

## Formatting faults

FOSI formatting faults occur when a document violates a formatting constraint defined in the FOSI or assumed by the formatting engine. Handling of formatting faults can be controlled with ACL **set** commands that begin with **fmtfault**. The allowable values for these commands are: **ignore**, **report**, **stopafterpass**, and **stopatonce**.

When a formatting fault's value exceeds the specified threshold, the selected action is performed (report, stop at the end of the formatting pass, or stop immediately). When a formatting fault's value does not exceed the threshold, the fault is not reported and no action is taken.

Fault messages are reported in the Formatting Messages window and in a formatting faults log file, `docname.ams`, located in the document's cache directory. Formatting faults that are ignored or suppressed based on a specified threshold value are written to the log file but are marked as suppressed.

**Table 99** summarizes formatting fault features, which are discussed in more detail below.

**Table 99** Formatting faults

Fault type	ACL fault name	Default handling	Threshold	
			Values	Default
Float	float	report	—	—
Graphic overset (horizontal)	graphicoverset	report	†	0pt
Hard keeps	hardkeeps	report	—	—
Header/footer overset	hdrftroverset	report	†	0pt
Line overset	lineoverset	report	†	0pt
Line underfull	lineunderfull	ignore	—	XREF
Overstretched text	overstretched	report	min	med
			med	
			max	
Page overset	pageoverset	report	†	0pt

†SIZE/ DISTANCE except the em unit of measurement is not allowed

*continued . . .*

Fault type	ACL fault name	Default handling	Threshold	
			Values	Default
Page underfull	pageunderfull	ignore	†	0pt
Soft keeps	softkeeps	report	1–6	1
Table overset (horizontal)	tablehorizoverset	report	†	0pt
Table overset (vertical, in table rows)	tablevertoverset	report	†	0pt

†SIZE/ DISTANCE except the em unit of measurement is not allowed

When a formatting fault occurs, it can be handled in one of the following four ways.

1. **Ignore** means do not to display the error in the Formatter Messages window or write it to the log file. All other statuses will cause the error to be reported both to the Formatter Messages window and the `.log` file.
2. **Report** means report the error in both the Formatter Messages window and the log file. Formatting will continue uninterrupted.
3. **Stopafterpass** means complete the current formatting pass but not do perform any additional passes. a blocking dialog is displayed at the end of the formatting pass to report that an error occurred and that more information is available in the `.log` file. In batch mode, Arbortext Editor exits with the formatting fault error code (7).
4. **Stopatonce** means to stop as soon as the error is detected, which means any subsequent errors are not reported. Like **stopafterpass**, **stopatonce** displays a blocking dialog. In batch mode, the fault is written to the `.log` file, a message is displayed in the shell window that the fault information can be found in the `.log` file, Arbortext Editor exits with the formatting fault error code (7).

ACL commands are used to control the threshold for a fault have a **fmtthresh** prefix. For example, **set fmtthreshfaultname**, where **faultname** is the ACL name for a specific fault.

The ACL **set** commands related to handling formatting faults and setting thresholds are discussed in the sections that follow.

## Float

A float fault occurs when:

- The float category's `pagetype` specification cannot be satisfied (XREF); or
- A float appears after its scope; or
- A float appears within a `keepfloatsout` area that prohibits the float

These conditions may happen to satisfy other constraints, such as maintaining float order or avoiding overfull pages.

**NOTE:** No threshold applies to the float fault type.

The `set fmtfloatfloat` command determines how a float formatting fault is handled when a document is formatted. The default is **report**. The default can be changed with `set fmtfloatfloat`. For example:

**ACL commands**

```
set fmtfloatfloat=ignore
set fmtfloatfloat=stopatonce
```

## Graphic horizontal overset

A graphic horizontal overset occurs when a graphic is wider than the current column width, taking into consideration any indents in effect. A graphic horizontal overset fault is ignored if the column width is overset by the threshold amount or less.

The `set fmtthreshgraphicoverset` is used to set the threshold for what is considered a horizontal graphic overset. The threshold is a `SIZE/DISTANCE` value, except the `em` unit of measurement is not allowed. For example:

**ACL commands**

```
set fmtthreshgraphicoverset=13pt
set fmtthreshgraphicoverset=2pi
set fmtthreshgraphicoverset=2.5mm
set fmtthreshgraphicoverset=1.4cm
set fmtthreshgraphicoverset=0.15in
```

When the threshold is exceeded, the `set fmtfaultgraphicoverset` setting is used. Its default is **report**. Examples:

**ACL commands**

```
set fmtfaultgraphicoverset=ignore
set fmtfaultgraphicoverset=stopafterpass
```

## Hard keeps

A hard keeps fault occurs when material to be kept is broken at a column, page, or line boundary in violation of the `keeps` scope setting. This happens when:

- soft keeps is not enabled and a keeps characteristic setting is violated; or
- soft keeps is enabled and a keeps characteristic value of 7 is violated.

**NOTE:** No threshold applies to the hard keeps formatting faults.

The `set fmfaulthardkeeps` command determines how a hard keeps fault is handled when a document is formatted. The default is `report`. Examples:

### ACL commands

```
set fmfaulthardkeeps=stopafterpas
set fmfaulthardkeeps=stopatonce
```

## Header/footer

A header/footer overset fault occurs when the depth of the header or footer depth specified in the `pagespec`.

The `set fmfthreshhdrftroverset` command specifies the amount of overset that will be tolerated. The threshold is a SIZE/DISTANCE value, except the `em` unit of measurement is not allowed. If the overset does not exceed the threshold, the overset is ignored. For example:

### ACL commands

```
set fmfthreshhdrftroverset=9pt
set fmfthreshhdrftroverset=12pi
set fmfthreshhdrftroverset=1.5mm
set fmfthreshhdrftroverset=0.25cm
set fmfthreshhdrftroverset=0.25in
```

`set fmfaulthdrftroverset` specifies how a header or footer overset is handled when a document is formatted. The default is `report`. Examples:

### ACL commands

```
set fmfaulthdrftroverset=ignore
set fmfaulthdrftroverset=stopafterpass
```

## Line overset

A line overset fault occurs when the material on a line is wider than the current column width, taking into consideration any indents in effect.

The `set fmtthreshlineoverset` command specifies the amount of overset that is acceptable. The threshold is a SIZE/DISTANCE value, except the em unit of measurement is not allowed. If the overset does not exceed the threshold, the overset is ignored. For example:

### ACL commands

```
set fmtthreshlineoverset=11pt
set fmtthreshlineoverset=1pi
set fmtthreshlineoverset=1.5mm
set fmtthreshlineoverset=1.11cm
set fmtthreshlineoverset=0.15in
```

The `set fmtfaultlineoverset` command determines a line overset formatting fault is handled when a document is formatted. The default is **report**. For example:

### ACL commands

```
set fmtfaultlineoverset=ignore
set fmtfaultlineoverset=stopafterpass
```

## Line underfull

A line underfull formatting fault occurs when the maximum width of the material on a line is less than the width of the column width, taking into consideration any indents in effect. This happens because there is no way to break lines in a paragraph to avoid any underfull lines, such as when a paragraph contains many long words and hyphenation is not used.

**NOTE:** No threshold applies to the line underfull fault type. However, the environment variable `APTFMTHBADNESS` can be set so underfull conditions less than the default are reported.

The `set fmtfaultlineunderfull` command specifies how underfull lines should be handled when a document is formatted. The default is **ignore**. Examples;

### ACL commands

```
set fmtfaultlineunderfull=report
set fmtfaultlineunderfull=stopafterpass
```

## Overstretched text

The overstretched text fault occurs with a short page or column that is not caused by a forced page or column break. A page or column is considered short when the depth of the material is less than the depth of the page or column by more than one, two, or three times the difference between the contents nominal and maximum values. The multiplier depends on the threshold parameter setting.

The **fmtthreshoverstretched** command sets the threshold for what is considered overstretched text. It can be set to **min**, **med**, and **max**. **min** means that any overstretched text should be considered a fault. **med** means that up to a medium amount of overstretch is not considered a fault. **max** means no overstretch is considered a fault. The default is **med**. For example:

### ACL commands

```
set fmtthreshoverstretched=min
set fmtthreshoverstretched=max
```

**set fmtfaultoverstretched** determines how overstretched text faults are handled when a document is formatted. The default is **report**. Examples:

### ACL commands

```
set fmtfaultoverstretched=ignore
set fmtfaultoverstretched=stopafterpass
```

## Page overset

A page overset fault occurs when the minimum depth of the material on the page exceeds the depth determined by the formatter for the current page.

**set fmtthrespageoverset** is used to set a threshold, so that if the overset does not exceed the threshold, the fault is ignored. The threshold is a SIZE/DISTANCE value, except the em unit of measurement is not allowed. The default is **0pt**. For example:

### ACL commands

```
set fmtthrespageoverset=6pt
set fmtthrespageoverset=1pi
set fmtthrespageoverset=1.5mm
set fmtthrespageoverset=0.1cm
set fmtthrespageoverset=0.12in
```

### TIP

To avoid publishing documents that are missing content because it overset the page, it is highly recommended that page overset faults not be set to be ignored.

**set `fmtfaultpageoverset`** determines how a page overset fault is handed when a document is formatted. The default is **report**. Examples:

**ACL commands**

```
set fmtfaultpageoverset=report
set fmtfaultpageoverset=stopatonce
```

## Page underfull

This fault occurs when on a page with a non-forced page break the nominal depth of the material on the page is less than the page goal determined by the formatter by more than three times the difference between the contents nominal and maximum values. The multiplier three can be controlled on a per-page basis by setting the `xvjstretch` characteristic in the page model.

**set `fmtthreshpageunderfull`** establishes the threshold for what is considered a pageunderfull formatting fault when a document is formatted. If the page is underfull by the threshold amount or less, the fault is ignored. The threshold is a `SIZE/DISTANCE` value, except the `em` unit of measurement is not allowed. The default is **0pt**. For example:

**ACL commands**

```
set fmtthreshpageunderfull=1pt
set fmtthreshpageunderfull=1pi
set fmtthreshpageunderfull=1.5mm
set fmtthreshpageunderfull=0.1cm
set fmtthreshpageunderfull=0.025in
```

The **set `fmtfaultpageunderfull`** command determines how a page underfull formatting fault is handled when a document is formatted. The default setting is **ignore**. For example:

**ACL commands**

```
set fmtfaultpageunderfull=report
set fmtfaultpageunderfull=stopafterpass
```

## Soft keeps

A soft keeps formatting fault occurs when soft keeps is enabled and a keeps characteristic whose keeps level is less than 7 is violated (that is, the material is broken across a column, page, or line in violation of the `keeps scope` setting). The threshold value is the level at and below which all faults should be ignored.

The **set fmtthreshsoftkeeps** command specifies the threshold for what is considered a soft keeps fault when a document is formatted. Valid values are integers 1 through 6. For example:

**ACL commands**

```
set fmtthreshsoftkeeps=2
set fmtthreshsoftkeeps=4
set fmtthreshsoftkeeps=6
```

**set fmtfaultsoftkeeps** determines how a soft keeps fault is handled. The default setting is **report**. Examples:

**ACL commands**

```
set fmtthreshsoftkeeps=2
set fmtthreshsoftkeeps=4
set fmtthreshsoftkeeps=6
```

These two commands report all faults at keeps levels 4 through 6:

**ACL commands**

```
set fmtfaultsoftkeeps=ignore
set fmtfaultsoftkeeps=stopatonce
```

## Table horizontal overset

A table horizontal overset occurs when a table is wider than the width of the current column, including any indents in effect.

The **set fmtfaulttablehorizoverset** command specifies a threshold such that if the column overset does not exceed the threshold, the fault is ignored. The threshold is a SIZE/DISTANCE value, except the em unit of measurement is not allowed. The default is **0pt**. For example:

**ACL commands**

```
set fmtthreshtablehorizoverset=12pt
set fmtthreshtablehorizoverset=1pi
set fmtthreshtablehorizoverset=2.5mm
set fmtthreshtablehorizoverset=0.1cm
set fmtthreshtablehorizoverset=0.25in
```

**set fmtthreshtablehorizoverset** determines how a table horizontal overset fault is handled when a document is formatted. The default setting is **report**. Examples:

**ACL commands**

```
set fmtfaulttablehorizoverset=ignore  
set fmtfaulttablehorizoverset=stopatonce
```

## Table vertical overset

A table vertical overset formatting fault occurs when the minimum height of the material in a cell of a fixed-height table row exceeds the specified height.

**set fmtfaulttablevertoverset** establishes the threshold such that if the table row is overset by the threshold amount or less, the fault is ignored. The threshold is a SIZE/DISTANCE value, except the em unit of measurement is not allowed. The default is **0pt**. For example:

**ACL commands**

```
set fmtthreshtablevertoverset=5pt  
set fmtthreshtablevertoverset=1pi  
set fmtthreshtablevertoverset=1.5mm  
set fmtthreshtablevertoverset=0.4cm  
set fmtthreshtablevertoverset=0.1in
```

The **set fmtthreshtablevertoverset** command determines how a table vertical overset fault is handled when a document is formatted. The default is **report**. For example:

**ACL commands**

```
set fmtfaulttablevertoverset=ignore  
set fmtfaulttablevertoverset=stopafterpass
```