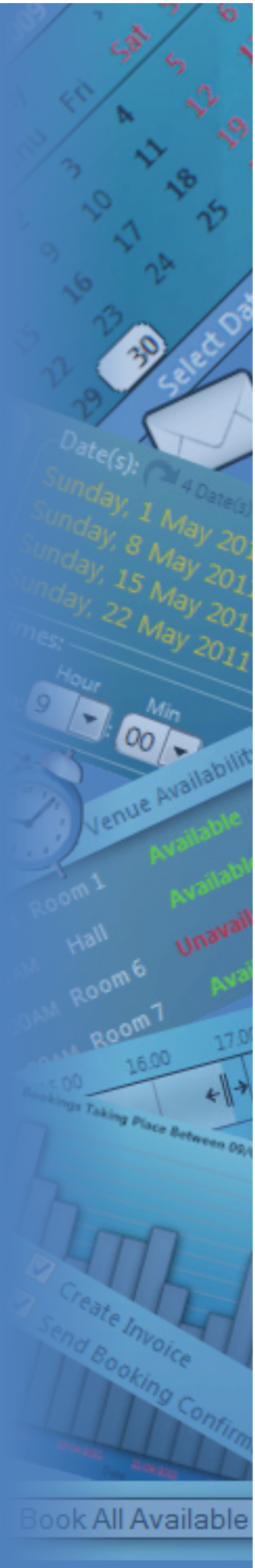

MIDAS

API Documentation

http://mid.as/api

v2.08

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API Usage Guide

Overview

The MIDAS API (Application Programming Interface) allows developers to interface directly with MIDAS from their own applications.

Installing the API

The MIDAS API is an optional add-on for MIDAS v4.03 (or later), that can be purchased along with MIDAS, or added at a later stage.

- To purchase MIDAS and the API addon, please visit: https://mid.as/purchase
- To add the API addon to an existing MIDAS installation, please go to MIDAS Admin Options → Manage Addons → Available Addons → API Access

Once purchased, the API will become available for one-click installation via MIDAS Admin Options → Manage Addons → Addons Ready To Install → API Access

Once installed, various API settings are available via MIDAS Admin Options → Manage Addons → Installed Addons → API Access

Making API calls

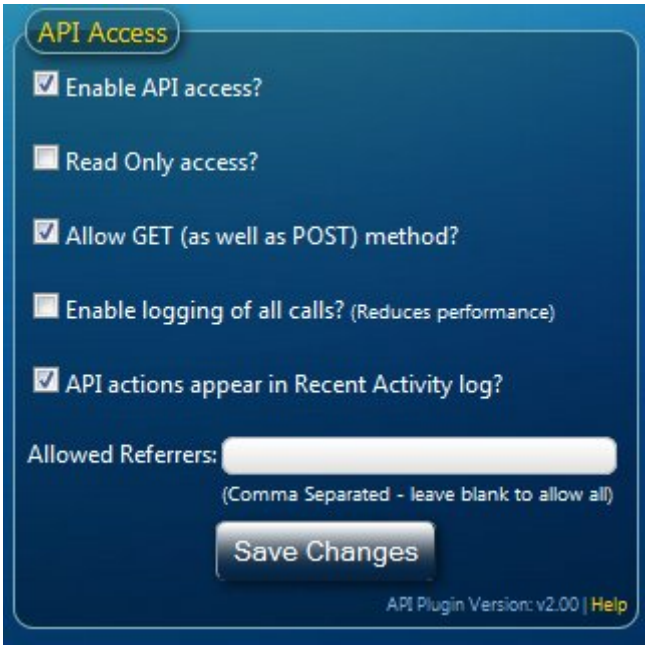
To make an API call, your application will need to perform an HTTP POST request (GET requests can also be enabled - see API Settings below) to http://your_midas_url/api.pl. Each request must include as a minimum your unique API key, an API command and all associated required parameters for the API command issued. Please refer to the API Command Reference for details of available API commands and associated parameters.

API responses

The MIDAS API returns JSON (JavaScript Object Notation) formatted data. Example responses are shown throughout the API Command Reference. Error responses are also returned in JSON format and denoted by the term “error”.

API Settings

A number of API settings are available via MIDAS Admin Options → Manage Add-ons → API Access.



Setting	Description
Enable API access?	Allows enabling/disabling of API access. If disabled, any API calls will return: `{"error":"not enabled"}`
Read Only access?	With this setting enabled, the API will operate in "read-only" mode and will be prevented from making any changes to your MIDAS. If you only intend to read data from MIDAS, and not write/make changes using the API, you should select this option.
Allow GET (as well as POST) method?	By default, only http POST requests to the API are allowed, and http GET requests are rejected. Enabling this setting will allow you to perform either GET and POST http requests to the API
Enable logging of all calls?	*(Only available to self-hosted editions of MIDAS)* When enabled, API calls will be logged to an api_log.dat file (located in your MIDAS directory). The format of each line of this file is as follows: `timestamp  IP_address  api_command` This can be used to log/monitor calls to your API. It should only be enabled for debugging purposes as it will reduce performance of the API, and may lead to a large api_log.dat file if left enabled for a long of time.
API actions appear in Recent Activity log?	By default when a user performs an action in MIDAS (such as adding a booking), the action is recorded in the Recent Activity log. This setting controls whether actions performed through the API that result in changes to data within MIDAS should also be included in the Recent Activity log.
Allowed Referrers	Allows calls to your API to be restricted from certain domains/IP addresses. If left blank, API calls will be allowed from any referrer. For calls from banned referrers, the API will return: `{"error":"referrer not allowed"}`

Global Parameters

The following parameters must be supplied with each API call

Required Parameters	Possible Values	Description
key	*<API key>*	Your unique API key. For security, the API will only respond to your unique key. Calls made to the API without a key, or with an invalid key, will not be processed. You should not make your API key visible/available to anyone.
action	*<API command>*	The action you wish the API to perform. See the API Command Reference for a full list of supported commands.

The following parameters are optional, but may also be included with any API call

Optional Parameters	Possible Values	Description
l	*<language>*	By default, the API will use the “en-US” language pack where applicable. To optionally use a different language pack, its corresponding language code can be specified.
db	*<database>*	MIDAS allows you to optionally run multiple, independent, databases from the same interface. If multiple databases have been setup in your MIDAS, API calls will be made to whichever database is currently set as the "default". To make API calls to one of the other defined databases, its corresponding database code can be passed in the "db" parameter. To locate the correct database code to pass with the "db" parameter, open up your midasglobal.dat settings file in a standard text editor and locate the <database> section within this file. This section contains details of all defined databases for your MIDAS. The database "code" to use is the current value of the "r" parameter for the relevant database.
epoch	1 | 0	For API calls that require start/end times, setting “epoch” to “1” will accept start/end values in epoch seconds (instead of the default YYYYMMDDHHMM format) For API calls that return a date/time, setting “epoch” to “1” will return date/time values in epoch seconds (instead of following the current MIDAS date/time format settings, for instance, “DD/MM/YYYY @ HH:MM”

What are epoch seconds?

Epoch seconds are the number of seconds that have elapsed since midnight Coordinated Universal Time (UTC) on 1 January 1970

Scope

Version 1.xx of the API offered a "read-only" interface to the MIDAS system, allowing data to be read, but not be added, changed, or removed.

Version 2.xx of the API provides a "bi-directional" interface to the MIDAS system, allowing data to be both read and also to be added, changed, or removed.

API Command Reference

add_booking

Adds a new booking.

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Start time
end	Valid date and time (Format: YYYYMMDDHHMM)	End time
venue	Venue ID | Venue Name	The unique numeric ID or the name of the venue the booking is for

Optional Parameters	Possible Values	Description
client	Client ID	The numeric ID of the existing client that the booking to be added is for
type	Booking Type ID | Booking Type Name	The numeric ID of the Booking Type, or the name of the Booking Type the booking should be assigned
attendees	Number	The number of booking attendees
notes	String	Notes about the booking
resources	Quantity & Resource ID |Resource Name	Resources to be added to the booking. Values should be passed as "qty|resource (ID or name)". For example, to add 2 Tables to a booking, pass "2|Tables". This parameter can be added multiple times to add further resources
accept_limited_resources	0 | 1	For bookings with Resources, this parameter determines whether those bookings should still be added if the quantity of resources requested isn't available. For example, if you add 10 Tables to a booking, yet only 5 Tables are available, an error will be returned and the booking won't be added. However, passing the `accept_limited_resources` parameter with a value of "`1`" will add the booking, but with reduced resource quantities (in the previous example, this would mean that only 5 Tables would be added to the booking, instead of the desired 10)
no_watches	0 | 1	Setting the "`no_watches`" parameter to "`1`" will suppress generation of Watch notifications for users who are monitoring new bookings, otherwise omitting this parameter (or setting it to "`0`") will allow Watch notifications to be generated accordingly
status	request | confirmed	If omitted or set to "`confirmed`", bookings will be added. If set to "`request`", the booking will be added as a provisional booking "request" only
<custom fields>	Custom Value	If you've defined custom booking fields in your MIDAS, you can optionally specify values for these fields for the booking you're adding. For example, if you have a custom field named "My

	Custom Field", you would pass the parameter "`my_custom_field`" together with the value you wish to set

Example Response

```
{
	"booking_added":"123"
}
```

Variables Returned (on success)	
booking_added	A unique booking ID corresponding the newly added booking

Variables Returned (on error)	

error	The reason why the booking couldn't be added. Typical examples include:
	`Unavailable` *(clashes with an existing booking)*
	`Unavailable - Blocked By Meeting Room 1`
	`45 Attendees will exceed the maximum capacity of Meeting Room 1 (15)`
	`Outside Operating Hours`
	`Venue unavailable from 1/1/2015`
	`Venue unavailable between 1/1/2015-1/2/2015`
	`Venue not available until 1/1/2015`
	`Only x5 Tables Available`

add_client

Adds a new client record.

Required Parameters	Possible Values	Description
client	String	Client name

Optional Parameters	Possible Values	Description
org	String	The client's Organization name
email	Email address	The client's Email address
address	String	The client's postal/mailing address
phone	Number	The client's telephone number
fax	Number	The client's fax number
mobile	Number	The client's mobile/cell number
notes	String	Notes about the client
tax_exempt	0 | 1	Specifies whether the client is exempt from being charged tax on their invoices. If this parameter is omitted a default value of "0" will be assumed (i.e. client' is not exempt from tax)quantities (in the previous example, this would mean that only 5 Tables would be added to the booking, instead of the desired 10)

Example Response

```
{
	"client_added":"56"
}
```

Variables Returned	
client_added	A unique client ID corresponding the newly added client record

add_invoice

Creates a new invoice.

Required Parameters	Possible Values	Description
client	Client ID	The numeric ID of the existing client that the invoice being added for
item_*x*	String	The item to be invoiced. Increment *x* to each new item to appear on the invoice. For example, to create an invoice with two items, the first item to appear on the invoice should be passed as `item_1`, the second as `item_2`, and so forth
qty_*x*	Number	The quantity of the corresponding `item_x` item to be added
rate_*x*	Number	The rate (charge) (without currency symbol - i.e. 10.00) of the corresponding `item_x` item to be added

Optional Parameters	Possible Values	Description
notes	String	Additional notes to appear on the invoice
tax	Number	The percentage rate of tax to be applied to the invoice. If this parameter is omitted, the default tax rate will be applied

Example Response

```
{
	"invoice_added":"MIDAS00075"
}
```

Variables Returned	
invoice_added	The Invoice number/reference of the newly created invoice

add_resource

Adds a new resource to the system.

Required Parameters	Possible Values	Description
resource	String	The name of the new resource

Optional Parameters	Possible Values	Description
type	equipment | consumable | staffing	The type of resource to be added. If this parameter is omitted, the resource type will default to "`equipment`"
qty	Number	The available quantity of the new resource. If this parameter is ommited an "Unlimited" available quantity will be assumed
charge	Decimal	The charge (without currency symbol - i.e. 10.00) for the resource. This will be a per-hour charge where the `type` parameter is set to "`staffing`", otherwise this is a per-booking charge
public	0 | 1	Sets whether the resource is publicly requestable (can appear on the Public Booking Request screen). If this parameter is omitted, the resource won't be publicly requestable
venues	Venue IDs	A comma-separated list of Venue ID's the resource will be available to. If this parameter is omitted, the resource will be available to all venues

Example Response

```
{
	"resource_added":"67"
}
```

Variables Returned	
resource_added	A unique resource ID corresponding the newly added resource

approve_request

Approves a booking request.

Required Parameters	Possible Values	Description
id	Booking ID	The numeric ID of the booking request to be approved

Optional Parameters	Possible Values	Description
silent	0 | 1	By default when a booking request is approved, the original requestor is sent an email notification informing them that their request has been approved. Setting "`silent`" to "`1`" will suppress the sending of this notificaton

Example Response

```
{
	"request_approved":"1"
}
```

Variables Returned	
request_approved	Returns "`1`" after a successful approval

del_booking

Deletes a single booking.

Required Parameters	Possible Values	Description
id	Booking ID	The unique numerical reference of the booking to be deleted (which can be determined from the "get_bookings" call)

Optional Parameters	Possible Values	Description
force	0 | 1	By default, when a booking is "deleted", it still persists in a "hidden" state (allowing it to be restored at a later stage). Passing the "`force`" parameter with a value of "1" will mean that the booking will be completely removed from the system
no_watches	0 | 1	Setting the "`no_watches`" parameter to "`1`" will supress generation of Watch notifications for users who are monitoring deleted bookings, otherwise omitting this parameter (or setting it to "`0`") will allow Watch notifications to be generated accordingly

Example Response

```
{
	"bookings_deleted":"1"
}
```

Variables Returned	
bookings_deleted	The number of bookings deleted

del_bookings

Deletes multiple bookings across a date range.

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Sets the start of the window in which bookings should be deleted
end	Valid date and time (Format: YYYYMMDDHHMM)	Sets the end of the window in which bookings should be deleted

Optional Parameters	Possible Values	Description
client	Client ID	Limits deleting bookings to a specific client
venue	*<Venue Name>*	Limits deleting of bookings to a specific venue
type	*<Booking Type>*	Limits deleting of bookings to a specific booking type

Any combination of the above optional parameters may be used to limit which bookings are deleted. For example, specifying both a client and a venue will only delete bookings which match BOTH criteria.

Optional Parameters	Possible Values	Description
force	0 | 1	By default, when a booking is "deleted", it still persists in a "hidden" state (allowing it to be restored at a later stage). Passing the "`force`" parameter with a value of "1" will mean that the booking will be completely removed from the system
no_watches	0 | 1	Setting the "`no_watches`" parameter to "`1`" will supress generation of Watch notifications for users who are monitoring deleted bookings, otherwise omitting this parameter (or setting it to "`0`") will allow Watch notifications to be generated accordingly

Example Response

```
{
	"bookings_deleted":"7"
}
```

Variables Returned	
bookings_deleted	The number of bookings deleted

del_client

Deletes existing client records.

Required Parameters *(at least 1 required)*	Possible Values	Description
id	Client ID	The unique numerical id of the client (which can be determined from the "get_client" call) Passing this parameter will override all other required parameters
client	String	Client name
org	String	Organization name
email	Email address	Email address
address	String	Postal/mailing address
phone	Number	Telephone number
fax	Number	Fax number
mobile	Number	Mobile/cell number
notes	String	Notes about the client

Optional Parameters	Possible Values	Description
retain_bookings	1 | 0	By default, when a client is deleted, all associated bookings for the client are also deleted. Passing the `retain_bookings` parameter with a value of "1" will mean that no bookings will be removed when a client is deleted

Example Response

```
{
	"clients_deleted":"1",
	"bookings_deleted":"24"
}
```

Variables Returned	
clients_deleted	The number of clients deleted
bookings_deleted	The number of bookings deleted

del_invoice

Deletes an existing invoice

Required Parameters	Possible Values	Description
invoice	Invoice ID	The number/reference of the invoice to delete

Example Response

```
{
	"invoice_deleted":"MIDAS00075"
}
```

Variables Returned	
invoice_deleted	The Invoice number/reference of the deleted invoice

del_resource

Deletes an existing resource, and removes it from any existing bookings

Required Parameters	Possible Values	Description
resource	Resource ID	The numeric ID of the existing resource to delete

Example Response

```
{
	"resource_deleted":"67",
	"bookings_affected":"4,8,15,16,23,42"
}
```

Variables Returned	
resource_deleted	The numeric ID of the deleted resource
bookings_affected	A comma-separated list of all the booking ID's from which the deleted resource has been removed

email_client

Send an email to an existing client.

Required Parameters	Possible Values	Description
client	Client ID	The numeric ID of the existing client to email
subject	String	The subject line of the email
body	Text	The main body of the email. HTML is allowed

Optional Parameters	Possible Values	Description
invoice	Invoice ID	The number/reference of an invoice to include within the email. Note: Only invoices for the specific client being emailed can be included

Example Response

```
{
	"completed":"1"
}
```

Variables Returned	
completed	Returns "1" once the API call has completed

gen_invoice

Automatically generate invoice(s).

To generate an invoice from an existing booking:

Required Parameters	Possible Values	Description
booking	Booking ID	The numeric ID of the existing booking for which to generate an invoice for

Example Response

```
{
	"invoice_created":"MIDAS00075"
}
```

Variables Returned	
invoice_created	The Invoice number/reference of the newly generated invoice

To generate a series of invoices across a date range:

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Sets the start of the window in which bookings should be included in generated invoices
end	Valid date and time (Format: YYYYMMDDHHMM)	Sets the end of the window in which bookings should be included in generated invoices

Optional Parameters	Possible Values	Description
client	Client ID	The numeric ID of the existing client who's bookings should be included on the generated invoice

Including the optional "`client`" parameter will limit invoice generation to a single invoice containing all bookings for the specified client which take place between the specified `start`/`end` values.

Omitting the optional "`client`" parameter will generate separate invoices for each client with bookings taking place between the specified `start`/`end` values.

Example Response

```
{
	"invoices_created":"MIDAS00076,MIDAS00077,MIDAS00078,MIDAS00079"
}
```

Variables Returned	
invoices_created	A comma-separated list of all newly generated invoices

get_activity

Returns all MIDAS user activity between two times. The optional “user” parameter can be used to limit the activity returned to a specific user, and the optional “filter” parameter can be used to limit the results to a specific activity.

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Start time
end	Valid date and time (Format: YYYYMMDDHHMM)	End time

Optional Parameters	Possible Values	Description
user	*<User’s Full Name>* | SYSTEM	Limit the returned activity to a specific user identified by *<User’s Full Name>* or the keyword “SYSTEM”. “SYSTEM” will return activity not assigned to a specific user (for example database backups, new booking requests received, etc). If this parameter is omitted, activity for all users (including “SYSTEM”) will be returned
filter	*<activity code>*	Limit the returned activity to a specific action. See Appendix A for a list of activity codes

Example Response


```
[
	{
	"time":"5/4/2013 @ 07:53",
	"user":"SYSTEM",
	"action":"BKUP"
	},
	{
	"time":"5/4/2013 @ 07:26",
	"user":"Joe Bloggs",
	"action":"ADD",
	"data1":"12/5/2013 @ 22:00"
	}
]
```


Variables Returned	
time	Date/Time activity occurred
user	User who generated activity
action	Code of action performed. See Appendix A for a list of activity codes
data1	Returns additional data specific to action. See Appendix A for more information
data2	Returns additional data specific to action. See Appendix A for more information
data3	Returns additional data specific to action. See Appendix A for more information
data4	Returns additional data specific to action. See Appendix A for more information

get_availability

Checks whether a venue is available (free) for booking between two times

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Start time
end	Valid date and time (Format: YYYYMMDDHHMM)	End time
venue	*<Venue name>*	Venue

Optional Parameters	Possible Values	Description
attendees	*<number>*	The number of desired attendees. If specified, availability will also be dependent upon whether the number of attendees if less than the venue's capacity and/or maximum global occupancy levels.

Example Response

```
{
	"availability":"1"
}
```

Variables Returned	
availability	Current Venue Availability A value of "1" means the venue is "available" on the dates/times specified A value of "*Unavailable*" means the venue is not available on the dates/times specified (i.e. clashes with an existing booking) Any other values also mean "Unavailable" but will specify the reason for the unavailability i.e. "*This will exceed your maximum occupancy level*", or "*Venue unavailable from 6/5/2103*"

get_booking

Returns details of a specific booking.

Required Parameters	Possible Values	Description
id	Booking ID	The unique numerical reference of the booking

Example Response


```
{
	"id":"222",
	"start":"5/4/2013 @ 13:00",
	"end":"5/4/2013 @ 14:00",
	"venue":"Room 3",
	"client":"Some User (Some Org)",
	"type":"Community",
	"attendees":"30",
	"notes":"",
	"resources":[
		{
		"resource":"Laptop",
		"qty":"2"
		},
		{
		"resource":"Projector",
		"qty":"1"
		}
		],
	"invoice":"MIDAS00001",
	"history":[
		{
		"action":"Added",
		"date":"2/4/2013 @ 08:23",
		"user":"Joe Bloggs"
		},
		{
		"action":"Modified",
		"date":"2/4/2013 @ 16:52",
		"user":"Joe Bloggs"
		}
		],
	"status":"confirmed"
	}
}
```


Variables Returned	
id	Internal Booking ID
start	Start date/time of booking
end	End date/time of booking
venue	Venue
client	Client the booking is for
type	Booking Type
attendees	Estimated number of people attending booking
notes	Booking Notes
resources	Resources assigned to booking
resource	The name of the resource
qty	The quantity of the resource
invoice	Invoice in which the booking appears
history	Booking history
action	The action performed. This will be one of the following:

	“Booking Request Received”, “Added”, “Modified”, “Deleted”, “Restored”, or “Invoice Created”
date	The date/time the action occurred
user	The user who performed the action
custom fields	Any custom booking fields setup in your MIDAS will also be returned
status	Denotes whether the booking is a "`request`", a "`confirmed`" booking, or whether it has been "`deleted`"

get_bookings

Returns all bookings between two dates/times

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Sets the start of the window for which bookings should be returned
end	Valid date and time (Format: YYYYMMDDHHMM)	Sets the end of the window for which bookings should be returned

Optional Parameters	Possible Values	Description
client	*<Client ID>*	Limits returned bookings to a specific client, based on a Client ID (which may first be obtained via a "get_client" call)
venue	*<Venue name>*	Limits returned bookings to a specific venue
type	*<Booking Type>*	Limits returned bookings to a specific booking type
status	all | request | deleted	Controls which bookings are returned. “request” will only return booking requests. “deleted” will only return deleted bookings. “all” will return all bookings (including deleted bookings and booking requests). If this parameter is omitted only confirmed bookings will be returned

Example Response


```
[
	{
	"id":"222",
	"start":"5/4/2013 @ 13:00",
	"end":"5/4/2013 @ 14:00",
	"venue":"Room 3",
	"client":"Some User (Some Org)",
	"type":"Community",
	"attendees":"30",
	"notes":"",
	"resources":[
		{
		"resource":"Laptop",
		"qty":"2"
		},
		{
		"resource":"Projector",
		"qty":"1"
		}
		],
	"invoice":"MIDAS00001",
	"history":[
		{
		"action":"Added",
		"date":"2/4/2013 @ 08:23",
		"user":"Joe Bloggs"
		},
		{
		"action":"Modified",
		"date":"2/4/2013 @ 16:52",
		"user":"Joe Bloggs"
		}
		]
	},
	{
	"id":"223",
	"start":"5/4/2013 @ 14:15",
```

```
        "end":"5/4/2013 @ 16:30",
        "venue":"Room 4",
        "client":"Some User (Some Org)",
        "type":"Community",
        "attendees":"40",
        "notes":"",
        "resources":[],
        "invoice":"MIDAS00001",
        "history":[
                {
                "action":"Added",
                "date":"2/4/2013 @ 08:25",
                "user":"Joe Bloggs"
                }
                ]
        }
]
```


Variables Returned	
id	Internal Booking ID
start	Start date/time of booking
end	End date/time of booking
venue	Venue
client	Client the booking is for
type	Booking Type
attendees	Estimated number of people attending booking
notes	Booking Notes
resources	Resources assigned to booking
resource	The name of the resource
qty	The quantity of the resource
invoice	Invoice in which the booking appears
history	Booking history
action	The action performed. This will be one of the following: “Booking Request Received”, “Added”, “Modified”, “Deleted”, “Restored”, or “Invoice Created”
date	The date/time the action occurred
user	The user who performed the action
custom fields	Any custom booking fields setup in your MIDAS will also be returned

get_client

Returns client records

Required Parameters *(at least 1 required)*	Possible Values	Description
client	*<Client name>*	Client name
org	*<Organization name>*	Organization name
email	*<email address>*	Email address

Optional Parameters	Possible Values	Description
match	*exact* | *loose*	Allows specifying the closeness of the match. If match is set "exact" and "client" is set to "Joe Bloggs", only clients with the name "Joe Bloggs" will be returned. If match is set to "loose" and "email" is set to "@mid.as", any client with an "@mid.as" email address will be returned. If the match parameter is omitted only exact matches are returned

Example Response


```
[
	{
	"id":"23",
	"name":"Joe Bloggs",
	"organization":"MIDAS",
	"email":"joe@mid.as",
	"address":"PO Box 224,Cheadle,Cheshire.SK8 4AF",
	"phone":"01234 567 890",
	"fax":"01234 567 891",
	"mobile":"07123456789",
	"notes":"",
	"added":"7/8/2012 @ 16:49"
	}
]
```


Variables Returned	
id	Unique client identification number
name	Client's name
organization	Client's organization
email	Client's email address
address	Client's postal address
phone	Client's telephone number
fax	Client's fax number
mobile	Client's mobile (cell) number
notes	Notes about the client
added	Date/time when client was added to MIDAS

get_consumable_levels

Returns the current stock level of all consumable items

Required Parameters
This API command has no additional required parameters

Example Response

```
[
	{
	"consumable":"Flipchart Paper",
	"qty_remaining":"23",
	},
	{
	"consumable":"Permanent Marker Pens",
	"qty_remaining":"156",
	}
]
```

Variables Returned	
consumable	The name of the consumable
qty_remaining	The current stock level. If no stock quantity has been defined, **qty_remaining** will return “Unlimited”

get_invoice

Retrieves a specific invoice

Required Parameters	Possible Values	Description
invoice	*<Invoice Reference>*	Invoice Reference

Example Response


```
{
	"client":"MIDAS (MIDAS2)",
	"date":"5/11/2012 @ 10:00",
	"items":[
		{
		"description":"Room 1 (6/11/2012 @ 19:30 - 21:30)",
		"qty":"2.00",
		"rate":"23.50"
		},
		{
		"description":"Room 2 (13/11/2012 @ 19:30 - 21:30)",
		"qty":"2.00",
		"rate":"23.50"
		}
		],
	"total":"94.00",
	"tax_rate":"20.00",
	"tax_amount":"18.80",
	"paid":"0.00",
	"history":[
		{
		"action":"Created",
		"date":"5/11/2012 @ 08:45",
		"user":"MIDAS Administrator"
		},
		{
		"action":"Modified",
		"date":"5/11/2012 @ 09:42",
		"user":"MIDAS Administrator"
		},
		{
		"action":"Emailed",
		"date":"5/11/2012 @ 10:00",
		"user":"MIDAS Administrator"
		}
		]
}
```


Variables Returned	
client	Client
date	Invoice Date (or “Invoice Not Sent if invoice hasn’t been emailed/printed)
items	Invoice items
description	The item’s description
qty	The item’s quantity
rate	The item’s rate (charge)
total	Invoice total (ex tax)
tax_rate	Tax rate (percentage)
tax_amount	Tax amount
paid	Amount paid
history	Invoice history
action	The action performed. This will be one of the following:

	“Created”, “Modified”, “Printed”, “Emailed”, “Payment Received”, “Payment Overdue”, “Paid In Full”
date	The date/time the action occurred
user	The user who performed the action

get_invoices

Retrieves a list of invoices for a specific client

Required Parameters *(at least 1 required)*	Possible Values	Description
client	*<Client name>*	Client name
org	*<Organization name>*	Organization name
email	*<email address>*	Email address

Example Response

```
{
	"client":"Joe Bloggs (Bloggs Inc)",
	"email":"joe@bloggsinc.com",
	"invoices":"MIDAS0001,MIDAS0003,MIDAS0004"
}
```

Variables Returned	
client	Client/Organization
email	Client's email address
invoices	A comma separated list of all invoices associated with the client

get_messages

Retrieves all current internal messages for a specific user

Required Parameters *(only 1 required)*	Possible Values	Description
email	*<user's email>*	User's email address
user	*<user's name>*	User's name

Example Response

```
[
	{
	"message":"Hello World!",
	"author":"Joe Bloggs",
	"created","24/4/2015 @ 00:03",
	"expires","26/4/2015 @ 00:00"
	},
	{
	"message":"This is a test message",
	"author":"Jane Doe",
	"created","25/4/2015 @ 03:42",
	"expires","29/4/2015 @ 12:30"
	}
]
```

Variables Returned	
message	Details of the watch
author	The user who created the message
created	Date/Time the message was created
expires	Date/Time at which the message expires

get_reminders

Retrieves all current reminders for a specific user

Required Parameters *(only 1 required)*	Possible Values	Description
email	*<user's email>*	User's email address
user	*<user's name>*	User's name

Example Response

```
[
	{
	"reminder":"Reminder: Room 3: 25/4/2015 @ 13:00 - 15:00 Booking for Joe Bloggs",
	"expires":"25/4/2015 @ 15:00"
	},
	{
	"reminder":"Reminder: Room 3: 26/4/2015 @ 14:00 - 16:30 Booking for Jane Doe",
	"expires":"26/4/2015 @ 16:30"
	}
]
```

Variables Returned	
reminder	Details of the reminder
expires	Date/Time at which the reminder expires

get_resource

Returns resource information

Required Parameters	Possible Values	Description
resource	*<Resource name>*	Resource name

Example Response

```
[
	{
	"resource":"Laptop",
	"category":"E",
	"qty":"3",
	"charge":"120.00",
	"requestable":"1",
	"limited_to":"Room 1,Room 2"
	}
]
```

Variables Returned	
resource	Resource name
category	The category the resource item falls under. Possible values are: **E** = Equipment **C** = Consumable **S** = Staffing
qty	The total quantity of the resource added to MIDAS
charge	The charge for adding a single number of resource to a booking
requestable	Whether the resource is available for public requesting
limited_to	If the resource has been restricted to only be available to certain venues, the "limited_to" value contains a comma separated list of these venues

get_resource_availability

Returns the quantity available of a specified resource between two dates/times

Required Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Start time
end	Valid date and time (Format: YYYYMMDDHHMM)	End time
resource	*<Resource name>*	Resource name
qty	*Number*	Quantity to check

Example Response

```
{
	"available":"2"
}
```

Variables Returned	
available	Quantity of specified resources available during times specified

get_setting

Returns a current MIDAS setting

Required Parameters	Possible Values	Description
setting	*<setting name>*	Setting name. See Appendix B for available setting names

Example Response

```
{
	"email_sendfrom":"midas@yourorganization.com"
}
```

Variables Returned	
<setting>	The current value of the specified <setting>

get_template

Returns the contents of a template

Required Parameters	Possible Values	Description
template name	*<template name>*	Template name. See below for available template names

Template Name	Description	Additional
email	Email (General)	
email_book_confirm	Email (Booking Confirmation)	Email subject
email_book_remind	Email (Booking Reminder)	Email subject
email_req_approved	Email (Booking Request Approved)	Email subject
email_req_approved_m	Email (Booking Request Approved – with changes)	Email subject
email_req_rejected	Email (Booking Request Rejected/Declined)	Email subject
email_req_submitted	Email (Booking Request Submitted)	Email subject
email_inv_overdue	Email (Invoice Overdue)	Email subject
email_inv_remind	Email (Invoice Reminder)	Email subject
invoice	Invoice (Regular)	
invoice_cancellation	Invoice (Cancellation)	
payonline	Online Payments	URL of external .css file
print	Print	
webrequest	Public Booking Requests	URL of external .css file
intro	Welcome Note (on login screen)	

Example Response


```
{
        "email":"<table style=\"width:100%\"><tr>
        <td>%LOGO%</td><td><b>%DATABASE%</b></td><td>%MIDASLOGO%</td></tr>
        </table>%CONTENT%"
}
```


Variables Returned	
<template>	The current contents of the specified <template>
additional	For templates which contain an additional value in addition to the main template content (such as email templates with an additional subject line), this value is returned in the "`additional`" parameter

get_user

Returns user information

Required Parameters *(at least 1 required)*	Possible Values	Description
user	*<name>*	User's full name
email	*<email address>*	User's email address

Optional Parameters	Possible Values	Description
match	*exact* | *loose*	Allows specifying the closeness of the match. If match is set "exact" and "user" is set to "Joe Bloggs", only users with the name "Joe Bloggs" will be returned. If match is set to "loose" and "user" is set to "Joe", any user named "Joe" will be returned. If the match parameter is omitted only exact matches are returned

Example Response


```
{
	{
	"name":"Joe Bloggs",
	"email":"joe@bloggs.com",
	"added":"25/2/2013 @ 16:49",
	"last_login":"23/4/2013 @ 20:51",
	"last_password_change":"29/3/2013 @ 18:34",
	"last_modified":"25/2/2013 @ 23:42",
	"account_locked":"0",
	"failed_login_attempts":"0",
	"day_starts_at":"00",
	"day_runs_for":"24",
	"do_not_log_activity":"0"
	"email_calendar_events":"1",
	"email_messages":"0",
	"email_pending_notifications":"1",
	"email_watch_notifications":"0",
	"force_pw_change_at_login":"0",
	"suppress_messages_popup":"0",
	"venue_group_access":"Group A,Group B",
	"permissions":[
		{
		"can_add_bookings":"1",
		"can_add_clients":"1",
		"can_add_day_notes":"1",
		"can_add_historical_bookings":"0",
		"can_add_out_of_hours_bookings":"0",
		"can_change_password":"1",
		"can_delete_bookings":"2",
		"can_delete_clients":"1",
		"can_email_clients":"1",
		"can_evac":"1",
		"can_invoice":"1",
		"can_manage_booking_types":"1",
		"can_manage_midas":"1",
		"can_manage_resources":"1",
		"can_manage_users":"1",
		"can_manage_venues":"1",
		"can_modify_bookings":"2",
		"can_modify_clients":"",
		"can_print":"1",
		"can_process_requests":"1",
```

```
            "can_restore_bookings":"1",
            "can_use_mymessages":"1",
            "can_view_activity_log":"1",
            "can_view_clients":"2",
            "can_view_statistics":"1"
            }
            ]
      }
}
```


Variables Returned	
name	User's name
organization	User's email address
added	Date/Time user was added to MIDAS
last_login	Date/Time user last successfully logged in
last_password_change	Date/Time user last changed their password
last_modified	Date/Time user information was last modified
account_locked	Indicates if the user has been suspended / locked out of MIDAS
failed_login_attempts	The number of unsuccessful login attempt on this account since last successful login
day_starts_at	The hour (in 24-hour clock mode) the user's booking grid is displayed from
day_runs_for	The number of hours the user's booking grid displays
do_not_log_activity	If "0" all user activity within MIDAS will be recorded in the Recent Activity Log If "1" user activity within MIDAS will appear in the Recent Activity Log, except for logins/logouts If "2" no user activity will be recorded in the Recent Activity Log
email_calendar_events	Indicates whether reminders should also be sent to user's email as calendar events
email_messages	Indicates whether messages are forwarded to user's email
email_pending_notifications	Indicates whether new booking request notifications are forwarded to user's email
email_watch_notifications	Indicates whether watch notifications are forwarded to user's email
force_pw_change_at_login	Indicates whether user is required to change their password upon next login
suppress_messages_popup	Indicates whether the "My Messages" pop-up is suppressed (not shown) after login
venue_group_access	Indicates which Venue Groups the user has access to in the Booking Grid. A value of "*" indicates user can view all Venue Groups
permissions	The various permissions associated with the user account. Most take a value of either "1" meaning user has been granted a permission, "0" meaning the user does not have a permission. Permissions with additional possible values are indicated.
can_add_bookings	User can add bookings. "0" indicates user may not make bookings "1" indicates user may make bookings "2" indicates user may only make booking requests
can_add_clients	User can add clients
can_add_day_notes	Use can add notes to calendar dates
can_add_historical_bookings	User can add bookings for dates occurring in the past
can_add_out_of_hours_bookings	User can add bookings outside of a venue's operating hours
can_change_password	User can change their password
can_delete_bookings	User can delete bookings

	"0" indicates user cannot delete any bookings "1" indicates user may delete only those bookings originally added by them "2" indicates user may delete any booking
can_delete_clients	User can delete clients
can_email_clients	User can email clients directly from MIDAS
can_evac	User can print Emergency Evacuation data
can_invoice	User can use invoicing
can_manage_booking_types	User can manage Booking Types
can_manage_midas	User can manage MIDAS
can_manage_resources	User can manage Resources
can_manage_users	User can manage Users & Permissions
can_manage_venues	User can manage Venues
can_modify_bookings	User can modify bookings "0" indicates user cannot modify any bookings "1" indicates user may modify only those bookings originally added by them "2" indicates user may modify any booking
can_modify_clients	User can modify clients
can_print	User can use print functions
can_process_requests	User can approve/reject pending booking requests
can_restore_bookings	User can restore previously deleted bookings
can_use_mymessages	Use can use My Messages (Messages, Reminders, and Watches)
can_view_activity_log	Use can access the Recent Activity log
can_view_clients	User can view client information "0" indicates user cannot view any client data "1" indicates user can view client and organization names only "2" indicates user can view full client info for any client "3" indicates user can only view full client into for clients they've added bookings for
can_view_statistics	Use can access Statistics

get_venue

Returns venue information

Required Parameters	Possible Values	Description
venue	*<Venue name>*	Venue name

Optional Parameters	Possible Values	Description
match	*exact* | *loose*	Allows specifying the closeness of the match. If match is set "exact" and "venue" is set to "Meeting Room", only the venue with the name "Meeting Room" will be returned. If match is set to "loose" and "venue" is set to "Meeting Room", any venue containing the name "Meeting Room", such as "Meeting Room A", "Meeting Room B", etc will be returned. If the match parameter is omitted only exact matches are returned

Example Response


```
[
	{
	"venue":"Room 1",
	"capacity":"20",
	"description":"A small meeting room",
	"requestable":"1",
	"rates":[
		{
		"Mon":[
			{
			"rate":"100.00",
			"rate_length":"1",
			"rate_type":"Hourly"
			},
			{
			"rate":"80.00",
			"rate_length":"4",
			"rate_type":"Hourly"
			},
			{
			"rate":"450.00",
			"rate_length":"6",
			"rate_type":"Booking"
			}
			],
		"Tue":[
			{
			"rate":"20.00",
			"rate_type":"Hourly"
			}
			],
		"Wed":[
			{
			"rate":"20.00",
			"rate_type":"Hourly"
			}
			],
		"Thu":[
			{
			"rate":"20.00",
			"rate_type":"Hourly"
```

```
                        }
                        ],
                "Fri":[
                        {
                        "rate":"20.00",
                        "rate_type":"Hourly"
                        }
                        ],
                "Sat":[
                        {
                        "rate":"20.00",
                        "rate_type":"Hourly"
                        }
                        ],
                "Sun":[
                        {
                        "rate":"20.00",
                        "rate_type":"Hourly"
                        }
                        ]
                }
                ],
        "operating_hours":[
                {
                "day":"Mon",
                "closed":"0000-0800,2100-2400",
                },
                {
                "day":"Tue",
                "closed":"0000-0800,2100-2400",
                },
                {
                "day":"Wed",
                "closed":"0000-0800,2100-2400",
                },
                {
                "day":"Thu",
                "closed":"0000-0800,2100-2400",
                },
                {
                "day":"Fri",
                "closed":"0000-0800,2100-2400",
                },
                {
                "day":"Sat",
                "closed":"0000-0930,2000-2400",
                },
                {
                "day":"Sun",
                "closed":"0000-1000,1600-2400"
                }
                ],
        "closed_from":"",
        "closed_until":"1/4/2015",
        "managers":"Jane Doe,Joe Bloggs",
        "member_of":"Group A,Group B",
        "blocks":"Room 4",
        "alternatives":"Room 2,Room 3"
        }
]
```


Variables Returned	
venue	Venue name
capacity	The maximum occupancy of the venue
description	The venue's description

requestable	Whether the venue is available for public requesting
rates	The room rate/hire charge for each day of the week
<day>	Can be one of the following: "Mon", "Tue", "Wed", "Thu", "Fri", "Sat", "Sun" to denote subsequent rate information for each day of the week
rate	The room/rate hire charge amount
rate_length	The minimum length of the booking the rate applies to (in hours)
rate_type	If "Hourly", the rate is per-hour, if "Daily", the rate is per-day, if "Booking", the rate is per-booking
operating_hours	The times between which the venue is closed during each day of the week
day	The day of the week
closed	A comma separated list of the times (24 hour format) the venue is closed
closed_from	The date after which the venue is considered closed
closed_until	The date until which the venue is considered closed
managers	A comma separated list of user who are “Managers” of the venue i.e. can approve Booking Requests for the venue
member_of	A comma separated list of Venue Groups to which the venue belongs to
blocks	A comma separated list of venues which are automatically blocked (Unavailable) when this venue has an ongoing booking
alternatives	A comma separated list of venues which should be considered as alternatives to this venue

get_venues_in_group

Returns a list of venues in a venue group

Required Parameters	Possible Values	Description
group	*<venue group>*	Name of a venue group

Example Response

```
{
	"Group A":"Room 1,Room 2,Room3"
}
```

Variables Returned	
<group name>	Comma separated list of current venues in group

get_venues_in_use

Returns a list of all venues in use at the point in time when the API call is made. If optional start and end parameters are supplied, returns a list of all venues in use between start and end parameters.

Optional Parameters	Possible Values	Description
start	Valid date and time (Format: YYYYMMDDHHMM)	Start time
end	Valid date and time (Format: YYYYMMDDHHMM)	End time

Example Response

```
{
	"venues":"Room 1,Room 2,Room3"
}
```

Variables Returned	
venues	Comma separated list of venues in use

get_watches

Retrieves all current watches for a specific user

Required Parameters *(only 1 required)*	Possible Values	Description
email	*<user's email>*	User's email address
user	*<user's name>*	User's name

Example Response

```
[
      {
      "watch":"Booking Matching [Venue: Room 1] on 25/4/2015 @ 13:00 - 15:00 For Joe
Bloggs Added",
      "expires":"25/4/2015 @ 15:00"
      },
      {
      "watch":"Booking Matching [Venue: Room 4] on 25/4/2015 @ 14:00 - 16:30 For Jane
Doe Deleted",
      "expires":"26/4/2015 @ 16:30"
      }
]
```

Variables Returned	
watch	Details of the watch
expires	Date/Time at which the watch expires

mod_booking

Modifies an existing booking.

Required Parameters	Possible Values	Description
id	Booking ID	The unique numeric ID of the booking to be modified

In addition, one or more of the parameters from the following table must also be included with the call. Only values for the parameters you specify will be changed. For example, to only change a booking type, whilst retaining the booking's original start, end, and venue details, only pass the "`new_type`" parameter. To change the venue and the type and the venue, pass both "`new_type`" and "`new_venue`".

Optional Parameters (at least 1 required)	Possible Values	Description
new_start	Valid date and time (Format: YYYYMMDDHHMM)	The new start date/time the booking should be changed to
new_end	Valid date and time (Format: YYYYMMDDHHMM)	The new end date/time the booking should be changed to
new_venue	Venue ID | Venue Name	The numeric ID or name of the venue the booking should be changed to
new_client	Client ID	The numeric ID of the client the booking should be changed to
new_type	Booking Type ID | Booking Type Name	The numeric ID of the Booking Type, or the name of the Booking Type the booking should be changed to
new_attendees	Number	The new number of booking attendees
new_notes	String	New notes about the booking
new_resources	Quantity & Resource ID |Resource Name	New resources to be added to the booking. Values should be passed as "`qty|resource` (ID or name)". For example, to add 2 Tables to a booking, pass "`2|Tables`". This parameter can be added multiple times to add further resources Note: Passing the "`new_resources`" parameter will remove any previous resources that had been assigned to the booking
<new custom fields>	Custom Value	If you've defined custom booking fields in your MIDAS, you can optionally specify new values for these fields for the booking you're modifying. For example, if you have a custom field named "Insurance", you would pass the parameter "`new_insurance`" together with the new value you wish to set

Optional Parameters	Possible Values	Description
accept_limited_resources	0 | 1	If you're specifying new resources for a booking, this parameter determines whether the bookings should still be modified if the quantity of resources requested isn't available. For example, if you add 10 Tables to a booking, yet only 5 Tables are available, an error will be returned and the booking won't be modified. However, passing the "`accept_limited_resources`" parameter with a value of "`1`" will continue the modify booking, but with reduced resource quantities (in the previous example,

		this would mean that only 5 Tables would be added to the booking, instead of the desired 10)
no_watches	0 | 1	Setting the "no_watches" parameter to "1" will suppress generation of Watch notifications for users who are monitoring modified bookings, otherwise omitting this parameter (or setting it to "0") will allow Watch notifications to be generated accordingly

Example Response

```
{
	"booking_modified":"1"
}
```

Variables Returned (on success)	
booking_modified	Returns "1" if the booking was successfully modified

Variables Returned (on error)	

error	The reason why the booking couldn't be modified. Typical examples include:
	`Unavailable` *(clashes with an existing booking)*
	`Unavailable - Blocked By Meeting Room 1`
	`45 Attendees will exceed the maximum capacity of Meeting Room 1 (15)`
	`Outside Operating Hours`
	`Venue unavailable from 1/1/2015`
	`Venue unavailable between 1/1/2015-1/2/2015`
	`Venue not available until 1/1/2015`
	`Only x5 Tables Available`

mod_client

Modifies an existing client record.

Two sets of parameters are required (outlined in the tables below) - the first set controls which client(s) to modify, the second set specifies which parameters of the selected client(s) to modify.

Controlling which client(s) to modify:

Required Parameters (at least 1 required)	Possible Values	Description
id	Client ID	The unique numerical id of the client (which can be determined from the "get_client" call) Passing this parameter will override all other required parameters in this table
client	String	The name of the existing client to be modified
org	String	Organization name
email	Email address	Email address
address	String	Postal/mailing address
phone	Number	Telephone number
fax	Number	Fax number
mobile	Number	Mobile/cell number
notes	String	Notes about the client

To ensure that only a single client is modified, pass only the "`id`" parameter, or alternatively as many of the other above parameters as possible to ensure a specific individual client is modified, rather than a group of clients. For example, if you only pass the "`org`" parameter alone ALL clients in the database that match the organization name you supply will be modified. Whereas passing both the client name and the organization name will ensure that only client records that match BOTH will be modified. Passing "`client_id`" alone will ensure that only one client will be modified.

Setting new values:

Required Parameters (at least 1 required)	Possible Values	Description
new_client	String	The new Client name
new_org	String	The new Organization name
new_email	Email address	The new Email address
new_address	String	The new postal/mailing address
new_phone	Number	The new telephone number
new_fax	Number	The new fax number
new_mobile	Number	The new mobile/cell number
new_notes	String	New notes about the client
new_tax_exempt	0 | 1	Specifies whether the client is exempt from being charged tax on their invoices

Omitting any of the above parameters will leave its current value unchanged. Passing any of the above parameters with a "blank" value will clear/delete the current value of the corresponding field.

Example Response

```
{
	"clients_modified":"1"
}
```

Variables Returned	
clients_modifed	The number of clients modified

mod_invoice

Modifies/Updates the status of an existing invoice.

Required Parameters	Possible Values	Description
invoice	Invoice ID	The number/reference of the invoice to update

Required Parameters (at least 1 required)	Possible Values	Description
client	Client ID	The numeric ID of the existing client to change the invoice for. Note: Only unsent invoices can have their client changed
notes	String	Additional notes to appear on the invoice
paid	Decimal	The amount (without currency symbol - i.e. 100.00) of the invoice total already paid

Example Response

```
{
	"invoice_updated":"MIDAS00075"
}
```

Variables Returned	
invoice_updated	The Invoice number/reference of the updated invoice

mod_resource

Modifies an existing resource.

Required Parameters	Possible Values	Description
resource	Resource ID	The numerical ID of the existing resource to modify

Optional Parameters (at least 1 required)	Possible Values	Description
new_name	String	The new name for the existing resource
new_type	equipment | consumable | staffing	The new type (category) of the resource
new_qty	Number	The new available quantity of the resource. Passing this parameter with a blank value will reset the available quantity to "Unlimited"
new_charge	Decimal	The new charge (without currency symbol - i.e. 10.00) for the resource. This will be a per-hour charge where the resource is of "`staffing`" type/category, otherwise this is a per-booking charge
new_public	0 | 1	Sets whether the resource is publicly requestable (can appear on the Public Booking Request screen)
new_venues	Venue IDs	A comma-separated list of Venue ID's the resource is available to. Passing this parameter with a blank value will reset the resource to be available to all venues

Omitting any of the above parameters will leave its current value unchanged. Passing any of the above parameters with a "blank" value will clear/delete the current value of the corresponding field.

Example Response

```
{
	"resource_modified":"67"
}
```

Variables Returned	
resource_modified	The unique resource ID corresponding the modified resource

notify_user

Sends an internal notification to a MIDAS user.

The notification will appear in the user's "My Messages" screen, and may also be forwarded to their email address if they have configured message forwarding.

Required Parameters	Possible Values	Description
user	User ID | User email	The numeric ID of the existing user to message, or their email address (Note: If an email address is supplied which doesn't match an existing user, the message will fail)
message	Text	The message to send
expires	Valid date and time (Format: YYYYMMDDHHMM)	The date/time after which the message should expire and be automatically removed from the recipient's My Messages screen (The user may choose to manually remove the message sooner)

Optional Parameters	Possible Values	Description
type	message | reminder	Sets the type of notification to send. If omitted, the type will be set to "`message`"

Example Response

```
{
	"completed":"1"
}
```

Variables Returned	
completed	Returns "`1`" once the API call has completed

reject_request

Rejects/declines a booking request.

Required Parameters	Possible Values	Description
id	Booking ID	The numeric ID of the booking request to be rejected

Optional Parameters	Possible Values	Description
reason	String	A reason why the request is being rejected (will be included in the rejection email notification sent to the original requestor)
silent	0 | 1	By default when a booking request is rejected, the original requestor is sent an email notification informing them as such. Setting "`silent`" to "`1`" will suppress the sending of this notificaton

Example Response

```
{
	"request_rejected":"1"
}
```

Variables Returned	
request_rejected	Returns "`1`" after a successful rejected

restore_booking

Re-instates a recently deleted booking, or bookings.

Required Parameters	Possible Values	Description
id	Booking ID	The unique numerical reference (or comma separated list of references) of the deleted booking(s) to be re-instated (which can be determined from the "get_bookings" call)

Example Response

```
{
	"restored":"925",
	"not_restored":"927,929,1024"
}
```

Variables Returned	
restored	Comma-separated list of all deleted booking references successfully
not_restored	Comma-separated list of all booking references that couldn't be restored (i.e. those which would now clash with other bookings if restored)

set_setting

Changes the value of a current MIDAS setting

Required Parameters	Possible Values	Description
setting	*<setting name>*	Setting name. See Appendix B for available setting names
value	*<new value>*	The new value for the setting

Example Response

```
{
	"response":"ok"
}
```

Variables Returned	
response	Returns "ok" after a successful setting change

set_template

Set/Modify a template

Required Parameters	Possible Values	Description
template name	*<template name>*	Template name. See below for available template names
content	Text	New HTML template content

Optional Parameters	Possible Values	Description
additional	String	For templates where an additional value can be set (such as email templates where a subject line may be specified), this new value can be passed via the "`additional`" parameter. See below for which templates support this paramter

Template Name	Description	Additional
email	Email (General)	
email_book_confirm	Email (Booking Confirmation)	Email subject
email_book_remind	Email (Booking Reminder)	Email subject
email_req_approved	Email (Booking Request Approved)	Email subject
email_req_approved_m	Email (Booking Request Approved – with changes)	Email subject
email_req_rejected	Email (Booking Request Rejected/Declined)	Email subject
email_req_submitted	Email (Booking Request Submitted)	Email subject
email_inv_overdue	Email (Invoice Overdue)	Email subject
email_inv_remind	Email (Invoice Reminder)	Email subject
invoice	Invoice (Regular)	
invoice_cancellation	Invoice (Cancellation)	
payonline	Online Payments	URL of external .css file
print	Print	
webrequest	Public Booking Requests	URL of external .css file
intro	Welcome Note (on login screen)	

Example Response

```
{
	"response":"ok"
}
```

Variables Returned	
response	Returns "`ok`" after a successful template change

util_from_epoch

Converts epoch seconds to a standard date/time format

Required Parameters	Possible Values	Description
data	Epoch seconds	Epoch seconds to convert

Optional Parameters	Possible Values	Description
format	1 | 0	If omitted (or "0"), the returned date/time string will be in the format "YYYYMMDDHHMM". If "1", the returned date/time string will reflect the current time/date format settings in MIDAS, for instance, "DD/MM/YYYY @ HH:MM"

Example Response

```
{
      "response":"201305121008"
}
```

Variables Returned	
response	The converted epoch time, returned in a date/time format specified by the "format" parameter. If no "format" parameter specified, response is returned as "YYYYMMDDHHMM"

util_to_epoch

Converts a date/time to epoch seconds

Required Parameters	Possible Values	Description
data	Valid date and time (Format: YYYYMMDDHHMM)	Date/Time string to convert to epoch seconds

Example Response

```
{
	"response":"1357066800"
}
```

Variables Returned	
response	The converted date/time, returned as epoch seconds

Appendix A – Activity Codes

The following codes may be used in conjunction with the “get_activity” call

CODE	Description	Data1	Data2	Data3	Data4
ADD	User added booking	Date/Time			
ADD2VG	User added venue to group	Venue	Venue Group		
ADDBT	User added booking type	Type	Color		
ADDC	User added client	Client	Organization		
ADDI	User created invoice	Invoice			
ADDRES	User added resource	Resource			
ADDU	User added User	Name	Email		
ADDV	User added venue	Venue			
ADDVG	User added venue group	Venue Group			
BKUP	MIDAS backup (Automatic)				
CANR	Booking request cancelled	Client	Organization		
DELB	User deleted booking	Date/Time			
DELBT	User deleted booking type	Type			
DELC	User deleted client	Client	Organization		
DELI	User deleted invoice	Invoice			
DELRES	User Deleted Resource	Resource			
DELV	User deleted venue	Venue			
DELVG	User deleted venue group	Venue Group			
EMS	User sent email	Client	Subject		
EMSI	User sent email invoice	Client	Invoice		
EXPB	User exported bookings				
EXPC	User exported clients				
EXPIS	User exported invoice summaries				
EXPR	User exported resources				
GENI	User generated invoice (Regular)	Invoice			
GENIC	User generated invoice (Cancellation)	Invoice			
IN	User logged in				
MBKUP	MIDAS backup (Manual)				
MOD	User modified booking	Date/Time			
MODBT	User modified booking type	Previous Type	Previous Color	New Type	New Color
MODC	User modified client	Client	Organization		
MODI	User modified invoice	Invoice			
MODRES	User Modified Resource	Resource			
MODU	User modified User	Name	Email		
MODV	User modified venue	Venue			
MREST	User Restored a MIDAS backup	Date/Time			
NEWR	Booking request received	Client	Organization		
OUT	User logged out				
PAYIF	Payment received in full	Invoice	Payer name	Payer email	Transaction ID
PAYIP	Partial payment received	Invoice	Payer name	Payer email	Transaction ID
PEED	User printed Emergency Evacuation Data				
PENA	User approved booking	Date/Time	Client		
PENR	User rejected booking	Date/Time	Client	Reason	
PRNT	User printed bookings	Print Title			
PRNTI	User printed invoice	Client	Invoice		
PWC	User changed password				
REMFVG	User removed venue from group	Venue	Venue Group		
REMU	User deleted User	Name	Email		
RENVG	User renamed venue group	Previous Venue Group	New Venue Group		
REST	User restored booking	Date/Time			
UPDATE	MIDAS updated	New Version	New Build Date		
UPSI	User updated invoice status	Invoice			

Appendix B – Setting Names

The following codes may be used in conjunction with the “get_setting” and "set_setting" calls. The "Settable" column denotes which settings can be changed via the "set_setting" call.

Setting	Description	Example value	Settable
api_version	Current version of the MIDAS API	1.07	
availability_alt_buffer	This setting (in Minutes) enforces a "gap" (spacing) when offering earlier/later alternative times in a venue	15	•
availability_alt_earlier	If "1" MIDAS will attempt to offer an earlier time in the event of an Unavailable venue	1	•
availability_alt_ignorervs	If "1" MIDAS will not enforce venue resource restrictions when offering alternative venues	1	•
availability_alt_later	If "1" MIDAS will attempt to offer a later time in the event of an Unavailable venue	1	•
availability_alt_venue	If "1" MIDAS will attempt to offer an alternative venue in the event that desired times are unavailable	1	•
availability_include_pending	If "1" MIDAS takes into account any pending booking requests when checking booking availability. If "0" confirmed bookings can be made over provisional booking slots	0	•
backup_email	The email address that automated database backups are sent to	backup@yourdomain.com	•
backup_last	The time of the last backup (epoch seconds)	1365609454	
backup_persist	The number of days to keep backups on server	7	•
build_date	Current MIDAS build date	1365608000	
callto_enabled	If "1" client phone/cell numbers become clickable "callto" links within MIDAS	1	•
cron_enable_invoice_overdue	If "1" automated invoice overdue notifications are enabled	1	•
cron_enable_invoice_remind	If "1" automated upcoming invoice reminders are enabled	1	•
cron_enable_invoice_send	If "1" automated sending of unsent invoices is enabled	1	•
cron_enable_start_remind	If "1" automated upcoming booking reminders are enabled	1	•
cron_hour	The hour (0-24) during which daily scheduled tasks should run	11	•
cron_invoice_overdue	The number of days after an unpaid invoice was due to automatically send an overdue notification to the client	7	•
cron_invice_remind	The number of days before an unpaid invoice is due to automatically send a payment reminder to the client	3	•
cron_last	The time that scheduled tasks were last	1407123529	

	run (epoch second)		
cron_start_remind	If "1" automated upcoming booking reminders are enabled	1	•
datetime_amsymbol	The symbol denoting the first 12 hours of the day (when running in 12 hour clock mode)	AM	•
datetime_datefirst	If "1" dates are shown before times, otherwise times are shown before dates	1	•
datetime_dateformat	The date format	DD/MM/YYYY	•
datetime_dtlink	The link symbol between date and time	@	•
datetime_gmtoffset	The timezone's GMT offset	0	•
datetime_minterval	The granularity of minutes	5	•
datetime_pmsymbol	The symbol denoting the first 12 hours of the day (when running in 12 hour clock mode)	PM	•
datetime_startofweek	The day that should be considered the start of the week (0 = Sunday, 1 = Monday, etc)	1	•
datetime_timeformat	The time format	HH:mm	•
datetime_timenow	The current time (in epoch seconds)	1365696187	•
datetime_timezone	The timezone	Europe/London	•
datetime_ttlink	The link symbol between two times	-	•
email_bcc	The email address that outgoing email should be bcc'd to	bcc@yourdomain.com	•
email_sendfrom	The email address that outgoing email should appear sent from	midas@yourdomain.com	•
invoicing_cancel_amount	The amount (fixed or percentage) to charge in late cancellation fees	20%	•
invoicing_cancel_enabled	If "1" and a booking is cancelled (deleted) within invoicing_cancel_leadtime hours of when the booking was due to commence, a cancellation invoice will be created	1	•
invoicing_cancel_leadtime	Specifies (in hours) the cut-off point before a booking commences after which a cancellation invoice can be generated if the booking is cancelled (deleted)	168	•
invoicing_counter	The next invoice number to be generated	4	•
invoicing_createbydefault	If "1" the "Create Invoice" option is checked when adding bookings	0	•
invoicing_createifzero	If "1" invoices will be created even if the calculated invoice total is zero. If "0" invoices will only be created if their values are non-zero	1	•
invoicing_currencycode	The currency code	USD	•
invoicing_currencysymbol	The currency symbol	$	•
invoicing_decimalsep	The decimal separator	.	•
invoicing_includezero	If "1" items will be included on invoices even if their total value is zero. If "0" invoices will only include items that have an associated cost	1	•
invoicing_itemize_notes	If "1" notes on invoices will be itemized per booking. If "0" invoice notes will be combined	1	•
invoicing_generate_notes	The internal name of a booking field to	notes	•

	optionally include in the "notes" section on generated invoices		
invoicing_no_booking_mod	If "1" bookings from which invoices have been generated can then no longer be modified	0	•
invoicing_no_invoice_delete	If "1" invoices cannot be deleted/removed from the system until they have been paid in full	0	•
invoicing_paypal_account	Your PayPal email address	paypal@yourdomain.com	•
invoicing_paypal_enabled	If "1" online invoice payments are allowed via PayPal	1	•
invoicing_pay_require_email	If "1" clients are required to enter their email address in order to view their invoice online	1	•
invoicing_prefix	The prefix that is prepended to all regular invoice numbers	MIDAS	•
invoicing_prefix_cancel	The prefix that is prepended to all cancellation invoice numbers	CANCEL	•
invoicing_rounding	If "1" invoice values are rounded up to the nearest whole number 0	1	•
invoicing_silentdisc	If "1" booking type discounts are applied to invoices without any indication. If "0" invoices will denote that a discount has been applied	0	•
invoicing_tax	The default tax percentage to be added to invoices	0	•
invoicing_thousandsep	The thousand separator	,	•
occupancy_max	The maximum number of people allowed on your site at any one time	510	•
occupancy_show	Show the occupancy level when adding/modifying bookings	1	•
occupancy_warn	Warn if the number of people on site exceeds this value	300	•
print_evactolerance	When printing Emergency Evacuation Data, this number reflects how many minutes either side of the current time the calculation of the number of people on site should account for	15	•
print_sortby	The booking field to sort booking print outs by	start	•
print_sortdir	The sort order of print outs (0 = ascending, 1 = descending)	0	•
search_maxresults	The maximum number of search results to return per page	50	•
version	Current MIDAS version	4.07	
view_autoclose_alerts	The number of seconds the "My Messages" pop-up should display for, if enabled by users	10	•
view_autoclose_notes	The number of seconds after which any "day notes" pop-ups should automatically close	15	•
view_changemonthcell	Allow users to choose what's displayed in the monthly overview	1	•
view_cutoffdays	The number of days to keep temporary logs for	30	•

view_default	The default view in the Booking Grid	All	•
view_gridrowheight	The height (in pixels) of each row in the booking grid	30	•
view_gridvenuewidth	The width (in pixels) of the first column in the booking grid	100	•
view_showonblocks	The booking field(s) to show on booking "blocks" in the booking grid	organisation	•
view_showonmonthcell	The booking field to show on dates in the monthly overview	client	•
view_showontools	The booking field(s) to show on tooltips when hovering over booking "blocks" in the booking grid	organisation	•
view_updatefrequency	The number of seconds between successive background data refreshes	30	•
view_viewsize	The number of days to show in the booking grid by default	1	•
webrequest_alloweddomains	A comma separated list of email domains from which booking requests are permitted	@yourdomain.com, @hotmail.com	•
webrequest_autoapprove	If "1" booking requests are auto-approved. If "0" booking requests must be approved by an administrator	0	•
webrequest_blockcolor	The color of existing booking blocks on the public booking request screen	red	•
webrequest_disablepast	The date (YYYYMMDD) past which booking requests are not permitted	20141231	•
webrequest_enabled	If "1" public booking requests are enabled, if "0" public booking requests are disabled	1	•
webrequest_leadintime	The number of days in advance public booking request must be made	7	•
webrequest_leadouttime	The number of days in advance public booking request are allowed to be made for	14	•
webrequest_showcapacities	If "1" selected venue's capacities are shown during public booking requesting. If "0" venue capacities are not revealed to requestors	1	•
webrequest_showclosed	If "1" selected venue's operating hours are shown during public booking requesting. If "0" operating hours are not revealed to requestors	0	•
webrequest_showonblocks	What information should be shown on booking blocks in the public booking request screen	times	•

Appendix C – Error Handling

When making API calls, your applications should take into account possible errors that may be returned.

API errors will be returned in JSON format as follows:

Example Error Response

```
{"error":"error response"}
```

Error Response	Meaning	Applies To
"not enabled"	API access is not enabled at this time. API access can be enabled from within MIDAS via MIDAS Admin Options → Manage Addons → API Access → Enabled	*All*
"invalid api key"	You have not supplied your API key in your call, or the API key supplied is invalid	*All*
"GET method not allowed. Use POST instead"	An http GET request has been made to the API, but the API has been set to accept http POST requests only. This setting may be changed via MIDAS Admin Options → Manage Addons → API Access → Allow GET (as well as POST) method	*All*

"API running in read only mode"	You have tried to make an API call that would result in changes to data within MIDAS, yet the API is currently restricted to "read only" mode. To make your call, you will first need to untick the "Read only access" setting (MIDAS Admin Options → Manage Addons → API Access)	`add_*`
		`approve_request`
		`del_*`
		`email_client`
		`gen_invoice`
		`mod_*`
		`notify_user`
		`reject_request`
		`set_*`

"no matches found"	No data was returned for the API call. Try broadening the search parameters	`get_activity`
		`get_bookings`
		`get_client`
		`get_consuable_levels`
		`get_invoice`
		`get_invoices`
		`get_messages`
		`get_reminders`
		`get_user`
		`get_venues_in_group`
		`get_watches`

"protected setting"	The setting you're trying to modify is read-only and cannot be modified	`set_setting`
"referrer not allowed"	The API call originates from a blocked domain/IP address. Allowed domains/IP's may be specified from within MIDAS via MIDAS Admin Options → Manage Addons → API Access → Allowed Referrers	*All*
"required parameter missing"	One or more parameters are required for the particular call you're making is missing	*All*
"unknown booking type"	Indicates that the specified booking type doesn't exist	`del_bookings` `get_bookings` (when the type parameter is specified)
"unknown command"	The API command you've specified was unrecognized. Please check you're using a valid command	*All*
"unknown resource"	Indicates that the specified resource doesn't exist	`get_resource_availability`
"unknown setting"	Indicates that the specified setting isn't recognized	`get_setting` `set_setting`
"unknown template"	Indicates that the specified template isn't recognized	`get_template` `set_template`

"unknown user"	Indicates that the specified user doesn't exist	`get_activity`
		`get_messeges`
		`get_reminders`
		`get_watches`

"unknown venue"	Indicates that the specified venue doesn't exist	`del_bookings`
		`get_availability`
		`get_bookings` (when the venue parameter is specified)
		`get_venue`

"unknown venue group"	Indicates that the specified venue group doesn't exist	`get_venues_in_group`

Code Samples

jQuery

```
$.post("http://your_midas_url/api.pl", { key: "your_api_key", action:
"get_client", client: "Joe Bloggs" })
.done(function(response) {
 alert("Response: " + response);
}, "JSON");
```

Perl

```
use LWP::UserAgent;
my$ua = LWP::UserAgent->new(env_proxy => 0,keep_alive => 0,timeout =>
30,agent =>'Mozilla/4.0 (compatible; MSIE 9.0; Windows NT 5.0)');
my$r = $ua-
>post("http://your_midas_url/api.pl",[key=>"your_api_key",action=>"get_c
lient",client=>"Joe Bloggs"]);
if ($r->is_success) {
     $response=$r->content;
}
```

PHP

```
$myvars = "key=your_api_key&action=get_client&client=Joe Bloggs";

$ch = curl_init("http://your_midas_url/api.pl");
curl_setopt( $ch, CURLOPT_POST, 1);
curl_setopt( $ch, CURLOPT_POSTFIELDS, $myvars);
curl_setopt( $ch, CURLOPT_FOLLOWLOCATION, 1);
curl_setopt( $ch, CURLOPT_HEADER, 0);
curl_setopt( $ch, CURLOPT_RETURNTRANSFER, 1);

$response = curl_exec( $ch );
```

Python

```
import urllib
import urllib2
parameters = {'key' : 'your_api_key',
          'action' : 'get_client',
          'client' : 'Joe Bloggs' }
data = urllib.urlencode(parameters)
req = urllib2.Request("http://your_midas_url/api.pl", data)
getresponse = urllib2.urlopen(req)
response = getresponse.read()
```

C#

```
using(WebClient client = new WebClient())
{
    System.Collections.Specialized.NameValueCollection reqparm = new
System.Collections.Specialized.NameValueCollection();
    parameters.Add("key", "your_api_key");
    parameters.Add("action", "get_client");
    parameters.Add("client", "Joe Bloggs");
    byte[] responsebytes =
client.UploadValues("http://your_midas_url/api.pl", "POST", parameters);
    string response = Encoding.UTF8.GetString(responsebytes);
}
```

Release Notes

v2.08	
13th July 2015	• Improved: "get_bookings" call can now be restricted to an individial client • "get_client" call now returns "id" in place of "client_id"

v2.07	
22nd May 2015	• Added: "get_resource" call • Improved: "get_venue" call now returns blocks and alternatives • Improved: Logging when calls fail/error produced

v2.06	
28th February 2015	• Fixed: Some JSON responses don't correctly validate

v2.05	
10th February 2015	• Fixed: Some settings not being correctly loaded if API run in isolation (without a concurrent login)

v2.04	
9th February 2015	• Fixed: New line characters not being correctly escaped in some API responses

v2.03	
1st February 2015	• Fixed: Quotation marks not being correctly escaped in some API responses

v2.02	
19th January 2015	• Fixed: If multiple databases are in use, it may not be possible to access the Manage Addons screen from additional databases

v2.01	
2nd January 2015	• Fixed: Multi-database support

v2.00	
1st September 2014	• The API now allows bi-directional communication with MIDAS - meaning you can now add/set/change data as well as reading it. • The following new API calls have been implemented: add_booking add_client add_invoice add_resource approve_request del_booking del_bookings del_client del_invoice del_resource email_client gen_invoice get_booking get_template mod_booking mod_client mod_resource

	notify_user reject_request restore_booking set_setting set_template

v1.03	
20th March 2014	• Added: "member_of" to the list of returned values for the "get_venue" call • Change: Format of "rates" information returned by "get_venue" call updated for MIDAS v4.06 • Fixed: "closed_from"/"closed_to" values from "get_venue" call may return 1/1/1970

v1.02	
18th February 2014	• Added: Support for multiple databases

v1.01	
7th October 2013	• Added: "get_venues_in_use" call

v1.00	
1st June 2013	• Initial API release

For the most up-to-date API documentation, please visit http://mid.as/api