AccuRead OCR

Administrator's Guide

April 2015

www.lexmark.com

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Overview

AccuRead OCR lets you use optical character recognition (OCR) in your multifunction product (MFP) to digitize documents, resulting in the following benefits:

- Improved document management by using the search and edit functions
- Increased productivity
- Fewer errors
- Faster process time
- Use of emerging technologies

Use the application to create a searchable or editable file from hard-copy documents. Compared with the traditional desktop OCR solution, the AccuRead OCR combines the scan and OCR steps into a single process. The application does not require you to install TWAIN or Image and Scanner Interface Specification (ISIS) drivers or adjust scan targets.

Note: The scan resolution of OCR is locked at 300 dpi to improve recognition results. Extensive testing shows that scanning at 300 dpi produced a significantly higher accuracy rate than scanning at lower resolutions. No improvements were found when scanning at resolutions higher than 300 dpi.

System requirements

- 4.3-, 7-, or 10-inch MFP with hard disk
- AccuRead OCR license
- A minimum of 512MB RAM

Supported applications

- **AccuRead Automate**—Scan and classify documents, extract content from fields, and then send them to a network or e-mail destination.
- **Scan Profile**—Scan a document to a computer.
- **Scan to USB**—Scan a document to a flash drive.
- **E-mail**—Scan a document, and then send it to an e-mail address.
- **FTP**—Scan a document directly to a File Transfer Protocol (FTP) server.
- **Scan to Network and Scan to Network Premium**—Scan a document, and then send it to a network folder.
- **Solution Composer**—Build custom workflow solutions for MFPs running the Solution Composer Agent application.

Note: For more information, see the documentation for the application.

Supported formats and languages

Output file formats

- **Searchable portable document format (PDF)**—A single file with multiple pages, viewable with a PDF reader
- **Text (TXT)**—A simple text document that supports limited formatting options

- **Rich text format (RTF)**—A text document that supports text file formatting and images within the text

  Note: This option is available only in some applications. For more information, see the documentation for the application.

Recognized languages

- Danish
- Dutch
- English
- Finnish
- French
- German
- Hungarian
- Italian
- Norwegian
- Polish
- Portuguese
- Spanish
- Swedish

OCR performance

AccuRead OCR performance is measured as the time it takes to scan a document until you receive the resulting digital output.

Lexmark reviewed test suites created by standard organizations such as the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC), and then selected ISO/IEC 24735. Using this suite, testing was performed for black-and-white and color scans on an MX811 MFP with 1GB base memory and an installed hard disk.

Sample images included in the test suite

Color Tutorial Topics

What is encoded 'in' image code values?
...Image state explained

When to encode for print?
...Early binding vs. late binding workflows

Why doesn't "perfect" math always yield a usable profile or desirable imaging result?
...Color processing computational quality

How are white point, black point, and gamut extent rendered or re-rendered?
...Essentials of color management

Color preference vs. color matching?
...Building rendering intent transforms

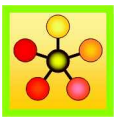
Re-rendering to another output?
...Device to device profile construction for interoperability

Understand how to take and preserve great photos!

Give and take:

"From the trenches" expert user Q&A:
Color managed use case examples from creative and prepress workflows
Audience recommendations on future directions for color management

Wine & Cheese Networking Event:
Products and Applications ⊠ Industry Color Management Demonstrations



Ms. Jane Smith
999 Standards Way
Cooperativeville, UN 00000

Mr. K.D. Sang
333 Good Fortune Avenue
Exploration Point, UN 11111

Dear Mr. Sang,

International Standards and their development process support:

- facilitation of global trade,
- improvement of quality, safety security, environmental and consumer protection, as well as the rational use of natural resources,
- global dissemination of technologies and good practices,

all if which contribute to economic and social progress.

Through the network and collaboration of national member bodies, international liaisons, industry consortia, and dedicated experts, the international standards bodies constitute a leading platform for the production of global, market relevant international standards.

The consensus-building mechanisms employed in the development of these international standards are recognized and relied upon by industry, public authorities, consumers, and other stakeholders, thus helping to accomplish the aim of "one standard, one test, and one conformity assessment procedure accepted everywhere."

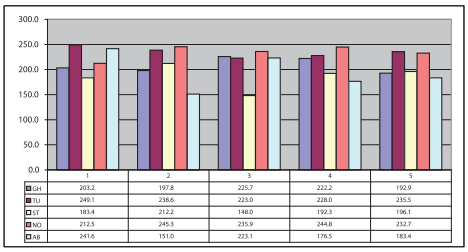
In this way, international standards organizations and their standards products contribute to a more efficient and sustainable world economy.

Sincerely,

Jane Smith

Summary Sheet Version 3.2
Intermediate Results
Final Report finished by time of final reporting.

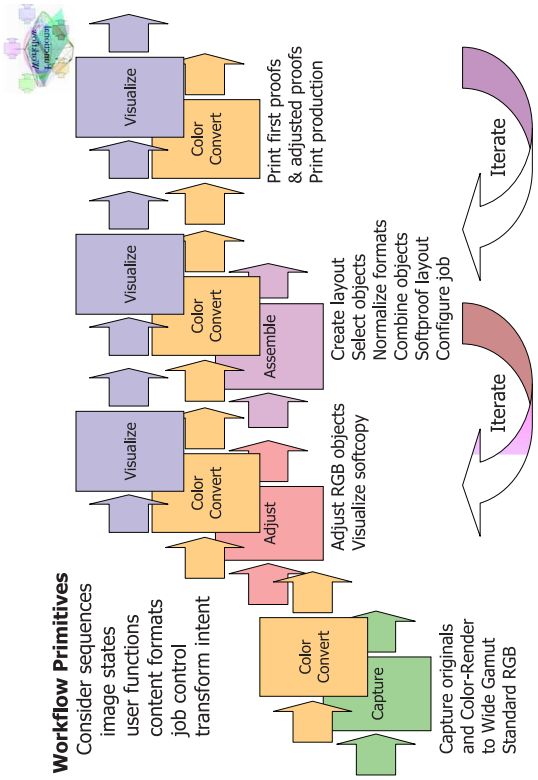
	EU	NA/SA	LA	Asia	AF/AU	EUE	NW	SW	ME	SE	MW	IST
First	99.0	17.6	51.9	112.2	142.9	10.4	199.1	6.6	173.0	178.0	153.4	124.5
Second	153.2	147.8	126.6	143.6	121.4	138.4	50.9	188.6	139.0	45.5	32.3	133.4
	Y	M	T	Z	O	I	R	Q	L	C	P	G
Third	32.5	57.3	175.7	91.4	84.0	56.6	163.1	67.5	85.4	53.5	185.5	29.0
Fourth	46.7	93.7	24.2	172.2	47.9	132.6	26.7	128.9	163.1	103.9	162.3	55.6
Estimate:	203.2	197.8	225.7	222.2	192.9	188.4	249.1	238.6	223.0	228.0	235.5	183.4



	EU	NA/SA	LA	Asia	AF/AU	EUE	NW	SW	ME	SE	MW	IST
Ein	158.5	98.0	84.8	146.1	186.0	114.9	20.9	168.6	155.8	174.7	191.6	35.0
	P	G	T	O	Z	I	R	Q	L	C	Y	M
Zwei	88.1	12.1	69.5	119.6	99.2	162.5	90.6	106.2	194.8	79.6	160.5	31.0
Drie	79.7	6.0	93.8	13.6	178.5	33.5	195.3	32.6	75.6	136.3	43.2	15.2
	I	R	O	T	Z	P	G	C	L	Q	M	Y
Funf	162.2	67.9	142.3	117.5	31.1	73.1	156.0	38.8	47.4	182.7	25.9	74.6
Vier	34.5	79.3	44.4	144.7	64.5	132.4	85.5	185.9	117.7	117.7	22.1	101.0
Estimate:	212.2	148.0	192.3	196.1	236.0	212.5	245.3	235.9	244.8	232.7	241.6	151.0

	EU	NA/SA	LA	Asia	AF/AU	EUE	NW	SW	ME	SE	MW	IST
	56.3	196.4	194.7	590.1	287.5	189.4	5.0	186.1	360.9	254.0	528.6	396.0
Total	415.4	345.8	418.0	418.3	428.8	400.9	494.4	474.5	467.8	460.7	477.1	334.4

Last Update: April 2006
# of Regions: 11.0



The scanning test conditions are as follows:

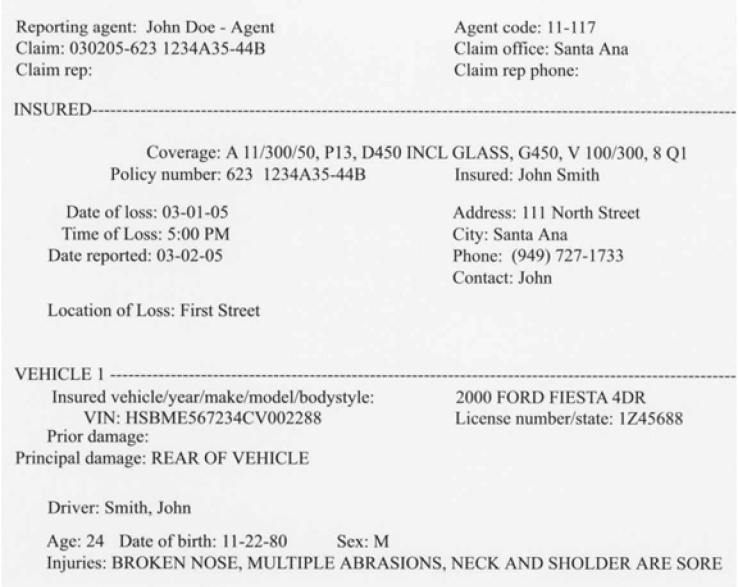
- All scans used 1-page, 10-page, and 25-page documents.
- Scans were repeated multiple times to ensure reproducibility.
- Black-and-white scans were set to grayscale.
- Settings for each scan included the automatic document feeder, one-sided printing, letter, and mixed text/photo type.
- Scan to USB was used with the default settings to send the files to a flash drive.

Average test results

Scan type	Performance results
Black-and-white scan	4–6 seconds per page
Color scan	7–10 seconds per page

Sample documents

AccuRead OCR works best on documents with high contrast between the text and the background.



Reporting agent: John Doe - Agent
Agent code: 11-117
Claim: 030205-623 1234A35-44B
Claim office: Santa Ana
Claim rep:
Claim rep phone:

INSURED----------

Coverage: A 11/300/50, P13, D450 INCL GLASS, G450, V 100/300, 8 Q1
Policy number: 623 1234A35-44B
Insured: John Smith

Date of loss: 03-01-05
Address: 111 North Street
Time of Loss: 5:00 PM
City: Santa Ana
Date reported: 03-02-05
Phone: (949) 727-1733
Contact: John

Location of Loss: First Street

VEHICLE 1 ----------

Insured vehicle/year/make/model/bodystyle:
2000 FORD FIESTA 4DR
VIN: HSBME567234CV002288
License number/state: 1Z45688
Prior damage:
Principal damage: REAR OF VEHICLE

Driver: Smith, John

Age: 24 Date of birth: 11-22-80 Sex: M
Injuries: BROKEN NOSE, MULTIPLE ABRASIONS, NECK AND SHOLDER ARE SORE

Item	Units	Description
1	1	**Measurement device *q/m-meter*** S/N #137 081 with automatic control of the airflow incl. software for Windows XP/7 and USB interface **net weight**: 25 kg ***Tariff code:*** *902780110*
2	1	**Soft blow off cell** for *q/m-meter* **net weight**: 0,1 kg ***Tariff code:*** *902780110*
3	1	***Mobile cage*** to sample from surfaces especially for toner. New development for testing without charge **net weight**: 1 kg ***Tariff code:*** *902780110*

All Prices are in : **USD**	**Subtotal :**	**7,960.00**
Remit To: CORPORATION COLLECTIONS CENTER DRIVE CHICAGO IL 60693 UNITED STATES	**Tax:**	**349.24**
	Total Invoice Amount:	**8,309.24**

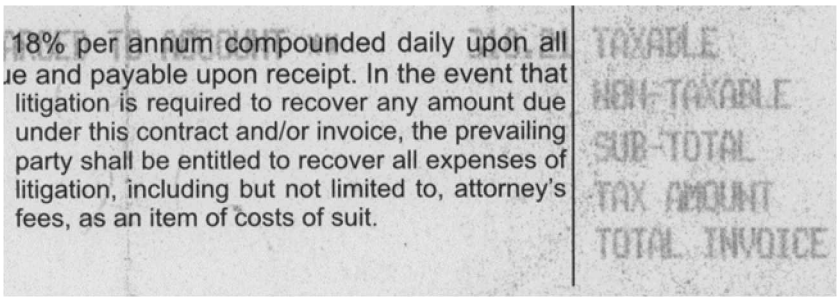
Documents with low contrast between the text and the background or that contain both light and dark text require more advanced processing. OCR accuracy can be improved by adjusting the scan settings or by using a server-based OCR solution.

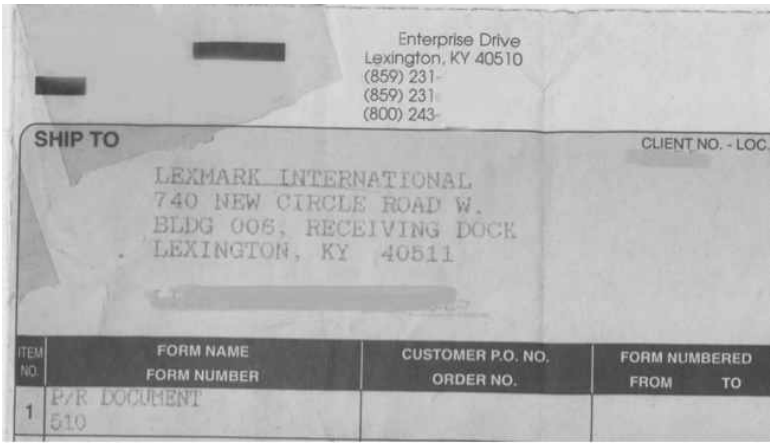
Accounts Payable
PO Box
Lexington KY

USA

DATE	ACCOUNT No.	INTERNAL ORDER No.
03.07.12		MA1696

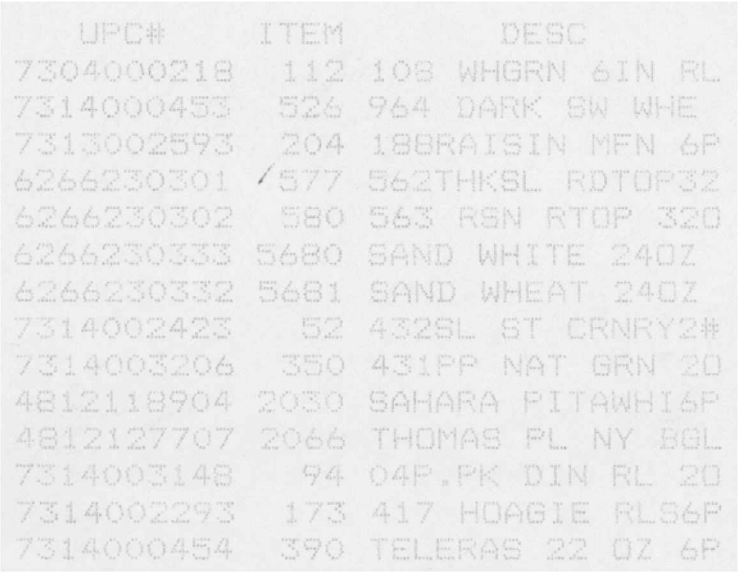
ITEM	STOCK NUMBER/DESCRIPTION
1	Doctor Blade Scrap May 2012 Comm. Code: Net Unit Wt: Kg

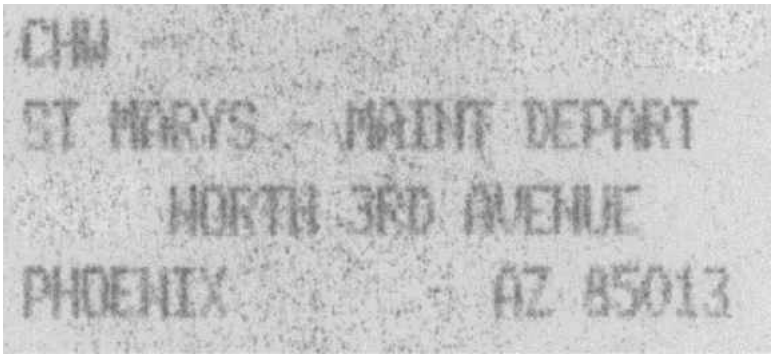




Documents that are not ideal for either AccuRead OCR or server-based OCR include the following:

- Images with significant noise that is similar in color to the text
- Images with dark text on a dark background
- Light images with dot-matrix characters




CHW
ST MARYS - MAINT DEPART
NORTH 3RD AVENUE
PHOENIX AZ 85013

Configuring the application

Configuring the OCR settings

Note: The procedures may vary depending on the supported application.

1. Open a Web browser, and then type the printer IP address.

   Note: Locate the IP address on the printer home screen.

2. From the Embedded Web Server, click **Settings** > **OCR Settings**.
3. Adjust the scan options.
   - **Auto Rotate**—Automatically rotate scanned documents to the proper orientation.
   - **Despeckle**—Remove small defects or specks on the resulting images for OCR processing. This option does not change the output of the scanned document.
   - **Inverse Detection**—Improve recognition of white text on black background.
   - **Auto Contrast Enhance**—Improve recognition of documents with low contrast, such as gray text on shaded background. This option does not change the output of the scanned document.
4. Click **Recognized Languages** to enable support for other languages.
5. Click **Submit**.

Frequently asked questions

Can AccuRead OCR read handwritten text?

No, the application does not support intelligent character recognition (ICR), which is required for handwriting recognition.

What type of documents can be used with AccuRead OCR?

AccuRead OCR can read printed documents that have a high contrast between the text and the background. For more information, see “Sample documents” on page 6.

What is the maximum paper size supported by AccuRead OCR?

A3 is the maximum paper size supported by the application. When scanning documents larger than A4, more memory may be required.

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April 2015

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