



Preparation of PDF Documents

For Use with the SIGNiX B2B Interface

Version 1.4, May 1, 2012

Supported Documents and Viewers

PDF documents come in several varieties. SIGNiX support for these different types of PDF is detailed below:

AcroForms

AcroForms PDFs are the most common type. They can be made from many sources using tools from both Adobe and third-parties. They can be edited using Adobe Acrobat.

SIGNiX supports AcroForms PDF version 1.5 and up. SIGNiX supports viewing and signing these documents in Acrobat and Reader versions 6.x, 7.x, and 8.1 or greater. (Acrobat/Reader version 8.0 is not supported.)

PDF version 1.4 is also supported, with a small caveat. Version 1.4 PDF documents are viewable in Acrobat and Reader 5.x and above. SIGNiX signatures depend on PDF data structures that were first introduced in PDF version 1.5. While it is permissible to include these structures in a version 1.4 document, Acrobat and Reader 5.x cannot fully interpret them. Signed version 1.4 PDFs should therefore be viewed in one of the versions of Acrobat or Reader supported by SIGNiX (noted above) in order to provide full signature verifiability.

It is recommended that document designers use the oldest version of PDF that supports the features they need. The older the version, the more likely clients will be able to open the document without upgrading their installation of Acrobat or Reader.

Documents submitted to SIGNiX must not be encrypted.

XFA:

XFA documents can be created using Adobe LiveCycle. Please contact SIGNiX for further information about using XFA forms.

PDF/A:

PDF/A is a long-term archiving format for PDF. SIGNiX currently has limited support for PDF/A-1b. Please contact SIGNiX for further information about using PDF/A.

Signature Fields:

The location and size of signatures is indicated by regular PDF signature fields. These fields can be added to an AcroForms document using Adobe Acrobat, and to an XFA document using Adobe LiveCycle Designer.

Each field must be positioned over a signature line in the document, and each field must have a name that is unique within the document. There are no other special requirements.

Each signature field will be associated with a signer when the document is uploaded to SIGNiX. See the section on transaction metadata, below, for details.

In addition to signature fields, SIGNiX supports “signature information fields”. These fields are regular PDF fields that are automatically updated at signing time with information about specific signatures. Inclusion of signature information fields is optional.

Each signature information field must have a unique name. This name will be used to associate the field with the corresponding signature field in the transaction metadata, as explained below.

SIGNiX currently supports one kind of signature information field, the signing date field. This is a plain text field that will be automatically filled with the date and time of signing. It should be positioned in clear visual association with the corresponding signature field.

The format of the date and time shown in signing date fields can be controlled using a required field in the transaction metadata. The format is specified using a date and time pattern string. The format of the pattern string is defined in reference [2]. All pattern strings are interpreted in the U.S. locale, Eastern Time Zone.

When formatting signing date fields, note that date and time are always reported in the U.S. Eastern Time Zone. The time zone of this field is not sensitive to the location of the signer or any later viewer. For clarity, consider using a date time pattern string that explicitly displays the time zone.

Transaction Metadata

When documents are uploaded to SIGNiX, a set of metadata describing the transaction must also be provided. This metadata includes a description of the transaction participants, what documents they sign, and which signature information fields are associated with which signature fields.

The metadata is provided in XML format. See *SIGNiX Interface Guide V3.4* [1] for a complete description of the content and format. The following snippet provides an annotated example:

- ❖ Each participant is described in a `<MemberInfo>` element

```
<MemberInfo>
  <FirstName>Jack</FirstName>
  <LastName>Testings</LastName>
```

- ❖ Additional `<MemberInfo>` elements, if needed, appear here

- ❖ `<Service>` parameter specifies the level of identity verification and user authentication required for this participant
- ❖ It controls what registration process to invoke if the user does not have a SIGNiX identity
- ❖ Valid values are 'express', 'select', 'SelectID', 'ExpectID', and 'superior'
- ❖ Only 'select' and 'SelectID', and 'ExpectID' are supported presently

```
<Service>select</Service>
```

- ❖ Questions and answers to pick up the document if the user does not yet have a SIGNiX identity and Service is 'express' or 'select'
- ❖ The Q&A allows SIGNiX to authenticate the user for registration
- ❖ During registration, the user chooses a signing PIN
- ❖ On subsequent visits, the user must use SSN and PIN to log in
- ❖ Number of questions: minimum 1, maximum 9
- ❖ Each Question is the exact question to ask, and there must be a corresponding Answer
- ❖ Each Answer is the exact answer to compare against (case-insensitive)
- ❖ The format for the answers can be whatever the Client wants, but the question should let the user know the format to use when entering the data

```
<Q1>What Is Your Mother's Maiden Name</Q1>          maxlen 1000
<A1>Smith</A1>                                       maxlen 1000
```

- ❖ More questions and answers, if desired, appear here

```
</MemberInfo>
  <MemberInfo>
    <FirstName>Jill</FirstName>
    <LastName>Testings</LastName>

    <Service>SelectID</Service>
  </MemberInfo>
```

- ❖ Each document is described in a `<Form>` element

```
<Form>
  ...
  Information describing a document
```

- ❖ Each signature line is described in a `<SignatureLine>` element

```
<SignatureLine>
```

- ❖ Specify who will sign this signature line
- ❖ Refers to a `<MemberInfo>` element above by order number, in this case the first

```
<MemberInfoNumber>1</MemberInfoNumber>
```

- ❖ Name of the PDF digital signature field for this signing line

```
<SignField>Signature1</SignField>
```

Maximum length 100

- ❖ Name of optional signature information field associated with this signature line
- ❖ Signature information fields, such as the date and time when the document was signed, must be filled in as the digital signature is applied
- ❖ PDF field names and date/time formats are specified here

```
<DateSignedField>SignatureDate1</DateSignedField>
```

Maximum length 100

- ❖ For the specifics of date/time formats, refer to the definition of date and time pattern strings in the Java Platform Standard Edition 6 API documentation for class `java.text.SimpleDateFormat`, available at <http://java.sun.com/javase/6/docs/api/java/text/SimpleDateFormat.html>
- ❖ Example format here yields “Wed, Jul 4, 2001, 12:08 PM EDT”

```
<DateSignedFormat>EEE, MMM d, yyyy, h:mm a z</DateSignedFormat>
```

Required if `DateSignedField` present, Maximum length 100

```
</SignatureLine>
```

```
<SignatureLine>
```

```
  <MemberInfoNumber>2</MemberInfoNumber>
```

```
  <SignField>Signature2</SignField>
```

```
  <DateSignedField>SignatureDate2</DateSignedField>
```

```
  <DateSignedFormat>EEE, MMM d, yyyy, h:mm a</DateSignedFormat>
```

```
</SignatureLine>
```

```
<Data><!-- The PDF document being uploaded, encoded in base64 format--></Data>
```

```
</Form>
```

...

Other forms

References

1. SIGNiX. “SIGNiX Interface Guide” Version 3.4 May 1, 2010
2. Sun. “Java Platform Standard Edition 6 API Specification: Class `SimpleDateFormat`” <http://java.sun.com/javase/6/docs/api/java/text/SimpleDateFormat.html>