

ghostpdl / doc / News.html 📄

 **chris-liddell** Brings master up to date with gs10.04.0 release branch  409b4c4 · 2 months ago ⌚

154 lines (142 loc) · 8.17 KB

Code Blame

Raw 📄 ⬇️ ⌕

```
1      <!---START EDITING HERE-->
2
3      <h1>Recent Changes in Ghostscript</h1>
4
5      <!-- [1.0 end visible header] ===== -->
6
7      <!-- [2.0 begin contents] ===== -->
8      <h2><a name="Version10.04.0"></a>Version 10.04.0 (2024-09-18)</h2>
9      <p>Highlights in this release include:
10     <ul>
11     </li>
12     <li>
13     <p>This release addresses CVEs: CVE-2024-46951, CVE-2024-46952, CVE-2024-46953, CVE-2024-46954,
14     </li>
15     <li>
16     <p><b>IMPORTANT:</b> In this release (10.04.0) we have be added protection for
17     device selection from PostScript input. This will mean that, by default, only the device specifi
18     on the command line will be permitted. Similar to the file permissions, there will be a &quot;--
19     allowing a comma separation list of allowed devices. This will also take a single wildcard &quot;
20     <p>Any application which relies on allowing PostScript to change devices during a job will have
21     to deal with this change.
22     <p>The exception is &quot;nulldevice&quot;; switching to that requires no special action.
23     </li>
24     <li>
25     <p>Our efforts in code hygiene and maintainability continue.
26     </li>
27     <li>
28     <p>The usual round of bug fixes, compatibility changes, and incremental improvements.
29     </li>
30     <li>
31     <p>(9.53.0) We have added the capability to build with the Tesseract OCR engine. In such
32     a build, new devices are available (pdfocr8/pdfocr24/pdfocr32) which render the
33     output files to an image, PDF that image and output the image "merged" as a
34     PDF file, with the OCR generated text information included as "invisible" text
35     (in PDF terms, text rendering mode 3).
36     <p>Mainly due to time constraints, we only support including Tesseract from
37     a single location, but we do support linking to Tesseract from multiple locations.
```

37 source included in our release packages, and not linking to Lesseract/Leptonica
38 shared libraries. Whether we add this capability will be largely dependent on
39 community demand for the feature.

40 <p>See Enabling OCR for more details.
41
42

43 <p>For a list of open issues, or to report problems,
44 please visit bugs.ghostscript.com.

45 <h3>Incompatible changes</h3>
46 <h4>Included below are incompatible changes from recent releases (the
47 specific release in question is listed in parentheses). We include these,
48 for now, as we are aware that not everyone upgrades with every release.</h4>
49
50
51 <p>(10.03.1) Almost all the "internal" PostScript procedures defined
52 during the interpreter startup are now "executeonly";, further reducing
53 the attack surface of the interpreter.
54 <p>The nature of these procedures means there should be no impact for legitimate
55 usage, but it is possible it will impact uses which abuse the previous accessibility
56 (even for legitimate reasons). Such cases may now require "DELAYBIND";,
57 See DELAYBIND
58
59
60 <p>(10.03.1) The "makeimagedevice" non-standard operator has been removed. It allowed
61 low level access to the graphics library in a way that was, essentially impossible to secure.
62
63
64 <p>(10.03.1) The "putdeviceprops";, "getdeviceprops";, "finddevice";,
65 "copydevice";, "findprotodevice"; non-standard operators have all been removed
66 They provided functionality that is either accessible through standard operators, or should not
67 be used by user PostScript.
68
69
70 <p>(10.03.1) The process of "tidying" the PostScript namespace should have removed
71 only non-standard and undocumented operators. Nevertheless, it is possible that
72 any integrations or utilities that rely on those non-standard and undocumented
73 operators may stop working or may change behaviour.
74 <p>If you encounter such a case, please contact us (Disc
75 #ghostscript IRC channel,
76 or the gs-devel mailing list would be best), and we'll work with you to either find an
77 alternative solution or return the previous functionality, if there is genuinely no other
78 option.
79
80
81 <p>(9.55.0) Changes to the <code>device API</code>. This will affect developers and maintainers
82 Ghostscript devices. Firstly, and most importantly, the way device-specific "procs" are specifie
83 been rewritten to make it (we think!) clearer and less confusing. See
84 The Interface between Ghostscript and D
85 <a href="https://www.notion.so/artifexsoftware/The-Great-Device-Rework-Of-2021-94092fe1395d4a088
86 for more details.
87
88
89 <p>(9.55.0) The command line options <code>-sGraphicsICCProfile=___</code>, <code>-dGraphicsInte

```
90 <code>-dGraphicsKPreserve=#</code> have been changed to <code>-sVectorICCPProfile=___</code>, <co
91 <code>-dVectorKPreserve=#</code>.
92 </li>
93 <li>
94 <p>(9.53.0) As of 9.53.0, we have (re-)introduced the patch level to the version number,
95 this helps facilitate a revised policy on handling security-related issues.
96 <p><strong>Note for GSView Users: </strong>The patch level addition breaks GSView 5 (it is
97 hardcoded to check for versions <code>704-999</code>. It is possible, but not guaranteed that
98 a GSView update might be forthcoming to resolve this.
99 </li>
100 <li>
101 <p>(9.52) <code>-dALLOWPSTRANSOPARENCY</code>: The transparency compositor (and related
102 features), whilst we are improving it, remains sensitive to being driven correctly, and
103 incorrect use can have unexpected/undefined results. Hence, as part of improving security,
104 we limited access to these operators, originally using the <code>-dSAFER</code> feature.
105 As we made "SAFER" the default mode, that became unacceptable, hence the new option
106 <code>-dALLOWPSTRANSOPARENCY</code> which enables access to the operators.
107 </li>
108 <li>
109 <p>(9.50) There are a couple of subtle incompatibilities between the old and new SAFER
110 implementations. Firstly, as mentioned in the 9.50 release notes, SAFER now leaves
111 standard PostScript functionality unchanged (except for the file access limitations).
112 Secondly, the interaction with <code>save</code>&sol;<code>restore</code> operations
113 has changed. See <a href="https://ghostscript.readthedocs.io/Use.htm#Safer">SAFER</a>.
114 <p><strong>Important Note for Windows Users</strong>:
115 <br>
116 The file/path pattern matching is case-sensitive, even on Windows. This is a
117 change in behaviour compared to the old code which, on Windows, was case
118 <i>in</i>sensitive. This is in recognition of changes in Windows behaviour,
119 in that it now supports (although does not enforce) case sensitivity.
120 </li>
121 </ul>
122 <h3><a name="10.04.0_changelog"></a>Changelog</h3>
123 <p>From 9.55.0 onwards, in recognition of how unwieldy very large HTML files can become
124 (History9.html had reached 8.1Mb!), we intend to only include the summary highlights (above).
125 <p>For anyone wanting the full details of the changes in
126 a release, we ask them to look at the history in our public git repository:
127 <a href="https://git.ghostscript.com/?p=ghostpdl.git;a=shortlog;h=refs/tags/ghostpdl-10.04.0">gh
128 <p>If this change does not draw negative feedback, History?.htm file(s) will be removed from the
129
130 <!-- [2.0 end contents] ===== -->
131
132 <!-- [3.0 begin visible trailer] ===== -->
133 <hr>
134
135 <p>
136 <small>Copyright &copy; 2005-2024 Artifex Software, Inc.
137 All rights reserved.</small>
138
139 <p>
140 This software is provided AS-IS with no warranty, either express or
141 implied.
142
```

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146 or contact Artifex Software, Inc., 39 Mesa Street, Suite 108A, San Francisco, CA 94129, USA,
147
148 <p>
149 <small>Ghostscript version 10.04.0, 18 September 2024
150
151 <!-- [3.0 end visible trailer] ===== -->
152
153
154 <!--FINISH EDITING HERE-->
```