efi *Productivity Suite*

PrintSmith™ Vision
E-Commerce Integration API Guide

Version 3.5

Table of Contents

About this Guide

This guide describes the API provided by EFI to allow an external e-commerce application to communicate with PrintSmith Vision.

Communication occurs using Web Services via an HTTP or HTTPS (SSL) connection (depending how your PrintSmith Vision server is configured).

The messages are formatted in JSON (JavaScript Object Notation).

Message Handling

Messages are processed in the order received.

Messages are routed through PrintSmith Vision's internal messaging service. This allows messages to optionally be persisted as message objects in the PrintSmith database. These message objects are also optionally purged by PrintSmith Vision at a configurable interval.

Incoming messages are logged via PrintSmith Vision's existing logging mechanism. The log file for the incoming messages is unique to the messaging service. The logging level for incoming messages is configurable, and the configuration for these logs is separate from PrintSmith's general logging configuration.

Responses to incoming messages are sent in a timely manner.

Transactions

The descriptions of transactions follow.

Note   In some sample transactions you will see **gst**. This is equivalent to tax in the U.S.

Accounts

The Get transaction specifies an ID. This is the ID value (key) associated with the record in the database.

The response for Post returns an account ID and an account number.

Post

Post Request

```
/Account{API_TOKEN}
{
    "name" : "Kwik Kopy Australia",
    "type" : "[prospect|customer]",
    "addresses":
  [
    {
        "type" : "statement",
        "address_1"  : "Level 1",
        "address_2" : "115 Sailors Bay Rd",
        "suburb" : "Northbridge",
        "state" : "NSW",
        "postcode" : "2063",
        "country" : "Australia"
    },
    {
        "type" : "invoice",
        "address_1" : "Level 1",
        "address_2" : "115 Sailors Bay Rd",
        "suburb" : "Northbridge",
        "state" : "NSW",
        "postcode" : "2063",
        "country" : "Australia"
    }
  ],
  "credit_control" :
    {
        "type" : "[Full Deposit, Cash Only, Cash/Check/Credit Card, Charge Account, Credit Card on File]",
        "credit_limit" : 20000.00
    }
  ,
  "external_reference_number" : "ZZZ",
  "sales_rep" : "Joe Blogs",
  "account_status" : "New, Current, Inactive, Overdue, Delinquent, Frozen",
  "automatic_discount" :
    {
        "type" : "percentage",
        "amount" : 10.50
    }
  ,
  "master_account_id" : 1111,
  "do_no_mail" : true,
  "contacts":
  [
   { type": "invoice", "default" : true, "first_name" : "Brett", "last_name": "Herford-Fell", "prefix": "Mr", "suffix": "",
"phone": ""},
   { "type": "statement","first_name": "Brett", "last_name": "Herford-Fell", "prefix": "", "suffix": "", "phone": ""}
  ]
  }
```

Post Response

```
{
    "status" : "OK",
    "account_id" : 1234 (primary key)
    "account_account_id":"13940" (sequential account number)
}
```

Post (Update)

Post Request

If an ID is specified during an update then the account specified by the ID will be updated as opposed to created. The API _TOKEN for an account will be passed as well. It is the same form as that passed during a creation POST. It is omitted here for brevity.

Get

Get Request

/Account?id=1

Get Response

```
{
    "id" : 1,
    "account_id": 4,
    "name" : "Kwik Kopy Australia",
    "type" : "[prospect|customer]",
    "addresses":
  [
    {
       "type" : "statement"
       "address_1" : "Level 1",
       "address_2" : "115 Sailors Bay Rd",
       "suburb" : "Northbridge",
       "state" : "NSW",
       "postcode" : "2063",
       "country" : "Australia"
    },
    {
       "type" : "invoice"
       "address_1" : "Level 1",
       "address_2" : "115 Sailors Bay Rd",
       "suburb" : "Northbridge",
       "state" : "NSW",
       "postcode" : "2063",
       "country" : "Australia"
    }
   ]
  ,
  "credit control"
    {
       "type" : "[Full Deposit, Cash Only, Cash/Check/Credit Card, Charge Account, Credit Card on File]",
       "credit_limit" : 20000.00
    }
  ,
  "external_reference_number" : "ZZZ",
  "sales_rep" : "Joe Blogs",
```

```
"account_status" : "New, Current, Inactive, Overdue, Delinquent, Frozen",
"automatic_discount" :
  {
     "type" : "percentage",
     "amount" : 10.50
  }
,
"master_account_id" : 1111,
"do_no_mail" : true,
"contacts":
[
  { "contact_id" : 80772,"type": "invoice", "default" : true, "first_name" : "Brett", "last_name": "Herford-Fell", "prefix":
"Mr", "suffix": "", "phone": ""},
  { "type": "statement","first_name": "", "last_name": "", "prefix": "", "suffix": "", "phone": ""}
]
}
```

Get (All)

Get Request

/Account/

Get Response

If no ID is specified during a get then a list of all accounts will be returned. Each of the elements in the list will take the same form as that passed when an individual account is received. The description is omitted here for brevity.

Contacts

Post

Post Request

```
/Contact{API_TOKEN}
{
    "account_id" : 2222,
    "first_name" : "Brett",
    "last_name" : "Herford-Fell",
    "prefix" : "Mr",
    "date_of_birth" : "xx-xx-xxxx",
    "suffix" : "",
    "phone" : "",
    "mobile" : "",
    "fax" : "",
    "email" : "",
    { "addresses":
    [
        {
            "type" : "invoice"
            "address_1" : "Level 1",
            "address_2" : "115 Sailors Bay Rd",
            "city" : "Northbridge",
            "state" : "NSW",
            "postcode" : "2063",
            "country" : "Australia"
        },
        {
            "type" : "shipping"
            "address_1" : "Level 1",
            "address_2" : "115 Sailors Bay Rd",
            "city" : "Northbridge",
            "state" : "NSW",
            "postcode" : "2063",
            "country" : "Australia"
        }
    ]
    },
    { "campaigns":
     [
        {
            "number" : "1"
            "number" : "2"
                        }
     ]
    }
    }
```

Post Response

```
{
    "status" :  "OK",
    "contact_id" :  1234
}
```

Post (Update)

Post Request

If an ID is specified during an update then the contact specified by the ID will be updated as opposed to created. The API _TOKEN for an contact will be passed as well. It is the same form as that passed during a creation POST. It is omitted here for brevity.

Get

Get Request

/Contact/?id=13912

Get Response

```
{
    "id" : 13912,
    "contact_id" : "688",
    "account_id" : 2222,
    "first_name" : "Brett",
    "last_name" : "Herford-Fell",
    "prefix" : "Mr",
    "date_of_birth" : "xx-xx-xxxx",
    "suffix" : "",
    "phone" : "",
    "mobile" : "",
    "fax" : "",
    "email" : "",
    { "addresses":
    [
        {
            "type" : "invoice"
            "address_1" : "Level 1",
            "address_2" : "115 Sailors Bay Rd",
            "city" : "Northbridge",
            "postcode" : "2063",
            "country" : "Australia"
        },
        {
            "type" : "shipping"
            "address_1" : "Level 1",
            "address_2" : "115 Sailors Bay Rd",
            "city" : "Northbridge",
            "postcode" : "2063",
            "country" : "Australia"
        }
    ]
    },
```

```
{ "campaigns":
    [
    {
                "campaign_id" : "1",
                "campaign_name" : "First"
    },
    {
                "campaign_id" : "2",
                "campaign_name" : "Second"
                }
    ]
  }
    }
```

Get (All)

Get Request

/Contact/

Get Response

If no ID is specified during a get then a list of all contacts will be returned. Each of the elements in the list will take the same form as that passed when an individual contact is received. The description is omitted here for brevity.

Campaigns

Post

Post Request

/Campaign{API_TOKEN}
```
{
    "name" : "My Campaign",
    "campaign_number" : 1
}
```

Post Response

```
{
    "status" : "OK",
    "campaign_number"  :  1
}
```

Get

Get Request

/campaign?campaign_number=1

Get Response

```
{
        "name" : "My Campaign",
        "campaign_number" : 1
}
```

Get (All)

Get Request

/Campaign/

Get Response

If no ID is specified during a Get then a list of all campaigns will be returned. Each of the elements in the list will take the same form as that passed when an individual campaign is received. The description is omitted here for brevity.

Estimates

Post

Notes

- An account can be identified in one of three ways: **account_id**, **account_account_id**, *or* **contact_id**.
    - If you want to use **contact_id**, *either* provide just a **contact_id** (and not **account_account_id** or **account_id**) *or* put the **contact_id** before **account_account_id** and/or **account_id** in the file. The estimate is created for the account associated with the contact.
    - If both **account_id** and **account_account_id** are provided (but not **contact_id**), the one that is first in the file is used.
    - If **account_account_id** is either null or has an invalid value, an error message like this is displayed: {"status": "Failure", "message": "Account with number(account_account_id): 36356 was not found."}. In this case, either provide a valid value for **account_account_id** or remove it completely and provide only a **contact_id** or **account_id**.
- The **web_reference_number** is optional. This is the order number from the source system where the API call is made. The field is numeric; an order will be rejected if the field is non-numeric. PrintSmith Vision identifies the order as a web order if the field includes a numeric value.
- The **web_price** is optional. When you use **web_price**, the price of the ordered item will override that in the job template, and the prices in the estimate will be locked and distributed among the job components (charges). In addition, the price adjustment (the difference between the price coming in from the API and the price in the template) will be available in the Web worksheet.

Post Request

/Estimate/{API_TOKEN}
```
{
   "account_id" : 2222, **
   "account_account_id" : 17, **
   "contact_id" : 155, **
   "web_reference_number" : 123,
   "estimate_date" : "24-12-2016",
   "estimate_required_by" : "24-12-2016",
   "job_required_by" : "24-12-2016",
   "creation_date" : "24-12-2016",
   "wanted_by_date" : "30-12-2016",
   "user" : "David",
   "taken_by" : "admin",
   "sales_rep" : "Joe",
   "special_instructions" : "xyzx",
   "resale_number"  : "ZZZ",
   "expense_code" : "111",
   "previous_invoice_reference_number" : "1111",
   "previous_estimate_reference_number" : "1111",
   "items":
     [
      {
        "type" : "print",
        "description" : "description",
        "job_template" : "template_desc",
        "quantity" : "100",
        "web_price" : "100",
        "category" : "productkey"
      },
      {
```

```
      "type" : "wide format",
      "description" : "description",
      "job_template" : "template_desc",
      "quantity" : 100,
      "web_price" : 100,
      "category" : "productkey"
    }
  ]
}
```

** Only one of these fields is required and used. In this example, **account_id** is first in the file and includes a value, so that will be used. See "Notes" on page 14.

Post Response

```
{
    "status" :   "OK",
    "estimate_id" :   1
    "estimate_number"  :  1
}
```

Post (Update)

Post Request

If an ID is specified during an update then the estimate specified by the ID will be updated as opposed to created.

The API _TOKEN for an estimate will be passed as well. It is the same form as that passed during a creation POST. It is omitted here for brevity.

Get

Get Request

/estimate?number=27230

Get Response

```
{
    "id" :27230,
    "estimate_number" :"1"
    "account_id" : 2222, (primary key)
    "account_account_id" : 232,
    "status" : "Won",
    "estimate_date" : "24-12-2016",
    "estimate_required_by" : "24-12-2016",
    "job_required_by" : "24-12-2016",
    "creation_date" : "24-12-2016",
    "wanted_by_date" : "04-12-2016",
    "taken_by" : "MuhibS",
    "user" : "MuhibS",
    "special_instructions" : "",
    "resale_number" : "ZZZ",
    "expense_code" : "111",
    "previous_invoice_reference_number" : "1111",
    "previous_estimate_reference_number": "1111",
    "estimate_completed_by" : "PrintSmith User"
    "items" :
      [
       {
        "type" : "print",
        "description" : "description",
        "quantity" : "166",
        "category" : ""
        "price_ex_gst" : 100.00,
        "price_gst" : 10.00,
        "price_inc_gst" : 110.00
       },
       {
        "type" : "wide format",
        "description" : "description",
        "quantity" : "166",
        "category" : ""
        "price_ex_gst" : 100.00,
        "price_gst" : 10.00,
        "price_inc_gst" : 110.00
       }
      ],
"price_ex_gst": 200,
"price_gst":20,
"price_inc_gst":210.00,
"discount_amt":0.00
}
```

Get (Range)

Get Request

/estimate/{?start_date,end_date,invoice_number_start,invoice_number_end,API_TOKEN}

Get Response

A subset of estimates in the system will be returned based on the passed criteria. A list of matching estimates will be returned. The estimates will take the same form as that returned by an individual Get request.

Invoices

The transactions as defined do not allow you to specify the charge definitions, press definitions, digital definitions, stock definitions, or the other data necessary for PrintSmith Vision to calculate pricing.

As a result, requests to add jobs, charges, invoices, or estimates will be treated as ad-hoc items. This means that PrintSmith Vision will not calculate any pricing, shipping, or taxes on these items.

Notes

- An account can be identified in one of three ways: **account_id**, **account_account_id**, *or* **contact_id**.

  - If you want to use **contact_id**, *either* provide just a **contact_id** (and not **account_account_id** or **account_id**) *or* put the **contact_id** before **account_account_id** and/or **account_id** in the file. The estimate is created for the account associated with the contact.

  - If both **account_id** and **account_account_id** are provided (but not **contact_id**), the one that is first in the file is used.

  - If **account_account_id** is either null or has an invalid value, an error message like this is displayed: {"status": "Failure", "message": "Account with number(account_account_id): 36356 was not found."}. In this case, either provide a valid value for **account_account_id** or remove it completely and provide only a **contact_id** or **account_id**.

- The **web_reference_number** is optional. This is the order number from the source system where the API call is made. The field is numeric; an order will be rejected if the field is non-numeric. PrintSmith Vision identifies the order as a web order if the field includes a numeric value.

- The **web_price** is optional. When you use **web_price**, the price of the ordered item will override that in the job template, and the prices in the invoice will be locked and distributed among the job components (charges). In addition, the price adjustment (the difference between the price coming in from the API and the price in the template) will be available in the Web worksheet.

Post

Post Request

```
/Invoice/{API_TOKEN}
{
    "contact_id" : 155, **
    "account_id" : 2222, **
    "account_account_id" : 17, **
    "web_reference_number" : 111,
    "status" : "new_invoice",
    "job_required_by" : "24-12-2013",
    "creation_date" : "24-12-2013",
    "invoice_date" : "24-12-2013",
    "invoice_required_by" : "30-12-2013",
    "wanted_by_date" : "30-12-2013",
    "user" : "Joe",
    "taken_by" : "admin",
    "sales_rep" : "salesrep name",
    "special_instructions" : "text message",
    "resale_number" : "ZZZ",
    "expense_code" : "111",
    "previous_invoice_reference_number" : "1111",
    "previous_estimate_reference_number" : "1111",
    "items" :
       [
        {
         "type" : "print",
         "job_template" : "templateName",
         "description" : "description",
         "quantity" : 100,
         "category" : "productkey"
         "web_price" : 100,
        },
        {
         "type" : "wide format",
         "job_template" : "templateName",
         "description" : "description",
         "quantity" : 100,
         "web_price" : 100,
         "category" : "productkey"

        }
       ]

}
```

* * Only one of these fields is required and used. In this example, **contact_id** is first in the file and includes a value, so that will be used. See "Notes" on page 17.

Post Response

```
{
    "status" :  "OK",
    "invoice_id" :  1,
    "invoice_number" :  1
}
```

Post (Update)

Post Request

If an ID is specified in an update, the invoice specified by the ID is updated versus created. The API _TOKEN for an invoice is also passed. It is the same form as is passed during a creation post, and is omitted here for brevity.

Get

Get Request

/Invoice/{id}

Get Response

```
{
    "id" : 27277,
    "invoice_number" : "1",
    "account_id" : 2222,
    "account_account_id" : 232,
    "invoice_date" : "24-12-2013",
    "invoice_required_by" : "24-12-2013",
    "job_required_by" : "24-12-2013",
    "creation_date" : "24-12-2013",
    "wanted_by_date" : "04-12-2015",
    "taken_by" : "MuhibS",
    "user" : "",
    "special_instructions" : ""
    "resale_number" : "ZZZ",
    "expense_code" : "111",
    "previous_invoice_reference_number" : "1111",
    "previous_estimate_reference_number" : "1111",
    "estimate_completed_by" : "PrintSmith User",
    "items":
        [
          {
            "type" : "print",
            "description" : "description",
             "quantity" : "11",
             "category" : "",
            "price_ex_gst" : 100.00,
            "price_gst" : 10.00,
            "price_inc_gst" : 110.00
          },
          {
            "type" : "wide format",
            "description" : "description",
            "quantity" : "11",
            "category" : "",
            "price_ex_gst" : 100.00,
            "price_gst" : 10.00,
            "price_inc_gst" : 110.00
          }
        ],
          "price_ex_gst": 200,
         "price_gst":20,
         "price_inc_gst":210.00,
         "discount_amt":0.00
}
```

Get (Range)

Get Request

/invoice/{?start_date,end_date,invoice_number_start,invoice_number_end,API_TOKEN}

Get Response

A subset of invoices in the system will be returned based on the passed criteria. A list of matching invoices will be returned. The invoices will take the same form as that returned by an individual Get request.

Daily Sales

Get (Range)

Get Request

/daily_sales/{?start_date,end_date,API_TOKEN}

Get Response

```
{
{
  "sales_categories":
      [
              {
                      "name" : "Postage at Cost",
                      "amount"   :41.29
              },
              {
                      "name" :"Outside Work - Offset",
                      "amount" :944.11
              }
  "post_date"
  "pos_cash"
  "pos_check"
  "pos_card"
  "ar_cash"
  "ar_check"
  "ar_card"
  "apply_deposits"
  "new_deposits"
  "return_deposits"
  "total_cash_and_deposits"
  "total_ar"
  "on_account"
  "ar_balance"
  "total_receipts"
  "bank_deposit"
  "total_memos"
  "discounts"
  "wip_total"
  "inv_wip"
  "total_est"
  "non_taxable_sales" :12.50
  "taxable_sales"
```

```
    "tax_on_sales"
    "grand_total"
}
}
```

Product Category

Get

Get Request

/ProductCategory

Get Response

```
{
"items":
            [
            {
                    "code" : "03",
                    "name" : "Brochure"
            },
            {
                    "code" : "01",
                    "name" : "Banners"
            },
            {
                    "code" : "02",
                    "name" : "Booklets"
            }
        ]
    }
```

Get (Range)

Get Request

/ProductCategory /{number }

Get Response

```
{
        "items":
            [
                {
                        "code" : "03",
                        "name" : "Brochure"
                },
                {
                        "code" : "01",
                        "name" : "Banners"
                },
                {
                        "code" : "02",
                        "name" : "Booklets"
                }
            ]
}
```

Post

Post Request

/ProductCategory/{API_TOKEN}

```
{
        "code" : "02",
        "name" : "Booklets"
}
```

Post Response

```
{
        "status" : "OK",
        "code" : 1
}
```

Post (Update)

Post Request

If an ID is specified during an update then the Product specified by the ID is updated versus created. The API _TOKEN for a Product is also passed. It is the same form as is passed during a creation post, and is omitted here for brevity.

Sample Transaction

The URL to obtain a list of accounts is **http://*IP_address*:9191/PrintSmith/Commerce/Account**

where *IP_address* is the IP address of your PrintSmith Vision server, e.g., 10.90.41.80.

Note If you are using HTTPS (SSL), start the URL with **https** instead of **http**.

Here is some sample account list data in JSON format.

{"accounts":

[{"id":11697,"account_id":"1","name":" <<< WALK-IN >>>
","type":"Customer","addresses":[{"type":"statement","address_1":"","address_2":"","suburb":" ","postcode":"
","country":""},{"type":"invoice","address_1":"","address_2":"","suburb":" ","postcode":"
","country":""}],"credit_control":{"type":"Cash/Check/Credit
Card","credit_limit":800.00},"external_reference_number":null,"sales_rep":"House","account_status":"Current","a
utomatic_discount":{"type":"percentage","amount":0.0},"master_account_id":-1,"do_not_mail":false,"contacts":[]},

{"id":27309,"account_id":"4305","name":"1-800-
Radiator","type":"Customer","addresses":[{"type":"statement","address_1":"1936 South lynhurst Suite
G","address_2":"","suburb":"Indianapolis","postcode":"46241","country":""},{"type":"invoice","address_1":"1936
South lynhurst Suite
G","address_2":"","suburb":"Indianapolis","postcode":"46241","country":""}],"credit_control":{"type":"Cash/Check/
Credit
Card","credit_limit":0.00},"external_reference_number":null,"sales_rep":"House","account_status":"Inactive","auto
matic_discount":{"type":"percentage","amount":0.0},"master_account_id":-
1,"do_not_mail":false,"contacts":[{"type":"statement","contact_id":27303,"first_name":"Michael
","last_name":"Hunt ","prefix":"","suffix":"","phone":"999-999-
Phone"},{"type":"invoice","contact_id":27303,"first_name":"Michael ","last_name":"Hunt
","prefix":"","suffix":"","phone":"999-999-Phone"}]},

{"id":26487,"account_id":"4198","name":"28th Street Church Of God In
Christ","type":"Customer","addresses":[{"type":"statement","address_1":"28th
Street","address_2":"","suburb":"Indianapolis","postcode":"46208","country":""},{"type":"invoice","address_1":"630
W 28th
Street","address_2":"","suburb":"Indianapolis","postcode":"46208","country":""}],"credit_control":{"type":"Charge
Account","credit_limit":0.00},"external_reference_number":null,"sales_rep":"House","account_status":"Current","a
utomatic_discount":{"type":"percentage","amount":0.0},"master_account_id":-
1,"do_not_mail":false,"contacts":[{"type":"statement","contact_id":26480,"first_name":"Bessie","last_name":"Harri
son","prefix":"","suffix":"","phone":"999-999-
Phone"},{"type":"invoice","contact_id":26480,"first_name":"Bessie","last_name":"Harrison","prefix":"","suffix":"","ph
one":"999-999-Phone"}]}

]}

Appendix: Account Post and Get Responses

The tables below explain how certain account identification fields are used during post and get responses.

Account Post response	Key Value
"account_id":22808475	Primary key
account_account_id:"13946"	Sequential account number

Account Get Response (Specific)	
"id":22808475	Primary key

Account Get Response (All)	
"id":305305	Primary key
"account_id":13317	Sequential account number
"contact_id":289624	Primary key