DiVisual®

tools for fine art and
cultural heritage documentation

MSv8 USER MANUAL

Contents

With DiVisual® Mapping System Msv8 you have chosen a professional tool for creating sustainable conservation documentation.
Mapping System Msv8 makes it possible to create and maintain a contemporary, easy to use mapping of damage as well as any conservation measures taken.
Please take the necessary time to carefully read this user manual. It will quickly enable you to create meaningful and sustainable mappings, to build them into your reports and to use them as a basis for planning conservation measures or as a foundation for regular monitoring.

System requirements, installation and registration

The following requirements are a prerequisite for the use of Msv8. The system requirements are based on those for Adobe Photoshop, and since Photoshop is the basis of Msv8, are all absolutely required.

Windows
- Adobe Photoshop CC 2014 or higher
- Intel® Pentium® 4 or AMD Athlon® 64
- Microsoft® Windows® XP with Service Pack 3, Windows Vista® Home Premium, Business, Ultimate or Enterprise with Service Pack 1 (Service Pack 2 recommended) or Windows 71 GB RAM
- 1 GB free hard disk space, additional memory needed during the installation (it is not possible to install on portable flash memory media)
- 1024 x 768 pixel monitor resolution (1280 x 800 pixels recommended) with an OpenGL graphics card, 16 bit color depth and 256 MB VRAM
- DVD ROM disk drive

Mac OS X
- Adobe Photoshop CC 2014 or higher
- Intel Multi-Core processors
- Mac OS X version 10.5.7 or 10.6
- 1 GB RAM
- 2 GB free hard drive space, additional memory needed for the installation (no installation on file systems where upper- and lowercase spelling must be observed, or on portable flash storage media)
- 1024 x 768 pixel monitor resolution (1280 x 800 pixels recommended) with an OpenGL graphics card, 16 bit color depth and 256 MB VRAM
- DVD ROM disk drive

Installation: Mac OS X

Installation is very easy. The DiVisual® Msv8 installation file (drag it into photoshop - installer.jsx) is found in the folder you have digitally downloaded.

1. Open Adobe Photoshop CC 2014 (or higher).
2. Drag the file „drag it into photoshop - installer.jsx" into Photoshop.
3. The DiVisual® MSv8 Mapping extension will be installed and prompted with a success dialog.
4. Restart Photoshop
5. Go to menu „windows > extensions > DiVisual MSv8" this will open the DiVisual® tool box (panel).

Installation: Windows

Installation is slightly different from MacOs X but still very easy.

Please note that under Windows you must run Photoshop with full admin rights for a proper installation of the DiVisual® Mapping System. You activate admin rights by right clicking the program icon (Photoshop icon) and choose „us as administrator". After Photoshop has launched with admin rights, run the installer script by drawing it to the Photoshop window.

1. Open Adobe Photoshop CC 2014 (or higher).
2. Go to menu „file > scripts > browse" and run the file „drag it into photoshop - installer.jsx"
3. The DiVisual® MSv8 Mapping extension will be installed and prompted with a success dialog.
4. Restart Photoshop
5. Go to menu „windows > extensions > DiVisual MSv8" this will open the DiVisual® tool box (panel).

Uninstalling

The software can be uninstalled in the same way as installing but you need to run the file „uninstaller - drag into photoshop.jsx" from within Photoshop (found in the installation folder).

Test version

DiVsiual® Mapping System Msv8 can be used for 30 days as a test version. All the software's functions can be used without limitation. Please send us an Email and get your free 30 days trial license.

Registration

DiVsiual® Mapping System Msv8 can only be registered with an active Internet connection!
To register Msv8, open Adobe Photoshop CC 2014, or a newer version, and load the DiVisual® panel, as described in the section "Application / User scenario > 1. Preparation: Starting DiVisual®Mapping System Msv8 for the first time.
You will find a button to call up the registration dialogue in the DiVisual® panel, under the "Options" tab. Enter the requested information here and send it to DiVisual® per mouse click. Your definitive license key will be sent to you shortly by e-mail. Enter the license key in the registration dialogue and confirm your entry by clicking the respective button.

Concept

Simplicity

The idea behind DiVisual® Mapping System Msv8 is the need for a simple form of documentation for artworks that can be integrated into professional practice. The mapping of damage and the treatment thereof should be so easy that it can be inserted within the framework of conservation reviews and treatments, in which time is often very short.
DiVisual® Mapping System Msv8 seamlessly integrates itself in the existing Adobe Photoshop environment. The integration of Msv8 as an extension to Photoshop CS5 and higher offers the advantage of what is often already a familiar working environment. DiVisual® Mapping System Msv8 provides all the necessary functions for mapping and entering of object-specific information[1] , without overwhelming the user with the complexity of the Adobe Photoshop program environment.

Historization

In addition to easy usage, the consistent concept of DiVisual® Mapping System Msv8 is the condition mapping of artworks may not just consist of isolated documents, but the condition development of an art object, and its treatment, which must be compiled in a single document over many years and made comparable. The possibility to create an event-based historization provides a comprehensible, visual document in which all modifications and treatments to an artwork are registered.

Sustainability

The DiVisual® mapping represents the ideal basis for sustainable care and monitoring. The digital document (TIFF picture files) can be exchanged regardless of platform. The TIFF file standard can be currently stored in all archives worldwide without loss.

Working logic

The concept of DiVisual® Mapping System Msv8 is extremely simple and logically mirrors the customary steps in conservation and restoration.

1. Condition mapping: The so-called condition mapping provides information about the type and scale of damage to an artwork. The condition mapping forms the basis for a subsequent treatment concept for the restoration of the artwork.
2. Historization: No historization is possible before the condition is mapped (archiving of a condition after an event, e.g. loan, transport, damage or regular review). During historization, a mapped condition, an event and the data are archived accordingly and thereby remain in place, unchanged, for subsequent further processing of the mapping. Subsequent damages are archived in their own, integrated, dataset (historized). Changes separated in terms of time thus remain separate from one another and can be unambiguously allocated.
3. Conservation treatment "treatment mapping": Damage that has been entered and historized can be easily and rapidly mapped as a treatment. This can be either a complete or partial repair of damage. DiVisual® Mapping System Msv8 retains the reference to the underlying damage and automatically historizes the treatment entered by date and time.

   Mappings can be printed out and sent directly by e-mail.

---

[1] Object information about the artwork is integrated in the file. In this way, clear information about the artwork is saved in the corresponding DiVisual® file. The so-called metadata makes it possible to select the artwork information in structured format and, if necessary, to compare it with a database.

Usage / User scenario

DiVisual® Mapping System Msv8 is strongly oriented to the common work procedures involved in the monitoring of artworks. These processes are depicted by DiVisual® Mapping System Msv8 step by step and therefore mirror, at all times, the current condition and status of treatments carried out on an artwork.

The following description guides you through the typical steps for creating a mapping based on a typical work process.
The underlying scenario represents an initial inspection before the lending of an artwork for a temporary exhibition. It is then explained how, for example, following the exhibition the status is reviewed again and the altered condition of the artwork is recorded and then a treated damage is entered in the DiVisual® mapping. This sample procedure serves as an example for a lending procedure, but can be equally applied to any conservation or restoration.

Procedure for condition mapping, review and treatment recording, using the example of a typical lending procedure

1. Preparation: Starting DiVisual® Mapping System Msv8 for the first time

An artwork is to be lent out for the first time. The condition of the artwork is mapped before it is packaged and shipped. To map the condition, you have the option of using an existing digital image or a new digital picture of the artwork.
Start Adobe Photoshop (CS5 or higher). Mapping System Msv8 starts in Photoshop. To do so, call up > Extensions > from the "Window" drop-down menu.
DiVisual® Mapping System Msv8 is then loaded in Photoshop and is immediately ready for your mapping purposes.
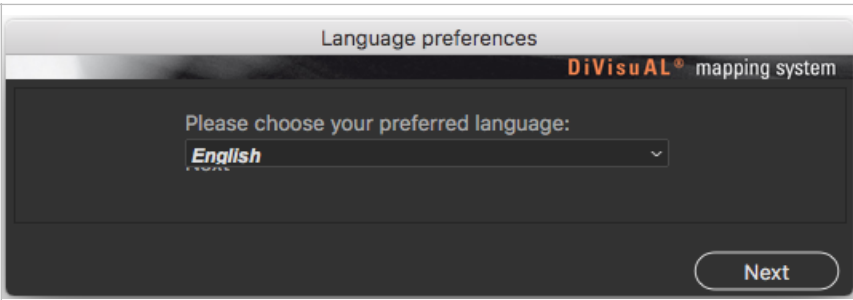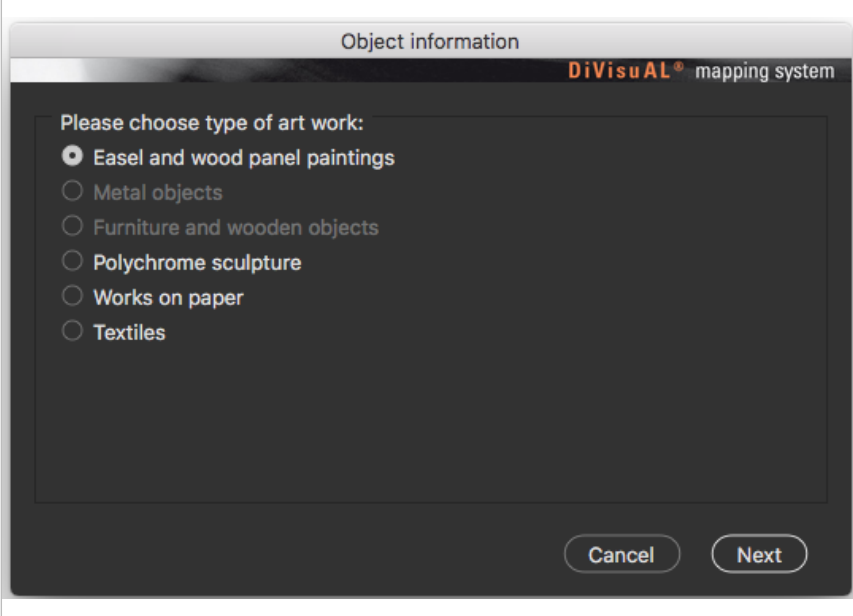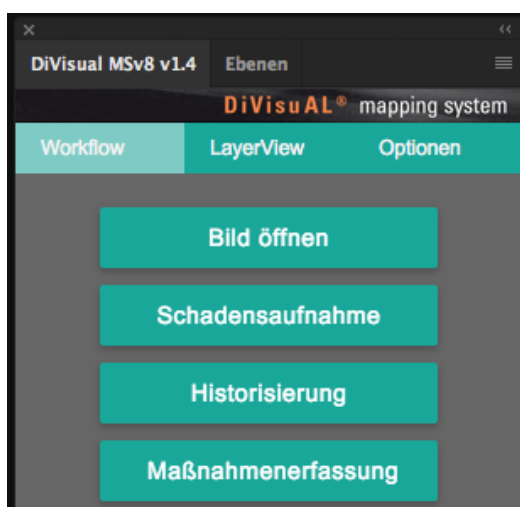

The new DiVisual® panel

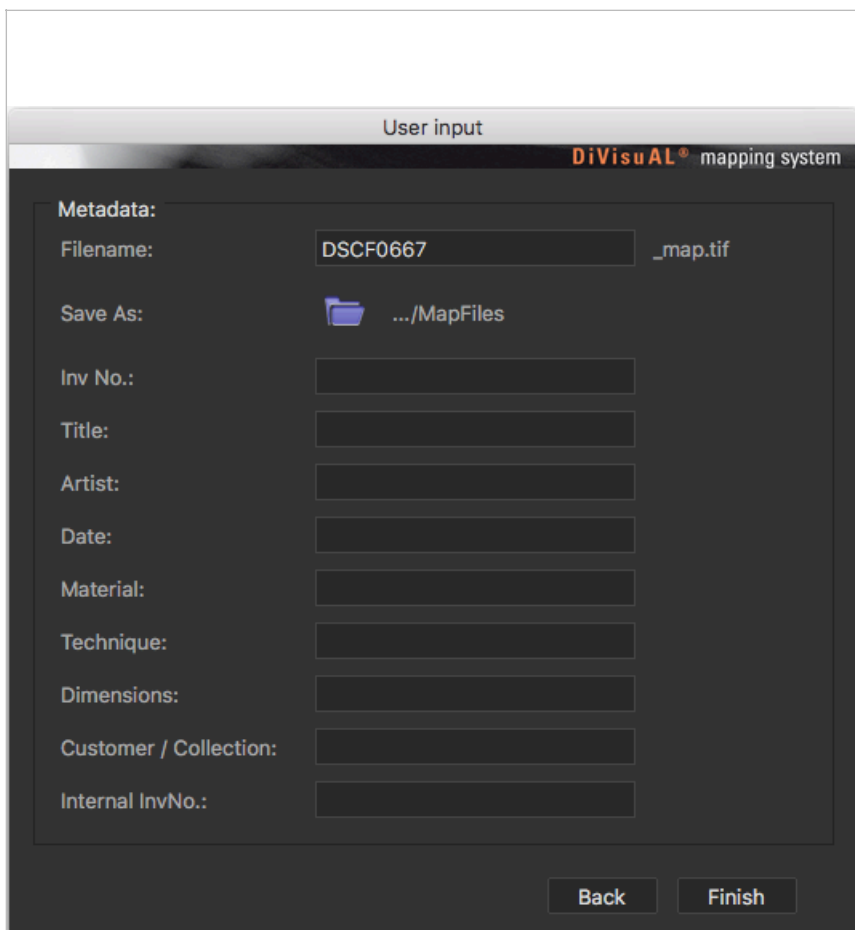## 2. Open an image and prepare for the mapping
There are two ways to open an image.

If you open an image with no previous editing directly for a mapping and would like to prepare it, click on the "Open image" button in the DiVisual® Mapping System window. Mapping System Msv8 automatically detects whether it is a mapping template or whether the image file should first be converted to one.

You can carry out any necessary image editing before the mapping in the usual way using the Photoshop "File" menu > open to make the necessary corrections.

In the process of processing a digital image for mapping you will be guided by a series of dialogue fields. The dialogue fields are depicted and described as follows:

Language preferences **DiVisuAL® mapping system** Please choose your preferred language: *English* ⌄ Next	*Language selection for dialogues:* *Dialogue for the language setting for the program dialogue.* *The language can be changed later, if preferred.*
Object information **DiVisuAL® mapping system** Please choose type of art work: ⦿ Easel and wood panel paintings ◯ Metal objects ◯ Furniture and wooden objects ◯ Polychrome sculpture ◯ Works on paper ◯ Textiles Cancel Next	*Artwork type selection dialogue:* *Depending on which module you have purchased, the appropriate type of artwork can be selected in this dialogue. Depending on the selection made, Msv8 provides the corresponding captions and the appropriate mapping tools.*

User input

DiVisuAL® mapping system

Metadata:

Filename: `DSCF0667` _map.tif

Save As: 📁 .../MapFiles

Inv No.:

Title:

Artist:

Date:

Material:

Technique:

Dimensions:

Customer / Collection:

Internal InvNo.:

[Back] [Finish]

Artwork data dialogue:
The artwork data is entered in this dialogue and attached to the mapping file as metadata.
The information to be entered here is based on the LIDO standard for entering metadata for artworks and collection inventories. You can find further information about the LIDO standard at: http://cidoc.icom.museum/

File name:
Mapping System Msv8 suggests saving the file under the same name as the original file, but with the add-on "_map.tif".
*In this way, the correlation between the original and mapping files can be understood at all times.*
Storage location: The basic settings for saving a mapping file ultimately lies in the user folder of the person logged in. By clicking on the folder symbol, the default storage location can be changed and the file can be saved in any preferred location.
The information entered here is also output in the mapping layout to serve as identification of the artwork. Additional metadata is implemented on an ongoing basis and can be entered and edited later through an entry screen. By clicking on "Finish" the file is prepared for mapping with Mapping System Msv8.

3.   First-time mapping of the condition (before lending)

To map the condition in the DiVisual® Mapping System window click on the "map condition", which then offers buttons for all types of damage that are available. Now press the desired damage button. You then need to decide whether you want to register a damaged area (or a collection of punctual damages) or a single punctual damage. Mapping System Msv8 then provides you with the appropriate tools for drawing the damaged sections. You can choose from the following functions:
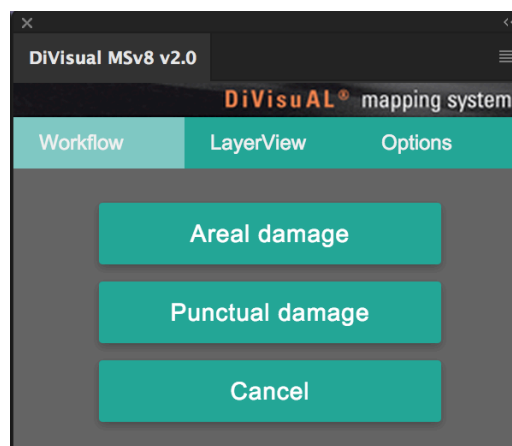

Selection buttons for punctual and areal damage

1. Punctual damage: A brush tool with the appropriate pre-settings is provided for this. Normally, you click on the point you want and Mapping System Msv8 enters your work directly. Some punctual damage (tear, fold, scratches, crackling) have a linear appearance. For this you need not simply click with the brush tool, but to trace the shape of the damage while left clicking with the mouse. By pressing the "Undo" button you can individually retract each step. Once you have entered everything, press the "Confirm" button. A mark is then set in the caption, just like with the surface damage (D/S column), which informs the user that this damage was already entered. The "Cancel" button discontinues the work started and switches to the DiVisual® Mapping System start page.
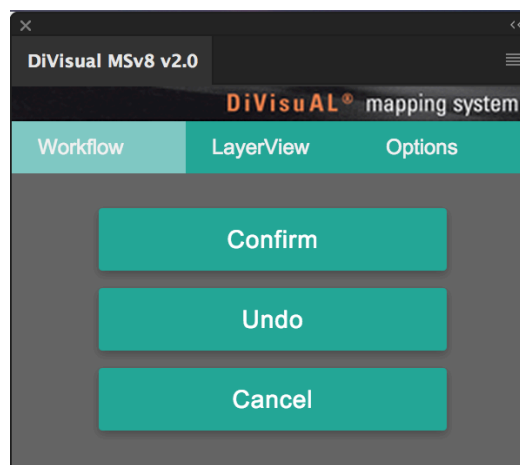
Buttons for punctual damage

2. Areal damage: The lasso tool is preloaded to help you map the damaged areas. Use it to circle the damaged area. The lasso tool is preset so that you can directly enter multiple damaged areas or, if needed, comprise a more complex shape from multiple smaller pieces. If you happen to select too much, press the "Alt" key. Now everything you have entered from the existing section will be cut out. You can use this technique to refine the shape until you get the desired results. Then click on "Fill". To complete the entry, press the "Confirm" button. A mark is then set in the caption, just like with the punctual damage (D/S column), which informs the user that this damage was already entered. The "Cancel" button discontinues the work started and switches to the DiVisual® Mapping System start page.
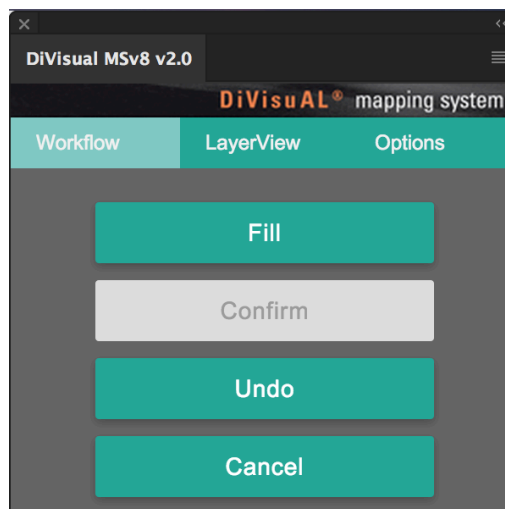
Buttons for areal damage

4. Historization of an event

Once the condition report / inspection are complete, the recorded damages must be historized. This involves giving recorded damage a timestamp, whereby it is unambiguously allocated to an event. When you click on the "Historization" button in the Mapping System Msv8 main menu, you have the option of adding additional information to identify the event and the person that carried out the inspection. One example might be the reason for the inspection.
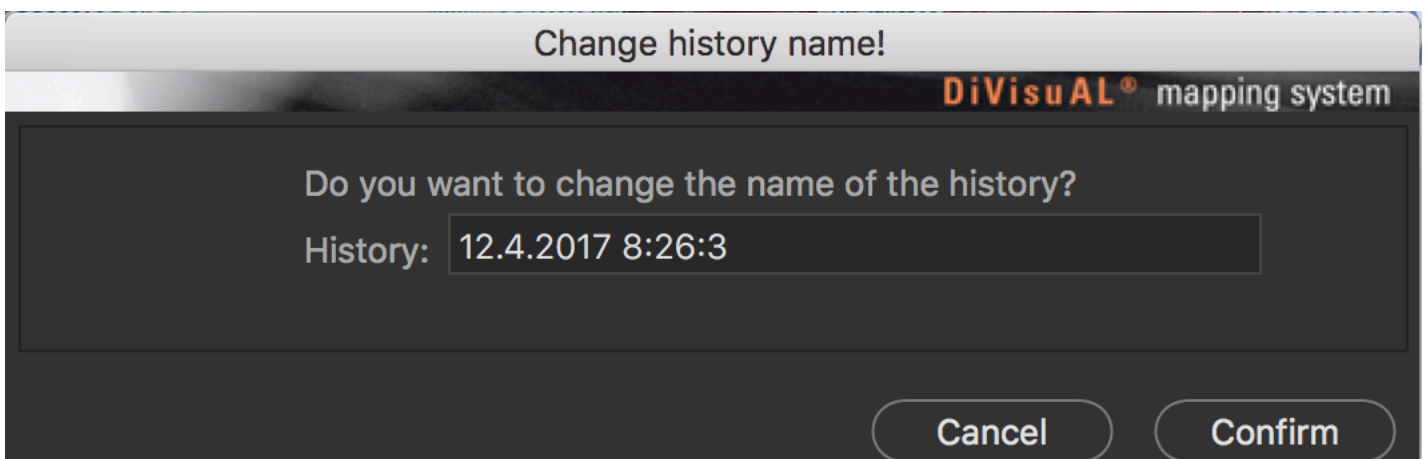
## 5. Mapping the condition (upon arrival at a borrower, at the end of the exhibition)

If new damage exists following transport, open the corresponding mapping file (xyz_map.tif) and in the DiVisual® window click on "Condition mapping". Register the new damage as previously described in Section 3. First time mapping of the condition (before lending).

6. Historization of a follow-up inspection

Once the entering of new damage is complete, you need to historize the event again as diescribed earlierin this guide. In addition to the timestamp given, you also have the option of entering additional information to identify the event and the person that carried out the inspection. In this way, the condition mapping can be easily assigned to an event.
Events in the history always remain clearly separated from one another and can be differentiated. They can be continued unlimitedly and viewed individually at any time.

7. Mapping of treatments, processing treatments

Treatments can only be recorded for historized damage. Mapping System Msv8 automatically determines whether entries must still be historized before the treatment mapping and indicates accordingly.
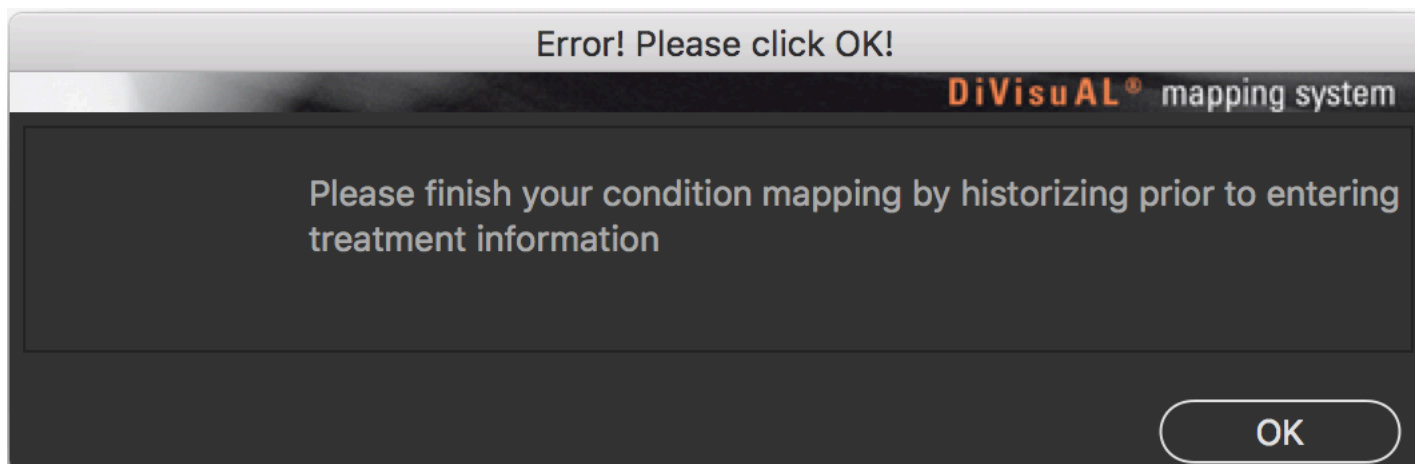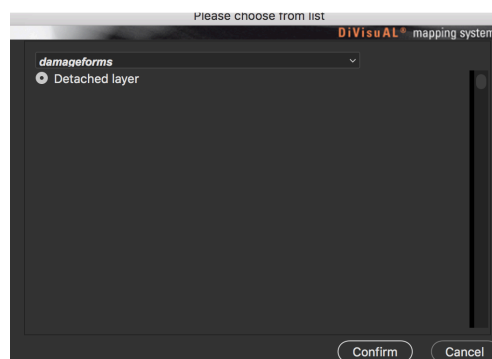

Confirm by pressing 'OK' and then click on the "Historize" button in the DiVisual® window. You are now ready to map a treatment.
First, in the treatment dialogue, choose witch damage you would like to process.
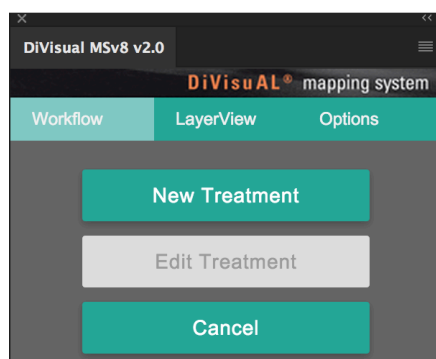
For the first treatment select „New Treatment"

Select the of type of damage

After a selection is made, Mapping System Msv8 will only show the selected type of damage. All occurrences of the damage are selected in the process. Deselect the areas that have already been treated using the lasso tool (already properly preset by Mapping System Msv8). It is also possible to only partially treat a damage. Mapping System Msv8 notices whether damage has been mapped as completely or only partially treated and offers you the option at any time to complete partially treated damage.
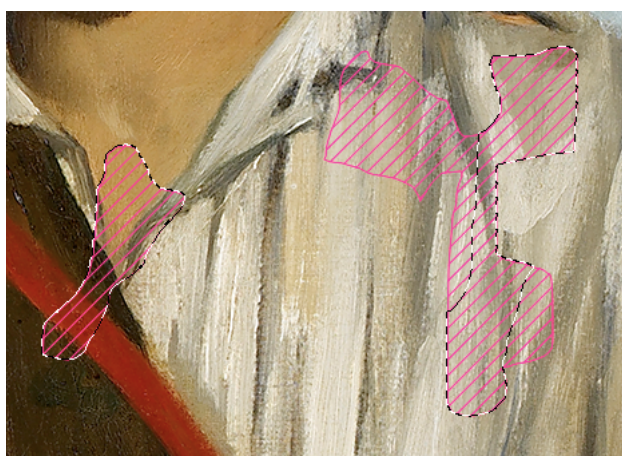
Selected areas are framed with a thin, dotted line. During treatment processing, at the beginning all damage is selected and treated areas are deselected using the lasso tool.


Treated damages or partially treated damages are screened gray and outlined with a black outline.

Because the pattern and color of the damage form is continuously kept, a treatment continues to be connected with the corresponding damage. Treated damages or partial damages are marked as shown above.

8. Displaying or hiding damage or treatments

There are situations in which it is not desired that all mapped damage or treatments be visible. For example, it does not make sense if treatments carried out on an artwork are entered in a condition report during a lending process. In such a case, only the current, but not the treated, damage should be shown or printed for the artwork.

For this purpose DiVisual® Mapping System 7.2.6 offers display management, called the "Layer view". There are three tabs in the DiVisual® panel: first the previously described "Workflow" tab, in the middle the "Layer view" tab. All condition layers and their „Status-Sets" are shown in the layer view (Status-Sets are: „Current Record", „History / Event" or „Measures history"). By clicking on the respective "eye" icon, the visibility of the corresponding layer or status-set changes and it is no longer visible in the mapping. By clicking on the icon again the corresponding layer again becomes visible.
The modified view can then be printed out for a courier transport or saved as a picture file.
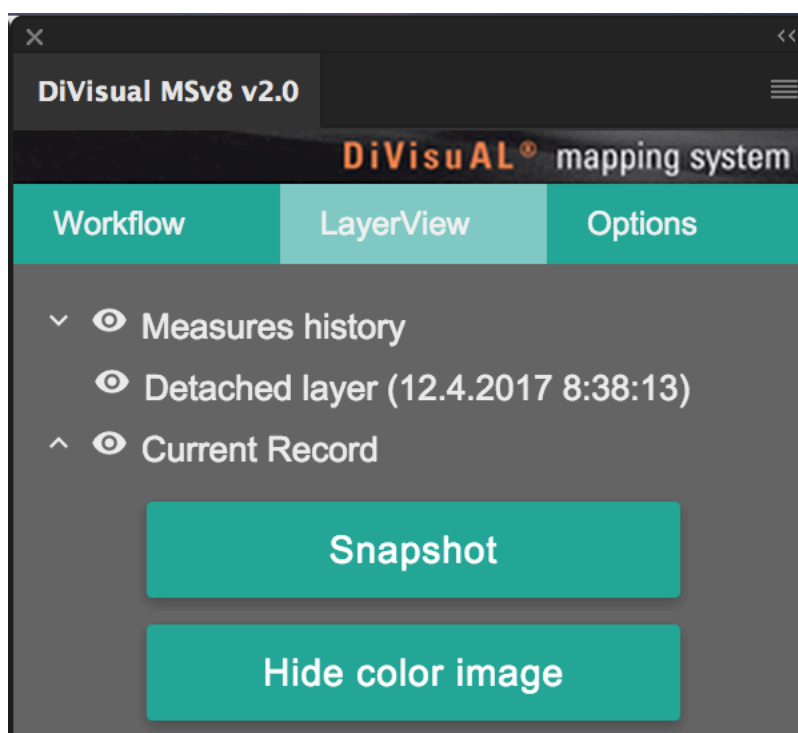
9. Create a snapshot file of the current mapping

In the „layer view" of the DiVisual® window there is a button labeled "Snapshot". This button enables you to easily save the current mapping as a flat JPEG file.
A snapshot file can be e-mailed as proof of new damage or placed in a collection management database as proof of a change in condition.
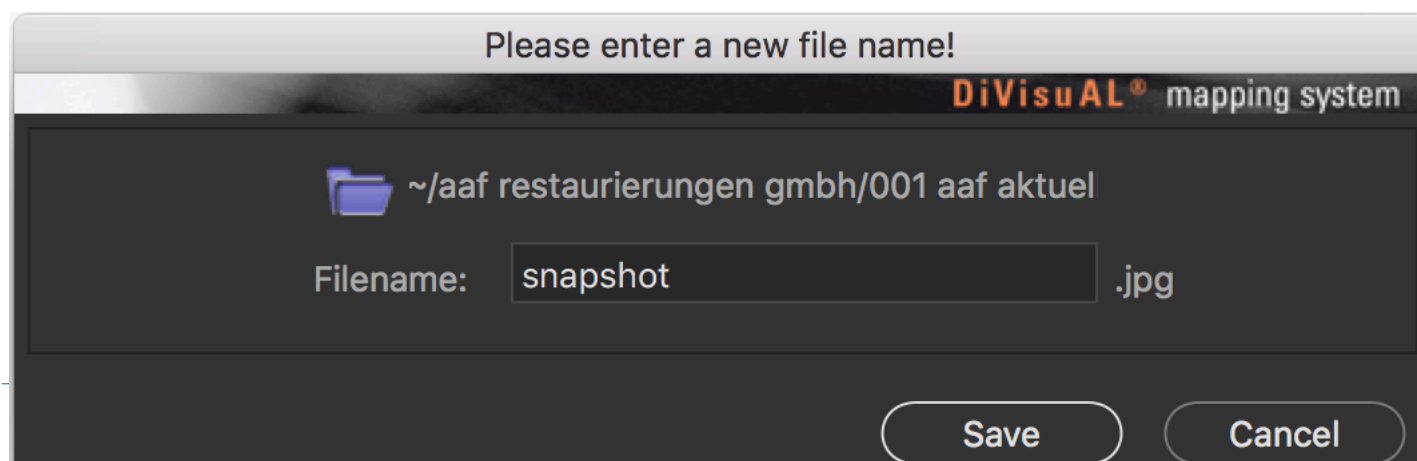
10. Explanation of the captions

Mapping System Msv8 contains 20 partially predefined damage forms. These are inserted below (for a vertical format) or to the right (for a horizontal format) of the digital picture.

Of the 20 possible damage forms, 15 are predefined and four can be freely selected. These last four (miscellaneous 1-4, ID # 17-20) are to be used for damage forms or observations that cannot be allocated to any of the predefined damage classes.

The predefined damage forms represent a simplification of the nearly infinite possibilities of damage definitions. For example, no differentiation is made between a convex or concave deformation; they are instead combined in the "deformation" damage class. This simplification through the combination of common damage phenomena into damage classes simplifies readability of the mapping and makes it possible to use it as an efficient work tool.

Should it become indispensible to differentiate between damage forms combined in a damage class, then this can be made in the textual documents / condition report, or using one of the free (misc. 1-4) damage classes.

Legend / Zeichenerklärung

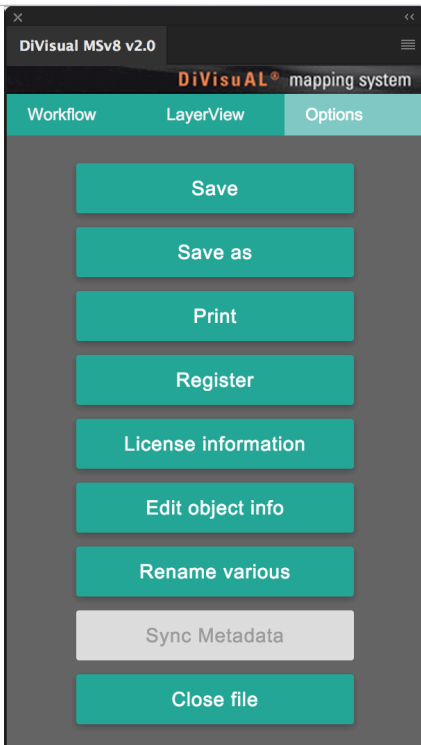|		
tear / Riss	abrasion / Abrieb	blanching / Krepierung	previous restoration / Alte Restaurierung
hole / Loch	loss / Ausbruch, Fehlstelle	dirt / Verschmutzung	various 1 / Diverses 1
deformation / Deformation	detached layer / Lose Schicht	glossy area / Glanzstelle	various / Diverses 2
crease / Knick, Falte	flaking layer / Aufstehende Schicht	matt area / Mattstelle	various 3 / Diverses 3
scratch / Kratzer	distinct craqueling / ausgeprägtes Krakele	color change / Farbveränderung	various 4 / Diverses 4

The captions are divided into symbol explanation, damage ID number, checkbox for condition mapping and treatment and the damage name in two languages.

1	2	3	4	5	
					1 = Marking for punctual damage *2 = Shading for areal damage* *3 = ID number for subsequent entering of a mapping by hand* *4 = Marking field for mapped damage (D/S = Damage/Schaden)* *5 = Marking field for completed treatment (T/M = Treatment/Massnahme)*
abrasion Abrieb					*Bilingual definition of a damage form*
abrasion Abrieb					*Marking set for a mapped damage*
abrasion Abrieb					*Marking set for completed treatment*

11. Options

With a click on the "Options" button, various actions and options for various other parameters become available. The corresponding options are briefly described in the following.

Save: Save the file under the existing name
Save as: Save the file under another name, in another storage location or in another file format.
Print: Opens the Adobe print dialogue for outputting the mapping to a printer. The image resolution enables a loss-free output in DIN A4 and DIN A5 formats.
Register: Opens the registration window for entering and transmitting the registration data to DiVisual® GmbH in Switzerland.
License information: After the required data is transmitted your personal license key will be sent to you by e-mail. Copy the license key string from the e-mail and paste it in the "license information" dialog in the corresponding field.
Edit object info: Enables you to subsequently change the artwork data.
Rename various: Opens a window for renaming the damage classes "various 1-4"
Sync Metadata: Allows users who are using the XML exchange to sync object information from their collection management software to the Mapping System.
Close file: Closes the image without saving the changes!

Additional services

Customizing

DiVisual® offers additional services for your customers. These include a customized adaptation of the mapping layout (header section) to match your customer's corporate identity. Customizing takes place in close coordination with the customer and is billed on an offer basis.

You may want to do this yourself and this is how:
- Create a new folder named „logo" in the following location: /Users/your username//Divisual Map Files/logo
- Create two jpg files with your logo and address or what ever you like to have on your letterhead.
- 1. „logo_portrait.jpg" h x w 1.00cm x 21.00cm, 300 dpi
- 2. „logo_landscape.jpg" h x w 1.00cm x 29.7cm, 300 dpi
- Place the two files within the folder „logo" that you should have created in the beginning of this process.

The next time you create a new map-file, the logo will be placed on top of the page layout, voila!

Training

DiVisual® offers customers tailor-made training for Msv8. This can take place at the customer's premises or in training facilities rented by DiVisual®.
Tailored training can also be booked to include photo processing training with Adobe Photoshop.
The costs will be billed on an offer basis.

Do not hesitate to contact us regarding your needs and requests: info@divisual.net

Troubleshooting

First, a comment:
Mapping System Msv8 uses Photoshop layers in a strongly structured way. All layers created by the application are internally coded and are absolutely required by Mapping System Msv8. Under no circumstances should you change the layer structure or the layers yourself. Always use the tools and functions provided by Mapping System Msv8!
If the layer structure is changed by hand, DiVisual® assumes no guarantee for the further functioning of the mapping file.

Potential errors and solutions

Screen	Problem	Solution
	The DiVisual® panel is not present or was closed by mistake.	In the Photoshop navigation bar "Window" > "Extensions", select "DiVisuAL". The DiVisual® panel will be reloaded in the Photoshop workspace.

If, while working by hand, you switch the predefined tool, such as if you want to work with the zoom tool, for example, you notice ahead of time which tool was selected for the work you are doing now.
Areal damage: Lasso tool, setting "add to selection"
Punctual damage: Paintbrush tool
Treatment mapping: Lasso tool, setting "subtract from selection"

User manual version number: 2
Application version number: 8.2
April 2017