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## Sirenum Integration Guide

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## This document

This Integration Guide has been prepared by Sirenum Limited (Sirenum) to assist systems integrators and customers integrating external systems with their Sirenum solution.

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## Integration Guide

This document provide details of integrating external systems with Sirenum. Sirenum is built on the Salesforce platform which provides API integration. This document concentrates on describing the Salesforce Rest API, with reference to Salesforce online documentation, and the Sirenum data-model.

## Salesforce Rest API

### Connected App

Access to the Salesforce Rest API is provided by a “Connected App”. This is configured by Sirenum and requires the following information to be provided by the customer/SI:

- 1) A contact email address;
- 2) A callback URL used during the authorisation process.

The Connected App generates the following information used during the authorisation process:

- 1) Consumer Key
- 2) Consumer Secret

Create a new Connected App:

### Authorisation Process

Web Server OAuth Authentication is used for the authorisation process and is documented in:

[https://developer.salesforce.com/docs/atlas.en-us.api\\_rest.meta/api\\_rest/intro\\_understanding\\_web\\_server\\_oauth\\_flow.htm](https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/intro_understanding_web_server_oauth_flow.htm)

This is a two-step process involving:

- 1) Obtaining a short-lived authorisation code
- 2) Obtaining an access token and, optionally, a refresh token

### Authorisation Code

This is obtained by performing an HTTP POST to

<https://login.salesforce.com/services/oauth2/authorize> for a production org or

<https://test.salesforce.com/services/oauth2/authorize> for a sandbox

The following parameters are required:

Parameter	Description
response_type	Must be “code” for this authentication flow. <a href="https://trailhead.salesforce.com/en/content/learn/projects/build-a-connected-app-for-api-integration/implement-the-oauth-20-web-server-authentication-flow">https://trailhead.salesforce.com/en/content/learn/projects/build-a-connected-app-for-api-integration/implement-the-oauth-20-web-server-authentication-flow</a>
client_id	The Consumer Key from the connected app definition.
redirect_uri	The Callback URL from the connected app definition.

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For example:

`https://test.salesforce.com/services/oauth2/authorize?response_type=code&client_id=<Consumer Key>&redirect_uri=https://callback.customer.co.uk`

This will return an authorization code to the Callback URL specified in `redirect_uri`

## Access Token

An access token is obtained by performing an HTTP POST to

`https://login.salesforce.com/services/oauth2/token` for a production org or

`https://test.salesforce.com/services/oauth2/token` for a test org.

The following parameters are required:

Parameter	Description
<code>grant_type</code>	Value must be "authorization_code" for this flow.
<code>client_secret</code>	The Consumer Secret from the connected app definition.
<code>client_id</code>	The Consumer Key from the connected app definition.
<code>redirect_uri</code>	The Callback URL from the connected app definition.
<code>code</code>	Authorisation code returned by the previous flow.

The "scope" parameter is optional but should be set to "full%20refresh\_token" in order to obtain a refresh token.

For example:

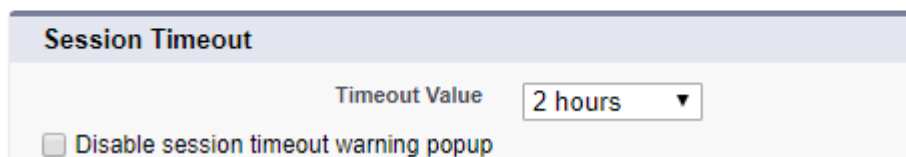
`https://test.salesforce.com/services/oauth2/token?grant_type=authorization_code&client_secret=<ConsumerSecret>&client_id=<ConsumerKey>&redirect_uri=https://callback.customer.co.uk/&code=<Authorisation Code>&scope=full%20refresh_token`

## Refresh Token

Access tokens have a limited lifetime defined by the session timeout as specified in the Salesforce Session Settings e.g.:

## Session Settings

Set the session security and session expiration timeout for your organization.



The screenshot shows the 'Session Timeout' configuration in Salesforce. It features a dropdown menu for 'Timeout Value' currently set to '2 hours' and a checkbox for 'Disable session timeout warning popup' which is currently unchecked.

If an application uses an expired access token, a "Session expired or invalid" error is returned. A new token can be obtained using the refresh token provided in the previous flow by performing an HTTP POST to the following `https://login.salesforce.com/services/oauth2/token` for a production org or `https://test.salesforce.com/services/oauth2/token` for a test org.

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The following parameters are required:

Parameter	Description
grant_type	Value must be "refresh_token" for this flow.
refresh_token	Refresh token provided in the previous flow.
client_id	The Consumer Key from the connected app definition.
client_secret	The Consumer Secret from the connected app definition.
redirect_uri	The Callback URL from the connected app definition.
code	Authorisation code returned by the previous flow.

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## Rest API

REST API HTTP requests are sent to a specific Salesforce instance as follows:

<https://<instance>/services/data/<Salesforce Version>/...> e.g.

[https://mydomain.salesforce.com/services/data/v48.0/...](https://mydomain.salesforce.com/services/data/v48.0/)

The header must contain a valid access token as obtained in the authentication flows above.

Details of the HTTP requests are provided in the Salesforce REAT API cheat sheet available at:

[http://resources.docs.salesforce.com/re1/doc/en-us/static/pdf/SF\\_Rest\\_API\\_cheatsheet\\_web.pdf](http://resources.docs.salesforce.com/re1/doc/en-us/static/pdf/SF_Rest_API_cheatsheet_web.pdf)

Appendix A defines the commonly used Sirenum objects in more detail.

In the following sections, please note

- 1) Dates/times should be formatted as per [https://developer.salesforce.com/docs/atlas.en-us.api\\_asynch.meta/api\\_asynch/datafiles\\_date\\_format.htm](https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch/datafiles_date_format.htm)
- 2) External Id fields are custom fields that are not part of the Sirenum package and thus need to be configured during implementation. They allow records in Sirenum to be identified and referenced by their unique ID in the external system being integrated with.
- 3) External Ids must be unique across all record types i.e. two records for the same object but different record types cannot have the same External Id
- 4) Record Types should be set by name e.g. {"Name" : "Client Contact"} which will set the Client Contact record type for the Contact object

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## Creating Records in Sirenum

### HTTP Method

POST

### URL

subjects/<object>

### Body

```
{  
  <field> : , <value>,  
  <field> : , <value>,  
  ...  
}
```

### Examples

The following example creates a contact in Sirenum.

#### Header

<https://mydomain.salesforce.com/services/data/v48.0/subject/Contact>

#### Body

```
{  
  "RecordType"      : {"Name" : "Client Contact"},  
  "External_Id__c"  : "987654321",  
  "Account"         : {"External_Id__c" : "201479"},  
  "FirstName"       : "Dean",  
  "LastName"        : "Morris",  
  "MailingStreet"   : "349 Regents Park Road",  
  "MailingCity"     : "London",  
  "MailingPostalCode" : "N3 1DH",  
  "Birthdate"       : "2001-10-25",  
  "Email"           : dean.morris@bink.com  
}
```

The following example creates a Ticket in Sirenum, using a suggested custom External ID field to hold the unique identity.

#### URL

[https://mydomain.salesforce.com/services/data/v48.0/subject/sirenum\\_Ticket\\_\\_c](https://mydomain.salesforce.com/services/data/v48.0/subject/sirenum_Ticket__c)

#### Body

```
{  
  "sirenum__TicketType__r" : {"Name" : "Nursing"},  
  "sirenum__Owner__r"      : {"Applicant_ID__c" : "987654321"},  
  "External_Id__c"        : "987654321-1"  
}
```

#### Notes

- 1) Use \_\_r, not \_\_c, to reference custom lookups (e.g. sirenum\_\_TicketType\_\_r).
- 2) This example assumes that the Name for the Ticket Type is unique
- 3) Including a unique ID for the ticket (External\_Id\_\_c) allows it to be used as a reference to update/reference/delete tickets.

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## Updating Records in Sirenum

The following example updates an existing contact, identified by *<External Id>*, in Sirenum.

### HTTP Method

PATCH

### URL

subjects/<object>/External\_Id\_\_c/<External Id>

### Body

```
{  
  <field> : , <value>,  
  <field> : , <value>,  
  ...  
}
```

### Example

The following example updates a Contact in Sirenum, where the Contact is identified by the given External ID value.

### URL

[https://mydomain.salesforce.com/services/data/v48.0/subject/Contact/External\\_Id\\_\\_c/201479](https://mydomain.salesforce.com/services/data/v48.0/subject/Contact/External_Id__c/201479)

### Body

```
{  
  "Birthdate"      : "2013-10-25",  
  "Email"          : dean.morris@bink.com  
}
```

### Notes

- 1) If no Contact record with a matching External Id exists in Sirenum, this operation will attempt to create a new Contact

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## Deleting Records in Sirenum

### HTTP Method

DELETE

### URL

subjects/<object>/ External\_Id\_\_c/<External Id>

### Body

N/A

### Example

The following example deletes a Ticket in Sirenum, leveraging an External ID to identify the one to delete.

### URL

[https://mydomain.salesforce.com/services/data/v48.0/subject/sirenum\\_Ticket\\_c/External\\_Id\\_c/987654321-1](https://mydomain.salesforce.com/services/data/v48.0/subject/sirenum_Ticket_c/External_Id_c/987654321-1)

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## Bulk Upload

There is a separate service for bulk upload of data. The following example only shows bulk upload of Employee Skills but different objects types (e.g. skills, tickets, requests etc.) can be specified in each request allowing an employee and all their related data to be uploaded in a single Rest API message:

### HTTP Method

POST

### URL

<https://mydomain.salesforce.com/services/data/v48.0/composite/batch>

### Body

```
{
  "batchRequests" : [
    {
      "method" : "POST",
      "url" : "v48.0/subjects/sirenum__Employee_Skill__c",
      "richInput" : {
        "sirenum__Skill_Type__r" : {"Name" : "Skill 1"},
        "sirenum__Contact__r" : {"Applicant_ID__c" : "000021"}
      }
    }, {
      "method" : "POST",
      "url" : "v48.0/subjects/sirenum__Employee_Skill__c",
      "richInput" : {
        "sirenum__Skill_Type__r" : {"Name" : "Skill 2"},
        "sirenum__Contact__r" : {"Applicant_ID__c" : "000021"}
      }
    }, {
      "method" : "POST",
      "url" : "v48.0/subjects/sirenum__Employee_Skill__c",
      "richInput" : {
        "sirenum__Skill_Type__r" : {"Name" : "Skill 3"},
        "sirenum__Contact__r" : {"Applicant_ID__c" : "000021"}
      }
    }
  ]
}
```

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## Sirenum Data Model

Sirenum makes use of both Salesforce standard objects and Sirenum custom “managed package” objects. Objects have both a label (e.g. Shift) and an API name (e.g. sirenum\_\_Shift\_\_c). The label is used in the user interface while the API name is a unique identifier used to reference the object. As such the API name should always be used for integration.

Sirenum object and field API names are identified by the prefix “sirenum\_\_” and custom objects and fields are identified by the suffix “\_\_c” e.g. sirenum\_\_Shift\_\_c. Salesforce standard objects do not have this prefix/suffix e.g. Account.

See also [https://developer.salesforce.com/docs/atlas.en-us.object\\_reference.meta/object\\_reference/sforce\\_api\\_objects\\_custom\\_objects.htm](https://developer.salesforce.com/docs/atlas.en-us.object_reference.meta/object_reference/sforce_api_objects_custom_objects.htm)

The following table describes the commonly used objects in Sirenum

Label	API Name
<b>Account</b>	<b>Account</b>
Standard salesforce object used to represent both customer companies and companies that workers belong to (e.g. umbrella companies, limited companies etc.).	
<b>Contact</b>	<b>Contact</b>
Standard Salesforce object used to represent both customer contacts (e.g. hiring manager, site manager etc.) and workers.	
<b>Competency</b>	<b>sirenum__TicketType__c</b>
A type of qualification, certification, licence etc.	
<b>Ticket</b>	<b>sirenum__Ticket__c</b>
Qualification, certification, licence etc. held by a worker.	
<b>Competency Condition</b>	<b>sirenum__Sirenum_Condition_Membership__c</b>
Qualification, certification, licence etc. required for a specific Job Role, Site, Rota, Account, and/or Job Type.	
<b>Site</b>	<b>sirenum__Site__c</b>
Site where work takes place. Can be independent (e.g. a shopping centre) or linked to a specific account.	
<b>Location</b>	<b>sirenum__Location__c</b>
Denotes a specific place, with its own geolocation, within a site. Useful for places within physically large sites. For example, shops in a shopping centre or wards in a hospital.	
<b>Job Type</b>	<b>sirenum__Job_Type__c</b>
Type or category of work to be performed (e.g. Maths Teacher, Night Chef).	
<b>Sirenum Contract</b>	<b>sirenum__ProActiveContract__c</b>
Contract for a customer account.	
<b>Job Role</b>	<b>sirenum__Team__c</b>
Type of work to be performed for a specific Sirenum contract (e.g. Wandsworth High School – Maths Teacher, Hilton – Night Chef)	
<b>Rota</b>	<b>sirenum__Rota__c</b>
Represents a roster used to separate shifts into different schedules.	

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<b>Shift</b>	<b>sirenum__Shift__c</b>
Shift Demand representing required work or shift assigned to a worker.	
<b>Shift Break</b>	<b>sirenum__Shift_Break__c</b>
Break within a shift.	
<b>Employee Request</b>	<b>sirenum__Employee_Request__c</b>
A single period of availability or unavailability for a worker.	
<b>Availability Period</b>	<b>sirenum__Availability_Period__c</b>
A recurring period of availability or unavailability for a worker.	
<b>Placement</b>	<b>sirenum__Placement__c</b>
Sequence of shifts for same worker, Job Role, Site and Rota. Additional, custom matching criteria can be configured in Sirenum Global Settings (Shift to placement field mapping). Supported for ATS integration but also can be used for custom purposes.	
<b>Payroll Cycle</b>	<b>sirenum__Payroll_Cycle__c</b>
Defines periodicity of payroll periods.	
<b>Payroll Period</b>	<b>sirenum__Week__c</b>
Period of time for payroll purposes.	
<b>Timesheet</b>	<b>sirenum__Timesheet__c</b>
Gross pay calculations for same Contact, Site, Contract and Job Role in a specific Payroll Period. Additional, custom splitting criteria can be configured in Timesheet Settings (Shift to timesheet field mappings).  NOTE: This object is not used for workers/site managers etc. to record the actual time worked by a contact. This information is recorded on the Shift object.	
<b>Timesheet Line</b>	<b>sirenum__Timesheet_Line__c</b>
Timesheet broken down by shift times and gross pay and charge rates.	

The following sections describe these objects in more detail.

Please note:

- Mandatory fields are indicated with an asterisk (\*).
- Details of Salesforce compound address fields are provided in the following link:  
[https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/compound\\_fields\\_address.htm](https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/compound_fields_address.htm)
- Formula fields and auto-generated object names can be queried but cannot be updated directly, so should not be sent to the server in a creation/update request.

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## Account

### Description

Standard salesforce object used to represent both customer companies and companies that workers belong to (e.g. umbrella companies, limited companies etc.).

### Fields

Standard Salesforce Account fields are detailed in:

[https://help.salesforce.com/articleView?id=account\\_fields.htm&type=5](https://help.salesforce.com/articleView?id=account_fields.htm&type=5)

Label	API Name	Data Type
<b>BACS Account Name</b>	<b>sirenum__BACS_Account_Name__c</b>	
BACS account name of the Account.		
<b>Default Payroll Cycle</b>	<b>sirenum__default_pay_cycle__c</b>	
Default payroll cycle for this Account.		

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## Contact

### Description

Standard Salesforce object used to represent both customer contacts (e.g. hiring manager, site manager etc.) and workers.

### Fields

Standard Salesforce Contact fields are detailed in:

[https://help.salesforce.com/articleView?id=contacts\\_fields.htm&type=5](https://help.salesforce.com/articleView?id=contacts_fields.htm&type=5)

Label	API Name	Data Type
<b>Activity Status</b>	<b>sirenum__Activity_Status__c</b>	<b>Formula (Text)</b>
"Active" if worker has a timesheet ending in the last 21 days ELSE "In Progress" if worker was created in last 30 days ELSE "Inactive".		
<b>Additional Phone</b>	<b>sirenum__Additional_Phone__c</b>	<b>Phone</b>
Additional phone number.		
<b>Age</b>	<b>sirenum__Age__c</b>	<b>Formula (Number)</b>
Age in years based on Birthdate.		
<b>Alternate Email</b>	<b>sirenum__Alternate_Email__c</b>	<b>Email</b>
Alternate email address.		
<b>BACS Account Number</b>	<b>sirenum__Payment_Account__c</b>	<b>Text(8)</b>
Worker's BACS account number.		
<b>BACS Account Type</b>	<b>sirenum__Payment_BACS_Account_Type__c</b>	<b>Picklist</b>
Bank Account or Building Society.		
<b>BACS Bank Account Name</b>	<b>sirenum__Payment_Account_Name__c</b>	<b>Text(150)</b>
Worker's BACS bank account name.		
<b>BACS Reference / Roll Number</b>	<b>sirenum__BACS_Reference__c</b>	<b>Text(18)</b>
Worker's BACS reference / roll number.		
<b>BACS Sort Code</b>	<b>sirenum__Payment_Sort_Code__c</b>	<b>Text(8)</b>
Worker's BACS sort code.		
<b>Bank Address</b>	<b>sirenum__Payment_Bank_Address__c</b>	<b>Text Area(255)</b>
Worker's bank address.		
<b>Bank Name</b>	<b>sirenum__Payment_Bank_Name__c</b>	<b>Text(30)</b>
Worker's bank name.		
<b>Bank Postcode</b>	<b>sirenum__Bank_Postcode__c</b>	<b>Text(10)</b>
Worker's bank post code.		

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<b>Building Society Number</b>	<b>sirenum__Payment_Building_Society_Number__c</b>	<b>Text(30)</b>
Worker's building society number.		
<b>Default Job Role</b>	<b>sirenum__Default_Team__c</b>	<b>Lookup(Job Role)</b>
Worker will be given a bonus when searching for candidates for a shift for this job role or associated job type.		
<b>Default Rota</b>	<b>sirenum__Default_Rota__c</b>	<b>Lookup(Job Role)</b>
Worker will be given a bonus when searching for candidates for a shift for this rota.		
<b>Default Work Site</b>	<b>sirenum__Default_Site__c</b>	<b>Lookup(Site)</b>
Worker will be given a bonus when searching for candidates for a shift for this site.		
<b>General Comments</b>	<b>sirenum__General_Comments__c</b>	<b>Text Area(255)</b>
General comments provided as a tool-tip for the worker in the scheduler.		
<b>Home Coordinates</b>	<b>sirenum__Home_Coordinates__c</b>	<b>Geolocation</b>
Latitude/longitude coordinates geocoded from MailingAddress. Used to give a bonus to workers living nearer to a site when searching for candidates.		
<b>Limited Company</b>	<b>sirenum__Limited_Company__c</b>	<b>Lookup(Account)</b>
Worker's limited company.		
<b>Marital Status</b>	<b>sirenum__Marital_Status__c</b>	<b>Picklist</b>
Single, Married, Divorced, Widowed, Civil Partnership or Other.		
<b>Max Weekly Work Hours</b>	<b>sirenum__Max_Weekly_Work_Hours__c</b>	<b>Number(3, 2)</b>
Can be used in health and safety rules.		
<b>Min Weekly Work Hours</b>	<b>sirenum__Min_Weekly_Work_Hours__c</b>	<b>Number(3, 2)</b>
Worker that have worked less than these hours in the week will be given a bonus when searching for candidates for a shift.		
<b>National Insurance #</b>	<b>sirenum__National_Insurance__c</b>	<b>Text(9)</b>
National insurance number.		
<b>Payment Frequency</b>	<b>sirenum__Payment_Frequency__c</b>	<b>Picklist</b>
Weekly or Monthly.		
<b>Payment method</b>	<b>sirenum__Payment_method__c</b>	<b>Picklist</b>
BACS, Limited Company, Cheque or Credit Transfer.		
<b>Scheduling Hidden</b>	<b>sirenum__Scheduling_Hidden__c</b>	<b>Checkbox</b>
Worker will not be shown in scheduler or considered when searching for candidates if this is true.		
<b>Tax Code</b>	<b>sirenum__Tax_Code__c</b>	<b>Text(7)</b>
Worker's PAYE tax code.		

## Notes

Birthdate is used as an authentication factor when workers (re)set their password in the MySirenum iOS/Android app.

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## Competency

### Description

A type of qualification, certification, licence etc.

### Fields

Label	API Name	Data Type
<b>Competency Name*</b>	<b>Name</b>	<b>Text(80)</b>
Name of competency Does not have to be unique but recommended to ensure competencies can be distinguished in the UI.		
<b>Expires</b>	<b>sirenum__Expires__c</b>	<b>Checkbox</b>
Indicates if competency is time-limited or permanent.		
<b>Requires Proof</b>	<b>sirenum__Requires_Proof__c</b>	<b>Checkbox</b>
Indicates if associated tickets require proof of competency attached (e.g. scanned passport, certificate, etc.)		

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## Ticket

### Description

Qualification, certification, licence etc. held by a worker.

### Fields

Label	API Name	Data Type
<b>Card Number</b>	<b>sirenum__Card_number__c</b>	<b>Text(20)</b>
Card number if applicable. For information only.		
<b>Comments</b>	<b>sirenum__Comments__c</b>	<b>Text Area(255)</b>
General comments.		
<b>Competency*</b>	<b>sirenum__TicketType__c</b>	<b>Master-Detail(Competency)</b>
Type of competency.		
<b>Owner*</b>	<b>sirenum__Owner__c</b>	<b>Master-Detail(Contact)</b>
Holder of the ticket (i.e. worker).		
<b>Revoked</b>	<b>sirenum__Revoked__c</b>	<b>Checkbox</b>
If true, this ticket will be ignored when searching for candidates.		
<b>Ticket Name</b>	<b>Name</b>	<b>Auto Number</b>
Automatically generated name of Ticket in Ticket-{NNNNNN} format where {NNNNNN} is a global sequence.		
<b>Valid from</b>	<b>sirenum__Valid_from__c</b>	<b>Date</b>
Ticket will be ignored when searching for candidates for shifts starting before this date.		
<b>Valid until</b>	<b>sirenum__Valid_until__c</b>	<b>Date</b>
Ticket will be ignored when searching for candidates for shifts ending after this date. Mandatory if sirenum__Expires__c is true on corresponding competency.		

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## Competency Condition

### Description

Qualification, certification, licence etc. required for a given Job Type at a specific Site, Rota, Account, and/or Job Role. Can be combined e.g. a certain competency may be required for a Job Type but only at a specific Location.

### Fields

Label	API Name	Data Type
<b>Account</b>	<b>sirenum__Client__c</b>	<b>Lookup(Account)</b>
Competency is required when working on shifts for this Account (company).		
<b>Competency</b>	<b>sirenum__TicketType__c</b>	<b>Lookup(Competency)</b>
The competency required.		
<b>Job Role</b>	<b>sirenum__Team__c</b>	<b>Lookup(Job Role)</b>
Competency is required for this Job Role.		
<b>Job Type</b>	<b>sirenum__Job_Type__c</b>	<b>Lookup(Job Type)</b>
Competency is required for this Job Type.		
<b>Rota</b>	<b>sirenum__Rota__c</b>	<b>Lookup(Rota)</b>
Competency is required when working on shifts in this Rota.		
<b>Rule Group Membership Name</b>	<b>Name</b>	<b>Auto Number</b>
Automatically generated name of Competency Condition in RM-{NNNNN}format where {NNNNN} is a global sequence.		
<b>Severity</b>	<b>sirenum__Severity__c</b>	<b>Picklist</b>
'Low', 'Medium', 'High' or 'Fatal'. Determines bonus/penalty when searching for candidates that possess/do not possess a Ticket for the competency, respectively. Shifts cannot be published for workers not in possession of a Ticket with a 'Fatal' competency condition.		
<b>Site</b>	<b>sirenum__Site__c</b>	<b>Lookup(Site)</b>
Competency is required when working on shifts at this Site.		
<b>Location</b>	<b>sirenum__Location__c</b>	<b>Lookup(Location)</b>
Competency is required when working on shifts in this Location.		

# (( sirenum ))

## Site

### Description

Site where work takes place. Can be independent (e.g. a shopping centre) or linked to a specific account.

### Fields

Label	API Name	Data Type
<b>City</b>	sirenum__City__c	Text(40)
City of site address.		
<b>Comments</b>	sirenum__Comments__c	Long Text Area(2000)
General site comments.		
<b>Coordinates</b>	sirenum__Coordinates__c	Geolocation
Latitude/longitude coordinates geocoded from address fields. Used to give a bonus to workers living nearer to a site when searching for candidates.		
<b>Country</b>	sirenum__Country__c	Text(255)
Country of site address.		
<b>County</b>	sirenum__County__c	Text(200)
County of site address.		
<b>Manager</b>	sirenum__Manager__c	Lookup(Contact)
Primary site manager.		
<b>Operating Company</b>	sirenum__Operating_Company__c	Lookup(Account)
Company that operates the site.		
<b>Phone 1</b>	sirenum__Phone1__c	Phone
Primary contact phone number.		
<b>Phone 2</b>	sirenum__Phone2__c	Phone
Alternative contact phone number.		
<b>Postal Code</b>	sirenum__Postal_Code__c	Text(20)
Postal code of site address.		
<b>Secondary Manager</b>	sirenum__Secondary_Manager__c	Lookup(Contact)
Secondary site manager.		
<b>Site Name*</b>	Name	Text(80)
Name of site. Does not have to be unique but recommended to ensure sites can be distinguished in the UI.		
<b>State</b>	sirenum__State__c	Picklist
U.S State of site address. Picklist values have leading upper case e.g. Florida, Texas etc.		
<b>Street Address</b>	sirenum__Street_Address__c	Text Area(255)
Street address of site.		
<b>Travel Instructions</b>	sirenum__Travel_Instructions__c	Long Text Area(32768)
Travel instructions for the site e.g. "Outside Bank station Exit 1 by the Natwest".		

# (( sirenum ))

## Job Type

### Description

Type of work to be performed (e.g. Maths Teacher, Night Chef).

### Fields

Label	API Name	Data Type
<b>Job Type Name*</b>	<b>Name</b>	<b>Text(80)</b>
Name of job type. Does not have to be unique but recommended to ensure job types can be distinguished in the UI.		

# (( sirenum ))

## Shift

### Description

Required or assigned work for a specified period of time. Shifts can be one of the following:

- 1) Assigned shift. Assigned to a worker:
  - a. sirenum\_\_Contact\_\_c != null;
- 2) Shift demand. Demand for one or more workers:
  - a. sirenum\_\_Contact\_\_c = null;
  - b. sirenum\_\_Broadcasts\_\_c != null

### Fields

Label	API Name	Data Type
<b>Actual End Time</b>	<b>sirenum__Actual_End_Time__c</b>	<b>Date/Time</b>
Actual end time of the shift (e.g. as recorded in portal or MySirenum app).		
<b>Actual Start Time</b>	<b>sirenum__Actual_End_Time__c</b>	<b>Date/Time</b>
Actual start time of the shift (e.g. as recorded in portal or Mysirenum app).		
<b>Ad-Hoc</b>	<b>sirenum__AdHoc__c</b>	<b>Formula (Text)</b>
Ad-Hoc" if sirenum__Scheduled_Start_Time__c is null else "Scheduled".		
<b>Allow charge</b>	<b>sirenum__Allow_charge__c</b>	<b>Checkbox</b>
Forces an invalid shift (e.g. no actual start/end times recorded) to be included the payroll process.		
<b>Allow pay</b>	<b>sirenum__Allow_pay__c</b>	<b>Checkbox</b>
Forces an invalid shift (e.g. no actual start/end times recorded) to be included the payroll process.		
<b>Alternative Job Type</b>	<b>sirenum__Job_Type__c</b>	<b>Lookup(Job Type)</b>
Overrides the Job Type on the Job Role if Use Alternative Job Type is selected in the Find Resource Settings.		
<b>Assigned Shifts</b>	<b>sirenum__AssignedShifts__c</b>	<b>Number(3, 0)</b>
Number of shifts assigned to a shift demand.		
<b>Billable Calculated End Time</b>	<b>sirenum__Billable_Calculated_End_Time__c</b>	<b>Formula (Date/Time)</b>
Shift end time used for payroll purposes. sirenum__Billable_End_Time__c if specified otherwise sirenum__Actual_End_Time__c or sirenum__Scheduled_End_Time__c dependent on setting of Prefer Actual Times in Timesheet Settings. Null for cancelled shifts.		
<b>Billable Calculated Start Time</b>	<b>sirenum__Billable_Calculated_Start_Time__c</b>	<b>Formula (Date/Time)</b>
Shift start time used for payroll purposes. sirenum__Billable_Start_Time__c if specified otherwise sirenum__Actual_Start_Time__c or sirenum__Scheduled_Start_Time__c dependent on setting of Prefer Actual Times in Timesheet Settings. Null for cancelled shifts.		
<b>Billable End Time</b>	<b>sirenum__Billable_End_Time__c</b>	<b>Date/Time</b>
Overrides scheduled/actual end time for payroll purposes.		
<b>Billable Start Time</b>	<b>sirenum__Billable_Start_Time__c</b>	<b>Date/Time</b>
Overrides scheduled/actual start time for payroll purposes.		
<b>Break Override</b>	<b>sirenum__Break_Override__c</b>	<b>Checkbox</b>
If true then breaks will not be calculated or reset automatically.		
<b>Cancellation Reason</b>	<b>sirenum__CancellationReason__c</b>	<b>Picklist</b>
The reason for cancellation of the Shift/Shift Demand. Mandatory for cancelled shifts.		

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<b>Cancelled</b>	<b>sirenum__Cancelled__c</b>	<b>Checkbox</b>
Cancels/indicates if the shift has been cancelled.		
<b>Comments</b>	<b>sirenum__Comments__c</b>	<b>Long Text Area(32768)</b>
Internal comments for the shift (not displayed in MySirenum app).		
<b>Confirmation Reminder Time</b>	<b>sirenum__Confirmation_Reminder_Time__c</b>	<b>Date/Time</b>
Time that confirmation reminder will be sent.		
<b>Confirmed Time</b>	<b>sirenum__Confirmed_Time__c</b>	<b>Date/Time</b>
Time the worker confirmed that they would be attending the shift.		
<b>Contact</b>	<b>sirenum__Contact__c</b>	<b>Lookup(Contact)</b>
Worker assigned to the shift.		
<b>Contract</b>	<b>sirenum__Contract__c</b>	<b>Lookup(Sirenum Contract)</b>
Reference to Sirenum Contract		
<b>Employee Acceptance</b>	<b>sirenum__Accepted__c</b>	<b>Number(1, 0)</b>
1 if shift has been accepted, -1 if it has been rejected and 0 if unacknowledged.		
<b>End Touch</b>	<b>sirenum__End_Touch__c</b>	<b>Lookup(Touch)</b>
Reference to end touch (e.g. created when logging end shift in MySirenum app or scanner).		
<b>Ever Published</b>	<b>sirenum__Published_Ever__c</b>	<b>Checkbox</b>
Indicates if shift has ever been published.		
<b>Fatigue Index</b>	<b>sirenum__Fatigue_Index__c</b>	<b>Number(2, 1)</b>
Percentage chance of worker requiring effort or struggling to stay awake on a shift.		
<b>Forecast Charge</b>	<b>sirenum__Forecast_Charge__c</b>	<b>Currency(5, 2)</b>
Forecast amount chargeable to customer for the shift.		
<b>Forecast pay</b>	<b>sirenum__Forecast_Pay__c</b>	<b>Currency(5, 2)</b>
Forecast amount payable to worker for the shift.		
<b>Invalid shift</b>	<b>sirenum__Invalid_shift__c</b>	<b>Checkbox</b>
Overrides the validity and prevents the shift from being included in payroll processing regardless.		
<b>Job Role</b>	<b>sirenum__Team__c</b>	<b>Lookup(Job Role)</b>
Reference to Job Role.		
<b>Location</b>	<b>sirenum__Location__c</b>	<b>Lookup(Location)</b>
Reference to Location.		
<b>Overtime Hours</b>	<b>sirenum__Overtime_Hours__c</b>	<b>Number(3, 2)</b>
Number of hours of the shift calculated as overtime by the payroll process.		
<b>Overtime Hours x2</b>	<b>sirenum__Overtime_Hours_x2__c</b>	<b>Number(3, 2)</b>
Number of hours of the shift calculated as 2x overtime by the payroll process.		
<b>Payroll Code</b>	<b>sirenum__Payroll_Code__c</b>	<b>Text(10)</b>
Payroll code for the shift. Typically used to determine rate paid/charged and/or pass to external payroll system		
<b>Pending Invitation Count</b>	<b>sirenum__Pending_Invitation_Count__c</b>	<b>Number(18, 0)</b>
The number of shift invitations that have not been acknowledged or have been accepted but not yet approved.		

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<b>Placement</b>	<b>sirenum__Placement__c</b>	<b>Lookup(Placement)</b>
Placement this shift belongs to typically for ATS integration when such integration is done at the Placement level.		
<b>Published</b>	<b>sirenum__Published__c</b>	<b>Checkbox</b>
Publishes/indicates if a shift is published (i.e. visible to the worker on the MySirenum app).		
<b>Required Shifts</b>	<b>sirenum__Broadcasts__c</b>	<b>Number(3, 0)</b>
Number of workers required for a shift demand.		
<b>Risk Index</b>	<b>sirenum__Risk_Index__c</b>	<b>Number(3, 2)</b>
Risk of safety related incident occurring relative to that of a pattern of 12 hour shifts for two days, two nights and four off.		
<b>Rota</b>	<b>sirenum__Rota__c</b>	<b>Lookup(Rota)</b>
Rota for the shift.		
<b>Scheduled End Time</b>	<b>sirenum__Scheduled_End_Time__c</b>	<b>Date/Time</b>
Time the shift is/was scheduled to end. Shifts with a duration greater than 24 hours are not supported.		
<b>Scheduled Start Time</b>	<b>sirenum__Scheduled_Start_Time__c</b>	<b>Date/Time</b>
Time the shift is/was scheduled to start.		
<b>Scheduling Comments</b>	<b>sirenum__Scheduling_Comments__c</b>	<b>Text(255)</b>
Shift comments visible to the worker on the MySirenum app.		
<b>Shift Demand</b>	<b>sirenum__ShiftDemand__c</b>	<b>Lookup(Shift)</b>
Shift demand this shift was created for.		
<b>Shift Name</b>	<b>Name</b>	<b>Auto Number</b>
Automatically generated name of shift in SHFT-{NNNNNN} format where {NNNNNN} is a global sequence.		
<b>Shift Status</b>	<b>sirenum__Shift_Status__c</b>	<b>Formula (Text)</b>
'Scheduled', 'At Risk', 'Late', 'No-Show', 'Ongoing', 'Finished', or 'Stale' dependent on current time, values of sirenum__Scheduled_Start_Time__c, sirenum__Confirmed_Time__c, sirenum__Actual_Start_Time__c, sirenum__Actual_End_Time__c, sirenum__Confirmed_Time__c and Time & Attendance settings. See notes for full formula.		
<b>Site</b>	<b>sirenum__Site__c</b>	<b>Lookup(Site)</b>
Site where the shift is worked.		
<b>Start Touch</b>	<b>sirenum__Start_Touch__c</b>	<b>Lookup(Touch)</b>
Reference to start touch (e.g. created when logging start shift in MySirenum app or Sirenum Clock).		
<b>Timesheet</b>	<b>sirenum__Timesheet_summaries__c</b>	<b>Lookup(Timesheet)</b>
Reference to timesheet created by payroll process for this shift.		
<b>Total Charge</b>	<b>sirenum__Total_Charge__c</b>	<b>Currency(6, 2)</b>
Total gross amount chargeable to the customer for the shift as calculated by the payroll process.		
<b>Total Pay</b>	<b>sirenum__Total_Pay__c</b>	<b>Currency(6, 2)</b>
Total gross amount payable to the worker for the shift as calculated by the payroll process.		

## Notes

Status formula:

IF (!ISNULL(sirenum\_\_Actual\_End\_Time\_\_c) && sirenum\_\_Actual\_End\_Time\_\_c <= NOW(), 'Finished',

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```
IF (ISNULL(sirenum__Actual_Start_Time__c) || sirenum__Actual_Start_Time__c > NOW(),  
IF (NOW() - ($Setup.sirenum__Shift_Logic__c.sirenum__Maximum_Shift_Length__c / 24) >  
sirenum__Scheduled_Start_Time__c,  
IF (NOW() - 0.020833333333333 > sirenum__Scheduled_Start_Time__c, 'No-Show',  
IF (NOW() > sirenum__Scheduled_Start_Time__c, 'Late',  
IF (AND( NOW() + ($Setup.sirenum__Shift_Logic__c.sirenum__Risk_Time__c/1440) >=  
sirenum__Scheduled_Start_Time__c , NOT sirenum__Is_Confirmed__c), 'At-Risk',  
'Scheduled')))),  
IF (NOW() - ($Setup.sirenum__Shift_Logic__c.sirenum__Maximum_Shift_Length__c / 24) >  
sirenum__Actual_Start_Time__c, 'Stale',  
'Ongoing'))))
```

# (( sirenum ))

## Employee Request

### Description

A single period of availability or unavailability for a worker e.g. annual leave or doctor's visit. Will affect a person's rating when searching for candidates for a shift.

### Fields

Label	API Name	Data Type
<b>Approved</b>	<b>sirenum__Approved__c</b>	<b>Checkbox</b>
Approves/indicates if this request has been approved. By default, employee requests created in the MySirenum are not approved.		
<b>Availability</b>	<b>sirenum__Availability__c</b>	<b>Checkbox</b>
If true, worker is available for the period of this request. Defaults to false.		
<b>Contact*</b>	<b>sirenum__Contact__c</b>	<b>Master-Detail(Contact)</b>
Worker this Employee Request relates to.		
<b>Date*</b>	<b>sirenum__Date__c</b>	<b>Date</b>
Date of the request. When used to define the request, the start/end times are automatically set to cover 24hrs.		
<b>Description</b>	<b>sirenum__Description__c</b>	<b>Long Text Area(32768)</b>
Description of the request.		
<b>Employee Request Name</b>	<b>Name</b>	<b>Auto Number</b>
Automatically generated name in REQ-YYYY-MM-DD-N format where {N} is a global sequence (i.e. not reset each day)		
<b>End Time</b>	<b>sirenum__End_Time__c</b>	<b>Date/Time</b>
Time that the request ends. Requests over 24 hours duration are not supported.		
<b>Rejected</b>	<b>sirenum__Rejected__c</b>	<b>Checkbox</b>
Rejects/indicates if this request has been rejected.		
<b>Shift</b>	<b>sirenum__Shift__c</b>	<b>Lookup(Shift)</b>
Shift this request relates to.		
<b>Start Time</b>	<b>sirenum__Start_Time__c</b>	<b>Date/Time</b>
Time that the request starts.		
<b>Type</b>	<b>sirenum__Type__c</b>	<b>Picklist</b>
Customisable picklist for request type.		

### Notes

Sirenum can be configured to assume availability (worker is considered to be available unless there is an Employee Request for unavailability) or unavailable (worker is considered to be unavailable unless there is an Employee Request for availability) in the Find Resource Settings(Assume Unavailability).

# (( sirenum ))

## Availability Period

### Description

A recurring period of availability or unavailability for a worker e.g. a worker may be unavailable every Thursday between 6pm and 9pm during term-time due to attending a night class.

### Fields

Label	API Name	Data Type
<b>Availability</b>	<b>sirenum__Availability__c</b>	<b>Checkbox</b>
If true worker is available for the period. Defaults to false.		
<b>Availability Period Name*</b>	<b>Name</b>	<b>Text(80)</b>
Name of availability period. Does not need to be unique.		
<b>Contact*</b>	<b>sirenum__Contact__c</b>	<b>Master-Detail(Contact)</b>
Worker this Availability Period relates to.		
<b>End Date</b>	<b>sirenum__End_Date__c</b>	<b>Date</b>
End date of the period.		
<b>End Time</b>	<b>sirenum__End_Time__c</b>	<b>Test(5)</b>
End time of the (un)availability on each selected day of the period in HH:MM format.		
<b>Start Date</b>	<b>sirenum__Start_Date__c</b>	<b>Date</b>
Start date for the period.		
<b>Start Time</b>	<b>sirenum__Start_Time__c</b>	<b>Test(5)</b>
Start time of the (un)availability on each selected day of the period in HH:MM format.		
<b>Week day</b>	<b>sirenum__Week_day__c</b>	<b>Picklist</b>
Day of week to which the period applies (or all days of the week): Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday or All Days.		

### Notes

Sirenum can be configured to assume availability (worker is considered to be available unless there is an Availability Period for unavailability) or unavailable (worker is considered to be unavailable unless there is an Availability Period for availability) in the Find Resource Settings(Assume Unavailability).