
Australia/South	America/Menominee	America/Kralendijk
Australia/Lindeman	America/Dawson	America/Manaus
Australia/Currie	America/Danmarkshavn	America/Santa_Isabel
Australia/Melbourne	America/Montreal	America/Port_of_Spain
Australia/Queensland	America/Louisville	America/Los_Angeles
Australia/Broken_Hill	America/Anchorage	America/Martinique
Australia/Brisbane	America/Argentina	America/Vancouver
Australia/Hobart	America/Cayenne	America/Campo_Grande
Australia/Victoria	America/Swift_Current	America/Coral_Harbour
Australia/Eucla	America/Cordoba	America/St_Johns
Australia/North	America/Pangnirtung	America/Port-au-Prince
Antarctica/Syowa	America/Tijuana	America/Rainy_River
Antarctica/Vostok	America/Nome	America/Noronha
Antarctica/South_Pole	America/Tortola	America/Godthab
Antarctica/Casey	America/Managua	America/Mexico_City
Antarctica/Rothera	America/Sitka	America/Juneau
Antarctica/Macquarie	America/Glace_Bay	America/Resolute
Antarctica/McMurdo	America/Rosario	America/Toronto
Antarctica/Davis	America/Porto_Velho	America/Denver

America/Santiago	America/Merida	Europe/Vatican
America/Guadeloupe	America/Bahia_Banderas	Europe/Vaduz
America/Atka	America/Ojinaga	Europe/Zurich
America/La_Paz	America/Phoenix	Europe/Luxembourg
America/Metlakatla	America/Cambridge_Bay	Europe/Lisbon
America/Montevideo	America/St_Vincent	Europe/Simferopol
America/Inuvik	America/Araguaina	Europe/Paris
America/Sao_Paulo	America/Montserrat	Europe/Bratislava
America/Monterrey	America/Halifax	Europe/Volgograd
America/Costa_Rica	America/Matamoros	Europe/Podgorica
America/Santo_Domingo	America/Grenada	Europe/Istanbul
America/Nipigon	America/Catamarca	Europe/Stockholm
America/Moncton	America/Cuiaba	Europe/Rome
America/Regina	America/Cancun	Europe/London
America/Bogota	Europe/San_Marino	Europe/Tallinn
America/Belem	Europe/Vienna	Europe/Amsterdam
America/Bahia	Europe/Moscow	Europe/Kaliningrad
America/Cayman	Europe/Copenhagen	Europe/Minsk
America/Dawson_Creek	Europe/Sarajevo	Europe/Guernsey
America/Yakutat	Europe/Mariehamn	Europe/Gibraltar
America/Asuncion	Europe/Oslo	Europe/Athens
America/Boa_Vista	Europe/Isle_of_Man	Europe/Kiev
America/Eirunepe	Europe/Jersey	Europe/Uzhgorod
America/Scoresbysund	Europe/Zagreb	Europe/Andorra
America/Miquelon	Europe/Madrid	Europe/Bucharest
America/Lower_Princes	Europe/Chisinau	Mexico/BajaSur
America/Indianapolis	Europe/Samara	Mexico/General
America/Jujuy	Europe/Vilnius	Mexico/BajaNorte
America/Thunder_Bay	Europe/Ljubljana	Canada/Saskatchewan
America/Recife	Europe/Belgrade	Canada/Newfoundland
America/Buenos_Aires	Europe/Berlin	Canada/Yukon
America/Caracas	Europe/Skopje	Canada/Pacific
America/Porto_Acre	Europe/Riga	Canada/Central
America/Yellowknife	Europe/Dublin	Canada/Atlantic
America/Iqaluit	Europe/Monaco	Canada/East-Saskatchewan
America/Winnipeg	Europe/Sofia	Canada/Eastern
America/Boise	Europe/Warsaw	Canada/Mountain
America/Paramaribo	Europe/Prague	Pacific/Tongatapu
America/St_Kitts	Europe/Tiraspol	Pacific/Tahiti
America/Guayaquil	Europe/Nicosia	Pacific/Saipan
America/Fort_Wayne	Europe/Malta	Pacific/Auckland
America/El_Salvador	Europe/Belfast	Pacific/Pago_Pago
America/St_Thomas	Europe/Helsinki	Pacific/Fiji
America/Havana	Europe/Zaporozhye	Pacific/Enderbury
America/Shiprock	Europe/Budapest	Pacific/Palau
America/Fortaleza	Europe/Brussels	Pacific/Midway
America/Aruba	Europe/Tirane	Pacific/Ponape

Pacific/Norfolk	Brazil/DeNoronha	Etc/GMT-5
Pacific/Wake	Brazil/East	Etc/GMT-4
Pacific/Easter	Atlantic/Reykjavik	Africa/Ouagadougou
Pacific/Johnston	Atlantic/Stanley	Africa/Mbabane
Pacific/Rarotonga	Atlantic/South_Georgia	Africa/Maseru
Pacific/Niue	Atlantic/Faeroe	Africa/Djibouti
Pacific/Guadalcanal	Atlantic/Bermuda	Africa/Gaborone
Pacific/Funafuti	Atlantic/Canary	Africa/Conakry
Pacific/Pohnpei	Atlantic/Azores	Africa/Timbuktu
Pacific/Kwajalein	Atlantic/Cape_Verde	Africa/Khartoum
Pacific/Truk	Atlantic/Faroe	Africa/Casablanca
Pacific/Samoa	Atlantic/St_Helena	Africa/Lome
Pacific/Kiritimati	Atlantic/Jan_Mayen	Africa/Juba
Pacific/Guam	Atlantic/Madeira	Africa/Mogadishu
Pacific/Fakaofu	Etc/GMT+7	Africa/El_Aaiun
Pacific/Tarawa	Etc/Greenwich	Africa/Ceuta
Pacific/Marquesas	Etc/Universal	Africa/Maputo
Pacific/Chuuk	Etc/GMT-3	Africa/Kigali
Pacific/Kosrae	Etc/GMT-13	Africa/Sao_Tome
Pacific/Yap	Etc/GMT-7	Africa/Nouakchott
Pacific/Port_Moresby	Etc/GMT+5	Africa/Lusaka
Pacific/Apia	Etc/GMT-9	Africa/Johannesburg
Pacific/Efate	Etc/GMT-0	Africa/Harare
Pacific/Pitcairn	Etc/GMT+12	Africa/Dar_es_Salaam
Pacific/Wallis	Etc/UCT	Africa/Dakar
Pacific/Majuro	Etc/GMT-6	Africa/Freetown
Pacific/Chatham	Etc/GMT-11	Africa/Banjul
Pacific/Galapagos	Etc/GMT+4	Africa/Niamey
Pacific/Nauru	Etc/GMT-14	Africa/Monrovia
Pacific/Honolulu	Etc/GMT+0	Africa/Accra
Pacific/Noumea	Etc/GMT+3	Africa/Tunis
Pacific/Gambier	Etc/GMT-1	Africa/Kinshasa
Indian/Mayotte	Etc/GMT-2	Africa/Brazzaville
Indian/Kerguelen	Etc/GMT+1	Africa/Cairo
Indian/Christmas	Etc/GMT+10	Africa/Porto-Novo
Indian/Chagos	Etc/GMT+6	Africa/Libreville
Indian/Mahe	Etc/GMT+9	Africa/Asmera
Indian/Antananarivo	Etc/GMT-10	Africa/Bamako
Indian/Cocos	Etc/GMT0	Africa/Blantyre
Indian/Reunion	Etc/GMT+8	Africa/Bangui
Indian/Comoro	Etc/GMT+2	Africa/Algiers
Indian/Mauritius	Etc/GMT-12	Africa/Windhoek
Indian/Maldives	Etc/GMT	Africa/Abidjan
Chile/Continental	Etc/GMT-8	Africa/Ndjamena
Chile/EasterIsland	Etc/Zulu	Africa/Lagos
Brazil/Acre	Etc/UTC	Africa/Douala
Brazil/West	Etc/GMT+11	Africa/Tripoli

Africa/Bujumbura
Africa/Luanda
Africa/Nairobi
Africa/Lubumbashi
Africa/Kampala
Africa/Malabo
Africa/Bissau
Africa/Asmara
Africa/Addis_Ababa
Arctic/Longyearbyen
Asia/Dushanbe
Asia/Novosibirsk
Asia/Amman
Asia/Vientiane
Asia/Bangkok
Asia/Tashkent
Asia/Baghdad
Asia/Karachi
Asia/Bishkek
Asia/Colombo
Asia/Phnom_Penh
Asia/Jakarta
Asia/Ulaanbaatar
Asia/Ulan_Bator
Asia/Riyadh
Asia/Yerevan
Asia/Hovd
Asia/Manila
Asia/Macao
Asia/Kamchatka
Asia/Thimbu
Asia/Pontianak
Asia/Aden
Asia/Tokyo
Asia/Hong_Kong
Asia/Baku
Asia/Krasnoyarsk
Asia/Brunei
Asia/Nicosia
Asia/Jayapura
Asia/Seoul
Asia/Kuwait
Asia/Aqtobe
Asia/Katmandu
Asia/Taipei
Asia/Chongqing
Asia/Singapore

Asia/Dili
Asia/Riyadh87
Asia/Chungking
Asia/Dubai
Asia/Yekaterinburg
Asia/Tbilisi
Asia/Urumqi
Asia/Ujung_Pandang
Asia/Dhaka
Asia/Saigon
Asia/Almaty
Asia/Kathmandu
Asia/Choibalsan
Asia/Jerusalem
Asia/Riyadh89
Asia/Vladivostok
Asia/Samarkand
Asia/Riyadh88
Asia/Macau
Asia/Kabul
Asia/Irkutsk
Asia/Tel_Aviv
Asia/Thimphu
Asia/Ashkhabad
Asia/Istanbul
Asia/Muscat
Asia/Qatar
Asia/Tehran
Asia/Kuching
Asia/Gaza
Asia/Oral
Asia/Yakutsk
Asia/Makassar
Asia/Sakhalin
Asia/Pyongyang
Asia/Qyzylorda
Asia/Rangoon
Asia/Calcutta
Asia/Aqtau
Asia/Anadyr
Asia/Omsk
Asia/Damascus
Asia/Kashgar
Asia/Ashgabat
Asia/Magadan
Asia/Beirut
Asia/Bahrain

Asia/Ho_Chi_Minh
Asia/Harbin
Asia/Kolkata
Asia/Dacca
Asia/Shanghai
Asia/Novokuznetsk
Asia/Kuala_Lumpur
Asia/Hebron