The Copypage Operator

Adobe® Developers Association

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LanguageLevel 3
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Preface

This Document

This is the original release for The Copypage Operator, a document that describes how the semantics of the copypage operator have been modified for LanguageLevel 3, and explains the likely impact, if any, the modifications will have on applications that currently use the copypage operator.

Intended Audience

This document is written for software applications developers who are interested in learning about the modifications to the copypage operator, or who may need to make changes to applications that generate PostScript® code and use copypage.

It is assumed that the developer is already familiar with how the copypage operator worked in previous levels of the PostScript language.

Organization of This Document

Section 1, “The Copypage Operator,” covers some background on the copypage operator and how it has been modified in LanguageLevel 3.

Related Publications


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1 The Copypage Operator

1.1 An Overview of the copypage Operator

The `copypage` operator was originally designed to transmit one copy of the current page to the current PostScript printer without erasing the current page or changing the graphics state in any way.

The `copypage` operator was intended primarily as a debugging aid or as a means of printing successive pages with incrementally accumulated contents. But using `copypage` as a substitute for `showpage` would often degrade the performance of some PostScript printers.

To print multiple copies of the same page (without variable data), it is recommended that the `copies` implicit parameter of `showpage` or the `NumCopies` page device parameter be used.

To print one or more pages that contain variable data, it is recommended that PostScript language forms be used.

*Note* For more information on the `copypage`, `showpage`, `copies`, or `NumCopies` operators, or for more information on PostScript forms, see the PostScript Language Reference Manual, Second Edition.

1.2 Language Level 3 Changes to the copypage Operator

There are several reasons why the `copypage` operator was changed in Language Level 3:

- Created a great deal of overhead in the design of PS interpreters?
- Inefficient random page access in PS interpreters?
- There is no equivalent in PDF. Pages in PDF have to be independent.
The `copypage` operator now has the same behavior as the `showpage` operator, except that it does not perform an implicit `initgraphics` operation. In particular, the integer argument to the `EndPage` page device procedure indicating the circumstances under which it (`EndPage`) is being called will be 0. This value indicates a `showpage` operation.


The consequences of this change to `copypage` are as follows:

- The code sequence `copypage erasepage` will continue to work as before. Various applications have been observed to do this; the behavior of these applications should not change.

- The code sequence `n {copypage} repeat erasepage`, as a method to produce `n` copies of the page, will instead produce one copy followed by `(n – 1)` blank pages.

- The `copypage` operator should no longer be used as a means to implement forms. The first page will print correctly, showing both fixed and variable data. Subsequent pages, however, will show only the variable data, the fixed data having been erased.

**Note** Because of the changes to the `copypage` operator, certain sections of Technical Note #5144 no longer apply. Specifically, Section 3, “Emulating 1-page forms in a Level 1 environment,” will mostly be affected.

Because of the modifications to the copypage operator, its use is no longer recommended.
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