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1. **WELCOME TO AUTOMATA PRO**

Automata Pro is an enterprise class photo enhancement and image editing workflow automation software.

SoftColor Automata Pro is a tool for color correction, image editing and color management workflow automation. Automata Pro loads new and changed files from input folder and process and save them automatically to output folder. You can create multiple workflows with different input / output folder combinations.
Automata uses non-destructive layer based processing for color and image adjustments. Automata Pro’s automatic color correction algorithm corrects white balance, exposure and contrast problems from original image in single step.

Automata Pro reads multiple digital image and camera RAW- formats. Automata Pro saves edited image to JPEG, TIFF, PNG, BMP and PSD formats. If PSD format is used Automata Pro saves original and edited images into same file as separate layers.

Automata Pro has full support for standard ICC-profile based color management and it supports embedded profiles. Automata Pro manages embedded EXIF, IPTC and XMP metadata.

PHOTO ENHANCEMENT AND EDITING AUTOMATION

Automata process images automatically on the background. It loads new and changed files from input folder after that it process and saves to output folder. You can create multiple workflows with different input / output folder combinations. You can also combine Automata’s workflows to work together.

AUTOMATIC COLOR AND TONE CORRECTION

Automata’s automatic color correction algorithm corrects color balance, exposure and contrast problems from original image in single step. White balance, exposure and contrast adjustments are processed as separate layers. This gives full control to fine tune automatic correction intensity and other color correction adjustments.
IMAGE EDITING AUTOMATION

Automata has tools and filters for resizing, cropping, rotating, straightening, sharpening and denoising the original image. Image editing in Automata is non-destructive and layer based operation. Image editing tools and filters can be used together with color correction or separately.

COLOR MANAGEMENT AUTOMATION

Automata has support for standard ICC profile based color management and loading and saving embedded ICC profiles. Automata can convert and render between different color spaces, for example conversion from RGB to CMYK. Automata’s has support for v4 and v2 profiles.

WORKS WITH DIGITAL IMAGE AND RAW FORMATS

Automata can operate and convert multiple digital image and camera RAW formats. Automata handles conversions between image formats and color spaces. Embedded metadata is transferred between input and output images if output image format has support for embedded metadata.
2. **HOW TO ADD LICENSE KEY TO TRIAL AUTOMATA PRO VERSION**

After installing Automata Pro starts in 10 days fully working trial mode. After 10-day trial Automata Pro software will be locked and “Buy Automata Pro” window is shown when you start the application. To continue working with Automata Pro software you need to buy a license key.

You can activate Automata Pro trial version by buying license and add license key to your copy. License can be purchased from our online store and it will be delivered immediately via email.
as soon as your payment is completed. You can purchase license key and license your Automata Pro by clicking "Buy Now” badge.

HOW TO BUY AUTOMATA PRO LICENSE KEY

You can easily buy license code online by clicking "BUY NOW" button. Our secure store page will open to your default web browser.

The easiest way to add your license key is to simply copy it from your e-mail and paste it into the license key section. After adding license key just click "ADD LICENSE" button to license your Automata Pro copy.
After valid license key is added. This message is shown.

You can remove Automata Pro license key from current computer by clicking "REMOVE LICENSE KEY" button. After removing license key from one computer you can transfer license key to another computer. You can learn more SoftColor's software licensing [SoftColor Store - License Key Information](#)
3. **WHAT PHOTO EDITING TASKS YOU CAN AUTOMATE WITH AUTOMATA PRO**

With Automata Pro’s workflows, you can automate color and tone correction, color grading, image editing, color management and file logistics tasks. You can make multiple workflows and workflows can combined. One workflow’s output folder can be input folder for another workflow. You can also set “INPUT FILE FILTERS” which can select only suitable files for processing, for example by image type (CMYK / grayscale). Automata workflows can also process photos inside PDF files.

<table>
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<th>What photo editing you can do automatically:</th>
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<td>XMP-metadata</td>
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<td>Watermarking</td>
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<tr>
<td>Use 3(^{rd}) party software / scripts with Automata workflows</td>
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4. **HOW TO AUTOMATE PHOTO EDITING TASKS AND FILE LOGISTICS**

Automata process images automatically on the background. It loads new and changed files from input folder after that it process and saves to output folder.

![Hot Folder Photo Based Photo Editing Automation Diagram](image)

Automata check automatically if there is new or edited files inside input folder. Those files will be processed automatically.
• Hot-Folder based batch processing
• Unlimited workflows, create as many as you want.
• Automatic processing on the background
• Full parallel processing support
• Multiple workflows for same folders (input or output)
• You can loop workflows
• First workflow output is input for second workflow

You can create multiple workflows with different input / output folder combinations. You can also chain Automata’s workflows to work together.
5. SUPPORTED DIGITAL IMAGE AND RAW FORMATS

Automata can operate with multiple digital image and camera RAW formats. Automata handles conversions between image formats and color spaces. Embedded meta-data is transferred between input and output images if output image format has support for embedded metadata.

INPUT FILE FORMATS:

JPEG, JPEG2000, TIFF, PSD, PNG, BMP, PGM, PPM, JPEG XR

RAW Formats: .dng, .crw, .cr2, .mrw, .nef, .raf, .orf, .pef, .srf, .arw

Support for following JPEG color spaces: RGB, GrayScale, YCbCr, CMYK, YCbCrK

Support for following TIFF types: TIFF (rev.6.0 and Tech.Note #2, Packbits, JPEG, LZW, CCITT G.3 and G.4, ZIP) with RGB, CMYK, B/W, CIELab

PhotoEQ manages embedded EXIF, IPTC and XMP meta-data.

OUTPUT FILE FORMATS:

JPEG, TIFF, PNG, PSD, BMP

PSD files are saved with two layers

[Original Image / Improved Image]

Support for following JPEG color spaces: RGB, GrayScale, YCbCr, CMYK, YCbCrK
Support for following TIFF types: TIFF (6.0, Packbits, JPEG, LZW, CCITT G.3 and G.4, ZIP) with RGB, CMYK, B/W, CIELab

Embedded EXIF, IPTC and XMP meta-data is transferred between input and output images if output image format has support for embedded metadata.
6. PROCESSING IMAGES INSIDE PDFS

Automata process images inside PDF just like images are normal images. All color correction / image editing / color management operations are processed to images inside PDF. You can also select which image types are processed (JPEG/TIFF/BMP=bitmaps) and you can also select if CMYK images are processed or skipped.

In PDF processing, Automata loads PDF file check all images, export all images and then process them (by workflow settings). Finally processed images are saved back to inside original PDF and original images inside are replaced with processed images.
7. HOW MAKE A PHOTO EDITING WORKFLOW AND PROCESS IMAGES

1. Create a new workflow.
2. Select input folder in workflow editor.
3. Set adjustments and tools for workflow.
4. Select output folder and format
5. Save workflow and close workflow editor.
6. Enable workflow. [START]
7. Copy or move files to input folder.
8. Processed images are saved to output folder.
8. WORKFLOW MANAGEMENT

A Create a new workflow.
B Select which workflows are visible. Based on state or workflow group.
C Workflow and processing status
D Open workflow’s input or output folder in Windows Explorer
E START = Start workflow
STOP = Stop workflow
EDIT = Edit workflow setting (Editing workflow will also stop workflow)
COPY = Copy current workflow settings to new workflow
DELETE = Delete workflow

If you close workflow management application Automata will continue working on the background
9. AUTOMATA WORKFLOW EDITOR

Workflow editor is the tool to create and edit Automata workflows. Each workflow has five main settings.

A WORKFLOW SETTINGS:

Set workflow’s name and group. With group setting you can select which workflows are visible in workflow management window.

SAVE LOG FILES:

Set folder where processing log files are saved. Automata will make automatically daily log file folders.

B INPUT: FILES TO PROCESS:
Select input folder for workflow and select what will happen to processed files. You can also set PDF processing settings.

FILTER INPUT FILES:
With these settings you can select which files are processed.

PHOTO EDITING TOOLS:
Add photo editing tools to workflow.

OUTPUT: SAVE PROCESSED FILES:
Output folder and format settings.

ADD TOOLS OR FILTERS TO WORKFLOW

Click buttons to add tools or filters to workflow.
**B** Expand or collapse tool settings.

**C** Remove tool from workflow.
10. PARALLEL BACKGROUND PROCESSING

In Automata workflows are running parallel and image processing algorithms are multi-threaded.

Each workflow is running as own process. You can edit / star / stop workflows independently. This means that Automata is running optimally with available processors / processor cores. This approach is error safe because possible problems or crashing in one workflow doesn't affect other running workflows.

You can combine workflows to work together and parallel. For example, you can have one input folder for multiple workflow (like one input for web/press/archive photos). You can also set one workflow output folder as input folder for another workflow.
11. AUTOMATIC PHOTO ENHANCEMENTS

Automatic color correction fixes color balance, exposure and contrast problems automatically in single step. Automatic color correction uses separate layers for white balance, exposure and contrast adjustments. Layer based solution gives you a freedom to tune all color correction adjustments as you want. If you don’t use automatic correction you can still adjust white balance, exposure, contrast and correction intensity settings manually.
Image editing in Automata is non-destructive and layer based operation. Image editing tools and filters can be used together with color correction or separately.

<table>
<thead>
<tr>
<th>LAYER BASED IMAGE EDITING</th>
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<td>Selective Color Adjustments</td>
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<td>Luminosity Enhancer</td>
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<tr>
<td><strong>ORIGINAL PHOTO</strong></td>
</tr>
</tbody>
</table>
12. AUTOMATIC COLOR AND TONE CORRECTION

Automatic color correction fixes color balance, exposure and contrast problems automatically in single step. Automatic color correction uses separate layers for white balance, exposure and contrast adjustments. Layer based solution gives you a freedom to tune all color correction adjustments as you want. If you don’t use automatic correction you can still adjust white balance, exposure, contrast and correction intensity settings manually.
HOW TO TUNE AUTOMATIC COLOR AND TONE CORRECTION

If you are not satisfied with Automata’s automatic color correction results you can easily tune results by adjusting “Intensity” value 0-100%. This value adjusts how much pixel color values of color corrected image are mixed with original image. You can also increase or decrease exposure and contrast values for automatic correction. If you want to adjust white balance you can use Color Grading, ColorEQ or Curves tool. Adjust color correction intensity. Intensity value adjusts how much pixel color values of color corrected image are mixed with original image. Intensity is the easiest way to tune automatic color correction results.

DARK AND LIGHT COLOR RECONSTRUCT

You can set blacks / whites clipping with color reconstruct tools
13. AUTOMATIC COLOR GRADING

Color grading is a process that photographers use to change the visual tone of an image. Once color grading is applied, the aesthetics of an image will completely change. Color grading is added to processed image after color correction settings.

![Automatic Color Grading Tools](image)

You can set COLOR 1 / 2 / 3 filters with different mode. Mode setting will change how color filter will operate with processed image. BLACK and WHITE filter will add exposure and contrast to image.
14. SELECTIVE COLOR ADJUSTMENTS

With Selective Color Adjustments tool, you can set Hue / Saturation / Lightness values of selected colors. You can set specific settings for skin tones, blues and greens. Color selection is made with fuzziness value. Intensity value set how much edited color values are mixed colors under selected area. Selective color adjustments settings are applied to processed photo after color grading tool.
15. EXPOSURE / CONTRAST / COLOREQ

Non-linear adjustments for exposure and contrast.

Use Color Equalizer’s sliders to adjust current white balance of edited image. You can increase or decrease certain color tones by adjusting Color Equalizer’s sliders.
16. CONVERGE TO PROFILE [COLOR MANAGEMENT TOOLS]

With color CONVERT TO PROFILE tool you can select icc-profile which defines target color space for saved photos are converted. You can also set rendering intent method which is used during conversion and usage of black point compensation. Selected icc-profile is embedded to the saved image. If you are not using icc-profile conversion original photo’s icc-profile is embedded to the saved image.

Automata reads automatically original photo’s embedded profile and uses it while images are presented on the display.

Color management uses 32 bits precision for processing and support v4 and v2 profiles.
17. ASSIGN PROFILE [COLOR MANAGEMENT TOOLS]

With ASSIGN PROFILE tool you can add and embedded icc-profile to image file. Profile is added to image file before it is loaded for processing. Assign profile tool will replace existing embedded profile from image file.
18. RGB-CURVES

You can import and export Adobe Photoshop curves files to Automata’s curves tool. You can also set curves values manually.
You can convert edited photo to black and white image with Automata. Black and white conversion is final Automata’s processing steps. This means all other image editing tools and adjustments are made before black and white conversion.
20. ROTATE / FLIP / MIRROR

With Automata’s Rotate tools you can rotate and fix image’s horizontal orientation by using “Straighten” adjustment.
21. RESAMPLE TO RESOLUTION

With Automata’s resolution tool, you adjust dots per inch (DPI) resolution. If you change images resolution new resolution is updated to output image metadata.
22. SCALE IMAGES

Scales improved image width and height. (aspect ratio saved)
23. **RESIZE PIXEL SIZE**

Width to edited image. If Height not defined then new height will be calculated automatically. Height to edited image. If width not defined then new width will be calculated automatically. Aspect ratio is saved.

![Set Pixel Size](image)

Scales down improved image width if it is more than Max Width value. (aspect ratio saved). Scales down improved image height if it is more than Max Height value. (aspect ratio saved)

![Set Maximum Pixel Width / Height](image)

Maximum width for landscape image [width > height]. Doesn’t affect to portrait images. (aspect ratio saved)

Maximum height for portrait image [height > width]. Doesn’t affect to landscape images. (aspect ratio saved)
24. CROP

When cropping is done the cropped area outside selection will be removed from image
25. **AUTOMATIC SHARPENING**

Automatic sharpening filter which enhances image by increasing the sharpness of detected objects contours.
26. UN-SHARP MASKING

Un-sharp masking filter which increases the contrast of the edges between pixels of different colors in an image

Amount [0 - 500 %] Radius [1 - 250 pixels] Threshold [0 - 255]
27. REMOVE NOISE

With Automata you can use automatic noise removing filter or blur filter to remove unwanted noise from edited image. Blur filter performs gaussian blur filtering.
28. XMP-METADATA

With XMP configuration you can include XMP data to processed image [JPEG, TIFF, PSD]. XMP-data is read from .xmp file and store to image.
29. PRE-PROCESS FILES

With Pre-Process tool you can execute selected application or batch / script file for every file which are located inside input folder before Automata will process file. Automata loads output file which selected command has processed. Pre-Process command will get all files as input parameter, also them which are not supported by Automata.

Pre-Processing command can be Windows executable (.exe), Windows batch file (.bat) or PowerShell script (.ps1).
30. POST PROCESS FILES

With Post Process tool, you can execute selected application or batch / script file for every file after they are processed by Automata. Pre Processing command can be Windows executable (.exe), Windows batch file (.bat) or PowerShell script (.ps1).
31. AUTOMATA PRO VS. AUTOMATA SERVER

Automata Pro and Server have exactly same features and tools. There is only one main
difference between Pro and Server.

Difference is how hot-folder background processing is running. Automata Server (as server
software) is running as Windows service on the background. User is system user by default,
can be changed from Windows service settings. Server's workflow settings are system wide.
Server has access all user files on the machine. Because it is a service, Automata Server is
started automatically when Windows is starting and it doesn't need any users to be logged in
to system. Automata Pro is a desktop software and it is running as current user process. In
Automata Pro workflow settings are saved to users Application Data, each user account has
separate workflow settings. Automata Pro is running on the background only when user is
logged in to system (it will also run if user has locked computer). If user logs out from
Windows Automata Pro background processing is stopped.

Because Automata Pro and Server have same features it is possible to import/export workflow
settings between Pro and Server.
SOFTCOLOR AUTOMATA PRO

Enterprise Class Photo Editing Automation

softcolorsoftware.com/automata/

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