



QuickBooks™ Online Banking Services

Extended Payments

Version 1.0

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Intuit Confidential

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Introduction

Overview

This document provides a description of the QuickBooks 2000 implementation of Extended Payments under OFX. It explains the user interface within the client and also describes how QuickBooks uses the extended payment aggregate.

This document assumes the reader is already familiar with the OFX Specification. It does not discuss general OFX features and capabilities other than those related to an extended payment implementation.

Target Audience for this Document

This guide is intended for anyone charged with implementing an OFX server for QuickBooks. This document details the support requirements for extended payments, a feature that is not currently supported in Quicken. Extended payment will be described both in business terms as well as detailing the OFX support requirements.

QuickBooks Online Payment Requirements

OFX Bill Payment servers supporting QuickBooks MUST support Extended Payments. The payment processor **MUST** ensure that extended payment information is sent to the payee. Today this is done with a voucher on a printed check, however there may be other ways to transmit this information to the payee.

Extended Payments Overview

QuickBooks 2000 Extended Payment Features

QuickBooks Extended payments allow a client to send extended information with an online payment. Beginning with QuickBooks 2000, users can include the following with online payments when communicating with an OFX Bill Payment Server:

- A descriptive memo with a check
- Invoice information in the form of a payment voucher
- Discount information that is associated with a particular invoice

Implementing extended payment support requires supporting the related OFX tags and aggregates.

User Benefits

Extended payments were designed for small business users, making it simple to:

- Pay multiple invoices from a single vendor with a single payment
- Calculate invoice discount dollar amounts based on a discount percentage
- Include payment memo text with a check

QuickBooks 2000 Extended Payment OFX Aggregate

Extended payment support under OFX is provided with the inclusion of an optional aggregate, <EXTDPMT>, within a normal <PMTRQ> transaction. The <EXTDPMT> aggregate is fully defined in section 12.5.2.2 of the OFX Specification.

QuickBooks 2000 generates two types of <EXTDPMT> aggregates. The first, referred to as a “Transmit Memo” extended payment, allows the user to include memo information that will be included with the payment. The second, referred to as an “Invoice Information” extended payment, allows the user to transmit invoice information along with a payment.

It is not a requirement that the information be printed on a voucher, however the information **MUST** be delivered to the payee in some way. In currently existing systems both types of information, memo and invoice, are delivered along with the payment in the form of a printed payment voucher.

OFX Server Extended Payment Implementation Overview

Extended Payment implementations will fall into one of three scenarios. The overall implementation process and scope of work will vary significantly depending upon which scenario applies to the FI server.

Adding Extended Payment support to a Live OFX Bill Payment Server

In this scenario FIs are adding extended payment support to a server which has already completed the Intuit Server Certification process and which has already launched with the Quicken product. There will be a QuickBooks certification process that the FI server will need to complete. The specifics of this process are still being defined, but it is expected to be very similar to the process completed when launching an FI server with the Quicken product. This is a relatively minor development and certification effort.

Adding Extended Payment support to a Live OFX Banking Server

In this scenario, FIs need to add both online bill payment as well as extended payment support to a server which has already launched with Quicken for banking. The server must complete the Intuit certification for both bill payment and extended payments. If, in addition to supporting QuickBooks 2000 with online payment and extended payments, the FI wishes to support online bill payment with the Quicken client there will be two distinct certification efforts that occur – one for each Intuit client. These efforts may occur in parallel but are separate and distinct and may be completed and launched independently. This is a significant development and certification effort due to the complexity of the Bill Payment portion of the OFX Specification.

Implementing a new OFX Server which will support Extended Payments

In this scenario FIs are developing a brand new server or adding extended payment support to a server that has been developed but which has not yet gone through the Intuit Server Certification process. The FI server must pass a certification process to verify that it is compliant with the OFX Specification and integrates with Intuit client software. This is, typically, a several-month development and certification effort due to the overall complexity and ambiguity of the OFX Specification.

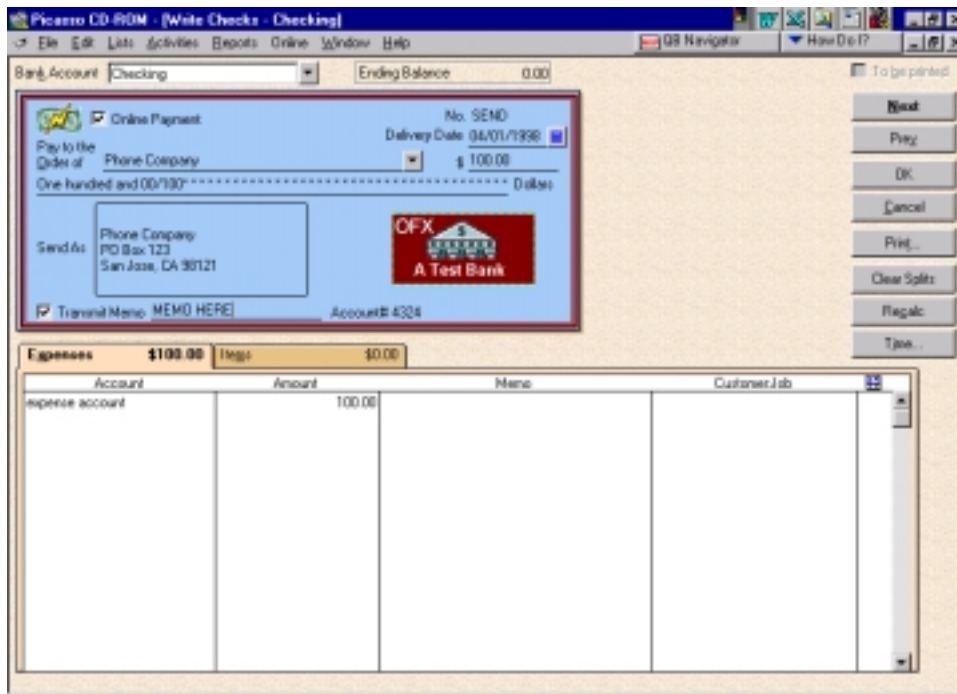
Intuit Server Certification Resources

Intuit has a team designed to support server development efforts and to certify those servers against the OFX Specification and with various Intuit client products. Details of this process, including contact information, are available at <http://fi.intuit.com>.

User Experience

Example 1–Transmit Memo

One way QuickBooks will use the extended payment aggregate is to send a memo with a check. The user enables this functionality by selecting the “Transmit Memo” checkbox and entering the memo information that should be transmitted with the check.



In the screenshot above, the user has written a check to the “Phone Company” for \$100. The “Transmit Memo” checkbox was selected and the memo, “MEMO HERE” has been entered. When this payment request is sent the <PMTINFO> aggregate within the <PMTRQ> will contain an <EXTDPMT> aggregate reflecting this information (sample OFX can be found on page 15 of this document).

Note that the check number on the above screen is listed as “SEND”. This is to indicate that the OFX Server and/or Bill Remittance Processor will determine the actual check number. The check number must be returned in the OFX response, after the server receives the request from QuickBooks, and must also be on the voucher information that is sent to the payee. This is true for all online payment operations.

Sample Voucher for this Example:

Wei Yuan

A/C No: 4324

Check Number : 5017
Date : 04-01-1998
Payment Amount : \$100.00

Phone Company
PO Box 123
San Jose, CA 98121

Invoice Description
MEMO HERE

Extended Payments—Invoice Information

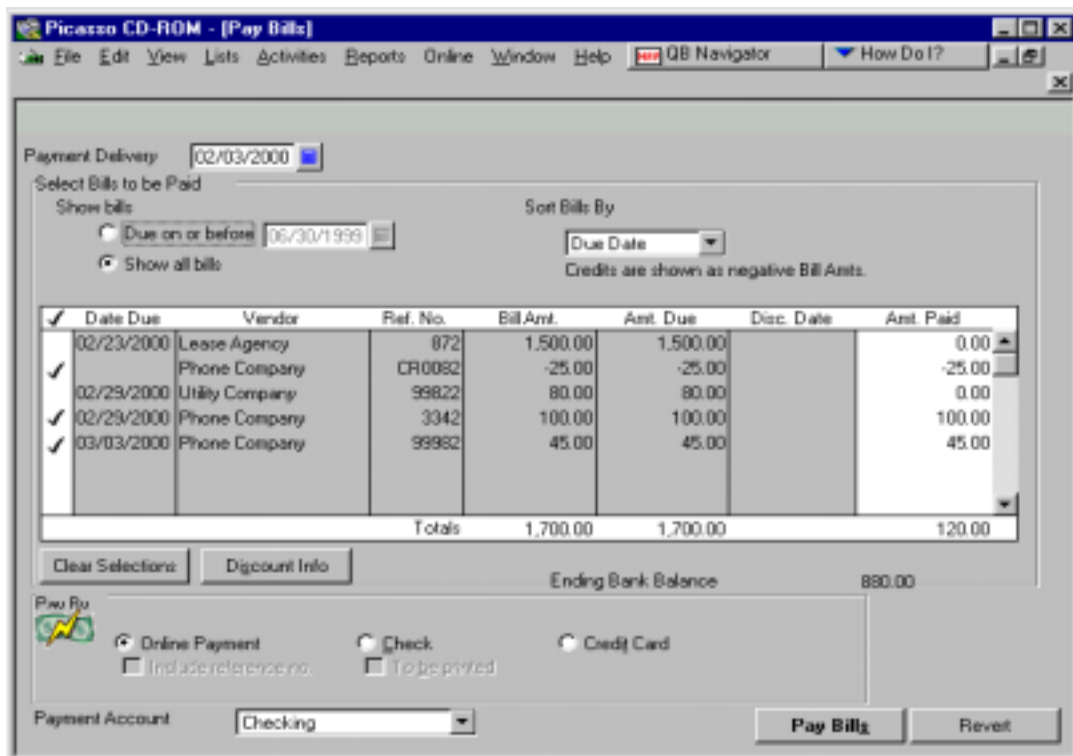
Another use for the extended payment aggregate in QuickBooks is to send invoice information along with a payment. This invoice information is typically delivered to the payee in the form of a payment voucher.

Each time the user checks off an entry in the pay bills form QuickBooks will create a new <INVOICE> aggregate in the <EXTDPMT> aggregate with the associated extended payment information.

The following examples demonstrate how QuickBooks uses this information.

Example 2—Invoice

First, the user opens the Pay Bills screen, and clicks the Online Payment radio button. If the user has Online Bill Payment enabled for this account, (s)he will see previously entered payments and can now send these payments with voucher information. In the example below, notice that the user has selected three entries for the Phone Company – two payments to be made, and one credit to be applied. The form lists, Date Due, Vendor, Reference Number, Bill Amount, Amount Due, Discount Date, and Amount Paid. This is the information that will be sent along with the payment. After the user clicks OK, the Payment will be queued in the Online Banking Center.



The screenshot shows the 'Pay Bills' window in QuickBooks. The window title is 'Picasso CD-ROM - [Pay Bills]'. The menu bar includes File, Edit, View, Lists, Activities, Reports, Online, Window, and Help. The 'QB Navigator' and 'How Do I?' buttons are visible. The 'Payment Delivery' date is set to 02/03/2000. The 'Select Bills to be Paid' section has 'Show bills' set to 'Due on or before 06/30/1999' and 'Sort Bills By' set to 'Due Date'. A table of bills is displayed with the following data:

Date Due	Vendor	Ref. No.	Bill Amt.	Amt. Due	Disc. Date	Amt. Paid
02/23/2000	Lease Agency	872	1,500.00	1,500.00		0.00
02/29/2000	Phone Company	CR0082	-25.00	-25.00		-25.00
02/29/2000	Utility Company	99822	80.00	80.00		0.00
02/29/2000	Phone Company	3342	100.00	100.00		100.00
03/03/2000	Phone Company	99982	45.00	45.00		45.00
Totals			1,700.00	1,700.00		120.00

Below the table, there are buttons for 'Clear Selections', 'Discount Info', and 'Ending Bank Balance' (880.00). The 'Pay Bills' section has radio buttons for 'Online Payment' (selected), 'Check', and 'Credit Card'. There are checkboxes for 'Include reference no.' and 'To be printed'. The 'Payment Account' is set to 'Checking'. The 'Pay Bills' and 'Revert' buttons are at the bottom right.

(Sample OFX can be found on page 16 of this document).

Sample Voucher for this Example:

Wei Yuan

A/C No: 4324

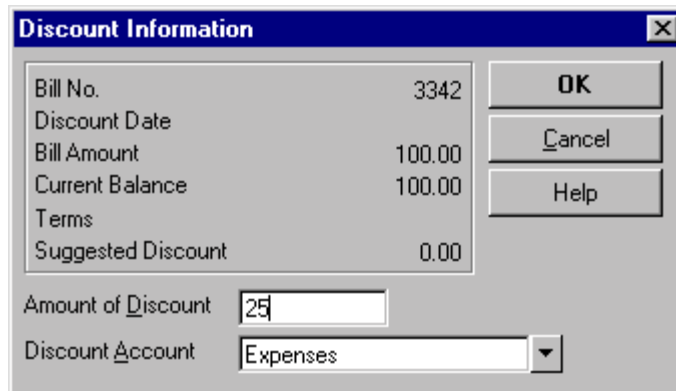
Check Number :5018
Date :02-03-2000
Payment Amount :\$120.00

Phone Company
PO Box 123
San Jose, CA 98121

Invoice Description					
<u>Date</u>	<u>Type</u>	<u>Ref. Num.</u>	<u>Orig. Amount</u>	<u>Discount</u>	<u>Amt Paid</u>
02/03/2000	Credit	#CR0082	\$-25.00	\$0.00	\$-25.00
02/29/2000	Bill	#3342	\$100.00	\$0.00	\$100.00
03/03/2000	Bill	#99982	\$45.00	\$0.00	\$45.00
TOTAL					\$120.00

Example 3—Invoice with Discount

Users also need to be able transmit any discount information associated with an invoice to a payee. In the Pay Bills window, the user selects a payment and clicks the “Discount Info” button to display the window shown here.



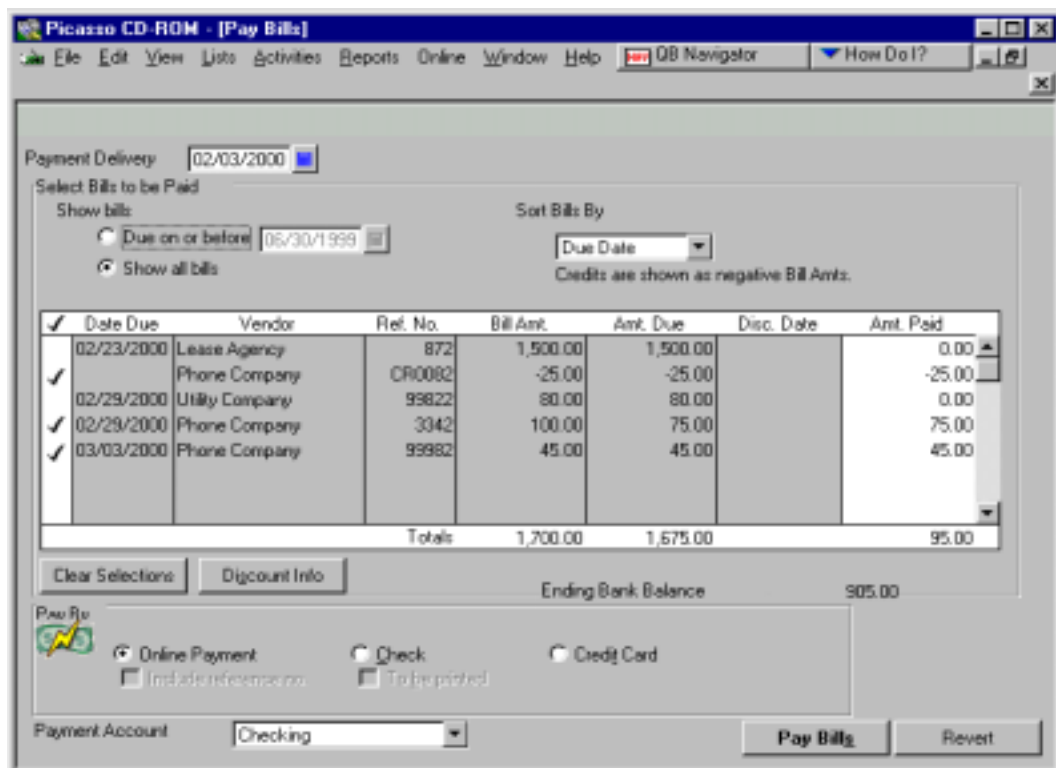
The Discount Information dialog box contains the following fields and buttons:

Bill No.	3342	OK
Discount Date		Cancel
Bill Amount	100.00	Help
Current Balance	100.00	
Terms		
Suggested Discount	0.00	

Amount of Discount:

Discount Account:

After the user enters this discount information, the Pay Bills window looks like the example below. Notice the voucher information on the lower part of the form. In particular, notice the Amount Paid column has changed from \$120.00 to \$95.00 because the user has applied a \$25.00 discount.



The Pay Bills window shows the following details:

Payment Delivery: 02/03/2000

Select Bills to be Paid

Show bills: Due on or before 05/30/1999 Show all bills

Sort Bills By: Due Date

Credits are shown as negative Bill Amts.

Date Due	Vendor	Ref. No.	Bill Amt.	Amt. Due	Disc. Date	Amt. Paid
02/23/2000	Lease Agency	872	1,500.00	1,500.00		0.00
02/29/2000	Phone Company	CR0082	-25.00	-25.00		-25.00
02/29/2000	Utility Company	99822	80.00	80.00		0.00
02/29/2000	Phone Company	3342	100.00	75.00		75.00
03/03/2000	Phone Company	99882	45.00	45.00		45.00
Totals			1,700.00	1,675.00		95.00

Ending Bank Balance: 905.00

Payment Method: Online Payment Check Credit Card

Payment Account:

Buttons: Pay Bills, Revert

(Sample OFX can be found on page 17 of this document).

Sample Voucher for this Example:

Wei Yuan

A/C No: 4324

Check Number :5019
Date :02-03-2000
Payment Amount :\$95.00

Phone Company
PO Box 123
San Jose, CA 98121

Invoice Description					
<u>Date</u>	<u>Type</u>	<u>Ref. Num.</u>	<u>Orig. Amount</u>	<u>Discount</u>	<u>Amt Paid</u>
02/03/2000	Credit	#CR0082	\$-25.00	\$0.00	\$-25.00
02/29/2000	Bill	#3342	\$100.00	\$25.00	\$75.00
03/03/2000	Bill	#99982	\$45.00	\$0.00	\$45.00
TOTAL					\$95.00

QuickBooks OFX Requirements

OFX Specification Versions

There are two versions of OFX that are in use today in clients and servers: 1.0.2 and 1.5.1. The specific OFX behaviors (syntax, functionality, etc.) for each version are defined in the 1.5.1 OFX Specification, dated 11/23/98. The 1.5.1 OFX Specification includes numerous clarifications, errata, and OFX Consortium rulings that apply to clients and servers implementing OFX 1.0.2. Most of this information was not published or distributed in any other document.

QuickBooks 2000 uses OFX 1.0.2 for all of its online banking and bill payment functions. There are significant differences between OFX 1.0.2 and OFX 1.5.1. Section 1.3 of the 1.5.1 OFX Specification indicates which portions of the document apply to 1.0.2, 1.5.1, and to both OFX versions.

Extended Payment OFX Profile Requirements

QuickBooks 2000 will determine whether a server supports the <EXTDPMT> aggregate by checking the <HASEXTDPMT> tag which is present in the Bill Payment portion of the server's OFX profile. If this tag is set to Y then QuickBooks 2000 will allow the user to generate extended payment information and include it with online payment requests. If the tag is set to N this function will be disallowed. Warning dialogs will be displayed to the user informing them that this particular Financial Institution does not support extended payment processing. Full details of the <HASEXTDPMT> tag and the rest of the Bill Payment profile options can be found in section 12.11.2 of the OFX Specification. **OFX Bill Payment servers supporting QuickBooks MUST support Extended Payments.**

Individual Invoices

In the OFX extended payment aggregate, a bill, a credit or prepaid check is associated with an <INVOICE> aggregate. Each time the user chooses to add extended payment information, QuickBooks will create a new invoice aggregate in the <EXTDPMT> aggregate with associated discount information. Inside the <INVOICE> aggregate, the <INVDSC> field contains the type of invoice, whether it's a bill, a credit or a prepaid check. <INVNO> field contains the reference number. <INVTOTALAMT> is mapped to the original amount for a bill. <INVPAIDAMT> is the actual amount paid.

Discount Information

The discount information is contained in the <DISCOUNT> aggregate in OFX for the associated bill. Previous versions of QuickBooks have not used a discount rate, but due to a bug in the OFX DTDs, it will send the discount aggregate with a value of zero in <DSCRATE> field of the OFX extended payment aggregate. If there is an actual discount for the payment, the amount of the discount will be in the <DSCAMT> tag. If there is no discount QuickBooks will not send the <DISCOUNT> aggregate.

Voucher Printing

The new voucher line should include the following fields when printed out: <Date>, <Reference Number>, <Type>, <Original Amount>, <Discount> and <Paid Amount>. The amount fields are set to "0" as default value. (See example on page 8 of this document.)

Check Numbers

As with regular payments under OFX, a server is expected to fill in the <CHECKNUM> tag, located in the <PMTINFO> in the <PMTRS> with a check number that represents this online payment. That <CHECKNUM> should also be returned in the OFX statement download when the transaction actual posts to the user's account and is received via a <STMTRQ> operation. Ideally, the <SRVRTID> from the <PMTRS> should also be returned in the <STMTRN> for this transaction during the statement download.

OFX Synchronization

<EXTDPMT> information is subject to the normal payment synchronization process. A server must be able to return the <EXTDPMT> aggregate as it was submitted in the original <PMTRQ> during a <TOKEN> based sync operation. If the server supports refresh capabilities (either as defined in the OFX Specification for full synchronization or as part of a hybrid lite/full synchronization implementation) the <EXTDPMT> information must also be returned during the refresh operation.

Unused / Reserved Tags

QuickBooks 2000 will NOT use the <ADJUSTMENT> or <LINEITEM> aggregates. While these aggregates will not be used in QuickBooks 2000, Intuit reserves the right to use them in future versions of QuickBooks.

Another point about aggregates and tags, QuickBooks will not send tags not being used in a particular invoice. For example if there is no discount associated with a payment QuickBooks will not send the <DISCOUNT> aggregate. Servers should only expect tags that are associated with a specific invoice.

<EXTDPMT> Tag Mapping Table

OFX Tag	Description
<EXTDPMT>	The extended payment aggregate sets the record type for an extended payment. This is contained within the PMTINFO aggregate in a <PMTRQ>.
<EXTDPMTDSC>	This contains any memo information that the user enters. It is only sent if the user has selected the "Transmit Memo" checkbox. Note that the </EXTDPMTDSC> closing tag is also required.
AND/OR	One of <EXTDPMTDSC> or <EXTDPMTINV> must be sent. It is also legal to send both.
<EXTDPMTINV>	This is the outer level aggregate that contains all individual <INVOICE> aggregates.
<INVOICE> (1 or more)	The <INVOICE> aggregates map to the individual lines that will be present on the printed voucher.
<INVNO>	Reference number for the Bill, Prepaid Check, or Credit
<INVTOTALAMT>	Total dollar amount of the invoice (negative for credit)

<INVPAIDAMT>	Dollar amount actually being paid in the current payment
<INVDATE>	Date of this invoice
<INVDESC>	Description of the invoice. QuickBooks 2000 will fill in either "Credit", "Bill", or "Prepaid Check".
<DISCOUNT>	Discount aggregate that reflects the discount for this <INVOICE>. This aggregate will only be sent if the user indicated that a discount was applied to this line item.
<DSCRATE>	Discount rate as a percentage. QuickBooks will always send a value of 0 in this tag. The OFX Specification lists this tag as optional if <DSCAMT> is sent, however due to a bug in the 1.0.2 DTDs it must always be included.
<DSCAMT>	Amount of the discount in dollars
<DSCDESC>	Description of the discount. QuickBooks 2000 fills in the value "Discount Applied"
</DISCOUNT>	<DISCOUNT> closing tag.
</INVOICE>	<INVOICE> closing tag.
</EXTDPMTINV>	<EXTDPMTINV> closing tag.
</EXTDPMT>	<EXTDPMT> closing tag.

Invoice Mapping to Voucher Line

Element	OFX Field	Description
Date	<INVDATE>	Date for each item
Type	<INVDESC>	"Credit" or "Bill" or "Prepaid Check"
Ref. Num.	<INVNO>	Reference number for the Bill, Prepaid Check or Credit
Orig. Amt.	<INVTOTALAMT>	Dollar amount (negative for credit)
Amount paid	<INVPAIDAMT>	Dollar amount actually being paid in this payment
Discount	<DSCAMT>	Dollar amount (positive for bill)

QuickBooks OFX Examples

The next sections detail the specific OFX that will be generated by QuickBooks for the examples shown earlier in this document. The OFX samples below highlight the <PMTINFO> aggregate that contains the <EXTDPMT> information.

Example 1–Transmit Memo

```
...
<PMTINFO>
  <BANKACCTFROM>
    <BANKID>111111111
    <ACCTID>4123
    <ACCTTYPE>CHECKING
  </BANKACCTFROM>
  <TRNAMT>100
  <PAYEE>
    <NAME>Phone Company
    <ADDR1>PO Box 123
    <CITY>San Jose
    <STATE>CA
    <POSTALCODE>98121
    <PHONE>4085551212
  </PAYEE>
  <EXTDPMT>
    <EXTDPMTDSC>MEMO HERE
  </EXTDPMTDSC>
</EXTDPMT>
  <PAYACCT>4324
  <DTDUE>19980401
</PMTINFO>
...
```

Example 2–Invoice

```
...
<PMTINFO>
  <BANKACCTFROM>
    <BANKID>111111111
    <ACCTID>4123
    <ACCTTYPE>CHECKING
  </BANKACCTFROM>
  <TRNAMT>120
  <PAYEE>
    <NAME>Phone Company
    <ADDR1>PO Box 123
    <CITY>San Jose
    <STATE>CA
    <POSTALCODE>98121
    <PHONE>4085551212
  </PAYEE>
  <EXTDPMT>
    <EXTDPMTINV>
      <INVOICE>
        <INVNO>CR0082
        <INVTOTALAMT>-25
        <INVPAIDAMT>-25
        <INVDATE>20000203
        <INVDESC>Credit
      </INVOICE>
      <INVOICE>
        <INVNO>3342
        <INVTOTALAMT>100
        <INVPAIDAMT>100
        <INVDATE>20000229
        <INVDESC>Bill
      </INVOICE>
      <INVOICE>
        <INVNO>99982
        <INVTOTALAMT>45
        <INVPAIDAMT>45
        <INVDATE>20000303
        <INVDESC>Bill
      </INVOICE>
    </EXTDPMTINV>
  </EXTDPMT>
  <PAYACCT>4234
  <DTDUE>20000203
</PMTINFO>
...
```

Example 3—Invoice with Discount

```
...
<PMTINFO>
  <BANKACCTFROM>
    <BANKID>111111111
    <ACCTID>4123
    <ACCTTYPE>CHECKING
  </BANKACCTFROM>
  <TRNAMT>95
  <PAYEE>
    <NAME>Phone Company
    <ADDR1>PO Box 123
    <CITY>San Jose
    <STATE>CA
    <POSTALCODE>98121
    <PHONE>4085551212
  </PAYEE>
  <EXTDPMT>
    <EXTDPMTINV>
      <INVOICE>
        <INVNO>CR0082
        <INVTOTALAMT>-25
        <INVPAIDAMT>-25
        <INVDATE>20000203
        <INVDESC>Credit
      </INVOICE>
      <INVOICE>
        <INVNO>3342
        <INVTOTALAMT>75
        <INVPAIDAMT>75
        <INVDATE>20000229
        <INVDESC>Bill
        <DISCOUNT>
          <DSCRATE>0
          <DSCAMT>25
          <DSCDESC>Discount applied
        </DISCOUNT>
      </INVOICE>
      <INVOICE>
        <INVNO>99982
        <INVTOTALAMT>45
        <INVPAIDAMT>45
        <INVDATE>20000303
        <INVDESC>Bill
      </INVOICE>
    </EXTDPMTINV>
  </EXTDPMT>
  <PAYACCT>4234
  <DTDUE>20000203
</PMTINFO>
...
```

NOTE: Although the OFX Specification indicates that only one of <DSCRATE> or <DSCAMT> need to be included, both must be present due to a bug in the 1.0.2 version of the OFX DTDs. QuickBooks does not send discount information as a rate – it always sends it as an amount. As a result, the <DSCRATE> tag will always have a value of 0.