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Print Pricing API Developers Guide

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Welcome to the PFM Print Pricing API

Welcome to the PFM Developers API. This guide provides the reference information you need to interface with the PFM Print Pricing system.

PFM offers a fast, easy, and convenient way to access pricing information using the Internet. With the information provided in this document, you can incorporate PFM Instant Pricing technology into your own website, with current, accurate pricing data that you don't need to maintain.

What's New

This is the initial release of the Print Pricing interface. Developers that have obtained an access key from PFM will receive updates view e-mail as new features and updates to the system are completed. New versions of this documentation will also reflect changes to the API system in this section.

Steps for Integrating with PFM Print Pricing

1. Obtain a developer access key from PFM. Any new API released will require the use of this key, and access to the API is not permitted unless a key has been acquired.
2. Develop an application that makes use of standard HTTP communications, and XML documents.
3. Test your web site and/or application against the PFM API servers.
4. Deploy your website and/or application for your customers.

Sample code is provided to you. A generic HTML form layout, necessary JavaScript code for an AJAX implementation, and an interface class to handle client-server requests (PHP5) is included in the sample code.

If further support is required for implementation or troubleshooting, PFM offers paid support for implementation and/or troubleshooting.

Keeping Up To Date

As PFM adds new services and features to the API interface, the API will evolve offering more features and benefits to you and your clients. Registering with PFM and keeping your information up to date allows us to notify you by e-mail of updates and changes to the API interface, and features and benefits we're working on to help you succeed. It is essential that your current contact information is maintained.

You should update your PFM profile when changes occur or responsibilities for your application move within your company. The latest API information can be obtained from the PFM API website (<http://www.pfmpricing.com>).

Technologies Used In the PFM API Interface

The core technologies that PFM uses to provide pricing information are the same technologies that today's Internet utilizes on a daily basis. These technologies include the Hypertext Transfer Protocol (HTTP) with Secure Sockets Layer (SSL) security, and the Extensible Markup Language (XML). These technologies are crucial to the Internet, and because of that, most software development tools provide many powerful features that make it easy for applications and programs to make use of them. This section provides a general overview of these technologies and how the Print Pricing API service makes use of them.

Hypertext Transfer Protocol and Secure Sockets Layer

HTTP is a simple protocol and serves as the primary protocol for interfacing with the PFM Print Pricing API system. An application or program that interfaces with API system acts as an HTTP client. It sends a request to PFM as part of an HTTP POST message. PFM API servers respond to that request using an HTTP response message.

Contained within the POST message is the type of content the message contains using an HTTP Content-Type header. For the PFM API interface, that content type should be `application/x-www-form-urlencoded`.

Every API request sent to PFM contains information that should be kept private (i.e., your username, and password). Your username and password are also used to access other area of PFM, and should be protected. To protect this information, PFM API servers accept SSL transmissions in conjunction with the HTTP protocol. When two systems communicate using SSL, the protocol creates a secure channel between them, and it encrypts all information that is exchanged using this channel. SSL is the same technology that millions of websites use on a daily basis to secure on line purchases. SSL is not required for communication with the API interface, but it is highly recommended that it be used.

Extensible Markup Language (XML)

The Extensible Markup Language (XML) is an international standard developed by the World Wide Web Consortium (W3C), which acts as the governing body for web standards and guidelines. XML provides a way to identify the structure of content within a document, or in our case, a message.

XML is a text based format. XML messages contain regular text. That text follows specific rules that define XML. XML distinguishes different parts of a message with a label known as a tag. Example of tags could include <book>, <title>, <author>, <firstname>, etc. A tag can indicate the start of information if it begins with an angle bracket (<), and a tag can indicate the end of information if it begins with an angle bracket and a slash (</). A beginning tag, ending tag, and the information between the two make up an element.

Although XML elements can contain almost any text, there are two special characters that cannot appear within an element. Those characters are the less-than sign (<) and the ampersand (&). Elements that include these contents must replace the special characters with "<" or "&" respectively. The name of a large telecommunications company, for example, would appear as "AT&T" within an XML message.

Although XML messages consist of a series of text characters, most software development tools represent XML messages in a tree-like data structure. That representation clarifies the structure of the message.

A great deal of information on XML is available on the Internet. A good starting point for further research is the World Wide Web Consortium's main page on XML at <http://www.w3.org/XML/>.

Print Pricing API Reference

This section documents the details of the PFM Print Pricing messages, including the requests that clients send to UPS and the responses that UPS returns. The final subsection provides a list of error codes that PFM returns.

General Information

As previously mentioned, all messages that PFM sends and receives are XML documents. This section defines the specific elements contained within those XML documents. Because XML documents follow a defined structure, this reference section shows examples of these elements using a compact notation.

Every request should contain an <AccessRequest> section and a <Request> section indicating which API version you are requesting data from.

Authenticating Client Requests

The PFM Print Pricing API services are only available for authorized PFM customers. To enforce this policy, PFM requires that every message that a client application/website sends include important authentication information. That information has to be included in every XML request sent to PFM.

The access request consists of three elements and should appear at the top of each XML request, directly below the first parent element. An example of a request appears below:

```
<TrimsizerRequest>
  <AccessRequest xml:lang="en-US">
    <Key>
      YOURACCESSKEY
    </Key>
    <Username>
      YOURUSERNAME
    </Username>
    <Password>
      YOURPASSWORD
    </Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
  </Request>
</TrimsizerRequest>
```

Requesting Data from PFM

Each data service has its own unique URL to send XML requests to. Each subsection will define the URL that corresponds to that data service. Each response received, regardless of the data service, will return a Response section in the XML data returned to your application. There are two sub tags of each section. They are 'Version' and 'StatusCode'. The version sub tag will contain the version the API responded with, which should align with version that request was made with. StatusCode can either contain a 0, 1, or 2. Your application should look at the StatusCode and take the appropriate action depending on the returned value.

Status Code Responses

Status Code	Description
0	An error occurred
1	The request was successful
2	Additional information is required to complete the request

Trim Size Requests

Trim size requests return the currently available trim sizes, their associated ID numbers, and the print type that corresponds to that individual trim size.

Trim size requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/trimsizes/>

TrimsizesRequest XML Request Details

The TrimSizeRequest document in the POST request must conform to the following XML structure.

```
TrimsizesRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
```

This request message is standard and should not vary from the request shown above. In future versions of the API, the version requested will most likely change.

TrimsizeRequest XML Request Example

The following is an example of a well formed TrimsizeRequest XML document.

```
<TrimsizeRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
  </Request>
</TrimsizeRequest>
```

This request message is standard and should not vary from the request shown above. In future versions, the API version requested will most likely change.

TrimsizeResponse XML Response Details

The TrimSizeResponse document returned to your application adheres to the following XML structure.

```
TrimsizeResponse
- Response
  - Version::string
  - StausCode::string
- PrintType
  - Description::string
  [The print type description
  'Single Color Text' or 'Full Color Text']
  - Trimsize::string
    - Id::string
    [The ID of the trimsize]
    - Description::string
    [The trimsize description]
```

TrimsizesResponse XML Response Example

The following is an example of a well formed TrimsizesResponse sent back to the client application from the PFM Print Pricing API servers.

```

<TrimsizesResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
  </Response>
  <PrintType>
    <Description>Single Color Text</Description>
    <Trimsizes>
      <Id>1</Id>
      <Description>5 x 8</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>2</Id>
      <Description>5.5 x 8.5</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>3</Id>
      <Description>6 x 9</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>4</Id>
      <Description>7 x 10</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>5</Id>
      <Description>8.25 x 11</Description>
    </Trimsizes>
  </PrintType>
  <PrintType>
    <Description>Full Color Text</Description>
    <Trimsizes>
      <Id>8</Id>
      <Description>10 x 8</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>7</Id>
      <Description>8 x 10</Description>
    </Trimsizes>
    <Trimsizes>
      <Id>6</Id>
      <Description>8 x 8</Description>
    </Trimsizes>
  </PrintType>
</TrimsizesResponse>

```

Page Count and Quantity Requests

Page count and quantity requests return the currently available page counts and quantities for the specified trim size. Depending on your access key preferences, this might only return quantities available for digital printing, or quantities available for offset printing.

Page Count and Quantity requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/pagecountquantity/>

PageCountQuantityRequest XML Request Details

The PageCountQuantityRequest document in the POST request must conform to the following XML structure.

```
PageCountQuantityRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - Trimsize::string [required] (Trimsize ID)
```

PageCountQuantityRequest XML Request Example

The following is an example of a well formed PageCountQuantityRequest XML document.

```
<PageCountQuantityRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
    <Trimsize>3</Trimsize>
  </Request>
</PageCountQuantityRequest>
```

PageCountQuantityResponse XML Response Details

The PageCountQuantityResponse document returned to your application adheres to the following XML structure.

```

PageCountQuantityResponse
- Response
  - Version::string
  - StausCode::string
- PrintType::string
- Trimsizes::string
- TrimsizesID::string
- Quantities
  - Quantity::string
    [Available Quantity]
- PageCounts
  - PageCount::string
    [Available Page Count]
    
```

PageCountQuantityResponse XML Response Example

The following is an example of a well formed PageCountQuantityResponse sent back to the client application from the PFM Print Pricing API servers.

```

<PageCountQuantityResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
  </Response>
  <PrintType>Single Color Text</PrintType>
  <Trimsizes>6 x 9</Trimsizes>
  <TrimsizesID>3</TrimsizesID>
  <Quantities>
    <Quantity>100</Quantity>
    <Quantity>200</Quantity>
    <Quantity>300</Quantity>
    <Quantity>400</Quantity>
    <Quantity>500</Quantity>
    <Quantity>750</Quantity>
    <Quantity>1000</Quantity>
    <Quantity>1500</Quantity>
    <Quantity>2000</Quantity>
    <Quantity>3000</Quantity>
    <Quantity>4000</Quantity>
    <Quantity>5000</Quantity>
    <Quantity>6000</Quantity>
    <Quantity>7000</Quantity>
  </Quantities>
</PageCountQuantityResponse>
    
```

```

    <Quantity>8000</Quantity>
    <Quantity>9000</Quantity>
    <Quantity>10000</Quantity>
  </Quantities>
  <PageCounts>
    <PageCount>64</PageCount>
    <PageCount>80</PageCount>
    <PageCount>96</PageCount>
    <PageCount>112</PageCount>
    <PageCount>128</PageCount>
    <PageCount>144</PageCount>
    <PageCount>160</PageCount>
    <PageCount>176</PageCount>
    <PageCount>192</PageCount>
    <PageCount>208</PageCount>
    <PageCount>224</PageCount>
    <PageCount>240</PageCount>
    <PageCount>256</PageCount>
    <PageCount>272</PageCount>
    <PageCount>288</PageCount>
    <PageCount>304</PageCount>
    <PageCount>320</PageCount>
    <PageCount>336</PageCount>
    <PageCount>352</PageCount>
    <PageCount>368</PageCount>
    <PageCount>384</PageCount>
    <PageCount>400</PageCount>
    <PageCount>416</PageCount>
    <PageCount>432</PageCount>
    <PageCount>448</PageCount>
    <PageCount>464</PageCount>
    <PageCount>480</PageCount>
    <PageCount>496</PageCount>
    <PageCount>512</PageCount>
    <PageCount>528</PageCount>
    <PageCount>544</PageCount>
    <PageCount>560</PageCount>
    <PageCount>576</PageCount>
    <PageCount>592</PageCount>
    <PageCount>608</PageCount>
  </PageCounts>
</PageCountQuantityResponse>

```

Binding Requests

Binding requests return the currently available bindings for the specified trim size, quantity of books. Depending on your access key preferences, this might only return bindings available for digital printing, or bindings available for offset printing.

Binding requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/binding/>

BindingRequest XML Request Details

The BindingRequest document in the POST request must conform to the following XML structure.

```
BindingRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - Trimsizes::string [required] (Trimsizes ID)
  - Quantity::string [required] (Quantity)
  - PrintType::string [optional] (Digital/Offset)
```

If the specified trim size and quantity are both available in digital and offset printing, PFM will return a status code 2, requesting the PrintType tag to be set to either Digital or Offset.

BindingRequest XML Request Example

The following is an example of a well formed BindingRequest XML document.

```
<BindingRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
    <Trimsizes>3</Trimsizes>
    <Quantity>5000</Quantity>
  </Request>
</BindingRequest>
```

BindingResponse XML Response Details

The BindingResponse document returned to your application adheres to the following XML structure.

```

BindingResponse
- Response
  - Version::string
  - StausCode::string
  - PrintType::string
  - Availability::string
- Binding
  - Name::string
    [Binding Description]
  - Type::string
    [Hardback or Paperback]
  - ID::string
    [Binding Identitifer]
  - Default::string
    [True/False - True for common print options]

```

BindingResponse XML Response Example

The following is an example of a well formed BindingResponse sent back to the client application from the PFM Print Pricing API servers.

```

<BindingResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
    <PrintType>Offset</PrintType>
    <Availability>Offset</Availability>
  </Response>
  <Binding>
    <Name>Adhesive case (hardcover) with stamped
kivar and jacket</Name>
    <Type>Hardback</Type>
    <ID>97</ID>
    <Default>False</Default>
  </Binding>
  <Binding>
    <Name>Adhesive case with printed
casewrap</Name>
    <Type>Hardback</Type>
    <ID>96</ID>
    <Default>False</Default>
  </Binding>

```



```

<Binding>
  <Name>Layflat</Name>
  <Type>Paperback</Type>
  <ID>69</ID>
  <Default>False</Default>
</Binding>
<Binding>
  <Name>Perfect (paperback)</Name>
  <Type>Paperback</Type>
  <ID>54</ID>
  <Default>True</Default>
</Binding>
<Binding>
  <Name>Plastic Coil</Name>
  <Type>Paperback</Type>
  <ID>108</ID>
  <Default>False</Default>
</Binding>
<Binding>
  <Name>Spiral (plastic coated single
wire)</Name>
  <Type>Paperback</Type>
  <ID>73</ID>
  <Default>False</Default>
</Binding>
</BindingResponse>

```

Option Requests

Option requests return the currently available bindings for the specified trim size, quantity of books, and binding. Depending on your access key preferences, this might only return options available for digital printing, or options available for offset printing.

Option requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/options/>

OptionRequest XML Request Details

The BindingRequest document in the POST request must conform to the following XML structure.

```

OptionRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - Trimsizes::string [required] (Trimsizes ID)
  - Quantity::string [required] (Quantity)
  - Binding::string [required] (Binding ID)
  - PrintType::string [optional] (Digital/Offset)
    
```

If the specified trim size and quantity are both available in digital or offset printing, PFM will return a status code 2, requesting the PrintType tag to be set to either Digital or Offset.

OptionRequest XML Request Example

The following is an example of a well formed OptionRequest XML document.

```

<OptionRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
    <Trimsizes>3</Trimsizes>
    <Quantity>5000</Quantity>
    <Binding>141</Binding>
  </Request>
</OptionRequest>
    
```

OptionResponse XML Response Details

The OptionResponse document returned to your application adheres to the following XML structure.

```

BindingResponse
- Response
  - Version::string
    
```

```

- StausCode::string
- CoverInks
  - Option
    - Id::string
      [Cover Ink Identifier]
    - Description::string
      [Cover Ink Description]
    - Default::string
      [True/False- True for common print options]

- CoverPapers
  - Option
    - Id::string
      [Cover Paper Identifier]
    - Description::string
      [Cover Paper Description]

- TextInks
  - Option
    - Id::string
      [Text Ink Identifier]
    - Description::string
      [Text Ink Description]

- TextPapers
  - Option
    - Id::string
      [Text Paper Identifier]
    - Description::string
      [Text Paper Description]
    - Default::string
      [True/False- True for common print options]

- Inserts
  - Option
    - Id::string
      [Insert Identifier]
    - Description::string
      [Insert Description]

```

OptionResponse XML Response Example

The following is an example of a well formed OptionResponse sent back to the client application from the PFM Print Pricing API servers.

```

<OptionResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
  </Response>

```

```

    <CoverInks>
      <Option>
        <Id>180</Id>
        <Description>Single color plus layflat
film lamination (1-0-0-1)</Description>
        <Default>False</Default>
      </Option>
      <Option>
        <Id>182</Id>
        <Description>2 PMS colors plus layflat
film lamination (2-0-0-2)</Description>
        <Default>False</Default>
      </Option>
      <Option>
        <Id>184</Id>
        <Description>Four color process plus
layflat film lamination (4-0-0-4)</Description>
        <Default>True</Default>
      </Option>
    </CoverInks>
    <CoverPapers>
      <Option>
        <Id>64</Id>
        <Description>10pt C1S</Description>
      </Option>
      <Option>
        <Id>65</Id>
        <Description>12pt C1S</Description>
      </Option>
      <Option>
        <Id>66</Id>
        <Description>80# coated
cover</Description>
      </Option>
    </CoverPapers>
    <TextInks>
      <Option>
        <Id>139</Id>
        <Description>One color
(black)</Description>
      </Option>
    </TextInks>
    <TextPapers>
      <Option>
        <Id>35</Id>
        <Description>45# Alternative Offset
(400ppi)</Description>
        <Default>False</Default>
      </Option>
      <Option>
        <Id>33</Id>
        <Description>50# white offset
(512ppi)</Description>
        <Default>True</Default>
      </Option>
    </TextPapers>
  
```

```

    </Option>
    <Option>
      <Id>36</Id>
      <Description>50# natural offset
(400ppi)</Description>
      <Default>False</Default>
    </Option>
    <Option>
      <Id>89</Id>
      <Description>60# recycled offset
(434ppi)</Description>
      <Default>False</Default>
    </Option>
    <Option>
      <Id>34</Id>
      <Description>60# white offset
(444ppi)</Description>
      <Default>False</Default>
    </Option>
  </TextPapers>
  <Inserts>
    <Option>
      <Id>0</Id>
      <Description>None</Description>
    </Option>
    <Option>
      <Id>147</Id>
      <Description>4 page four color process on
coated paper, between 16 page sigs</Description>
    </Option>
    <Option>
      <Id>148</Id>
      <Description>8 page four color process on
coated paper, between 16 page sigs</Description>
    </Option>
    <Option>
      <Id>145</Id>
      <Description>16 page four color process
on coated paper, between 16 page sigs</Description>
    </Option>
    <Option>
      <Id>149</Id>
      <Description>24 page four color process
on coated paper, between 16 page sigs</Description>
    </Option>
    <Option>
      <Id>150</Id>
      <Description>32 page four color process
on coated paper, between 16 page sigs</Description>
    </Option>
  </Inserts>
</OptionResponse>

```

Cover Paper Requests

Cover paper requests return the currently available cover papers for the specified binding, and cover ink. Depending on your access key preferences, this might only return options available for digital printing, or options available for offset printing.

Cover paper requests are abbreviated option requests. When you first receive the overall options, cover manufacturing options are based on the default cover ink. When the cover ink is changed, cover papers need to be refreshed. The description might remain the same; however the identifiers returned will have changed. If you skip this step, and you create a price, or a quote, it will fail because of invalid data (See error codes).

Cover paper requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/coverpapers/>

CoverPaperRequest XML Request Details

The CoverPaperRequest document in the POST request must conform to the following XML structure.

```
CoverPaperRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - Binding::string [required] (Binding ID)
  - CoverManufacturing::string [required]
    (Cover Manufacturing ID)
```

CoverPaperRequest XML Request Example

The following is an example of a well formed CoverPaperRequest XML document.

```
<CoverPaperRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
```

```

        <Username>YOURUSERNAME</Username>
        <Password>YOURPASSWORD</Password>
    </AccessRequest>
    <Request>
        <Version>1.0</Version>
        <Binding>97</Binding>
        <CoverManufacturing>65</CoverManufacturing>
    </Request>
</CoverPaperRequest>

```

CoverPaperResponse XML Response Details

The CoverPaperResponse document returned to your application adheres to the following XML structure.

```

CoverPaperResponse
- Response
    - Version::string
    - StausCode::string
- CoverPapers
    - Option
        - Id::string
          [Cover Paper Identifier]
        - Description::string
          [Cover Paper Description]

```

CoverPaperResponse XML Response Example

The following is an example of a well formed CoverPaperResponse sent back to the client application from the PFM Print Pricing API servers.

```

<CoverPaperResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
  </Response>
  <CoverPapers>
    <Option>
      <Id>14</Id>
      <Description>80# C1S litho</Description>
    </Option>
  </CoverPapers>
</CoverPaperResponse>

```

Price Requests

Price requests return the print type, unit cost, and total estimated cost for the printing options.

Cover paper requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/price/>

PricingRequest XML Request Details

The PriceRequest document in the POST request must conform to the following XML structure.

```
PricingRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - TrimSize::string [required] (Trimsize ID)
  - Quantity::string [required] (Quantity)
  - PageCount::string [required] (Page Count)
  - Binding::string [required] (Binding ID)
  - CoverManufacturing::string [required]
    (Cover Manufacturing ID)
  - CoverPaper::string [required]
    (Cover Paper ID)
  - TextManufacturing::string [required]
    (Text Manufacturing ID)
  - TextPaper::string [required]
    (Text Paper ID)
  - Inserts::string [required]
    (Insert ID)
- CoverManufacturing
  - Id::string
    [Cover Ink Identifier]
  - Description::string
    [Cover Ink Description]
- CoverPaper
  - Id::string
    [Cover Paper Identifier]
  - Description::string
    [Cover Paper Description]
- TextManufacturing
  - Id::string
    [Text Ink Identifier]
  - Description::string
    [Text Ink Description]
```


- **TextPapers**
 - **Id::string**
[Text Paper Identifier]
 - **Description::string**
[Text Paper Description]
- **Inserts**
 - **Id::string**
[Insert Identifier]
 - **Description::string**
[Insert Description]
- **Preparation::string**
[Preparation Description]
- **Shipping::string**
[Shipping Description]
- **Packing::string**
[Packing Description]
- **Schedule::string**
[Schedule Description]

PricingRequest XML Request Example

The following is an example of a well formed PriceRequest XML document.

```
<CoverPaperRequest>
  <AccessRequest xml:lang="en-US">
    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
    <TrimSize>3</TrimSize>
    <Quantity>5000</Quantity>
    <PageCount>144</PageCount>
    <Binding>97</Binding>
    <CoverManufacturing>65</CoverManufacturing>
    <CoverPaper>14</CoverPaper>
    <TextManufacturing>63</TextManufacturing>
    <TextPaper>6</TextPaper>
    <Inserts>0</Inserts>
  </Request>
</CoverPaperRequest>
```

PricingResponse XML Response Details

The PricingResponse document returned to your application adheres to the following XML structure.

```

CoverPaperResponse
- Response
  - Version::string
  - StausCode::string
- Price
  - Type::string
    [Print Type - Digital or Offset]
  - UnitCost::string
    [Unit Cost]
  - Total::string
    [Total Estimated cost based on unit cost and
    quantity. Quantity can vary +/- 5% on offset
    printing]
    
```

PricingResponse XML Response Example

The following is an example of a well formed PricingResponse sent back to the client application from the PFM Print Pricing API servers.

```

<PricingResponse>
  <Response>
    <Version>1.0</Version>
    <StatusCode>1</StatusCode>
  </Response>
  <Price>
    <Type>Offset</Type>
    <UnitCost>1.96</UnitCost>
    <Total>9,810.62</Total>
  </Price>
</PricingResponse>
    
```

Quote Requests

Quote requests create a quote on PFM servers for the printing options specified. An e-mail will go to your reseller e-mail address with the details of the quote. They are similar to the quotes you receive from PFM, except they are marked as being generated from a reseller account.

Quote requests should be sent to the following URL:

<http://api.pfmpricing.com/pricing/print/createquote/>

QuoteRequest XML Request Details

The QuoteRequest document in the POST request must conform to the following XML structure.

```
QuoteRequest
- AccessRequest
  - Key::string [required]
  - Username::string [required]
  - Password::string [required]
- Request
  - Version::string [required]
  - TrimSize::string [required] (Trimsize ID)
  - Quantity::string [required] (Quantity)
  - PageCount::string [required] (Page Count)
  - Binding::string [required] (Binding ID)
  - CoverManufacturing::string [required]
    (Cover Manufacturing ID)
  - CoverPaper::string [required]
    (Cover Paper ID)
  - TextManufacturing::string [required]
    (Text Manufacturing ID)
  - TextPaper::string [required]
    (Text Paper ID)
  - Inserts::string [required]
    (Text Paper ID)
  - Title::string [required] (Book Title)
```

QuoteRequest XML Request Example

The following is an example of a well formed QuoteRequest XML document.

```
<QuoteRequest>
  <AccessRequest xml:lang="en-US">
```

```

    <Key>YOURACCESSKEY</Key>
    <Username>YOURUSERNAME</Username>
    <Password>YOURPASSWORD</Password>
  </AccessRequest>
  <Request>
    <Version>1.0</Version>
    <TrimSize>3</TrimSize>
    <Quantity>1000</Quantity>
    <PageCount>160</PageCount>
    <Binding>54</Binding>
    <CoverManufacturing>65</CoverManufacturing>
    <CoverPaper>12</CoverPaper>
    <TextManufacturing>63</TextManufacturing>
    <TextPaper>4</TextPaper>
    <Inserts>0</Inserts>
    <Title>I Bet My Life</Title>
  </Request>
</QuoteRequest>

```

QuoteResponse XML Response Details

The QuoteResponse document returned to your application adheres to the following XML structure.

```

QuoteResponse
- Response
  - Version::string
  - StausCode::string
- Quote
  - Id::string
    [Quote ID Number]
  - Key::string
    [Unique key used when retrieving the quote]
  - ExpireTime::string
    [Quotes are valid for only 30 days.
    This is the expiration date of this quote.]
  - Title::string
    [Title of the book]
  - Quantity::string
    [Quantity being printed]
  - PageCount::string
    [Page count specified]
  - PrintType::string
    [Print Type - Digital or Offset]
  - UnitCost::string
    [Unit Cost]
  - Total::string
    [Total Estimated cost based on unit cost and
    quantity. Quantity can vary +/- 5% on offset]

```

```
printing]
```

QuoteResponse XML Response Example

The following is an example of a well formed QuoteResponse sent back to the client application from the PFM Print Pricing API servers.

```
<Quote>
  <Id>460</Id>
  <Key>85a89</Key>
  <ExpireTime>2007-10-25</ExpireTime>
  <Title>I Bet My Life</Title>
  <Quantity>1000</Quantity>
  <PageCount>160</PageCount>
  <PrintType>Offset</PrintType>
  <Type>Single Color Text</Type>
  <UnitCost>2.56</UnitCost>
  <Total>2,557.12</Total>
  <Trimsizes>
    <Id>3</Id>
    <Description>6 x 9</Description>
  </Trimsizes>
  <Binding>
    <Id>54</Id>
    <Description>Perfect
(paperback)</Description>
  </Binding>
  <CoverManufacturing>
    <Id>65</Id>
    <Description>Four color process plus
layflat film lamination (4-0-0-4)</Description>
  </CoverManufacturing>
  <CoverPaper>
    <Id>12</Id>
    <Description>10pt C1S </Description>
  </CoverPaper>
  <TextManufacturing>
    <Id>63</Id>
    <Description>One color
(black)</Description>
  </TextManufacturing>
  <TextPaper>
    <Id>4</Id>
    <Description>50# recycled offset
(540ppi)</Description>
  </TextPaper>
  <Insert>
    <Id>0</Id>
```

```
<Description>None</Description>
</Insert>
<Preparation>Customer to furnish properly
formatted PDF file for text and PDF/application files for
cover. Digital proofs to be sent by printer for
approval.</Preparation>
<Shipping>FOB Factory (No freight included in
price)</Shipping>
<Packing>Bulk Cartons</Packing>
<Schedule>To be agreed upon (generally 3-4
weeks for paperback and 6-8 weeks for hard
cover)</Schedule>
</Quote>
```

Your Application

Thoroughly test your application before allowing your customers to use it. No stress testing should ever be performed by customers against ANY PFM system.

Pricing

The pricing returned by PFM is based upon the negotiated rates you have with PFM. These rates are stored on your account and are accessed when you authenticate against the API system with your access key, username, and password.

Testing

Test your application using valid and invalid elements. This will ensure that your application has the ability to process successful and erroneous responses correctly.

System Availability

The PFM API system is available 24 hours a day, 7 days a week.

Server Availability Check

All of the PFM API request interfaces work using HTTP POST. A list of the PFM URLs for requesting data are found earlier in this document under the 'Print Pricing Selection Reference'.

Error Codes

The following tables list errors that PFM may return in response to a request.

General Errors

General errors can occur with ANY request type made to PFM. They are not request type specific.

Code	Description
A01	Access key was not specified
A02	Username was not specified
A03	Password was not specified
A05	Access key, username, and password combination could not authenticate
A09	There was an error validating your access key
V01	API version was not specified
V02	API version specified is not supported

Trim Size Request Errors

Trim size request errors are specific only to TrimsizeRequest requests sent to PFM.

Code	Description
T01	Trim sizes are currently unavailable

Page Count & Quantity Request Errors

Page count and quantity request errors are specific only to PageCountQuantityRequest requests sent to PFM.

Code	Description
PCQ01	A trim size ID was not specified
PCQ02	Page count and quantities are currently unavailable, or an invalid trim size was specified

Binding Request Errors

Binding request errors are specific only to BindingRequest requests sent to PFM.

Code	Description
B01	A trim size ID was not specified
B02	A quantity was not specified
B10	The specified quantity and trim size are available in both digital printing and offset printing. Please specify which binding types you are requesting

Option Request Errors

Option request errors are specific only to OptionRequest requests sent to PFM.

Code	Description
O01	A trim size ID was not specified
O02	A quantity was not specified
O03	A binding ID was not specified
O10	The specified quantity and trim size are available in both digital printing and offset printing. Please specify which binding types you are requesting

Cover Paper Request Errors

Cover paper request errors are specific only to CoverPaperRequest requests sent to PFM.

Code	Description
CP01	A binding ID was not specified
CP02	A cover manufacturing ID was not specified

Price Request Errors

Price request errors are specific only to PricingRequest requests sent to PFM.

Code	Description
P01	A trim size ID was not specified
P02	Quantity was not specified
P03	Page count was not specified
P04	A binding ID was not specified
P05	A cover manufacturing ID was not specified
P06	A cover paper ID was not specified
P07	A text manufacturing ID was not specified
P08	A text paper ID was not specified
P09	An insert ID was not specified
P10	An invalid combination of options where specified

Quote Request Errors

Quote request errors are specific only to QuoteRequest requests sent to PFM.

Code	Description
Q01	A trim size ID was not specified
Q02	Quantity was not specified
Q03	Page count was not specified
Q04	A binding ID was not specified
Q05	A cover manufacturing ID was not specified
Q06	A cover paper ID was not specified
Q07	A text manufacturing ID was not specified
Q08	A text paper ID was not specified
Q09	An insert ID was not specified
Q10	A book/project title was not specified
Q11	An invalid combination of options where specified