

# International Sample

## 1. Languages and Writing System

PDFreactor can layout texts in various languages and writing systems. It also contains default fonts for most of them, so providing fonts containing the required characters is not necessary. Doing so is still recommended for best visual results.

The following samples show text from various languages with multiple kinds of writing systems using the default fonts:

### Arabic

نص حكيم له سر قاطع وذو شأن  
عظيم مكتوب على ثوب أخضر ومغلف  
بجلد أزرق.

*A wise text which has an absolute secret and great importance, written on a green cloth and covered with blue leather.*

### Chinese

視野無限廣，窗外有藍天

*The view is infinitely wide. There is blue sky outside the window.*

### Danish

Quizdeltagerne spiste jordbær  
med fløde, mens cirkusklovnen  
Walther spillede på xylofon.

*The quiz contestants ate strawberry with cream while Walter the circus clown played the xylophone.*

### German

Victor jagt zwölf Boxkämpfer  
quer über den großen Sylter  
Deich.

*Victor chases twelve boxers across the great dam of Sylt.*

### Greek

Θέλει αρετή και τόλμη η  
ελευθερία. (Ανδρέας Κάλβος)

*Liberty requires virtue and mettle. (Andreas Kalvos)*

### Hebrew

אג סקרן שט לו בים זך אך לפתע  
פגש חבורה נחמדה שצצה כך.

*A curious fish sailed a clear sea, and suddenly found nice company that just popped up.*

### Japanese

いろはにほへとちりぬるをわ  
かよたれそつねならむうゑの  
おくやまけふこえてあさきゆ  
めみしゑひもせす

*Even the blossoming flowers / Will eventually scatter / Who in this world / is unchanging? / The deep mountains of vanity-- / We cross them today / And we shall not see superficial dreams / Nor be deluded. (from Iroha-uta)*

### Khmer

ថ្ងៃច័ន្ទ ដល់ ថ្ងៃសុក្រ ម៉ោង 8 ព្រឹក

*Monday to Friday, 8 AM*

### Russian

Съешь ещё этих мягких  
французских булок да выпей  
же чаю.

*Eat some more of these soft French buns and drink some tea.*

## 2. Bidi Text

Text can not only be strictly left-to-right or right-to-left, it can also contain phrases with an inherent direction opposite to the base direction. PDFreactor automatically handles such bi-direction (BiDi) content according to the Unicode specification, with no need for specific styles beyond the base direction (see below).

The following samples show an English text followed by translations that keep some English terms:

### Left-to-right sample - English text excerpt:

#### 5. XML is a family of technologies

XML 1.0 is the specification that defines what "tags" and "attributes" are. Beyond XML 1.0, "the XML family" is a growing set of modules that offer useful services to accomplish important and frequently demanded tasks. XLink describes a standard way to add hyperlinks to an XML file. XPointer is a syntax in development for pointing to parts of an XML document. An XPointer is a bit like a URL, but instead of pointing to documents on the Web, it points to pieces of data inside an XML file. CSS, the style sheet language, is applicable to XML as it is to HTML. XSL is the advanced language for expressing style sheets. It is based on XSLT, a transformation language used for rearranging, adding and deleting tags and attributes. The DOM is a standard set of function calls for manipulating XML (and HTML) files from a programming language. XML Schemas 1 and 2 help developers to precisely define the structures of their own XML-based formats. There are several more modules and tools available or under development. Keep an eye on W3C's technical reports page.

### Right-to-left sample - Arabic text excerpt:

#### 5. إكس إم إل مجموعة تكنولوجيات

XML 1.0 هي المواصفات التي تعرّف ماذا تكون "العلامات" و "الصفات". حول تلك المواصفات هناك مجموعة متنامية من الوحدات التي تُعرض خدمات مفيدة لإنجاز مهام كثيرة الطلب وهامة . Xlink يصف طريقة رسمية لإضافة وصلة رابطة لملف إكس إم إل . XPointer و XFragments قواعد تركيب نحوية للإشارة إلى أجزاء من وثيقة إكس إم إل. إشارة XPointer تتشابه مع إشارة URL ، لكن بدلاً من الإشارة إلى الوثائق على الويب ، تشير إلى قطع صغيرة من البيانات داخل ملف إكس إم إل . CSS ، لغة النمط والأسلوب، تنطبق على إكس إم إل كما تنطبق على إتش تي إم إل . XSL هي اللغة المتقدمة للتعبير عن النمط والأسلوب . أساسها XSLT ، لغة تحوّل استُخدمت لإعادة ترتيب أو لإضافة أو لحذف علامات أو صفات. DOM هي مجموعة رسمية لاستدعاءات الوظائف من أجل استغلال ملفات إكس إم إل (أو إتش تي إم إل) وذلك من داخل لغة برمجة. مخططات إكس إم إل 1 و 2 (XML Schemas 1 and 2) تساعد المطورين بأن يُعرّفوا بدقة هياكل أشكالهم الشخصية المؤسسة على لغة إكس إم إل . هناك عدة وحدات و أدوات متاحة أو تحت التطوير. أنظر إلى صفحة تقارير W3C التقنية.

### Right-to-left sample - Hebrew text excerpt:

#### 5. XML הוא משפחה של טכנולוגיות

XML1.0 הנו מפרט שמגדיר מהם "תגיות" ו"תכונות". מעבר לכך "משפחת XML" הינה מערך מודולים ההולך ומתרחב המציעים שירותים שמושיים כדי לבצע משימות חשובות ותכופות. Xlink מתאר כיצד להוסיף קישורים לקובץ XPointer . XML . XPointer הינם מודולים בפיתוח כדי לאפשר מצביעים בתוך מסמך XML. ה- XPointer הנו מעין URL, אך במקום להצביע על מסמכים ברשת, הוא מצביע על פיסת מידע בתוך הקובץ CSS . XML, שפה לעיצוב גליונות, זמינה ב- XML בדומה ל- HTML. XSL הינה שפה מתקדמת לעיצוב גליונות. השפה מבוססת על XSLT, שפה המשמשת לאירגון, הוספה ומחיקה של תגיות ותכונות. ה- DOM מערך פונקציות המשמשות למניפולציות בקבצי XML (HTML) ע"י תיכנות. פורמט הגדרות מבנה XML Schema 1 ו- 2. ישנם עוד מודולים וכלים מוכנים או בפיתוח. שים לב לדרך הדיווחים הטכניים של W3C.

The text excerpts are taken from the original English and the translated Arabic and Hebrew versions of the W3C document "XML in 10 Points".

## 3. BiDi Layout

When the direction of the primary writing system of a document is right-to-left the base direction of the document should be set to RTL as well:

```
:root { direction: rtl; }
```

`direction` can also be set on any element and also affect its children.

In addition to text layout, `direction` also adjusts lists, tables and other structures, as demonstrated by the following juxtaposition:

### Paragraph:

Some text in a paragraph.

### :Paragraph

.Some text in a paragraph

### List:

- Item 1
- Item 2
- Item 3

### :List

- Item 1 •
- Item 2 •
- Item 3 •

### Table:

H1	H2	H3
A1	A2	A3
B1	B2	B3
C1	C2	C3

### :Table

H3	H2	H1
A3	A2	A1
B3	B2	B1
C3	C2	C1

### Multi-Column:

Line 1	Line 4	Line 6
Line 2	Line 5 has a break	Line 7
Line 3		Line 8

### :Multi-Column

Line 6	Line 4	Line 1
Line 7	Line 5 has a break	Line 2
Line 8		Line 3

### Flex:

Item 1	Item 2	Item 3	Item 4
--------	--------	--------	--------

### :Flex

Item 4	Item 3	Item 2	Item 1
--------	--------	--------	--------

### Grid:

Item 1	Item 2	Item 3
Item 4	Item 5	Item 6

### :Grid

Item 3	Item 2	Item 1
Item 6	Item 5	Item 4

## 4. Logical Properties and Values

Several horizontal positions and sizes can be specified depending on the text direction. The following sample uses the exact same HTML and CSS twice, except for different BiDi directions. The direction dependent styles and their effects are as follows:

The position of the title:

```
position: absolute;
top: -1em;
inset-inline-start: 2em;          /* LTR: "left: 2em" / RTL: "right: 2em" */
```

The float value and margin of the image:

```
float: inline-end;              /* LTR: "float: right" / RTL: "float: left" */
margin: 1em 0.1em;
margin-inline-start: 2em;      /* LTR: "margin-left: 2em" / RTL: "margin-right: 2em" */
```

The border and padding of the box:

```
border: 1pt none darkgrey;
border-top-style: solid;
padding-top: 0.5em;
border-inline-start-style: solid; /* LTR: "border-left-style..." / RTL: "border-right-style..." */
padding-inline-start: 1em;      /* LTR: "padding-left: 1em" / RTL: "padding-right: 1em" */
```

Resulting in:

### LTR

Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed lacinia ex eget nisl iaculis, vitae pellentesque sapien sollicitudin. Mauris iaculis, sem at laoreet tincidunt, ipsum justo placerat turpis, vitae finibus ipsum sapien ac sapien. Nullam dignissim finibus erat. Donec tincidunt scelerisque enim, et pharetra dolor blandit id. Fusce blandit sapien sollicitudin leo auctor, a mattis ex ullamcorper. Aenean hendrerit in sem et sodales. Nunc maximus sem non eros venenatis, cursus egestas mi imperdiet. Morbi in eros faucibus, ullamcorper sem eget, facilisis nunc. Vestibulum ut dignissim ligula, vel sagittis velit. Ut eget maximus leo. Aenean rhoncus euismod elementum. Nam velit orci, porttitor vel viverra scelerisque, accumsan sit amet urna. Quisque ut interdum dui. Suspendisse eu leo orci. Ut nec eros vel diam euismod consequat.

### RTL

Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed lacinia ex eget nisl iaculis, vitae pellentesque sapien sollicitudin. Mauris iaculis, sem at laoreet tincidunt, ipsum justo placerat turpis, vitae finibus ipsum sapien ac sapien. Nullam dignissim finibus erat. Donec tincidunt scelerisque enim, et pharetra dolor blandit id. Fusce blandit sapien sollicitudin leo auctor, a mattis ex ullamcorper. Aenean hendrerit in sem et sodales. Nunc maximus sem non eros venenatis, cursus egestas mi imperdiet. Morbi in eros faucibus, ullamcorper sem eget, facilisis nunc. Vestibulum ut dignissim ligula, vel sagittis velit. Ut eget maximus leo. Aenean rhoncus euismod elementum. Nam velit orci, porttitor vel viverra scelerisque, accumsan sit amet urna. Quisque ut interdum dui. Suspendisse eu leo orci. Ut nec eros vel diam euismod consequat.

## 5. International List Numbering

PDFReactor supports several international list style types, including the following:

1. decimal	二十一、 japanese-informal
02. padded decimal	೨೨. kannada
iii. lower-roman	又、 katakana
IV. upper-roman	ウ、 katakana-iroha
e. lower-alpha	ឃ្ល. khmer
F. upper-alpha	໒໖. lao
v. arabic-indic	൨൫. malayalam
Ը. upper-armenian	୨୮. oriya
թ. lower-armenian	۲۹. persian
১০. bengali	叁拾、 simp-chinese-formal
១១. cambodian	三十一、 simp-chinese-informal
१२. devanagari	౩౨. telugu
ოგ. georgian	๓๓. thai
ξ. lower-greek	ཟ།. tibetan
Ο. upper-greek	۲۵. urdu
૧૬. gujarati	##### footnote
ੴ. gurmukhi	thirty-seven spelled out English
そ、 hiragana-iroha	achtunddreißig spelled out German
て、 hiragana	trente-neuf spelled out French
式拾、 japanese-formal	fortieth spelled out English ordinal

### Changing Counter-Style Based on "lang" Attribute

With the `:lang()` selector, different styles can be set based on the "lang" attribute that is set on an HTML element. In this example the differing "lang" attributes set, cause the spelled out counter style to change to the language set on the list element.

```
.langSelector:lang(de) {
  content: counter(itemCounter, spelledOutGerman);
}

.langSelector:lang(en) {
  content: counter(itemCounter, spelledOutEnglish);
}

.langSelector {
  content: counter(itemCounter);
}
```

#### English "lang" Attribute

one, two, three, four, five, six, seven, eight

#### German "lang" Attribute

eins, zwei, drei, vier, fünf, sechs, sieben, acht

#### Other "lang" Attribute

1, 2, 3, 4, 5, 6, 7, 8

## 6. Creating Custom List Style Types

PDFReactor supports creating custom list style types with the `@counter-style` rule. If the defined counter style is not valid, the style will fallback to the decimal counter-style. This counter style rule, for example, depicts dice:

```
@counter-style dice {
  system: additive;
  additive-symbols: 6 '\2685', 5 '\2684', 4 '\2683', 3 '\2682', 2 '\2681', 1 '\2680';
}
```

- ❑ dice 1
- ❑ dice 2
- ❑ dice 3
- ❑ dice 4
- ❑ dice 5
- ❑ dice 6
- ❑ dice 7
- ❑ dice 8
- ❑ dice 9

The `@counter-style` rule also allows you to extend already existing counter styles and change properties like suffix, prefix or the character used for negative values. For example the following counter style changes the suffix of the decimal counter style to ')':

```
@counter-style decimal-suffix {
  system: extends decimal;
  suffix: ")";
}
```

- 1) changed suffix
- 2) changed suffix
- 3) changed suffix
- 4) changed suffix

Another example for the extends system would be to use spelled out counters for low counter values, and then fallback to the decimal counter style. In English the fallback would be made after ten, while in German the fallback would be made after 12. The following `@counter-style` rules show these two examples:

```
@counter-style spelledOutEnglish {
  system: extends -ro-spelled-out-en;
  range: 0 10;
  fallback: decimal;
}

@counter-style spelledOutGerman {
  system: extends -ro-spelled-out-de;
  range: 0 12;
  fallback: decimal;
}
```

### Spelled-Out English:

one, two, three, four, five, six, seven, eight, nine, ten, 11, 12, 13, 14, 15

### Spelled-Out German:

eins, zwei, drei, vier, fünf, sechs, sieben, acht, neun, zehn, elf, zwölf, 13, 14, 15

## 7. International Date Formats in JavaScript

PDFReactor supports date formatting via the `Intl` JavaScript object:

```
dtf = new Intl.DateTimeFormat("en-US", { month: "numeric", day: "numeric", weekday: "long" });
fd = dtf.format(new Date(2020, 0, 15)); // results in "Wednesday, 1/15"
```

The following table shows two sample date formats for various languages and variants:

Language	Country	Code	Short Date	Long Date
English	USA	en-US	1/15/2020, 6:23:45 PM	Wednesday, January 15, 2020 Anno Domini, 6:23:45 PM Coordinated Universal Time
English	Canada	en-CA	2020-01-15, 6:23:45 p.m.	Wednesday, January 15, 2020 Anno Domini, 6:23:45 p.m. Coordinated Universal Time
English	Australia	en-AU	15/01/2020, 6:23:45 pm	Wednesday, 15 January 2020 Anno Domini, 6:23:45 pm Coordinated Universal Time
English	UK	en-GB	15/01/2020, 18:23:45	Wednesday, 15 January 2020 Anno Domini, 18:23:45 Coordinated Universal Time
Spanish	Spain	es-ES	15/1/2020 18:23:45	miércoles, 15 de enero de 2020 después de Cristo 18:23:45 (tiempo universal coordinado)
Spanish	Mexico	es-MX	15/1/2020 18:23:45	miércoles, 15 de enero de 2020 después de Cristo 18:23:45 hora universal coordinada
Spanish	Argentina	es-AR	15/1/2020 18:23:45	miércoles, 15 de enero de 2020 después de Cristo 18:23:45 hora universal coordinada
French	France	fr-FR	15/01/2020, 18:23:45	mercredi 15 janvier 2020 après Jésus-Christ, 18:23:45 Temps universel coordonné
Italian	Italy	it-IT	15/1/2020, 18:23:45	mercoledì 15 gennaio 2020 dopo Cristo, 18:23:45 Tempo coordinato universale
German	Germany	de-DE	15.1.2020, 18:23:45	Mittwoch, 15. Januar 2020 n. Chr., 18:23:45 Koordinierte Weltzeit
German	Austria	de-AT	15.1.2020, 18:23:45	Mittwoch, 15. Jänner 2020 n. Chr., 18:23:45 Koordinierte Weltzeit
Dutch	Netherlands	nl-NL	15-1-2020 18:23:45	woensdag 15 januari 2020 na Christus 18:23:45 gecoördineerde wereldtijd
Dutch	Belgium	nl-BE	15/1/2020 18:23:45	woensdag 15 januari 2020 na Christus 18:23:45 gecoördineerde wereldtijd

Language	Country	Code	Short Date	Long Date
Danish	Denmark	da-DK	15.1.2020 18.23.45	onsdag 15. januar 2020 e.Kr. 18.23.45 Koordineret universaltid
Norwegian	Norway	nb-NO	15.1.2020, 18:23:45	onsdag 15. januar 2020 etter Kristus, 18:23:45 koordinert universaltid
Portuguese	Brazil	pt-BR	15/01/2020 18:23:45	quarta-feira, 15 de janeiro de 2020 depois de Cristo 18:23:45 Horário Universal Coordenado
Portuguese	Portugal	pt-PT	15/01/2020, 18:23:45	quarta-feira, 15 de janeiro de 2020 depois de Cristo, 18:23:45 Hora Coordenada Universal
Russian	Russia	ru-RU	15.01.2020, 18:23:45	среда, 15 января 2020 г. от Рождества Христова, 18:23:45 Всемирное координированное время
Chinese	China	zh-CN	2020/1/15 下午6:23:45	公元2020年1月15日星期三 协调世界时 下午6:23:45
Chinese	Hong Kong	zh-HK	15/1/2020 下午6:23:45	公元2020年1月15日星期三 下午6:23:45 [世界標準時間]
Chinese	Taiwan	zh-TW	2020/1/15 下午6:23:45	西元2020年1月15日 星期三 下午6:23:45 [世界標準時間]
Japanese	Japan	ja-JP	2020/1/15 18:23:45	西曆2020年1月15日水曜日 18時23分45秒 協定世界時
Hindi	India	hi-IN	15/1/2020, 6:23:45 pm	बुधवार, 15 जनवरी 2020 ईसवी सन, 6:23:45 pm समन्वित वैश्विक समय

The Date used in the table is 2020-01-15T18:23:45.678Z.

The options are:

```

shortDate = {
    year: "numeric",
    month: "numeric",
    day: "numeric",

    hour: "numeric",
    minute: "numeric",
    second: "numeric"
};

longDate = {
    era: "long",
    year: "numeric",
    month: "long",
    day: "numeric",
    weekday: "long",
    hour: "numeric",
    minute: "numeric",
    second: "numeric",
    timeZoneName: "long"
};

```



## 8. Transliteration

Text can be transliterated, i.e. converted between writing systems to make it readable to the audience or to avoid characters not available in specific fonts. For the latter case further characters can also be simplified.

```
/* transliterate from other writing systems to Latin */
:root {
  -ro-text-replace: 'any' 'latn' transliterate;
}

/* avoid non-ASCII characters whenever possible */
:root {
  -ro-text-replace: 'any' 'latn' transliterate, 'any' 'ascii' transliterate;
}
```

Description	normal	'any' 'latn'	'any' 'ascii'	'de' 'ascii'	'any' 'latn' 'any' 'ascii'
<b>German</b>	Gänsefüßchen	Gänsefüßchen	Gansefusschen	Gaensefuesschen	Gansefusschen
<b>Russian</b>	русский язык	rususkij âzyk	русский язык	русский язык	rususkij azyk
<b>Greek</b>	Ελληνικά	Ellēniká	Ελληνικά	Ελληνικά	Ellenika
<b>Japanese</b>	日本語	rì běn yǔ	日本語	日本語	ri ben yu
<b>Math</b>	$6 \div 3 \times \frac{1}{4} = \frac{1}{2}$	$6 \div 3 \times \frac{1}{4} = \frac{1}{2}$	$6 / 3 * 1/4 = 1/2$	$6 / 3 * 1/4 = 1/2$	$6 / 3 * 1/4 = 1/2$
<b>Symbols</b>	© « ® »	© « ® »	(C) << (R) >>	(C) << (R) >>	(C) << (R) >>