



# DOCUMENT MARKING & PRINTING FOR PAPER-BASED AND PDF WORKFLOWS

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*White Paper*

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## Purpose and Scope

This white paper is intended to explore the process of secure and efficient paper-based document marking and printing using Microsoft Word. At the same time it will explore the savings that can be realized by implementing an automated solution. It is also intended to provide information that will assist those who are responsible for generating paper-based workflows as well as those responsible for corporate accountability, compliance and risk management.

## Introduction

For years, experts have predicted a move toward a paperless office. To that end, the use of electronic documents has increased substantially in recent years to the extent that paper consumption has plateaued. However, paper consumption steadily increased until 2008.<sup>1</sup> According to an IDC study in 2005, more than half of the information that companies exchanged with their customers was in the form of paper documents. Estimates predicted increases of 20% per year in paper consumption in spite of green initiatives.<sup>2</sup> Further confirmation of this trend is the earnings of Iron Mountain (IRM-NYSE) [Information Protection and Storage Services] that have more than doubled in the last five years. Despite productivity advances, the duplication and assembly of smaller-quantity print-

jobs (< 25 pgs) is frequently accomplished by printing one copy and then using a shared copy machine to create additional copies. Information workers involved in document-based workflows consume up to an estimated two hours per week using copy facilities. Much of that time is unnecessary and unproductive as well as unrelated to the primary job function. The average administrative assistant salary for 2007 was \$36,882/yr. Hewlett-Packard (HP-NYSE) assumes that an information worker costs \$60,000 per year including benefits<sup>3</sup>. With the sophistication of word processing programs, it is much more common for managers and executives to create their own documents independent of administrative support. Additionally, the creation of multiple copies of a document requires identification which is usually in the form of self-inking stamps that are manually applied to each copy. This paper briefly explores the efficacy of using a copy machine for duplication vs. a local or shared network laser printer and the method(s) and inefficiency of the current document marking processes. It also suggests an immediately viable solution with extraordinary ROI.

## Technical Discussion

Microsoft Windows® and Word are estimated to be on 92-97% of the world's business computers. This paper bases its assumptions on those platforms. Without using an automated document marking program, the methods of printed and PDF document

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<sup>1</sup> "U.S. Media Prints Market Forecast: 2004-2009", published by InfoTrends December 1, 2005

<sup>2</sup> "The Green Print for Paper Saving," Louella Fernandes <http://www.it-director.com/enterprise/content.php?cid=9523>

<sup>3</sup> "HP Spotlight on Productivity," 3 in Series of 4, Aug. 2007, <http://www.hp.com/large/lpg>

marking are mostly a time-consuming manual process:

- (a) using a self-inking stamp; or
- (b) using the graphics functions of Word;
- (c) using a copy machine to manually insert, format, print and remove each word or phrase needed for identification, e.g., “file copy,” “client copy,” “confidential,” etc. or;
- (d) converting the document to PDF and repeating the marking functions (stamping) with far less latitude within the PDF environment.

In the seemingly up-to-date office printing environment of word-processor graphics and PDF files, document marking is still a mostly-manual function. If documents are printed by a local printer or network printer, each of the words or phrases must be user-formatted, positioned, inserted and removed for each separately marked document. If not, printer-based graphics must be manually designated (with little formatting capability) at a central copy machine by user-designation with little, if any, ability to customize the marking.

Most paper document marking is created as a “visible watermark” or shaded image through which the text of the document can be seen or as text in a header or footer. In addition to the inefficiency, the “watermark” form of identification has an inherent security risk in that the shaded (grayscale) watermark can be “dropped out” with today’s digital copiers or scanners using a simple contrast adjustment. While IT departments are under continuous

pressure to safeguard information, paper document integrity at the source is frequently generated without initial identification. Moreover, if the marking is done with rubber stamps or unstructured graphics, there is no standardization. The “header/footer” identification leaves the body of the document unprotected. PDF provides an “envelope” of protection but does not do so at the time of document creation or distribution in paper form. Thus, there is little if any word processing efficiency for multiple-copy printing and graphical marking of paper or PDF documents.

## The Document Marking Process

Ideally, smaller print projects that require multiple copies would be more efficiently produced without the information workers having to walk to copiers for document duplication. The shared network printer reduces some of this cost. However, this daily process is estimated to consume approximately 2 hours per week per worker.<sup>4</sup> Productivity losses caused by workers visiting a central copy machine or going to a shared printer and, in most cases, manually marking the duplicated documents, can be avoided, in many instances, with Enhancement Software’s automated document marking and printing add-in for Microsoft Word. Additionally, the standardization and consistency of document identification and protection cannot be overstated. If the worker has the ability to automate the process as well as create any custom worded identification, his/her pro-

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<sup>4</sup> HP Spotlight on Productivity,” 3 in Series of 4, Aug. 2007, <http://www.hp.com/large/ipg>

ductivity is further enhanced along with the enterprise's document integrity is compromised and enterprise's document integrity is compromised and use. Moreover, the printed document, with automation, is protected **when printed** in the shared environment— likewise for the PDF when created from Word.

Many printed documents are not properly or sufficiently identified due to the protracted manual process that is required (i.e., create/insert marking, format, print, remove marking) that multiple copies require. Further, there is risk that the content could be used in an unintended manner. Despite this, workers are inclined to print documents that are not sufficiently identified or protected (e.g., not marked or only identified on the first page, thus

leaving the document unprotected.) With watermarks being easily removed, a “copy” can easily become “original.” Such unintended use of a document raises numerous enterprise policy as well as regulatory compliance issues.

However, *non-contrast sensitive* marking (hollow/outline) embedded in the text of the document effectively remedies this problem. Similarly, many workers use a graphic signature on the “original” document. If there are copies required, the document needs to be printed a second time—without the signature—indicating that the original was signed. Without automation, this process, like manual marking, costs time and money and it not efficient for paper-based workflows.

## Labor Costs of Document Duplication & Marking

It is estimated that the average time spent walking to a copy machine, duplicating a small document, stamping, waiting, socializing and the like is 10-12 minutes. Using the *Int'l Assoc. of Administrative Professionals 2007* figures<sup>5</sup> together with *HP*<sup>4</sup> figures results in the following annual costs of just one eight-minute trip per day to a copy machine:

Costs of Information Workers	
HP/IDC 2007 Survey <sup>4</sup> – Estimates of benefits and salary:	\$60,000/yr; \$28.85 per hour for knowledge workers

<sup>4</sup> HP Spotlight on Productivity," 3 in Series of 4, Aug. 2007, <http://www.hp.com/large/ipg>

<sup>5</sup> Int'l. Assoc. of Admin. Professionals, [http://www.iaap-hq.org/researchtrends/salaries\\_2007.htm](http://www.iaap-hq.org/researchtrends/salaries_2007.htm)

<b>Int'l Assoc. of Admin. Professionals<sup>5</sup> – 2007 Salary Survey:</b>	<b>\$36,882/yr; \$16.21 per hour for administrative assistants starting salaries</b>
<b>Estimated annual labor costs of <u>one eight (8) minute trip</u> per day to a copy machine:</b>	<b>HP Figures:           \$ 961.30 per year</b> <b>IAAP Figures:       \$ 540.20 per year</b>

Costs of Information Workers

It is not difficult to see how these costs can substantially escalate in high-volume paper-based workflow environments. In those circumstances (or with executives handling their own document production which is becoming a more frequent event,) the lack of marking-process automation becomes an even greater expense.

### Why StampIt<sup>®</sup> for Microsoft<sup>®</sup> Word-generated Documents

Many MS Word functions can be automated with Word's VBA macro language. However, the automation of the functions that are required to efficiently perform these processes require far more than simple keystroke recording. As such, they are beyond most information workers' and indeed, most programmers' skill sets. Some of the features that are necessary for effective automation of the document marking process are:

<b>Necessary Document-Marking Features for Automation</b>	
<ul style="list-style-type: none"> <li>• <b>Graphical User Interface</b></li> <li>• <b>Multiple copy marking routines</b></li> <li>• <b>Image creation ability</b></li> <li>• <b>Document marking and printing control at the page-level</b></li> <li>• <b>Document page analysis before marking</b></li> <li>• <b>Non-contrast sensitive marking</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>User-determined Image placement and form</b></li> <li>• <b>Adjustable images through GUI</b></li> <li>• <b>Image/document preview</b></li> <li>• <b>User designated "groups" of images for multiple copies</b></li> <li>• <b>Complete Documentation</b></li> </ul>

Necessary Automation Features 1

Alternatively, the integration of an economic and established third-party add-in to MS Word will be more effective, productive and efficient. And, it will require substantially less, if any, on-going IT support. Enhancement Software's patent-pending StampIt<sup>®</sup> for Word brings consistency with automation and integration of that efficiency

to this daily manual process. StampIt provides a form of marking and brings previously unavailable automation to paper-based workflows.

Because StampIt is able to print multiple copies of the same document — with different stamps on each copy — all in one print session, it can be used to eliminate lower-volume copy machine use. Its other features further contribute to its process efficiency — all for less than the per-user-cost of a self-inking stamp.

StampIt's combination with Word is in-line and transparent. Moreover, StampIt is customizable at the user and at the enterprise level with little cost of deployment. With total cost of ownership (TCO) being recovered, on average, in less than a month, the enterprise deployment cost and benefit is immediately quantifiable. Further information and evaluation can be obtained at [www.stampitnet.com](http://www.stampitnet.com).

## Conclusion

The maintenance of paper-document integrity is one of the weakest links in document security. While there are numerous solutions for controlling the content of electronic documents, there are none like StampIt for paper-based documents or Word-created PDFs. Efficient and user-friendly document marking processes are essential to maintaining enterprise and regulatory content management and integrity. Safeguarding information content and compliance issues require efficient, time-saving methods of document marking. Enhancement Software's StampIt® (pat. pending) provides a total solution to this long overdue "manual" process with complete automation and ease of use to information workers and executives alike — whether paper or PDF.

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To learn more about StampIt please contact [sales.stampit@stampitnet.com](mailto:sales.stampit@stampitnet.com) or visit the StampIt website at [www.stampitnet.com](http://www.stampitnet.com)

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