Dynamic Marks 24.03

User Guide

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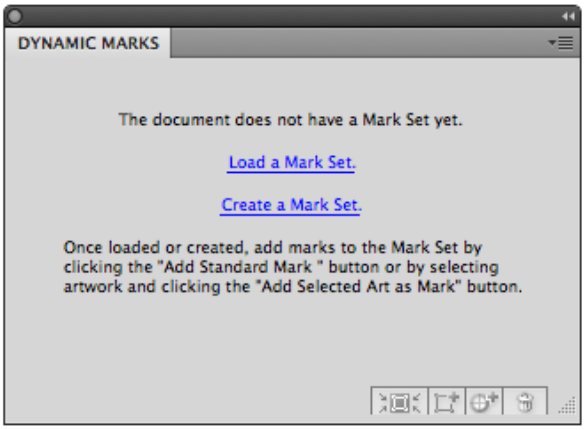
1. Open a file in Illustrator. Create some objects you want to use as marks.
2. Go to **Window** > **Esko** > **Dynamic Marks** > **Dynamic Marks** to open the **Dynamic Marks** panel.



3. Click **Create a Mark Set** to start a new Mark Set.

Note: This step is optional. If no Mark Set is present, you can also immediately start adding marks (see step 4), a new Mark Set will be created automatically.

4. You can add marks in two ways:
   - Select the objects you want to use as mark one by one, and click the **Add Selected Art as Mark** button
   - Click the **Add Standard Mark** button to add a standard mark to the set.
5. From the fly-out menu, select **Save mark set**

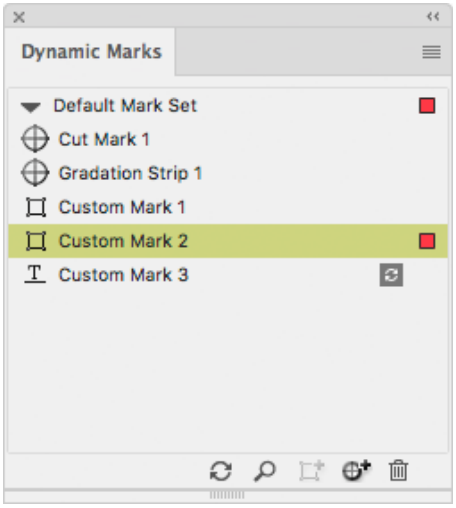
Note:

You can only save a Mark set if the Illustrator file is saved. If not, you will be prompted to do so before saving the Mark Set

3. The Dynamic Marks palette

In the Dynamic Marks palette, you can manage the marks in a set.

The palette will show the name of the latest loaded or saved mark set, and all the marks in the set. The icon in front of the mark name will show the type of mark: a standard mark, text, an object, ...



In the palette, you can

- change the name of a mark by double-clicking it
- select and zoom in on a mark, by clicking the button or from the fly-out menu
- add the selected artwork as a mark, by clicking the button or from the fly-out menu. See *Adding objects as Mark* on page 33
- add a Standard Mark, by clicking the button or from the fly-out menu. See *Adding a Standard Mark* on page 33
- remove the selected mark, by clicking the button or from the fly-out menu.

  Note:

  Removing a mark will remove the entry in the Mark Set as well as the actual object.

- update an **On Demand** mark (indicated by the icon) by clicking the Update button . See *Updating Dynamic Marks* on page 34
- expand a mark, by selecting the function in the fly-out menu. Expanding a mark replaces the dynamic mark by a normal object.
- change the order of the marks by clicking and dragging.
  - If the corresponding objects are in the same layer in the Layers menu, their order will be changed the same way.

- If you change the order in the Layers palette, the marks in the Dynamic Marks palette will change accordingly

Note that the Marks list shows the topmost mark at the bottom of the list, while the Layers palette works the other way around.

Note: Same as in Adobe Illustrator's Layer palette, there are two different types of selecting in the Dynamic Marks palette:

- If you click the name, the mark is selected in a blue bar, but the actual art is not selected in Adobe Illustrator. This selection is used for Dynamic Marks palette operations (zoom, trash, expand, remove).
- If you click at the right side of the row (or if you select the art using the Illustrator select tools), the mark is showing a colored rectangle, indicating that the actual art is selected in Adobe Illustrator. This selection is used for the Marks Properties.

3.1. Adding a Standard Mark

You can add one of the predefined Standard Marks to your Mark set:

1. Click the **Add Standard Mark** button or select **Add Standard Mark** from the fly-out menu
2. Select the Standard Mark you want to add.
3. Click **Add**

The Standard Mark will be added to the Mark Set, and in the current document. You can change its properties in the Dynamic Marks Properties palette. See *Dynamic Mark Properties* on page 35

The Standard Marks currently available are:

- Cut Mark
- Bearer Bars
- Gradation Strip
- Grid Marks
- Corner Marks
- Color Patches
- Image Mark

For more information on the properties for the Standard Marks, see *Specific Mark Properties* on page 40

Note: It is not possible to apply scaling on standard marks. Every time the marks are updated, they will be regenerated at their original size.

3.2. Adding objects as Mark

You can add existing objects as a Mark to your set.

1. Select the object you want to use as a mark

2. Click the **Add Selected Art as Mark** button . or select **Add Selected Art as Mark** from the fly-out menu.

   The new Mark will appear in the Dynamic Marks palette. You can change its properties in the Dynamic Marks Properties palette. See *Dynamic Mark Properties* on page 35

   Note: If you select multiple objects, these objects will be grouped and added as one single mark in your set.

3.3. Updating Dynamic Marks

By default, all dynamic marks are updated automatically. There are however some exceptions to this.

Changes in the Ink Manager

If the ink list in the document changes after adding the marks, you must click Update Ink List in the Ink Manager for the marks to adjust to the updated ink list. See *Color* on page 37

On Demand marks

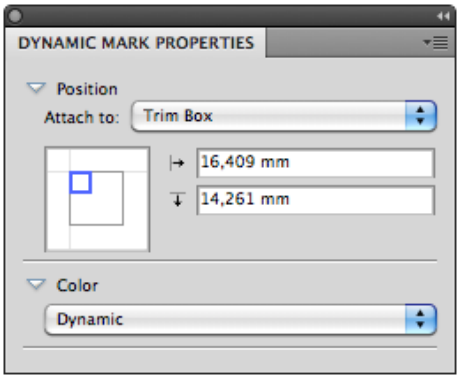
On Demand marks are marks that are not updated automatically. These marks are indicated in the Dynamic Marks palette using this icon: .

These marks will only be updated by clicking the **Update** button .

The only **On Demand** mark at this moment is a Text Mark using the "Ink Coverage" variable.

4. Dynamic Mark Properties

You can open the Dynamic Mark Properties by choosing **Window** > **Esko** > **Dynamic Marks** > **Dynamic Mark Properties** or by choosing **Show Properties Palette** from the flyout menu of the Dynamic Marks palette.



4.1. Position

The position of a mark is based on 3 settings:

Attach to

The position of the mark can be based on

- Any page box: Media Box, Crop Box, Bleed Box, Trim Box or Art Box

Note:

- a Page Box that is not defined in the file, will be greyed out
- If you load a marks set that uses a page box not defined in the current file, the Trim Box is used instead, and a warning is shown
- You can't delete a Page Box if there 's a mark attached to it.

- another dynamic mark
- a PowerLayout Repetition, such as "PowerLayout Grid 1"
- Named Art

Named Art is any art in your Illustrator document, that you gave a name in the Layers palette: browse to the object you want to name in the Layers palette, double click the default name (eg. <path>) and enter a name.

When selecting **Named Art...**, you get a separate dialog, in which you can either type the name of the Named Art you want to use, or select it from the dropdown at the right. Once Named Art has been used, it remains available in the **Attach To** dropdown.

Named Art is only possible on objects, not on groups. Named Art can't be hidden or locked.

Note: Standard Marks will be automatically attached to a currently selected PowerLayout Standalone grid or another selected dynamic mark. If no grid or dynamic mark is selected, the Standard Mark is attached to the Trim Box.

A PowerLayout Standalone grid is a Step and Repeat of a single file or object(s), generated by the PowerLayout Standalone plug-in. If such a grid is available in the document, you can select its name in the dropdown. For more information, see the PowerLayout Standalone documentation.

Positioning

The way the mark is attached, can be chosen by clicking and dragging the blue square (representing the mark) to the desired position on the grey square (representing the **Attach To** reference). Each square has 9 reference points (top left center and right, middle left center and right, and bottom left center and right), so you have 81 different ways of positioning the mark.

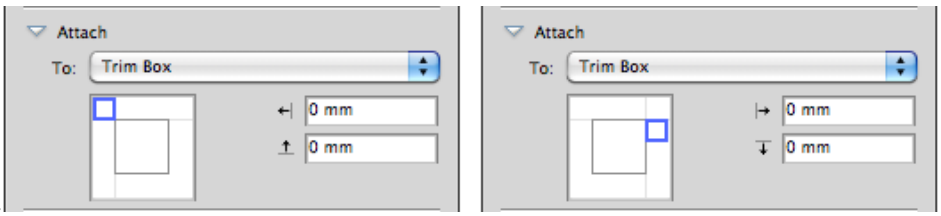
This setting is not available for Bearer Bars and for Cut Marks.

In the example underneath, the top center of the (bounding box of the) mark will be placed on the left bottom corner of the (bounding box) of the reference defined in the Attach to field.

Note: If you create a mark from an existing object, the Positioning settings (the blue rectangle) will be automatically set, using the smallest offset possible while keeping the object at the same location.

Offset

In the offset fields, you can move the mark based on the defined position. The direction of the offset (up, down, left or right) depends on the positioning, and is shown by the arrows.



Note: You can also manually move marks. In that case, the offset will automatically adjust to the new location. The other settings (Attach To and Positioning) will NOT change.

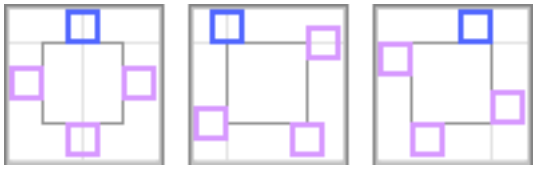
Repeat

For custom marks, you can use the **Repeat** buttons, to choose if the mark should be repeated or not.

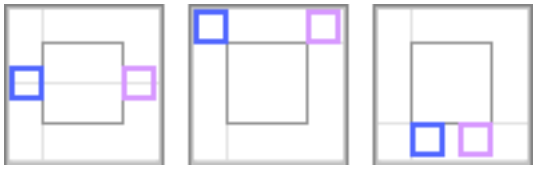
From left to right:

- No repeat

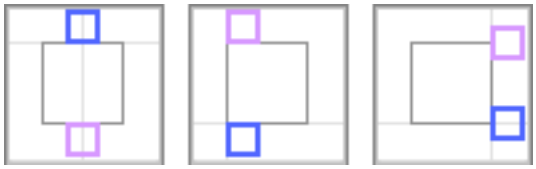
- Repeat on all 4 sides. The positions of the marks are rotated 90º around the center of the Attach To object. Examples:



- Repeated horizontally. The positions of the marks are mirrored over the vertical center line. Examples:



- Repeated vertically. The positions of the marks are mirrored over the horizontal center line. Examples:



Note: For vertical and horizontal repeat, the position of the marks is mirrored, but the actual marks are rotated 180 degrees.

4.2. Color

The color of a mark can be one of these settings:

Registration

The mark will be colored with 100% of every ink used in the document. If you change the tint to e.g. 42%, the mark will get 42% of every ink used in the document.

Changing the inks in the document can change the color of the mark.

Note: If you manually change the color of a mark set to Registration, its color setting will change to "Static" (see below), using the newly set color.

Static

If color is set to "Static", the current color is stored, based on the actual inks. The color of the mark will not change if the order of the ink list is changed.

Note:

When placed on an existing document, "Static" marks are the only marks that affect the ink list: the inks used in the mark will be added if necessary.

Dynamic

If color is set to "Dynamic", the current color is stored, but based on the ink positions in the Ink Manager, and not the actual inks.

For example, if the first ink is Cyan, a 100% cyan mark is stored as "100% of the first ink". If the first ink is different (by changing the ink order, or by placing the mark on a different file), the mark will become 100% of the first ink.

Note: If the ink list in the document changes after adding the marks, you must click **Update Ink List** in the **Ink Manager** for the marks to adjust to the updated ink list.

Darkest

The mark will be colored with 100% of the darkest ink used in the document. You can't change the percentage for "Darkest" ink, it will always be 100%.

Changing the inks in the document can change the color of the mark. Technical inks and Processing Step Inks are not used in the mark.

Note: If you manually change the color of a mark set to Darkest, the color will change back to the darkest ink at the next mark update.

Black or Darkest

If the document contains a Process Black ink, the mark will be colored with 100% Black, otherwise the darkest ink used in the document is used. You can't change the percentage for "Black or Darkest" ink, it will always be 100%.

Changing the inks in the document can change the color of the mark. Technical inks and Processing Step Inks are not used in the mark.

Black

The Mark will be colored with 100% Process Black, regardless of the inks already used in the document.

Note: To ensure Marks using this color are supported on previous versions of Automation Engine, it will be saved as a 100% solid black "Static" color when exporting a Mark Set to Automation Engine. See *Export Mark Sets* on page 65

Fill / Stroke

For custom marks and for Color Patch marks, you can define both the Fill and the Stroke Color. For Stroke, you have an extra option **Same as fill**

Defaults

Every dynamic mark has a default color attribute:

Mark Type	Available Color Options	Default
Custom mark (plain object)	all*	Dynamic
Cut Mark	Registration, Darkest, Static	Darkest
Text	all	Dynamic
Image Mark	Static, Dynamic**	Static
Dynamic Objects (Barcode, Panel, Table)	all	Static
Bearer Bar	all	Registration
Gradation Strip	No Color Options	not applicable
Grid Marks	Registration, Darkest, Static	Registration
Corner Marks	Registration, Darkest, Static	Registration
Color Patch	only applicable for stroke: all	same as fill

(*): A Custom mark created from a mesh or gradient object will always have color attribute "Static". This can't be changed.

(**): EPS image marks can only be Static.

Note: A Gradation Strip doesn't allow setting Color options. A Gradation Strip always uses every ink, except for technical inks.

Inks

When using **Dynamic** color, you can choose what inks to include: **All**, **Only Technical**, **Only Printing** or **Custom** when working in Normalized PDF, or **All**, **Only Processing Step Inks**, **Only Artwork Ink**, **Printing Units** or **Custom** when working in PDF+.

When choosing **Custom**, you can set a combination of rules to define what inks should be included, based on the Printing Method, Ink Names or Ink Group (process or spot colors).

By choosing **Printing Units**, only inks with a defined Printing Unit number are used, and the Printing Unit order is used as well. If e.g. the mark is using the 4th ink, the mark will be colored with the ink that has Printing Unit 4.

Note: For more information about Printing Units, we refer to the **Printing Units** chapter in the *Esko Data Exchange Documentation*

For any other color option, you can't change the drop down: for Static color and Registration it is fixed at "All", while for "Darkest" it is fixed at "Only Printing".

If the option **Include Varnish Inks** is disabled, inks set as "Varnish" will not be taken into account for Dynamic color.

Note: When using **All** (inks) while working in PDF+, the **Include Varnish Inks** option will always be enabled.

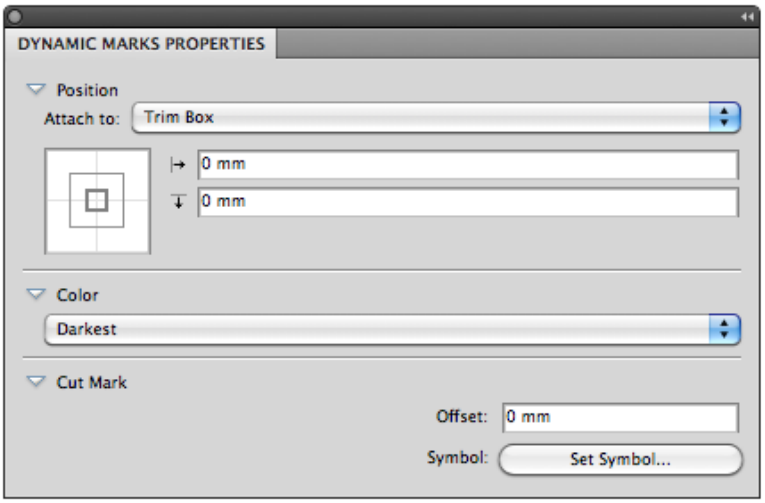
4.3. Specific Mark Properties

Standard Marks have, beside Position and Color, some specific properties.

Also Text Marks have specific properties, allowing to create dynamic text marks.

4.3.1. Cut Mark Properties

Cut Marks are created from a symbol named "CutMark", and are by default 0,1mm wide and 10mm long.



Position: Cut Marks will be automatically attached to a currently selected PowerLayout Standalone grid or another selected dynamic mark. If no grid or dynamic mark is selected, the Cut Mark is attached to the Trim Box.

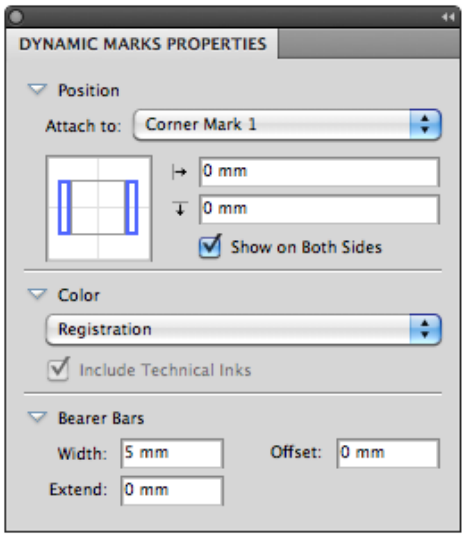
Color: Cut Marks are by default in "Darkest" color.

Offset: allows to define the offset for the Cut Marks. A positive offset will move the Cut Marks to the outside.

Symbol: allows to change the symbol used for the Cut Mark. See *Changing the Symbol of a Standard Mark* on page 62,

4.3.2. Bearer Bars Properties

Adding a Bearer Bars mark will create two bars, one on each side, left and right (default) or top and bottom. The bars will automatically take the size (vertical or horizontal) of the "Attach" selection.



Position: Bearer Bars will be automatically attached to a currently selected PowerLayout Standalone grid or another selected dynamic mark. If no grid or dynamic mark is selected, the Bearer Bars are attached to the Trim Box.

If the **Show on Both Sides** option is selected, you will get a Bearer Bar on both sides (top and bottom, or left and right).

By positioning the blue rectangles, you can choose between a vertical or horizontal orientation.

Color: Bearer Bars are by default in Registration color.

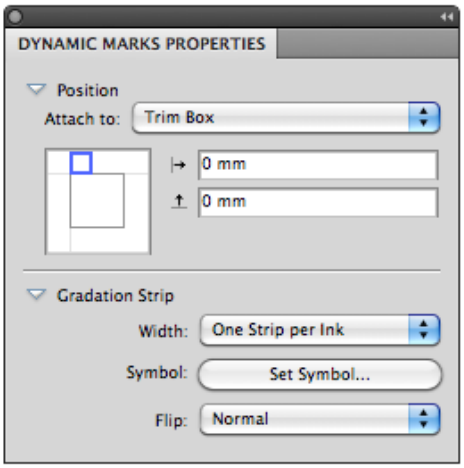
Width: The width of the Bearer Bar.

Extend: allows to extend the Bearer Bar on both size. Entering e.g. +5mm will extend the Bearer Bar by 5 mm on both ends.

Offset defines the distance between the Attach to object and the Bearer Bars.

4.3.3. Gradation Strip Properties

Gradation Strips are created from a symbol named "GradationStrip", and are by default 3 rectangles of 5 x 5mm, horizontally, colored 40%, 80% and 100%, one strip per ink.



Position: Gradation Strips will be automatically attached to a currently selected PowerLayout Standalone grid or another selected dynamic mark. If no grid or dynamic mark is selected, the Gradation Strip is attached to the Trim Box.

If you change the Positioning setting (the blue rectangle), the gradation strip will rotate automatically based on the position of the blue rectangle.

Width: The width can be set to "One Strip per Ink" or to "Repeat to Fit".

Symbol: allows to change the symbol used for the Gradation Strip Mark. See *Changing the Symbol of a Standard Mark* on page 62,

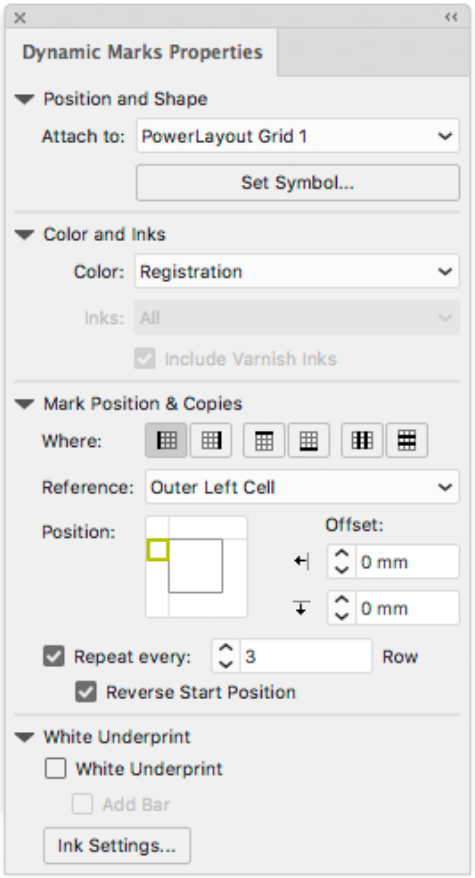
You can use any type of art in the symbol, but only paths and compound paths will be colored. If you will use any text in your Gradation Strip symbol, it will be automatically colored with darkest ink.

If you change the default Gradation Strip symbol, the default position will be based on the size of the symbol. If the width of the symbol is bigger than its height, the Gradation Strip will be created horizontally by default. If the height is bigger, the Gradation Strip will be created vertically by default.

Flip: when set to "Normal", the gradation is built from left to right, when set to "Reverted", the gradation strip is built from right to left.

4.3.4. Grid Mark Properties

Grid Marks are created from a symbol named "GridMark", and are by default a rectangle of 5 x 5mm, in Registration color.



Position: Grid Marks will be automatically attached to a currently selected PowerLayout Standalone grid. If no grid is selected, you will get an error message.

Mark Positions & Copies:

Using the **Where** buttons, you can define where you want the Grid Marks:

- on the left side of the Repeat
- on the right side of the Repeat
- on top of the Repeat
- below the Repeat
- in between the columns
- in between the rows.

Note: The "in between" options can not be used in combination with **stagger**. If you enable stagger while grid marks are set to "in between", or if you load a mark set containing such a mark, the grid marks will be placed at the side, and a warning will be given.

For the Mark Position, you can (besides the normal Position settings) set the **Reference**. The Reference defines what cell or column to use as a reference:. You can set the Reference to **Outer Left Cell** or **Outer Right Cell**, or to **Outer Left Column** or **Outer Right Column**.

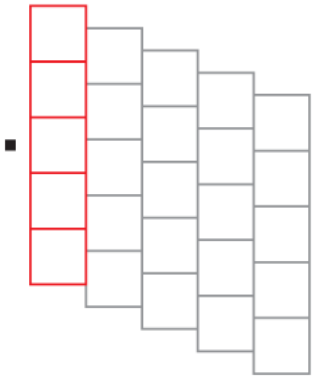
If the Grid Marks are placed on the top or bottom of the repeat, the options become top/bottom instead of left/right, and Row instead of Column.

If a **Column** is used, a single Grid Mark is placed, using the column as reference.

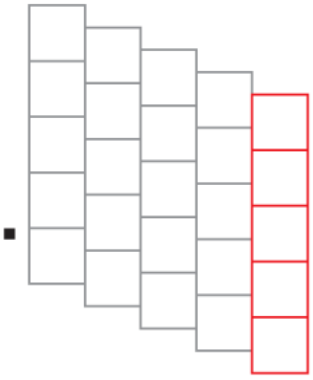
In case you use a **Cell** as Reference, you can choose to **Repeat** the grid mark every Row (or Column), every 2 rows, ect...

The examples underneath shows a 5 by 5 repeat with staggering. The Position is always centered at the left side.

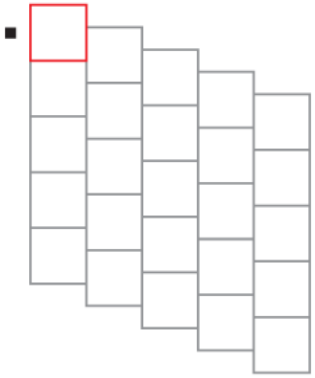
Outer Left Column:



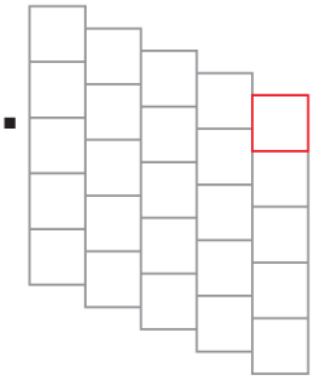
Outer Right Column:



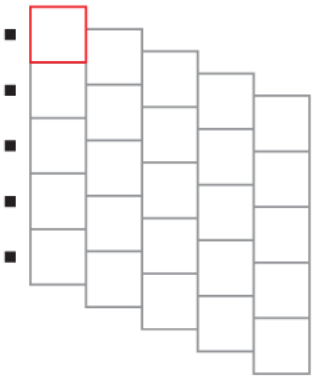
Outer Left Cell, no repeat:



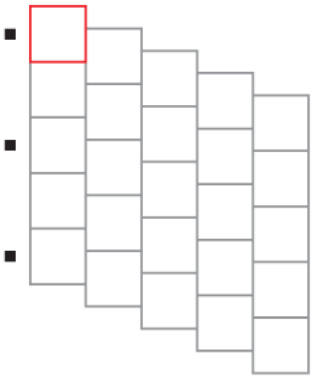
Outer Right Cell, no repeat:



Outer Left Cell, repeat every 1 rows:



Outer Left Cell, repeat every 2 rows:



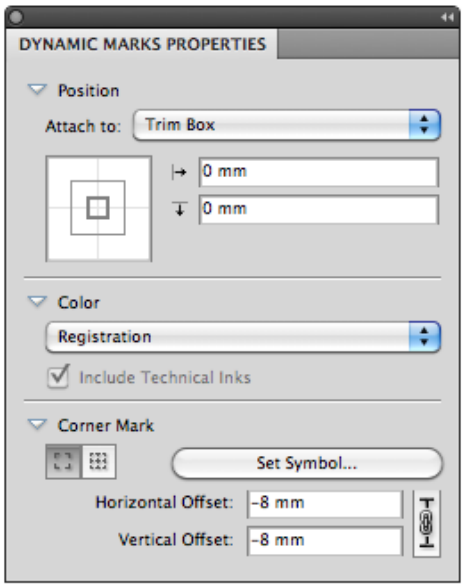
If you enable **Reverse Start Position**, the repeat will start at the opposite side (top instead of bottom, left instead of right, ...). This option is only available if **Repeat Every** is enabled and uses a value of 2 or more.

Symbol: allows to change the symbol used for the Gradation Strip Mark. See *Changing the Symbol of a Standard Mark* on page 62.

White Underprint: see *White Underprint* on page 61

4.3.5. Corner Mark Properties

Corner Marks are created from a symbol named "CornerMark".



Bounding Box Corners or **Repetition Corners**:

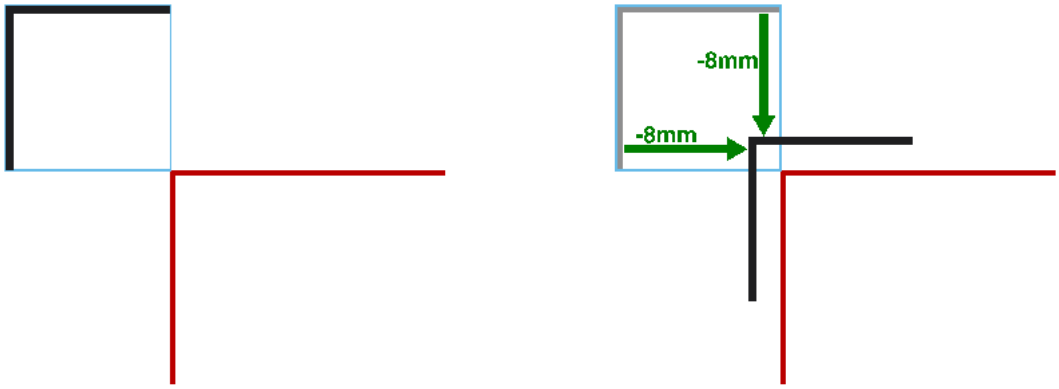
Using the buttons, you can define if you want corner marks on the bounding box of the selected **Attach To** area, or on the corners of every one-up. This option is only available if you attached the corner mark to a Repeat Grid.

Set Symbol: allows to change the symbol used for the Gradation Strip Mark. See *Changing the Symbol of a Standard Mark* on page 62.

Offset allows to define the offset between the corner and the corner mark. If the lock is enabled, vertical and horizontal offset are kept the same. If the lock is disabled, you can enter different values for vertical and horizontal offset.

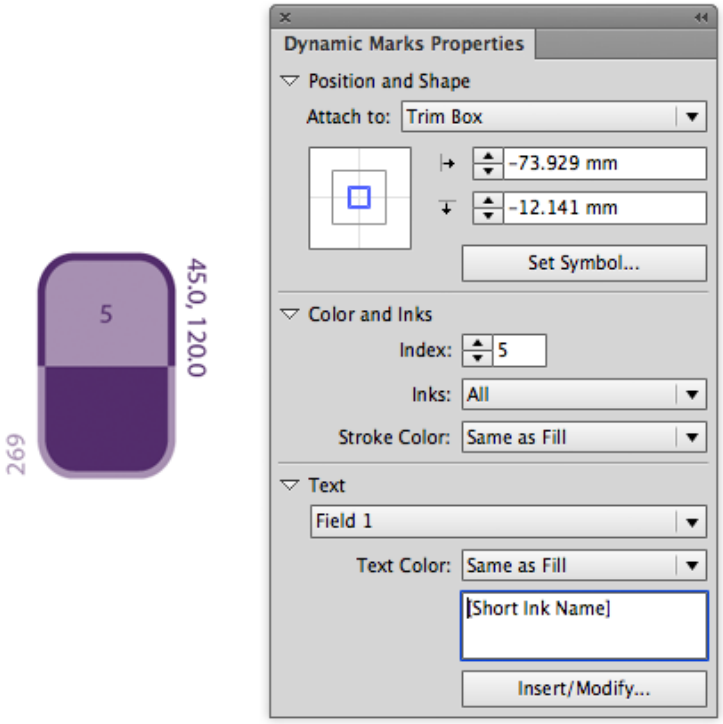
If an offset of 0mm is used (in the image underneath on the left), the bounding box of the corner mark is placed on the outside of the selected page box. The page box is shown in red, the corner mark in black and the bounding box in blue.

In the image on the right, the default offset of -8mm is used. You can see the Corner Mark being moved 8 mm to the inside, based on the original position. Since the default symbol is 10 mm by 10mm, this default setting places the corner mark at 2 mm to the outside of the selected page box.



4.3.6. Color Patch Properties

Color Patch marks are created from a symbol named "ColorPatch".



Set Symbol: allows to change the symbol used for the Color Patch Mark. See *Changing the Symbol of a Standard Mark* on page 62.

A Color Patch mark is dynamically colored in one ink. The **Index** defines the ink to use, based on the ink position in the Ink Manager.

You can however define a different color for the text and for the stroke.

The number of text fields depends on the number of text fields in the symbol. When using the default symbol, a Color Patch contains 3 text fields, set to the short ink name, the ruling and angle, and the index.

Note: When you create a symbol for Color Patch using exact the same variable names (case sensitive), Dynamic Marks will automatically use these variables. This way, you can quickly create a Color Patch symbol with working variable text fields.

4.3.7. Text Mark properties

A Text Mark is a Custom Mark created from a text object. Text Marks can consist of static and dynamic text.

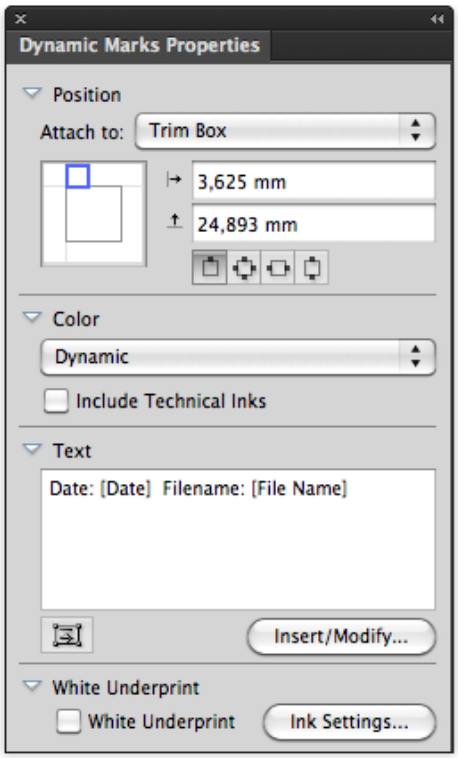
1. Create a text object, using the font and text settings you want to use, and add it as a Custom Mark.

   For more info on adding objects as Mark, see *Adding objects as Mark* on page 33

2. Open the Dynamic Mark Properties palette, by choosing **Window** > **Esko** > **Dynamic Marks** > **Dynamic Mark Properties**

   The existing text is **static**, which means it won't change when you use the Mark into another document, or if the document changes.

   You can make all or part of the text **dynamic**, to have it change with every document you use your mark into.



Note: If you want to have some static text, just leave that part of the text as it is (or type in new text) in the **Text** area.

3. To get dynamic text, you need to insert dynamic **fields**.

   Place your cursor where you want the field to be, or select the text to replace with a field, and click the **Insert / Modify ...** button.

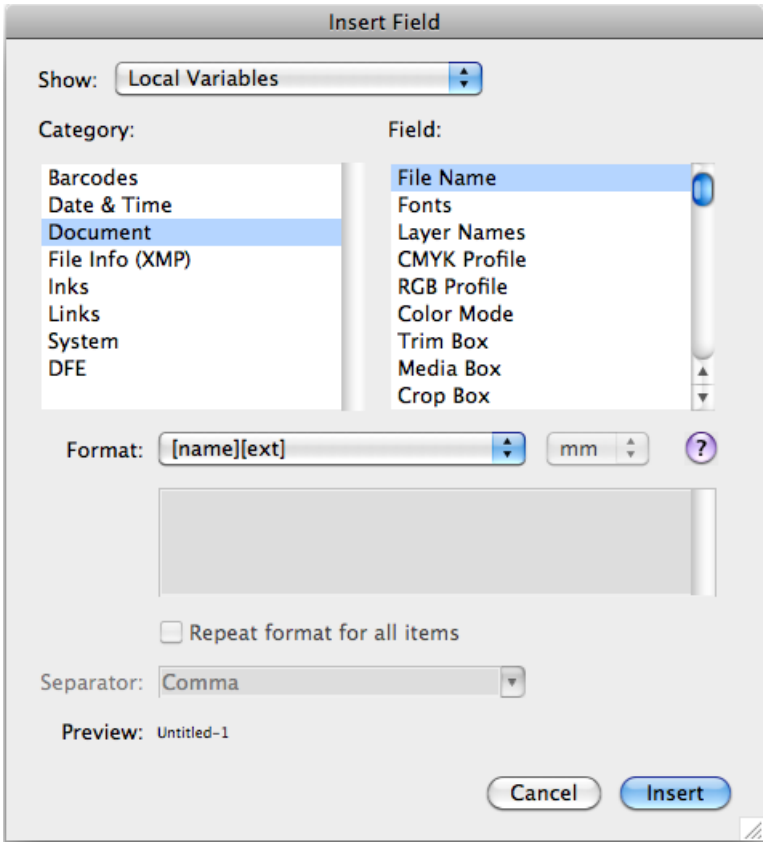
4. In the **Insert Field** dialog that opens, choose the fields to insert:

   a) Select **Local Variables** to select variables from the local file, or **Server Variables** to use SmartNames from the Automation Engine server. In that case, all Database queries defined on the server will be available, as well as all job and product parameters.

   b) choose a field **Category**, for example **Barcodes**, **Date & Time**...

   c) in that **Category**, choose the **Field** you want to use (see *Categories and Types* on page 49 for a list of available categories and fields),

   d) if applicable, choose the **Format** to use for your chosen **Field** (see *Formatting Dynamic Fields* on page 54 for details),



Note: The **Preview** line shows how the field will be resolved in the current document.

   e) when you are satisfied with how your field will look like, click **OK**.

   The dynamic parts of a text object will appear between square brackets.

White Underprint allows to add White Underprint to your Mark. See *White Underprint* on page 61

Categories and Types

Local Variables

Barcodes	• Number of Barcodes • Barcode Type • Barcode Code • Bar Width Reduction • Barcode Magnification • Barcode Device Compensation • Barcode Narrow Bar
Date & Time	• Date • Time • Date and Time
Document	• File Name • Fonts • Layer Names • CMYK Profile • RGB Profile • Color Mode • Media Box • Crop Box • Bleed Box • Trim Box • Art Box
File Info (XMP)	• Description • Author • Document Title • Author Title
Inks	• Number of Inks • Number of Technical Inks[1] • Number of Processing Step Inks[2] • Ink Names • Technical Ink Names[1] • Processing Step Ink Names [2] • Short Ink Names[4] • Abbreviated Ink Names[4] • Ink Types

	• Ink Dotshapes • Ink Angles • Ink Rulings • Ink Printing Method • Ink Coverage • Ink Printing Units [2]
Links	• Placed Files • XML Content Files • Structural Design File
System	• Illustrator Version • Creative Suite Version • OS Type • OS Version • Short User Name • Full User Name

Server Variables

File Information	• Extension of File • File • File Type • First Folder of File • Folder of File • Folder of Input
Job Information	• Job Name • Order ID • Sub Order ID • Description • Due Date • Project ID • Last Actor • Job URL • Category • Category2 • Category3 • Category4 • Category5 • Category6 • Category7 • Customer Ref • CSR • CSR Email • Customer ID • Customer Name • Customer Description • Due Day

	• Due Time • Job Container Name • Job Container URL • Job CT URL • Job ID • Name of Folder of Job • JI Legacy Job (JDF) • JI Originator (JDF) • PS Printer Name • PS Printer Name (JDF) • Job Parameters • Number of Barcodes • Barcode Type • Barcode Code • Bar Width Reduction • Barcode Magnification • Barcode Device Compensation • Barcode Narrow Bar • Barcode Symbol Size • Barcode Error Correction • Number of Inks • Number of Technical Inks[1] • Number of Processing Step Inks[2] • Ink Names • Technical Ink Names[1] • Processing Step Ink Names [2] • Short Ink Names[4] • Ink Types • Ink Dotshapes • Ink Angles • Ink Rulings • Ink Printing Methods
Global	<user defined smart names>
Misc	• Server
Path Info	• File URL • Job Temp URL • URL Folder of Input • URL of Input
Product Info	• Customer's Product Reference • Product Amount • Product Custom Field 1

	• Product Custom Field 2 • Product Custom Field 3 • Product Customer Description • Product Customer ID • Product Customer Name • Product Description • Product ID • Product Name • Product Part Custom Field 1 • Product Part Custom Field 2 • Product Part Custom Field 3 • Product Part Datazone • Product Part Name • Product Part Status
Job Barcodes	• 2of5 • Bobst • CLF8 • Codabar • Code 39 • Code 128 • Code 39 Extended • Data Matrix ECC 200 • EAN 8 • EAN 13 • GS1 128 • GS1 Databar Omnidirectional • GS1 Databar Expanded • GS1 Databar Expanded Stacked • GS1 Databar Limited • GS1 Databar Stacked • GS1 Databar Stacked Omnidirectional • GS1 Databar Truncated • GS1 Datamatrix • GS1 US Coupon Interim • HIBC-39 • HIBC-128 • ITF-14 • ITF-16 • Int. 2of5 • Kurandt • Laetus Pharma • MS7 • MSI • Marks and Spencer • NDC-HRI • PDF417 • MicroPDF417 • Plessey

	• PZN • PZN8 • Paraf Italy • QR • MicroQR • UPC-A • UPC-E • UPC-SCS
Output Parameters[3]	• Resolution • Color Strategy • Source Profile • Destination Profile • Press Curve • Dot Shape • Horizontal Distortion • Vertical Distortion • Horizontal Scale • Vertical Scale • Device • Configuration • Emulsion • Image • Screen Angle Direction • Plate Curve • Correction Curve • Ink Angle • Ink Ruling • Ink Name • Short Ink Name • Ink Dot Shape • Ink Dot Shape Name

[1]: Only when working in Normalized PDF.

[2]: Only when working in PDF+. For more information on Normalized PDF vs PDF+ we refer to the Data Exchange documentation. See *https://www.esko.com/en/support/product?id=Esko%20Data%20Exchange%20for%20Adobe%20Illustrator*

[3]: the Output Parameters category can be used for creating Mark Sets used on the Imaging Engine RIP. The variables are managed by the Imagine Engine that is linked to the Automation Engine you are connected to, by means of a special task. The variables in this category provide information about Imaging Engine task parameters. You will not get any preview values, as the values will be set by Imaging Engine while imaging.

[4]: for short ink names and abbreviated ink names, you can enable the option to Include suffix for Pantone inks. This will add the suffix (C, M, U, ...) to the short or abbreviated ink name. Disable the option to remove the suffix.

Formatting Dynamic Fields

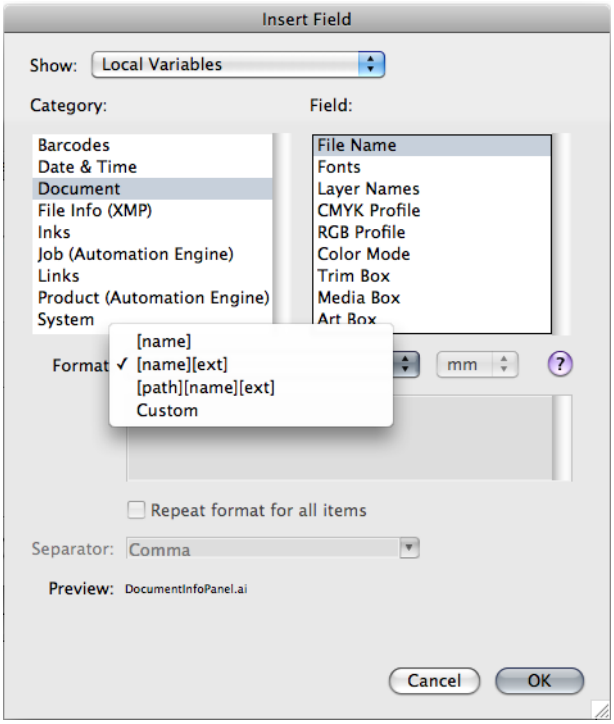
You can format certain fields so they look a certain way (for example, have the date in European or American format).

You can use predefined formats or create custom formats. You can also choose to use a different format for each field, or the same format for all fields.

Using an Existing Format

- You can choose an existing format to apply to your field in the **Format** list.

  For example, use **[name][ext]** to display the file name and extension when using the **File Name** field.

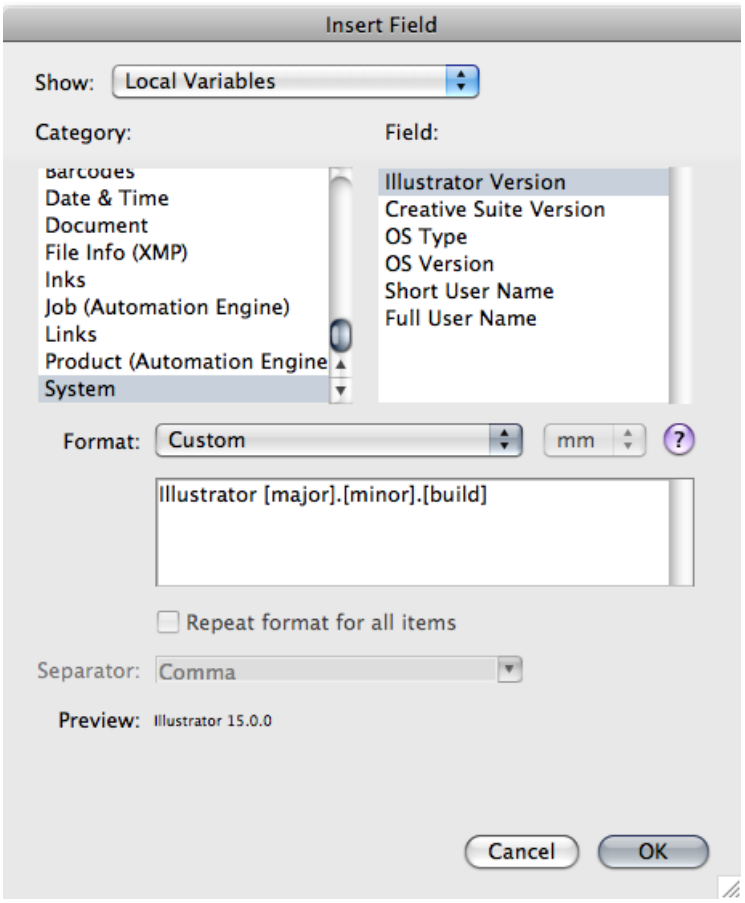


Tip: Hover over ? to get more information about the different formats.

Defining a Custom Format

To define your own field format:

1. Choose **Custom** in the format list.
2. Define your format in the box below (using the predefined formats and the information under ? for help).



Note:

- The items in square brackets, like **[major]**, are dynamic, the rest of the text is static.
- Use the **Enter** key to get a new line.

3. Check how your format resolves for the current file in the **Preview** line.
4. Click **OK** when you are satisfied.

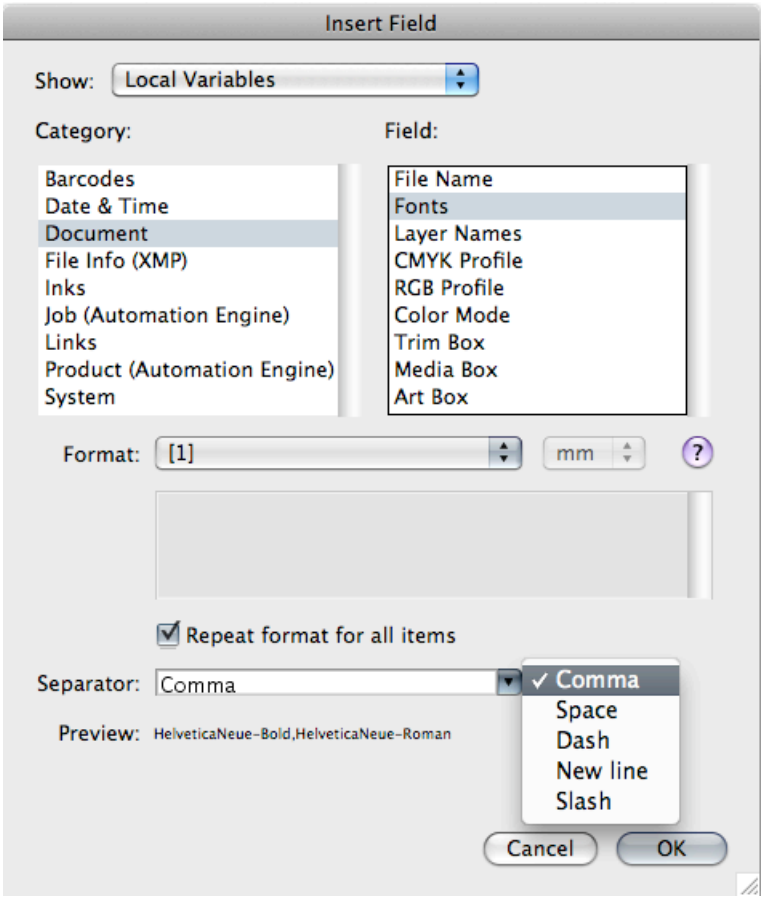
Repeating the Format for All Items

If the field you want to use can have several values (e.g. **Fonts**, **Ink Names**, **Placed Files**...), you can put them all in one dynamic object.

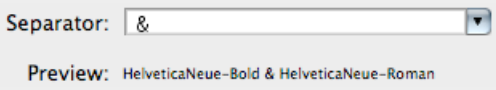
You can also set the same format for all those values at once.

After choosing an existing format or defining a custom one:

1. Select **Repeat format for all items**.
2. Choose the **Separator** you want to use between the values (**Comma**, **Space**...).



Note: You can also specify your own separator by typing it directly in the **Separator** list.



3. When you are satisfied with what you see in the **Preview**, click **OK**.

Formatting Dynamic Fields for Inks

When using variables of the category **Ink**, the **Format** field is used to select the ink based on the ink index.

If for example you use the variable "Ink Names", and set the Format to [3], the variable will return the Ink Name for the 3rd ink in the document, e.g. "Process Yellow".

Note: This does not apply to the "Number of Inks" and "Number of Technical Inks" variables.

Ink Coverage

When using the **Ink Coverage** variable, you can set some additional parameters.

- The **Area** defines in which page box the Ink Coverage will be calculated. You can choose any defined page box.
- The **Unit**. This can be pt^2, in^2, mm^2, cm^2 or a percentage of the total area (%). When possible, the area unit corresponding to the current Adobe Illustrator unit is used, otherwise it will be %.

Important: If you use the **Ink Coverage** variable, the dynamic mark becomes an "On Demand" mark, so it will not be updated automatically. See *Updating Dynamic Marks* on page 34

Reflow text

If you create a custom mark based on text in a text frame, resizing using standard transform tools will resize the text "as is" instead of reflowing the text inside the resized text box.

If the **Reflow Text** option is enabled, resizing using standard transform tools will resize the text box, and the text will reflow inside the resized text box.

4.3.8. Barcode Mark properties

A Barcode Mark is a Custom Mark created from a Barcode object. For more information on creating barcodes, please refer to the Dynamic Barcodes documentation.

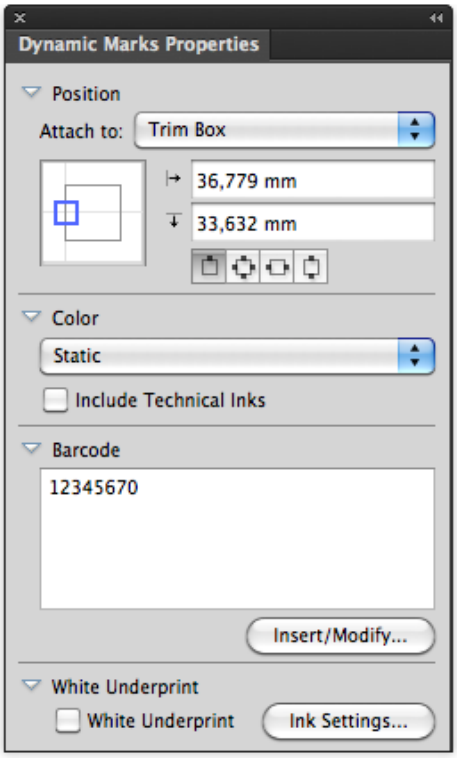
1. Create a barcode, using the barcode type and settings you want to use, and add it as a Custom Mark.

For more info on adding objects as Mark, see *Adding objects as Mark* on page 33

2. Open the Dynamic Mark Properties palette, by choosing **Window** > **Esko** > **Dynamic Marks** > **Dynamic Mark Properties**

   The existing Barcode is **static**, which means it won't change when you use the Mark into another document, or if the document changes.

   You can make all or part of the code **dynamic**, to have it change with every document you use your mark into.



3. To get a dynamic barcode, you need to insert dynamic **fields**.

   Place your cursor where you want the field to be, or select the text to replace with a field, and click the **Insert / Modify ...** button.

4. In the **Insert Field** dialog that opens, choose the fields to insert:
   a) choose a field **Category**, for example **Barcodes**, **Date & Time**...
   b) in that **Category**, choose the **Field** you want to use (see *Categories and Types* on page 49 for a list of available categories and fields),
   c) if applicable, choose the **Format** to use for your chosen **Field** (see *Formatting Dynamic Fields* on page 54 for details),

      Note: The **Preview** line shows how the field will be resolved in the current document.

   d) when you are satisfied with how your field will look like, click **OK**.

      The dynamic parts of a barcode will appear between square brackets.

Note: Only the barcode's code can be changed after making. You can not change the barcode type or other settings after creating a Mark from a bar code. To change these settings, you have to delete the Mark and create a new one.

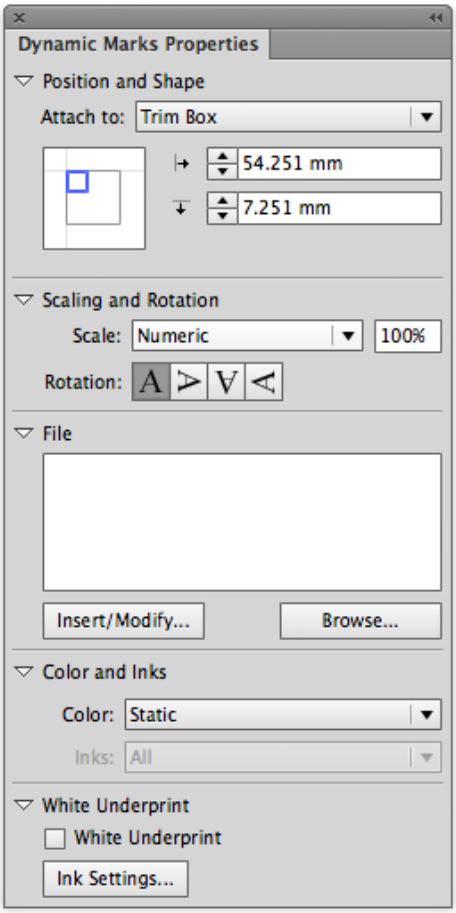
White Underprint allows to add White Underprint to your Mark. See *White Underprint* on page 61

4.3.9. Image Mark properties

An image Mark is a mark created from a linked image

1. There are two ways to create an Image Mark
   - Click the **Add Standard Mark** button or select **Add Standard Mark** from the fly-out menu, and choose **Image Mark** as type.
   - Place an image (supported file formats are JPG, PDF, TIFF, EPS and PSD) as a link, and add it as a Custom Mark. For more info on adding obejcts as Mark, see *Adding objects as Mark* on page 33
2. Open the Dynamic Mark Properties palette, by choosing **Window** > **Esko** > **Dynamic Marks** > **Dynamic Mark Properties**

   If the Image Mark was created from an existing image, the Dynamic Mark Properties will reflect the properties of this image: its position attached to the top left corner of the trim box, and the path of the linked file.



3. Set the **Scaling**
   - When set to **Numeric**, you can enter the scaling in %.
   - **Scale to Fit** will scale the image proportionally to fit the object defined in the "Attach to" field. You can use this for example to fit the image inside a named object. The % field will reflect the current scale factor.
   - **Downscale to Fit** is the same as "Scale to Fit", but the image will only be downscaled (if necessary), not upscaled. The % field will reflect the current scale factor.
4. Set the **Rotation** for the image using the buttons
5. Use the **File** field to set the path for the linked image. If the path is valid, the image will be shown in the document. Otherwise, a placeholder is shown.

   If you used a placed image to create the Image Mark, its file path will be entered automatically.

   You can enter the path manually, or use the **Browse** button.

   You can use dynamic text in the path, e.g. the Job Folder. Use the **Insert/Modify** button. For more information on dynamic text, see *Text Mark properties* on page 47
6. **Color** can be set to Static or Dynamic. For an EPS image, only Static is allowed.

   Note: If you switch from Dynamic to Static, the colors from the original file are used. If there is a difference in the number of channels between two real images, the mark will switch back to static.

7. **White Underprint** allows to add White Underprint to your Mark. See *White Underprint* on page 61

Note: Image marks can NOT be modified (rotating, channel mapping, etc) outside of the Dynamic Marks Properties palette.

4.3.10. White Underprint

White Underprint allows you to create a white background underneath the selected marks. This white background can be necessary when printing on transparent or metal material. White Underprint is available for Text Marks, Barcode Marks and Grid Marks

White Underprint Object

White Underprint objects will be created in a top-level "White Underprint" layer, and will be put in overprint.

The White Underprint object will be

- a solid rectangle, using the bounding box of a **Text Mark**
- a solid rectangle, using the bounding box of a **Barcode Mark**
- a solid rectangle, using the bounding box of a **Grid Mark**

The **Add Bar** option, available for Grid Marks, will stretch the White Underprint over the full size of the Media Box (or Trim Box if no Media Box is defined).

- For vertical grid marks, the White Underprint object will be a vertical bar, using the width of the grid mark, and the height of the Media Box
- For horizontal grid marks, the White Underprint object will be a horizontal bar, using the height of the grid mark, and the width of the Media Box

If the Mark is modified, deleted or expanded, the White Underprint will also be modified, deleted or expanded.

White Underprint Ink

The Ink used for White Underprint on dynamic marks can be defined by clicking the **Ink Settings** button, and entering the name of the Ink to be used for White Underprint.

In case the defined ink doesn't exist yet, a new spot color will be added to the swatches, using the Ink name and the Color patch.

When the name of an existing swatch is entered, this ink will be used for White Underprint.

Note: White Underprint can only use Spot Colors. If an existing swatch name is entered, and the swatch is not a spot color, a warning will be generated: "A swatch by this name already exists but is not defined as a Spot Color".

If you change the White Underprint ink, all White Underprint objects on dynamic marks in the open document will be changed as well.

The White Underprint ink definition is saved in the Mark Set. If you load a Mark Set containing a different White Underprint ink definition as in the open document, you can choose if you want to keep your White Underprint ink, or if you want to load the White Underprint ink definition from the Mark Set.

4.4. Changing the Symbol of a Standard Mark

You can change the Symbol used for a Standard Mark in the Dynamic Mark Properties, by clicking the **Set Symbol** button, and selecting the desired Symbol from the list.

To change or add Symbols,

1. In the Dynamic Marks palette, select **Open Symbol Library** from the fly-out menu.
   The file `DynamicMarks_CS6.ai` (CS6) or `DynamicMarks_AI18.ai` (CC2014 and CC2015) will be opened.
2. Open the Illustrator Symbol Library by choosing **Window** > **Symbols** and use the Illustrator tools to add, edit, remove, duplicate, ... the symbols defined in the file.
3. Save and close the Dynamic Marks file.

The new and modified symbols will now be available when clicking **Set Symbol** in the Dynamic Mark Properties.

5. Mark Sets

When no mark set is loaded, you get the option to load a mark set, or to create a new set.

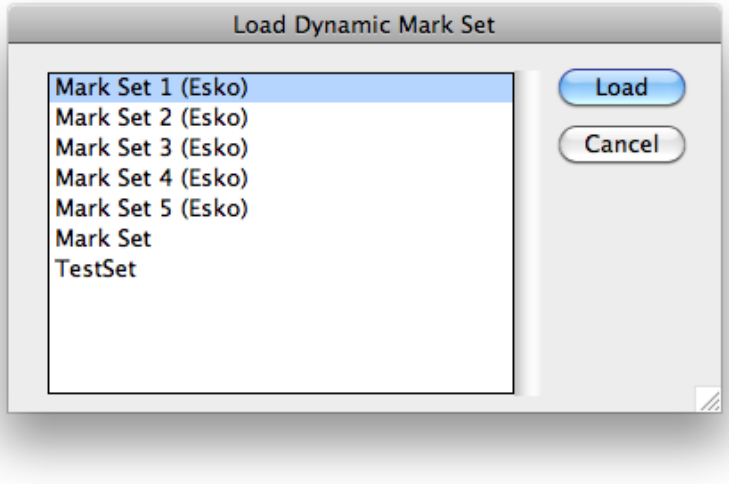
From the Fly-out menu of the Dynamic Marks palette, you can

- Load a Mark Set
- Save the current Mark Set
- Delete the current Mark Set
- Manage Mark Sets

5.1. Load Mark Set

To load a Mark Set:

1. In the Fly-out menu of the Dynamic Marks palette, select **Load Mark Set**



The Load dialog will show the Esko Default Mark Sets, and Mark Sets saved at the location defined in the Dynamic Marks Preferences. See *Esko Mark Sets* on page 67 and *Dynamic Marks Preferences* on page 66

Note: Since Mark Sets are regular .ai documents, the list will show all Adobe Illustrator files at the defined location. When loading an Illustrator file that doesn't contain a Mark Set, nothing will happen.

2. Select a Mark Set from the list, and click **Load**.

Note: If the Mark Set contains a mark with the same name as a mark already in the Dynamic Marks palette, an error message will be given, and the Mark Set will not be loaded.

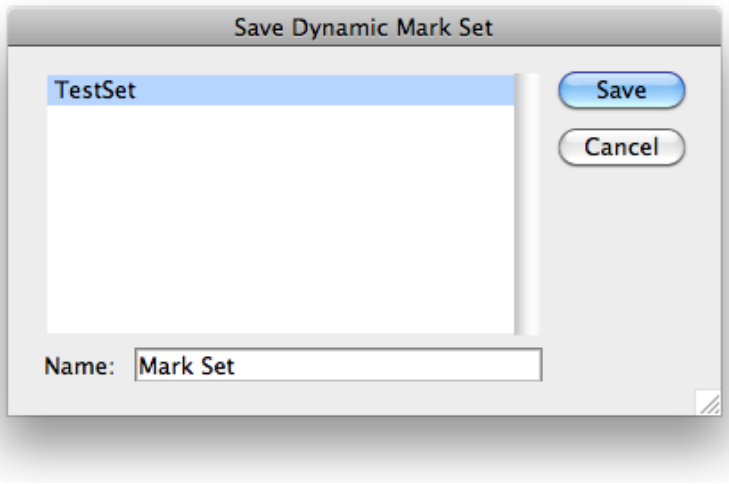
The marks from the loaded Mark Set are **added** in the Dynamic Marks palette. If you want to replace the current marks with the ones from the loaded Mark Set, you need to select all marks and delete them first.

If you load marks with dependencies, the mark will be attached to the object (e.g. PowerLayout Grid or Named Art) with the same name as in the Mark Set file. If no such object exists, you will get an error message and the mark will be attached to the Trim Box.

5.2. Save Mark Set

To save a Mark Set:

1. In the Fly-out menu of the Dynamic Marks palette, select **Save Mark Set**



The Save dialog will show the Mark Sets already saved at the location defined in the Dynamic Marks Preferences. See *Dynamic Marks Preferences* on page 66

2. Enter a name for the Mark Set and click **Save**. If a Mark Set with this name already exists, you will get the option to overwrite it.

Note:

You can only save a Mark set if the Illustrator file is saved. If not, you will be prompted to do so before saving the Mark Set

Mark Sets are saved as simple .ai documents, containing only the objects needed for the Mark Set.

Note: All Marks in a set need to have a unique name. If not, an error message is shown, and the Mark Set is not saved.

5.3. Delete Mark Set

To delete a Mark Set, select **Delete Mark Set** in the Fly-out menu of the Dynamic Marks palette.

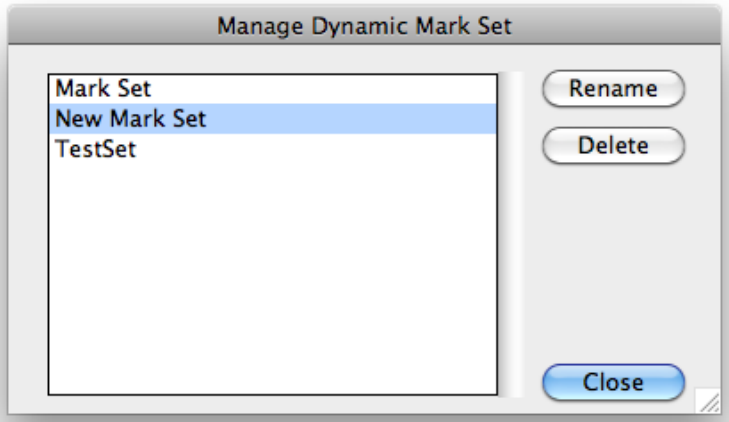
The Mark Set, including all dynamic marks will be removed from the file.

Note: This does not remove a saved (and loaded) Mark Set from disk. To do so, select **Manage Mark Sets** from the Fly-out menu. See *Manage Mark Sets* on page 65

5.4. Manage Mark Sets

To manage your Mark Sets:

1. In the Fly-out menu of the Dynamic Marks palette, select **Manage Mark Sets**



The Manage Dynamic Mark Set dialog will show the Mark Sets saved at the location defined in the Dynamic Marks Preferences. See *Dynamic Marks Preferences* on page 66

Note: Since Mark Sets are regular .ai documents, the list will show all Adobe Illustrator files at the defined location.

2. Select a Mark Set from the list, and
   - Click **Rename**, enter a new name for the Mark Set, and click **Rename** to change the name of the Mark Set
   - Click **Delete** to remove the Mark Set from the list. The actual Illustrator file will be deleted. This can not be undone.

5.5. Export Mark Sets

To use a mark set in the Dynamic task on an Automation Engine server, you can export your dynamic marks set as a **Dynamic Marks Set** (.dmk).

Note: Export Mark Set is only available when working in Normalized PDF. For more information on Normalized PDF vs PDF+ we refer to the Data Exchange documentation. See *https://www.esko.com/en/support/product?id=Esko%20Data%20Exchange%20for%20Adobe%20Illustrator*

To export your mark sets:

1. In the Fly-out menu of the Dynamic Marks palette, select **Export Mark Set for Server**
2. Select a file name and location for the Dynamic Marks Template.

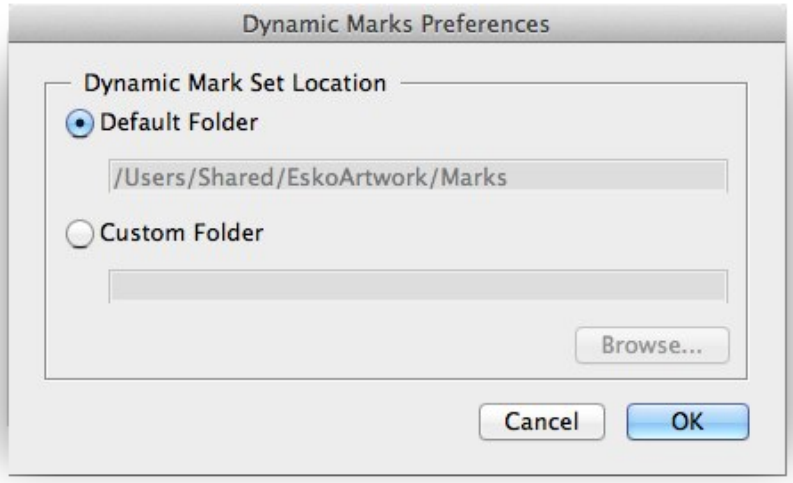
Limitations:

- Color Patch marks are not yet supported. As a workaround, you could manually create a custom mark that looks like the Color Patch.

Note: It is not possible to import a mark set back into Illustrator. It is highly recommended to keep the native Adobe Illustrator files for future modifications in the marks.

5.6. Dynamic Marks Preferences

You can open the Dynamic Marks Preferences by choosing **Illustrator** > **Preferences** > **Esko** > **Dynamic Marks Preferences** on Mac, or **Edit** > **Preferences** > **Esko** > **Dynamic Marks Preferences** on Windows.



In the Dynamic Marks Preferences, you can set the location to save and load Mark Sets.

- **Default Folder**: Mark Sets will be saved to and loaded from the default Esko location.
  - on Mac OS X: `/Users/Shared/EskoArtwork/DynamicMarks/`
  - on Windows Vista and 7: `x:\Users\Public\Documents\EskoArtwork\DynamicMarks\`
  - on Windows XP: `x:\Documents and Settings\All Users\Application Data\EskoArtwork\DynamicMarks\`
- **Custom Folder**: Mark Sets will be saved to and loaded from a custom folder which you can select by clicking the **Browse** button.

5.7. Esko Mark Sets

When installing Dynamic Marks, a number of default Mark Sets are installed as well. These sets can not be changed, but you can load one of these sets, change it and save it under a different name.

Here is an overview of these Mark Sets:

1 x KAMA

A Custom Mark, using these settings:

- The mark is a circle of 3.2 mm diameter, and a vertical and horizontal line of 6.5 mm. All lines are 0.15 mm thick.
- Attached to the Trim Box
- The center of the mark is vertically centered, and 12 mm to the right of the left border of the trim box.
- Using Darkest color

1 x Label Row

A Grid Mark, using these settings:

- attached to PowerLayout Grid 1
- on the right side, with a reference to the outer left cell
- using a 3mm offset in horizontal direction, 0mm in vertical direction
- repeat Every 1-up.
- symbol 10 x 5 mm in Registration color

1 x Sheet

A Custom Mark, using these settings:

- The mark is a rectangle of 10 by 5 mm.
- Attached to the Media Box
- A 3 mm horizontal offset to the upper right part of the Media Box
- using Registration color

2x Label Row

Two Grid Marks, using these settings:

- attached to PowerLayout Grid 1
- Right mark is on the right side, Left mark is on the left side, both with a reference to the outer left cell
- Right mark is aligned to the right bottom corner, Left mark to the upper left corner
- using a 3mm offset in horizontal direction, 0mm in vertical direction
- repeat Every 1-up.
- symbol 5 x 5 mm in Registration color

Mark Set 1 (Esko)

A set for maximum 6 inks in the document, units: mm

- 1 Registration Mark placed on every side
- a Text Mark with the name of the document
- a Text Mark with the date
- a Gradation Strip on the left, with 1 rectangle per ink, colored in 100%
- a Gradation Strip on the right, with a 40%, 80% and 100% rectangle for every ink.
- 6 Text Marks, one per ink, with the name of the ink, and colored in 100% of the ink.

Mark Set 2 (Esko)

A set for maximum 6 inks in the document, units: mm

same as Mark Set 1, but with different type of Registration Mark

Mark Set 3 (Esko)

A set for maximum 4 inks in the document, units: mm

- 12 Gallus elements on left and right side of the document

Mark Set 4 (Esko)

A set for maximum 6 inks in the document, units: mm

- Bearer Bars in vertical orientation and attached to the Trim Box
- 6 Text Marks, one per ink, with the name of the ink, placed inside the Bearer Bar, and colored with 0,2% tint to knock out the Bearer Bar in the same separation

Mark Set 5 (Esko)

A set for maximum 12 inks in the document, units: mm

- Bearer Bars in vertical orientation and attached to the Trim Box
- a Gradation Strip on the left, with one circle per ink, colored in 100%.
- a Gradation Strip on the right, with one circle per ink, colored in 50%.
- Registration Marks placed on the left and right side.
- 12 Gallus elements on left and right side of the document
- a Text Mark with the name of the document, colored in registration
- a Custom Mark setting a background for the above mentioned Text Mark
- 12 Text Marks, one per ink, with the name of the ink, and colored in 100% of the ink.
- a Custom Mark setting a background for the above mentioned Text Marks
- 12 Text Marks, one per ink, with the current Angle of the ink, and colored in 100% of the ink.
- 12 Text Marks, one per ink, with the current Ruling of the ink, and colored in 100% of the ink.
- a Text Mark with the date and time
- a Text Mark with the name of the author, based on the XMP info

6. Dynamic Marks Layer

When adding a dynamic mark for the first time to a document, a layer named "Dynamic Marks" will be created. Standard Marks are created in the Dynamic Marks layer, Custom Marks are moved to the Dynamic Marks layer. If you rename the Dynamic Marks Layer, all dynamic marks created later will still be created in or moved to this layer already containing dynamic marks.

Loading a Mark Set

If you load a Mark Set, the dynamic marks in the set will be placed in the same layer as saved in the set. This means you can have two different layers containing dynamic marks at that point. Newly created marks will then be placed in one of those layers.

Locking or hiding the Dynamic Marks Layer

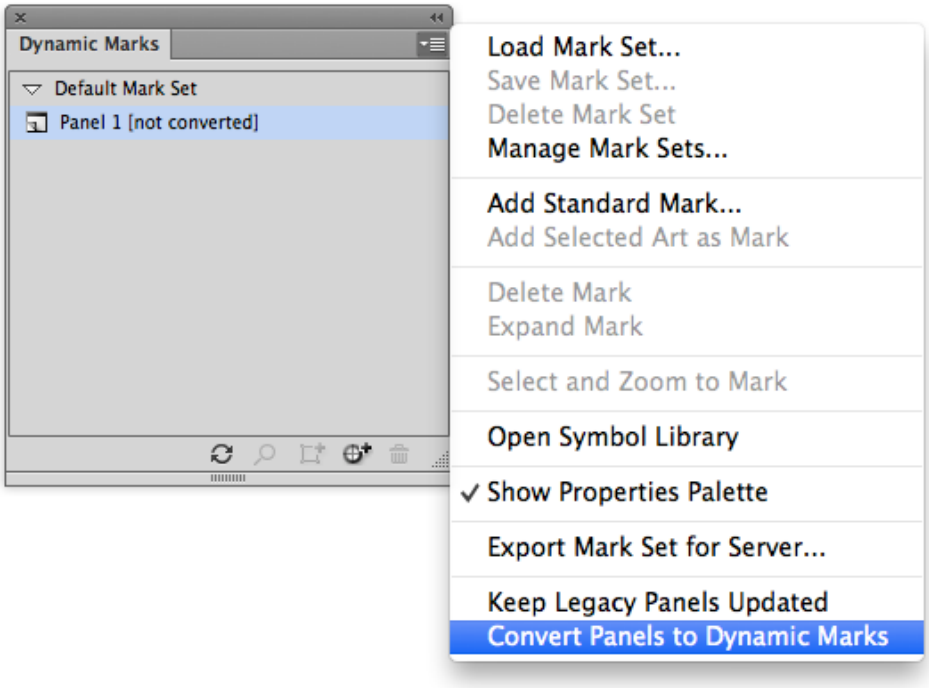
If the Dynamic Marks layer is locked, you will not be able to add any mark. A message will be shown in the message palette. However, all indirect operations are possible, for example changes in the Ink Manager will change the gradation strip, even if the Dynamic Marks Layer is locked.

If the Dynamic Marks layer is invisible, marks will be created / moved in the Dynamic Marks layer, and will immediately turn invisible.

7. Dynamic Panels in Dynamic Marks

When opening a document containing a **Dynamic Panel**, you will see those dynamic panels in the Dynamic Marks palette.

By selecting a dynamic info panel and choosing **Convert Panels to Dynamic Marks** from the fly-out menu, you can convert the selected dynamic panel into one or more dynamic marks.



- Every text item in the dynamic panel is converted to a separate dynamic text mark, using the same variables.
- If possible, other panel items with the same color attribute will be grouped and combined in one single mark.
- The inks used in the dynamic panel are replaced by the corresponding dynamic mark color:
  - A dynamic panel ink will become dynamic color with mode "Only Printing Inks"
  - A dynamic panel technical ink becomes dynamic color with mode "Only Technical Inks"
  - Darkest ink becomes darkest color
  - An object using registration swatch becomes registration color
  - Other inks (not dynamic) become a static color.
- The position of converted panels will always be defined relative to the top left corner of the trim box
- Panel items that can't be converted into a dynamic mark (e.g. a linked image) will remain as a panel item, while other items are converted. A message will be shown.

8. PDF Export and Dynamic Marks

Dynamic Marks as defined in the Dynamic Marks Plugin will be expanded when exporting to Normalized PDF, but when exporting to PDF+ with the **Expand Dynamic Marks** disabled, Dynamic Marks will be kept live in the exported PDF+, so they can be edited and used in e.g. ArtPro+.

Limitations

- If the Dynamic Mark contains a setting that is not supported in PDF+, e.g. "White Underprint" or specific text formatting, the Dynamic Mark will be expanded.
- If the Dynamic Mark contains a text variable that is not supported in PDF+, e.g. "Color Mode" or "Author Title", the variable will be expanded (replaced by static text), but if possible, the Dynamic Mark is kept live.
- A Dynamic Mark that is attached to another mark that will be expanded, will also be expanded.
- When exporting multiple artboards as Multipage PDF, all Dynamic Marks will be expanded.

In any of these cases, a **Message** will be shown in the **Message Center**, indicating what Dynamic Mark was expanded and why.

9. Tips and tricks

I open a new document, create an object to be used as a mark, and as soon as I use "Add Selected Art as Mark", the color of the object changes or disappears. Why ?

If you have a document with e.g. only one rectangle, colored with 100% cyan in your document, the Ink Manager will only contain one ink (Cyan).

When you create a custom mark, the default color attribute is "Dynamic". At this moment, the color definition of the mark becomes "100% of the first ink in the ink manager". Because Ink Manager doesn't read inks from marks with color attribute "Registration", "Darkest" or "Dynamic", and because there are no other objects in the document, the inks list in the Ink Manager will be empty, and so will the custom mark be.

As soon as another ink is used in the document, this ink will be the first ink in Ink Manager, and will be used by the Custom Mark.

In the same way, if the original document would contain e.g. one object in cyan and one in magenta (and nothing else), creating a Custom Mark from the cyan object would make magenta the first ink in the ink manager, so the mark would change from cyan to magenta.

Can I start from an existing standard mark to create my own mark symbols ?

Yes, you can, as long as you remember to **expand** the mark / symbol first (i.e. making it a regular object instead of a symbol).

What if I delete a symbol in the DynamicMarks(_CS6).ai file ?

If you delete a symbol in the DynamicMarks.ai file, the symbol will obviously no longer be available in the **Set Symbol** list. If you delete the default symbol for a Standard Mark, creating the corresponding Standard Mark will result in an error message. To fix this, you have to create these symbols again manually.

Existing marks will NOT be affected, since the symbol is internally copied in the file when creating the mark, or when setting a different symbol. This also means that you can open a file with marks using custom symbols (saved in your local DynamicMarks.ai file) on another computer without loosing the marks.