# fabio 2

### FreeAgent Bulk Input & Output

# USER GUIDE

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## 2. Introduction

Fabio – meaning "**F**ree**A**gent **B**ulk **I**nput and **O**utput" – was born in 2015 from the need to create lots of similar Expense and Mileage records in FreeAgent, and the frustration at the time required to type them all in interactively, one-by-one.  There had to be a better way!  Over time, Fabio has matured into the multi-functional bulk record manager for both end users and account managers using FreeAgent.

### 2.1  Architecture & Security

Fabio is a web-based application, making it suitable for both Windows and Mac users, or even smartphones and tablets.  The service is hosted in a highly-available datacentre in London, UK, and uses a secure, encrypted connection to FreeAgent.  No FreeAgent transaction data is stored by Fabio – only your Fabio login details and simple usage statistics (to target our product improvements) are stored. They are not shared with any third party.  Your password is encrypted - we don't know what is it is and we can't find out.

*How you run your business, is your business, not ours.*

### 2.2  Interface

Fabio takes a Comma Separated Value (CSV) data file as input, which it processes to create corresponding records in FreeAgent.  The data file itself can either be created by hand with a simple text editor, or exported from a spreadsheet program such as Microsoft Excel or OpenOffice Calc, using the "`Save As… CSV`" capability.

Exports from other accounting and expense management applications may easily be massaged into Fabio's data file format, for bulk loading into FreeAgent.

### 2.3 Functionality

Fabio has the following main functions:

1. ***Bulk adding new records*** to FreeAgent from a spreadsheet (CSV format).
2. ***Exporting existing records*** from FreeAgent to a spreadsheet (CSV format).
3. ***Bulk deleting selected records*** from FreeAgent, using a Fabio export spreadsheet (CSV format).

When **adding new records**, the spreadsheet can be prepared either from a blank file, by adopting and adapting example data files (shared on the getfabio.co.uk website), or massaging export files from other accounting or expense management programs.  All of the required attributes for a new record must be defined in the Fabio data file.

The following record types are supported:  **CONTACT**, **PROJECT**, **TASK**, **TIMESLIP**, **EXPENSE** (also used for Mileage), **BILL**, and **INVOICE**.

When **exporting existing records**, the Fabio User selects a broad set of existing FreeAgent records of interest.  For example, expenses within a certain time frame, or relating to a particular project.  Once selected, that set of records may then be exported as a Fabio data file.

In order to **bulk delete selected records** from FreeAgent, a set of FreeAgent records must first be exported from FreeAgent using Fabio.  This export is required in order to extract the "Unique Record Location" (URL) FreeAgent assigns internally to each and every record.   The Fabio User may then edit the exported data file to define which, if not all, records should be deleted from FreeAgent.  Then, with the Fabio data file modified, the Fabio User may then process this new data file to delete the specified records from FreeAgent.  Only the record URL is needed by Fabio to delete a record; the other parameter values are used to assist the Fabio User in selecting which records should be deleted, or to help prepare new records to add to FreeAgent.

## 3. Getting Started

❶ From Fabio's home page, **getfabio.co.uk**, select "**Try Fabio**", which will start the Fabio engine in a new window:

⚠️ **Warning:** You may bookmark the link for the Fabio engine, but it may change in the future. However, "**getfabio.co.uk**" will not change.

Fabio - FreeAgent Bulk Input & Output

Email

Password

☐ Remember me

Login

Forgot your password?

Register

**2** Select the "**Register**" link, and create your login details:
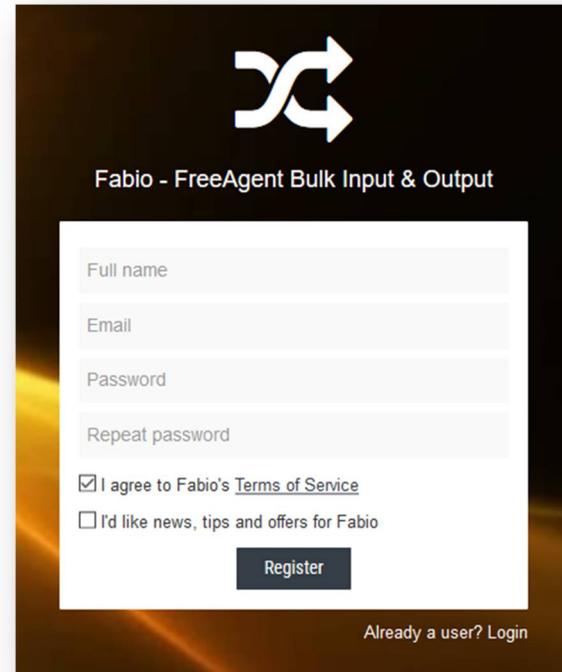
❸ Once registered, you will be logged into Fabio, and invited to "**Link**" your FreeAgent account:

You have no FreeAgent account linked to Fabio

Please link one so we can use Fabio
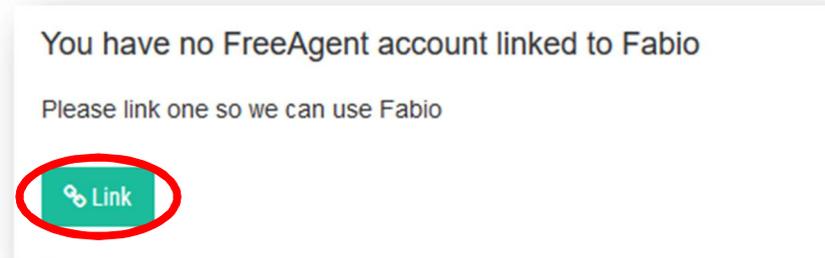
🔗 Link

❹ Click "**Link**" and provide the login details to your existing FreeAgent account (not your Fabio account):

⚠️ If you don't yet have a FreeAgent account, use this link to sign-up for one with a **10% lifetime discount** on FreeAgent's subscription:

**http://fre.ag/3xfoaftd**

Approve app

✉ Email Address

🔒 Password

Approve app!

❺ Login to FreeAgent:

⚠️ Note: You can also check, or revoke approval, at anytime, within FreeAgent from the "**Settings**" -> "**Approved Applications**" menu.



❻ Select "**Approve**":
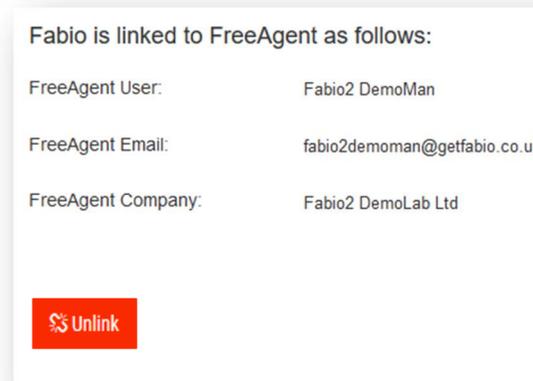
❼ Choose the "**Upload**" (cloud icon) in the left-hand pane, and you're ready to start processing CSV data files into FreeAgent:
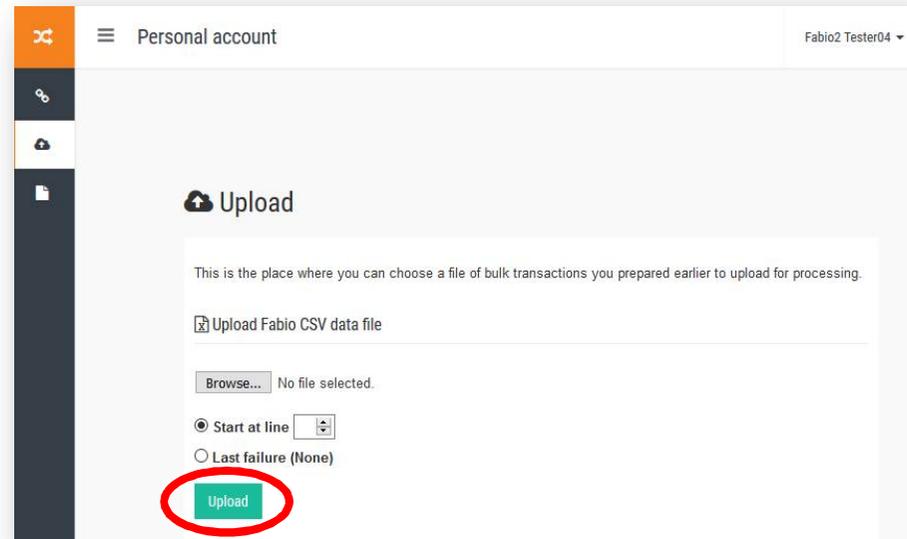
**❽** Browse and select the **EXPENSE-Single-test** example file (previously downloaded from the getfabio.co.uk website), and hit "**Upload**":

⚙ Run

Great! All records have been successfully processed ×

Processed 1 of 1 (100%)

Ok   Upload another
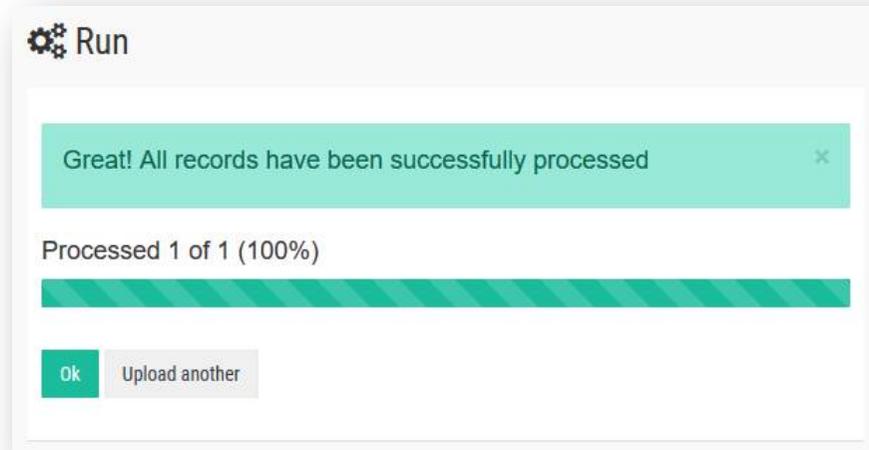
**❾** Congratulations!  You've just done your first bulk import into FreeAgent. Review (and perhaps now delete) your newly created expense of 1st July 2018.

## 4. Fabio Accounts

### 4.1 Accounts Overview

Fabio supports several Account Classes;  generally, the greater the subscription level, the greater the functionality provided, allowing Users only to pay for the functionality they need.

### 4.2 Account Classes

Fabio supports the following Account Classes:

| Account Class | Functionality |
|---|---|
| **TRIAL** | ALL record types supported, up to 3 records per file, 20 file uploads per business. |
| **PERSONAL** | Only EXPENSE and TIMESLIP record types supported, one FreeAgent business per User |
| **BUSINESS** | ALL record types supported, one FreeAgent business per User. |
| **ACCOUNTANCY** | ALL record types supported, ALL clients per FreeAgent Practice Account Manager supported. |

### 4.3 Account Upgrades

Through the "Pricing" page at **getfabio.co.uk**, a Fabio User may pay for a Fabio subscription, and automatically receive an "Activation Key". This Activation Key may then be input from the "**Upgrade**" button within the Fabio User settings menu (top right).

## 4.4 FreeAgent Accounting Practices

Fabio Users with an "ACCOUNTANCY" class login can *only* link to a FreeAgent Practice Account Manager. Once linked, the Account Manager is able to select which of the Practice Clients is being used for bulk record input & output:
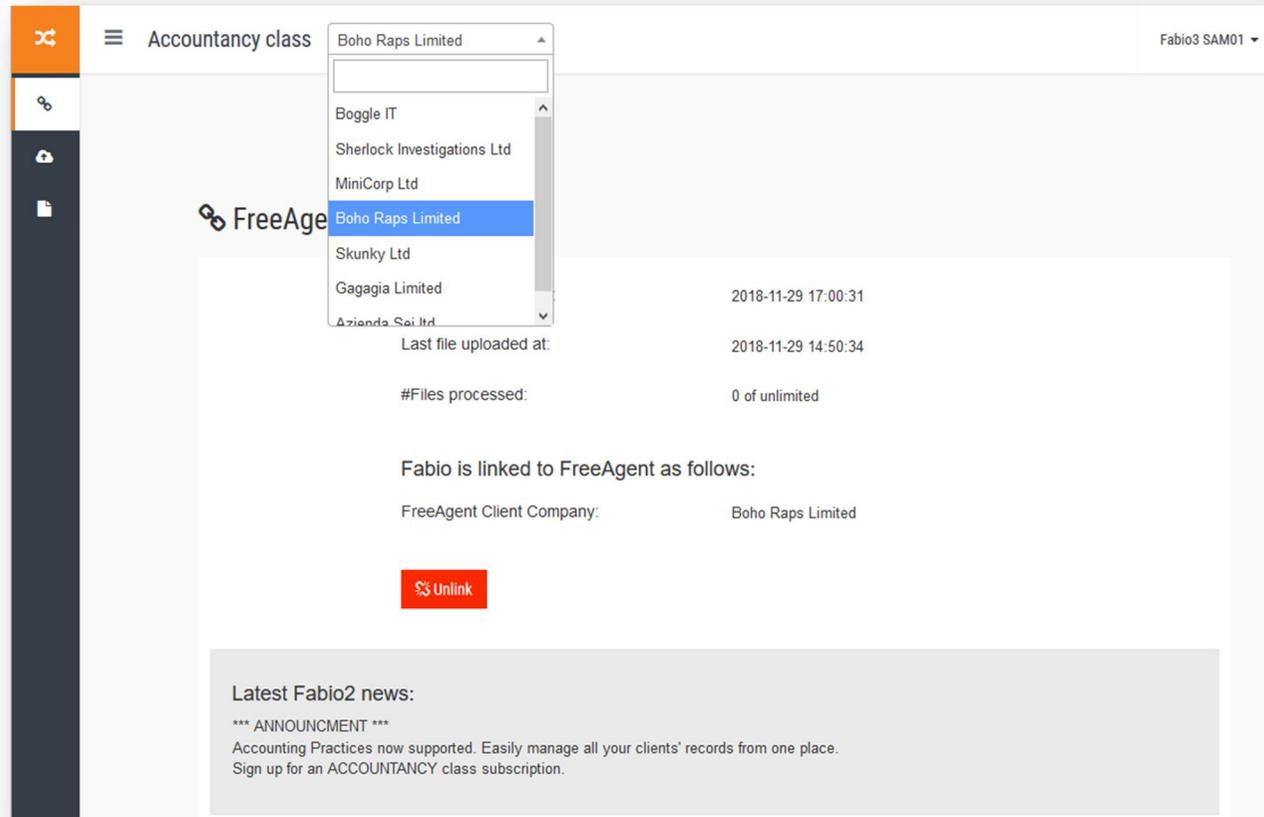
## 5. Fabio Operation

### 5.1 Operation Overview

Fabio may be used both to add new, export (aka "Report") and delete existing records within FreeAgent, in bulk.

As such, a Fabio data file may contain rows for both record "ADD" and "DELETE" operations.

⚠️ *In practice, we recommend doing one type of operation, or the other, within a single data file, to avoid disappearing into a wormhole and emerging into a new reality. Similiarly, it is worth testing the actual behaviour is as you intended with a only a couple of transactions in a data file, before committing hundreds of transactions with a single data file.*

### 5.2 ADD'ing records to FreeAgent

To create new records in FreeAgent, simply create a Fabio data file, perhaps using an example file from the **getfabio.co.uk** website as a guide. Once created, then "Upload" the data file for processing. Provided the rows are formatted correctly, and any dependencies[1] already exist in FreeAgent, then Fabio will create a set of new records in FreeAgent.

### 5.3 DELETE'ing records from FreeAgent

In order to delete records, Fabio must be told explicitly which records to delete. Within FreeAgent, every record is assigned a unique id, the "URI" (Uniform Resource Identifier). To obtain each record's URI, first "Report" a broad set of records using Fabio.
For example, "All Expense records between 01 Jan 2018 and 31 March 2018", or "All completed Projects".

Once received from FreeAgent, Fabio will preview the records on screen, showing key attributes, to demonstrate which records meet the criteria. Then, the User has the option to "Download CSV", containing all the attributes of each matching record, including each record's unique URI, to a local CSV file.

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[1] Such as Project names, Contacts, Claimants, etc – if they are not being defined by Fabio as part of the upload.

The User may then edit this local CSV file, to specify exactly which records to delete (by deleting the "%%" characters to uncommenting the required lines).  Finally, by uploading this modified file for reprocessing, Fabio will quickly delete the selected records in bulk.

*Note:  Only the URI attribute is needed to delete any record.  However, all attributes are downloaded for exported records, in order to provide the User with a simple mechanism to create new records, potentially with slightly different attribute values (eg. Change the project name, or Recharge Expenses), or export data for external applications.*

# 6. File Format

## 6.1 File Format Summary

Fabio uses a Comma Separated Values (CSV) data file format as input, which may be created a simple text editor or spreadsheet program.

The Fabio data file format has the following row constructs:

| Row Construct | Description |
|---|---|
| `File identifier` | Row 1 must be: "`FABIO,FORMAT,2`"<br>This identifies your file as a Fabio data file, and tells Fabio which parser to use. |
| `%% Comments` | Rows starting with "**%%**" are treated comments – such rows are ignored.<br>Also, columns starting "**%%**" in a record template are treated as comments too – such columns are ignored. |
| `[RECORD]::[ACTION],`<br>`[attribute],…,` | Defines the record template for the order of the attributes for a RECORD type in the DATA rows that follow.<br><br>[**RECORD**] is one of: **CONTACT** \| **TASK** \| **PROJECT** \| **EXPENSE** \| **TIMESLIP** \| **BILL** \| **INVOICE**<br><br>[**ACTION**] is either: **ADD** \| **DELETE**<br><br>[**attribute**] defines the set of parameters for the following DATA rows.<br><br>Multiple template rows are permitted throughout a single file, to define separate sections of record types.<br><br>*eg. A data file could contain a section of foreign expenses, a section of rebilled expenses, a section of mileage claims, a section of timeslips, and a section of invoices, etc.* |
| `DATA` | Defines the attributes values, for each new record being added to FreeAgent.<br>The order of attributes in the DATA rows *must* match the preceding record template definition. |
| `ITEM` | Defines the attributes values, for additional items contained within a multi-line record.<br>*eg. A newly-created INVOICE may have several line items being invoiced within it.* |

### 6.2 Example File Format

A simple Fabio data to create two expense records and an invoice with two line items could look like:

```
FABIO, FORMAT, 2
%% This is a simple file to demonstrate Fabio row constructs
EXPENSE::ADD, category, dated_on, description, %% supplier, gross_value
DATA, Postage, 05-MAR-18, Widget shipping, Royal mail, 14.50
DATA, Travel, 06-MAR-18, Tube to Zone 1, TFL, GBP, 4.90
INVOICE::ADD, mark_as, contact, dated_on, item::description, item::price
DATA, Sent, SmallBizCo, 30-MAR-18, Design services, 150
ITEM,,,,Mileage,17.50
```

Editing the values in a spreadsheet, makes the process easier to visualise:

| FABIO | FORMAT | 2 | | | |
|---|---|---|---|---|---|
| %% This is a simple file to demonstrate Fabio row constructs | | | | | |
| EXPENSE::ADD | category | dated_on | description | %% supplier | gross_value |
| DATA | Postage | 05-MAR-18 | Widget shipping | Royal mail | 14.50 |
| DATA | Travel | 06-MAR-18 | Tube to Zone 1 | TFL | 4.90 |
| INVOICE::ADD | mark_as | contact | dated_on | item::description | item::price |
| DATA | Sent | SmallBizCo | 30-MAR-18 | Design services | 150 |
| ITEM | | | | Mileage | 17.50 |

⚠️ ...just remember to "**Save As... CSV (Comma delimited)**"!
More example data files are provided on the getfabio.co.uk website, that you can adopt and adapt to suit your needs.

## 6.3 Record Dependencies

Fabio creates records in FreeAgent in the order they appear in the Fabio data file.  As such, Fabio can create a new CONTAC T in FreeAgent, then create a PROJECT for that contact, then create an INVOICE against that Project, all within the same data file (or if you prefer, multiple data files).  But, the order of record types being processed is important if there are dependencies between the records.  We recommend structuring Fabio data files in the following order:

> **CONTACT,**
> **PROJECT,**
> **TASK,**
> **TIMESLIP,**
> **EXPENSE** (also used for Mileage),
> **BILL**, and
> **INVOICE**.

## 6.4 File Data File Limits

Fabio data files have a maximum number of records permitted, to prevent FreeAgent falling over.  The limit is configured to balance stability against usability.

| Subscription Type | Maximum Number of Records per File |
|---|---|
| Free Trial | 3 |
| Paid subscriptions | 240 |

# 7. Record Format

### 7.1 Record Format Summary

Records have attributes of the following types:

| Type | Description |
|------|-------------|
| `URI` | The FreeAgent-generated "uniform resource identifier" defining the unique identification of a particular record. *Used by Fabio when bulk deleting specific FreeAgent records.* |
| `Boolean` | One of **1** \| **Y** \| **Yes** \| **T** \| <u>**True**</u> or **0** \| **N** \| **No** \| **F** \| **False**<br><br>*The value is not case sensitive. The default value, if not specified in the data file, is <u>underlined</u>.* |
| `Integer` | A whole number. eg. "**2**", "**15**", "**47**" |
| `Decimal` | A number, with decimal fraction. eg. "**2.30**", "**4.7**", "**19.75**" |
| `String` | An alpha-numeric sequence of characters. Spaces are permitted.<br>*Warning: A comma "," in string value will be interpreter as a field separator.* |
| `Enumerated` | A list of possible string values. eg. "<u>**Car**</u>", "**Motorbike**", "**Bicycle**".<br>*Only one from this list of values is acceptable. The value is not case sensitive. Default underlined.* |
| `Predefined` | A string that must match a value previously setup in FreeAgent.<br><br>*Fabio may be used to setup certain predefined values (eg. Task name is created by a TASK:ADD record), before they are used by other record types (eg. Using a Task name within a TIMESLIP::ADD record)* |
| `Date` | A date, past, present or future in the format: DD-MMM-YY. eg. **02-APR-19** |

## 7.2 Record Attributes

### 7.2.1 CONTACT

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| **?** | url | Unique record identifier. *Reported for existing records, and only used to delete records.* | URI |
| **?** | first_name | First name. *Required if* organisation_name *is not specified* | String |
| **?** | last_name | Last name. *Required if* organisation_name *is not specified* | String |
| **?** | organisation_name | Organisation name. *Required if* first_name *and* last_name *are not specified* | String |
| **Additional attributes available to FreeAgent users with Contacts & Projects permission** | | | |
| | email | Email address | String |
| | billing_email | Billing email address | String |
| | phone_number | Telephone number | String |
| | mobile | Mobile phone number | String |
| | address1 | First line of the address | String |
| | address2 | Second line of the address | String |
| | address3 | Third line of the address | String |
| | town | Town | String |
| | region | Country, Region or State | String |
| | postcode | Post Code, Zip Code | String |
| | country | Country | String |
| | uses_contact_invoice_sequence | **True** if using contact-level invoice sequence, **False** otherwise<br>*Can be overridden by project-level sequences* | Boolean |
| | contact_name_on_invoices | **True** if invoices should show the contact name *and* organization name, **False** otherwise | Boolean |
| | charge_sales_tax | One of the following: **Auto** │ **Always** │ **Never** | Enumerated |
| | sales_tax_registration_number | If applicable, and needing to be displayed on invoices. *Eg. VAT registration number.*<br>*Also required if EC Sales of Goods or Services to this contact need to be reported.* | String |
| | status | One of the following: **Active** │ **Hidden** | Enumerated |
| | locale | Written language of associated Invoices / Estimates.<br>Eg. Use "**cz**" for Invoices written in Czech | Enumerated<br>(See below) |

| Language | locale |
|---|---|
| Brasilian Portugese | pt-BR |
| Bulgarian | bg |
| Catalan | ca |
| Czech | cz |
| Danish | dk |
| Dutch | nl |
| Dutch (in Belgium) | nl-BE |
| English | en |
| English (in United States) | en-US |
| Estonian | et |
| Finnish | fi |
| French | fr |
| French (in Belgium) | fr-BE |
| French (in Canada) | fr-CA |

| Language (continued) | locale |
|---|---|
| German | de |
| Icelandic | is |
| Italian | it |
| Latvian | lv-LV |
| Norwegian | nk |
| Polish | pl-PL |
| Romanian | ro |
| Russian | ru |
| Serbian | rs |
| Slovak | sk |
| Spanish | es |
| Swedish | se |
| Turkish | tr |
| Welsh | cy |

### 7.2.2 PROJECT

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier. *Reported for existing records, and only used to delete records.* | URI |
| ✔ | contact | Contact to bill for the project. Specified as either "*Firstname Lastname*" or "*Organisation*", or both, separated with a "\|" (bar). eg. "*Fred Blogs \| Anycorp*". | Predefined |
| ✔ | name | Free-text project name | String |
| | status | One of the following: **Active** \| **Completed** \| **Cancelled** \| **Hidden** | Enumerated |
| | contract_po_reference | Contract / Purchase order number | String |
| | uses_project_ invoice_sequence | **True** if invoice sequence is project-level, **False** otherwise | Boolean |
| | currency | Project's ISO Currency code   eg. **USD**, **GBP**, **EUR**, etc | Enumerated |
| | budget | Leave as zero if this project doesn't have a budget | Decimal |
| | budget_units | One of the following: **Hours** \| **Days** \| **Monetary**  (ex-VAT) | Enumerated |
| | hours_per_day | Hours per day in decimal form.   eg. *For 1hr30 mins, use "1.5"* | Decimal |
| | normal_billing_rate | Normal billing rate | Decimal |
| | billing_period | Unit for the **normal_billing_rate**: **Hour** \| **Day** | Enumerated |
| | is_ir35 | **True** if this project comes within the scope of HMRC's IR35, **False** otherwise | Boolean |
| | starts_on | Start date of the project. *If undefined, the project does not have a start date.* | Date |
| | ends_on | End date of the project. *If undefined, the project does not have an end date.* | Date |

### 7.2.3 TASK

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier.  *Reported for existing records, and only used to delete records.* | URI |
| ✔ | name | Task name | String |
| ✔ | project | Create task against specified project name | Predefined |
| | is_billable | **True** if charging your clients for the task, **False** otherwise | Boolean |
| | status | One of the following: **Active** \| **Completed** \| **Hidden** | Enumerated |
| **Additional attributes available to users with Contacts & Projects permission** | | | |
| | billing_rate | The rate at which the project is billed, per **billing_period** | Decimal |
| | billing_period | One of the following: **Day** \| **Hour** | Enumerated |

### 7.2.4 TIMESLIP

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier.  *Reported for existing records, and only used to delete records.* | URI |
| ? | user | **User** name that completed the task  (must be pre-defined with the FreeAgent GUI). *Required if Fabio user is a Practice Account Manager.* *Defaults to logged in User with single companies.* | Predefined |
| ✔ | dated_on | **Date** of the timeslip | Date |
| ✔ | project | **Project** name against which the task was completed. | Predefined |
| ✔ | task | **Task** name that was completed. | Predefined |
| ✔ | hours | Number of hours worked, as a decimal. *eg. For 1hr 30mins, use "1.5"* | Decimal |
| | comment | Free-text comment against the task | String |

### 7.2.5 EXPENSE

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier. *Reported for existing records, and only used to delete records.* | URI |
| ? | user | Expense claimant. *Required if Fabio user is a Practice Account Manager.*<br>*Defaults to logged in User with single companies.* | Predefined |
| ✔ | category | One of FreeAgent's built-in or user-defined accounting categories, or **Mileage.**<br>eg. **Postage**, **Stationery**<br>*View / edit categories within FreeAgent from "Settings" → "Income & Spending Categories".* | Predefined |
| ✔ | dated_on | Date when expense was incurred. | Date |
| ✔ | description | Free-text description of the Expense.  eg. *"Shipping charge for mini-widget"* | String |
|  | currency | Expense's ISO currency code.<br>eg. *GBP*, *EUR*, *USD*, *MNT*, *etc.  Default is "GBP".* | Enumerated |
| ? | gross_value | Total value, including sales tax, expressed in the individual Expense's specified currency.<br>Use a *negative value* to create an Expense Refund.  eg. *"-10.00"*<br>*Required if **category** is not **Mileage*** | Decimal |
|  | sales_tax_rate | The sales tax rate if specified manually. eg. *5 for 5% sales tax*<br>*The value must be a valid sales tax rate. eg. 0, 5, 20.*<br>*If undefined, the sales tax rate used is automatically determined by the expense **category*** | Decimal |
|  | manual_sales_tax_amount | The sales tax amount for the transaction, in the company's *native currency*, when not calculated by the **sales_tax_rate**.<br>*If both **sales_tax_rate** and **manual_sales_tax_amount** are specified for a single record, then only the **manual_sales_tax_amount**  is used, and **sales_tax_rate** is ignored.* | Decimal |
|  | receipt_reference | Receipt reference, as printed on the receipt. | String |
| **Attributes for Project-related expenses** | | | |
|  | project | Project name to rebill | Predefined |
|  | rebill_type | If rebilling a project, select one of:  **Cost** \| **Markup** \| **Price**<br>*If "", then not rebilled.*<br>*To rebill **mileage** to a project, use **Cost** with the rate specified in **rebill_mileage_rate*** | Enumerated |

| | | | |
|---|---|---|---|
| | | *(This is an anomaly in FreeAgent; you'd really expect the rebill_type to be "price" for mileage!)* | |
| | rebill_factor | How much to rebill for<br>*Required when **rebill_type** is **Markup** or **Price***<br>**Markup** is a percentage. eg. "**12**" will rebill at 12% markup.<br>**Price** is a value (not a factor, again odd FreeAgent behaviour). Eg "**10**" will rebill at £10.00 | Decimal |
| **Attributes for Foreign currency expenses** | | | |
| | native_gross_value | Total value in the company's native currency<br>*Automatically converted by FreeAgent from **gross_value**, using current exchange rates collected automatically by FreeAgent, unless specified.* | Decimal |
| **Additional attributes for Mileage claims, if category is "Mileage".** | | | |
| ✔ | mileage | Number of miles travelled. *HMRC requires the nearest whole number, not decimals.* | Integer |
| ✔ | vehicle_type | One of the following: **Car** \| **Motorcycle** \| **Bicycle** | Enumerated |
| | reclaim_mileage | One of the following:<br>**False** Don't reclaim, just rebill<br>**True** At HMRC's Approved Mileage Allowance Payments "AMAP" rate (default) | Boolean |
| | have_vat_receipt | **True** if having a VAT receipt when reclaiming, **False** otherwise | Boolean |
| ? | engine_type | Applicable if **vehicle_type** is **Car** or **Motorcycle**: **Petrol** \| **Diesel** \| **LPG** | Enumerated |
| ? | engine_size | Applicable if **vehicle_type** is **Car**:<br>For **Petrol**: **Up to 1400cc** \| **1401-2000cc** \| **Over 2000cc**<br>For **Diesel**: **Up to 1600cc** \| **1601-2000cc** \| **Over 2000cc**<br>For **LPG**: **Up to 1400cc** \| **1401-2000cc** \| **Over 2000cc** | Enumerated |
| | rebill_mileage_rate | Rate per mile / kilometre at which mileage is being rebilled to a project | Decimal |

### 7.2.6 BILL

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier. *Reported for existing records, and only used to delete records.* | URI |
| ✔ | contact | Contact being billed. Specified as either "*Firstname Lastname*" or "*Organisation*", or both, separated with a "**|**" (bar). eg. "*Fred Blogs | Anycorp*". | Predefined |
| ✔ | reference | Free-text reference | String |
| ✔ | dated_on | Date of bill | Date |
| ✔ | due_on | Due date of bill | Date |
| ✔ | total_value | Total value in the company's native currency<br>*Use negative value for a Bill Refund* | Decimal |
| ✔ | category | Bill's accounting category | Predefined |
| | comments | Free-text comments | String |
| | project | Project billed for | Predefined |
| ? | rebill_type | One of the following, if rebilling to a project: **Cost** | **Markup** | **Price** | Enumerated |
| ? | rebill_factor | How much to rebill for<br>*Required when **rebill_type** is **Markup** or **Price*** | Decimal |
| **Sales tax attributes** | | | |
| | sales_tax_rate | The sales tax rate, if specified manually.<br>*Otherwise, use the rate determined by the bill expense's category.* | Decimal |
| | manual_sales_tax_amount | Sales tax specified manually, as a value. | Decimal |

### 7.2.7 INVOICE

| Req'd | Attribute | Description | Type |
|---|---|---|---|
| ? | url | Unique record identifier.  Reported for existing records, and only used to delete records. | URI |
| | mark_as | Invoice status.  One of: **<u>Draft</u>** \| **Sent** | Enumerated |
| ✔ | contact | The contact being invoiced.  Specified as either "*Firstname Lastname*" or "*Organisation*", or both, separated with a "**\|**" (bar).  eg. "*Fred Blogs \| Anycorp*". | Predefined |
| | project | The project being invoiced | Predefined |
| | reference | Invoice reference (using global invoice sequencing)<br>*If omitted, next invoice reference will be used* | String |
| ✔ | dated_on | Date of invoice | Date |
| | payment_terms_in_days | Set to **0** (zero) to display '**Due on Receipt**' on the invoice  (Default) | Integer |
| | currency | Invoice's ISO currency code<br>*Defaults to the company's native currency* | Enumerated |
| **More options** for Invoices | | | |
| | comments | Additional text added to the bottom of the invoice | String |
| | send_new_invoice_emails | **True** to email this invoice automatically using your default template, **False** otherwise<br>*Can only set to **true** if templates exist* | Boolean |
| | send_reminder_emails | **True** to email payment reminders if the invoice goes unpaid, **False** otherwise<br>*Can only set to **true** if templates exist* | Boolean |
| | send_thank_you_emails | **True** to email a Thank You once this invoice has been paid, **False** otherwise<br>*Can only set to **true** if templates exist* | Boolean |
| | discount_percent | The discount applied across the whole invoice | Decimal |
| | client_contact_name | This name will override the default contact name on this invoice | String |
| | po_reference | This PO reference will override any PO set for the project | String |
| | payment_terms | This will override the normal payment terms and invoice due date | String |
| | omit_header | **True** to omit your logo and company address, **False** otherwise | Boolean |
| | show_project_name | **True** to display the project name in the Other Information section, **False** otherwise | Boolean |
| | always_show_bic_and_iban | **True** to always display the BIC and IBAN numbers, if defined, on the invoice, **False** otherwise | Boolean |

| | | Invoice ITEM Attributes | |
|---|---|---|---|
| | item::quantity | Quantity of the **item_type.** Defaults to "**1**" if not specificed. | Decimal |
| | item::item_type | One of the following: **Hours** \| **Days** \| **Weeks** \| **Months** \| **Years** or **Products** \| **Services** \| **Training** \| **Expenses** \| **Comment** \| **Bills** \| **Discount** \| **Credit** \| **VAT** \| **Stock** or "" (blank for "No Unit") | Enumerated |
| ✔ | item::description | Invoice item description | String |
| ? | item::price | Unit price<br>*Required if **invoice_item** is given and **item_type** is not time-based* | Decimal |
| | item::sales_tax_rate | The sales tax rate, if specified manually. Otherwise, "**0**" is used. | Decimal |
| ? | item::stock_item | Stock item being invoiced, if **item_type** is **Stock** | Predefined |

# LAST PAGE

*We hope you find Fabio useful and it frees you from hours of business admin!*

*We'd love to hear your feedback.  Please contact us on [mail@getfabio.co.uk](mailto:mail@getfabio.co.uk)*