



# 6

## Preparing Documents for Conversion

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### Preview

In this lesson, you will learn how to clean up and modify your document to prepare it for conversion or for further raster editing.

For document clean-up, you will learn how to:

- Set up MicroStation Descartes for Clean-up Tasks
- Despeckle an Image
- Erase an Image

## Preparing Images for Conversion

### ► Set up MicroStation Descartes

1. From the MicroStation Manager dialog box, select Workspace > dcartes.



2. Open the LESSON6.DGN file supplied with the tutorial. The file is in the ...\dcartes\tutorial directory.
3. From MicroStation Tools menu, select Image and the following tool boxes:

*Image Control tool box*



*Undo tool box*



*Clean Up tool box*



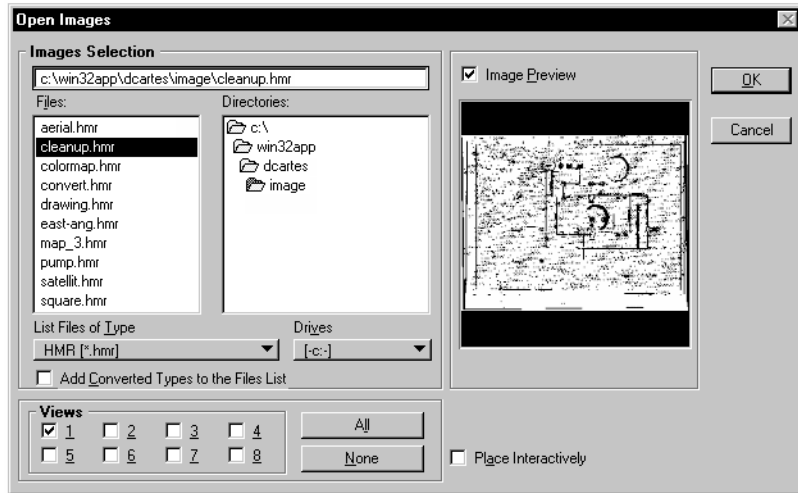
*Erase tool box*



### ► Open an image

1. From MicroStation File menu, select Open > Image. The Open Images dialog box opens.

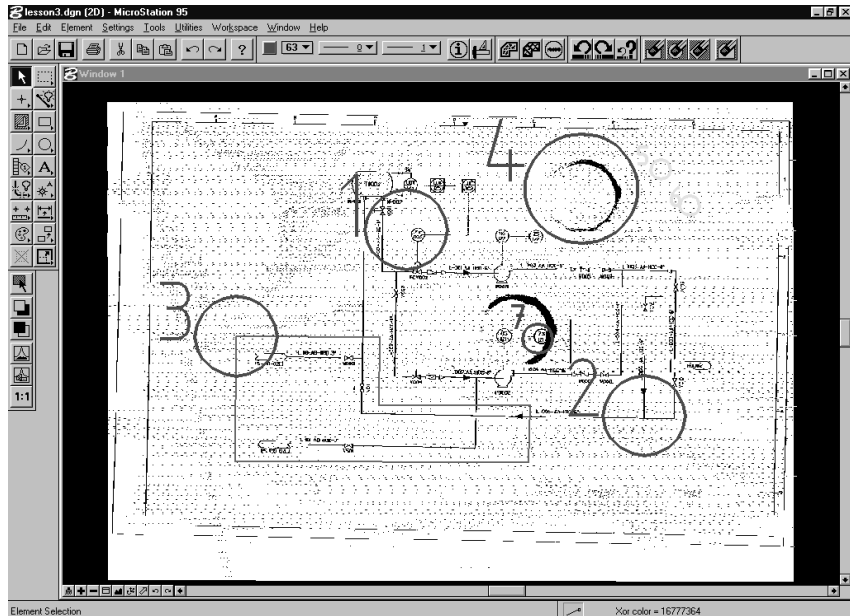
2. Find the CLEANUP.HMR image that is supplied in the ...\\dcartes\tutorial directory. Highlight the image.
3. Set the Image Preview setting to on.  
Notice the display of a thumbnail of the image in Preview window.



4. Check that the setting for View 1 is set to on. Click OK to open the image.



5. Using the *Select Images/Active Image* tool, double-click on CLEANUP.HMR to make it the active image.
6. Dock the tools and arrange the screen as shown below.



## Raster Clean-Up

### ► Despeckle an image by sections

In this exercise, you will remove the speckles on the image that occur as a result of the scanning process.



1. *Window Area* around locations **1** and **2**.
2. From the Clean Up tool box, select the *Remove Speckle - Area* tool.

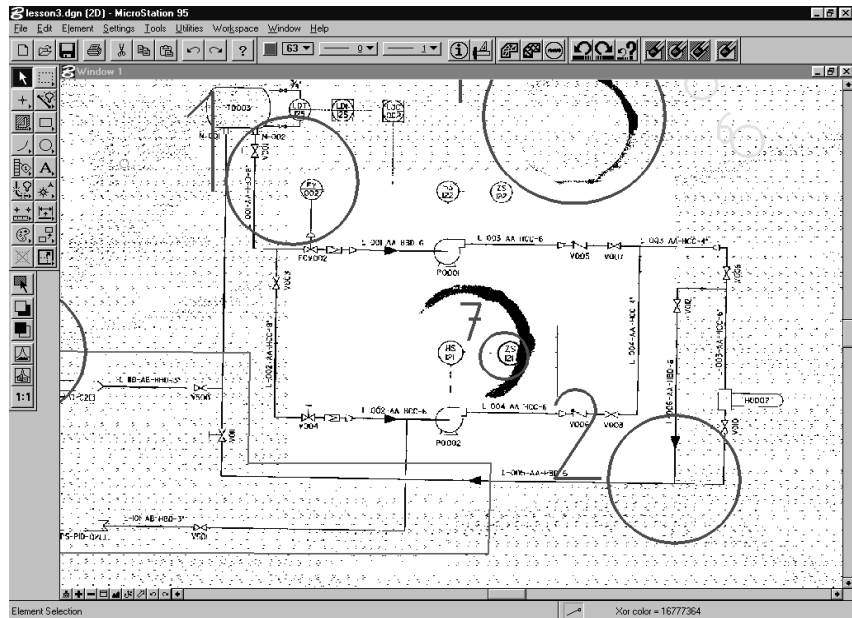
3. Locate the settings box and set the parameters as follows:

*Pixels:* 10

This value determines in pixels, the size of speckles that will be removed when this tool is applied to the image.

*Area:* Block

4. Define the area using locations **1** and **2** as shown below. The speckle removal will be applied to this area.



5. From the Image Control tool box, select the *Fit Images to View* tool. Click in Window 1.

Speckle Removal also allows you to define the target area by using a design element or a fence, an image or by selecting a raster object.

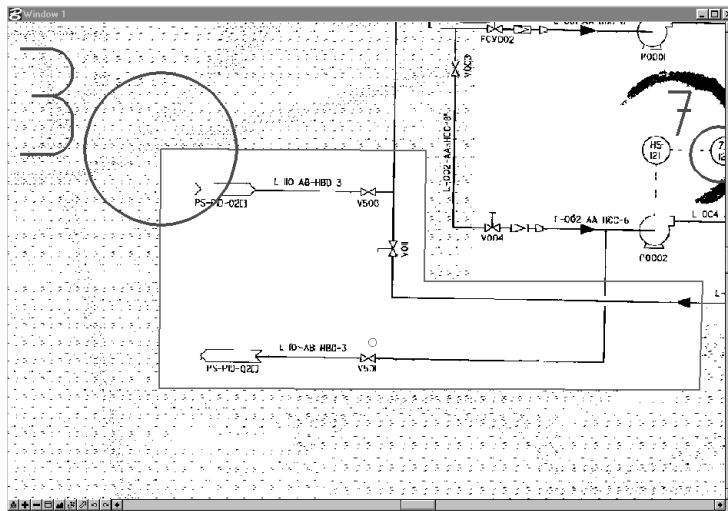
### ► Despeckle an image using a Design Element

1. *Window Area* around location **3**.
2. From the Clean Up tool box, select the *Remove Speckle - Area* tool.

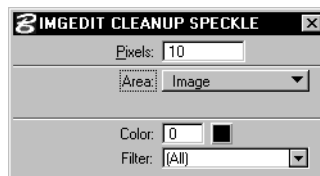


## 3. Set Area to Element.

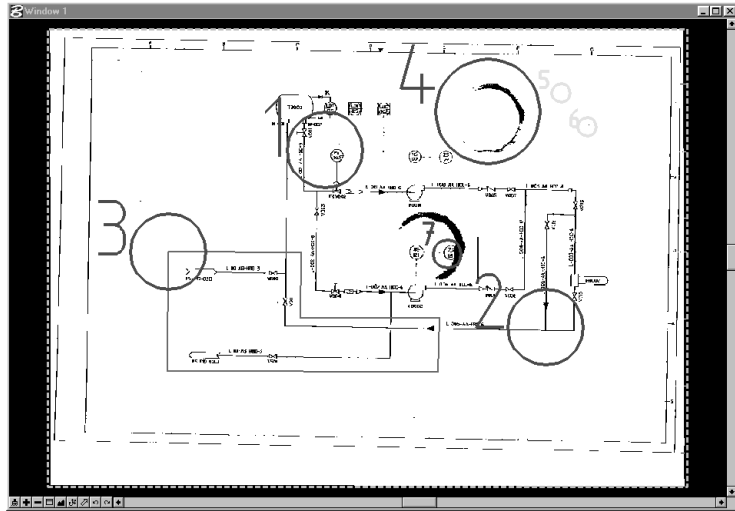
You are prompted to select a closed design element.

4. Enter a data point at location **3** and accept to select the block. The result is shown below.► **Despeckle an entire image**

1. From the Image Control tool box, select the *Fit Images to View* tool. Click in Window 1.
2. From the Clean Up tool box, select the *Remove Speckle - Area* tool.
3. Set Area to Image.



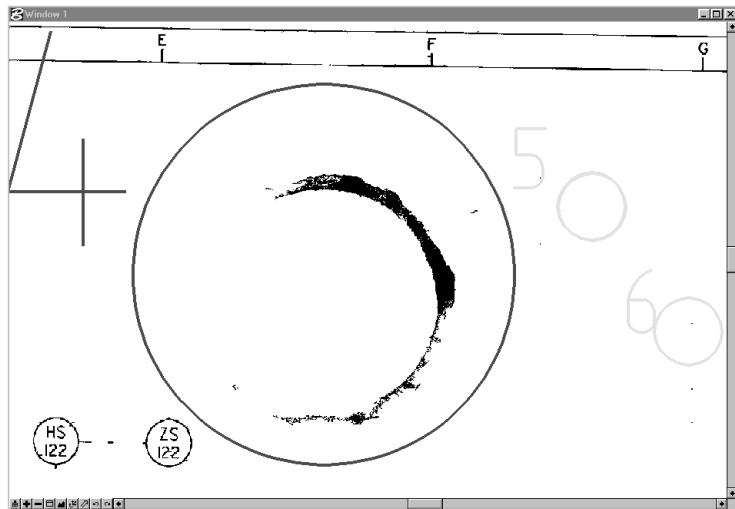
4. Enter a data point to accept the process.  
The result is shown below.



### ► Erase part of an image

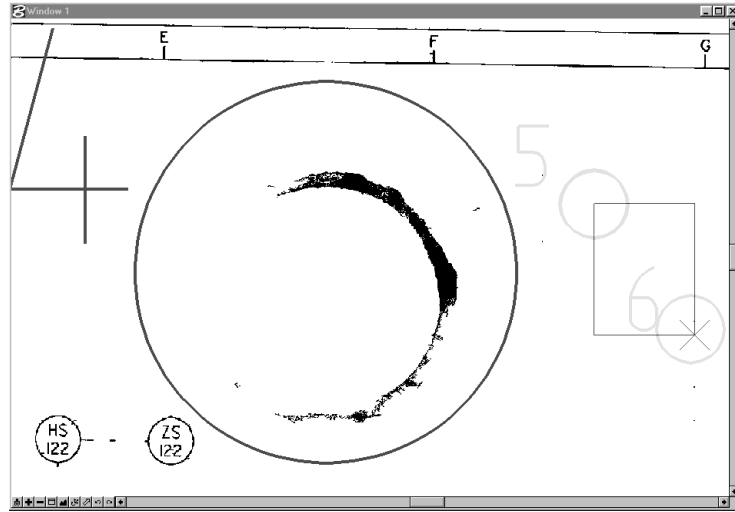
You will now use Erase to further clean up the image.

1. *Window Area* around location **4**.  
Make sure you include the entire smudged area.



2. From the Erase tool box, select the *Erase with Rectangular Brush* tool.

3. Define the size of the brush by using locations **5** and **6** as follows:
  - Snap/data point at location **5**.
  - Move the pointer towards location **6** and snap/data point.
  - An outline attached to the pointer displays the brush.



4. Move the brush to location **4**.
  - Check that only the smudged area is inside the brush.
5. Enter a data point to activate the eraser.
6. Erase the entire smudged area and Reset when your are done. The image is processed and updated.
7. From the Image Control tool box, select *Fit Images to View*. Click in Window **1**.



☞ At any time, if you make a mistake, use the *Undo* tool from the Undo tool bar.

Another coffee stain is left on the image. This smudged area covers information we need to keep in the image. We will use a different shaped brush that enables you to erase inside tight spots.

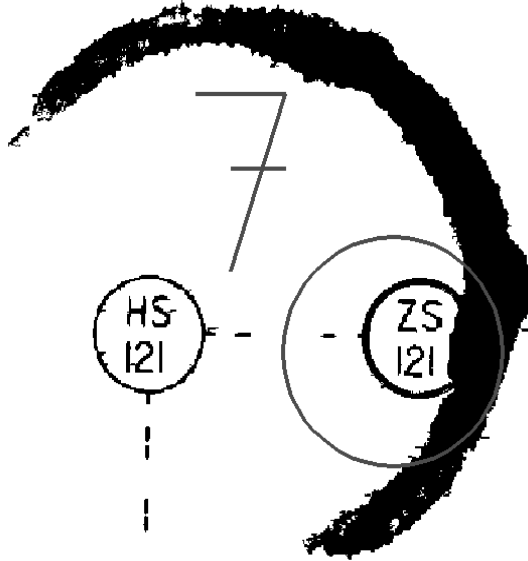


### ► Erase with the Circular Brush

Before erasing the second coffee stain, we must first clean section 7 which includes elements that we want to keep.

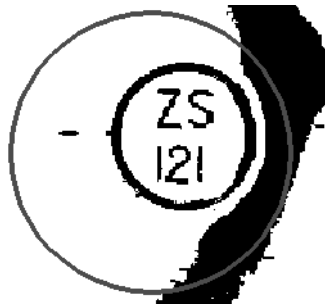
1. *Window Area* around location 7.

The following symbol and text display.



2. From the Erase tool box, select the *Erase with Circular Brush* tool.
3. Set the size of the brush and erase the portion of the stain that overlaps the raster circle.

The result should look as follows.



- ☞ At any time, if you make a mistake, use the *Undo* tool from the Undo/Redo tool bar.

This section requires a little more accuracy and work.



4. Zoom out and from the Erase tool box, select the *Erase with Rectangular Brush* tool.
5. Set the size of the brush and erase the remaining parts of the stain.
6. From the Settings menu, select Levels > Display (<Ctrl-E>). The View Levels dialog box opens.
7. For Window **1**, turn off level 1 and click Apply.

Congratulations! You have perfectly cleaned a very dirty drawing.

## Practice

This lesson does not cover all of the functions related to Preparing Images for Conversion. You should explore other functions by reviewing Chapter 10 “Editing Images” of the *MicroStation Descartes User's Guide*.

Here are a few of the functions that you should explore:

- Measure Speckles
- Remove Holes
- Rectangular and Oblique Erasers