



Using 16:9 Plasma/LCD Panels in Video Walls

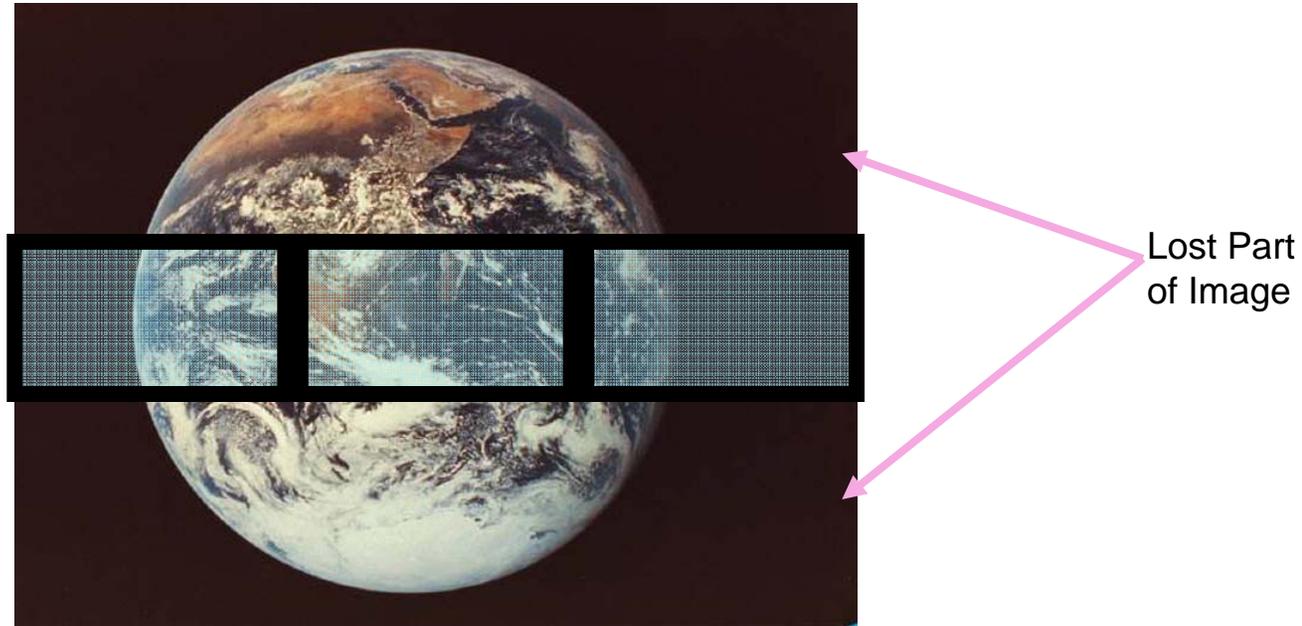
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Overview

- Plasma and widescreen LCD panels have a 16:9 image format, whereas standard video input sources use a 4:3 image format...
 - This creates a size mismatch between the source image and displayed image which must be compensated in the display device.
- Plasma and LCD panels can be set to different display modes to cope with standard 4:3 images, depending on user preferences
 - Letterbox modes expand the image vertically to maintain 4:3 aspect ratio, but the top and bottom of the video image is lost
 - Fill Screen modes expand the 4:3 image horizontally and compress the image vertically to fill the screen resulting in a foreshortened image (people will look shorter than reality)
- The Brick-2 video wall processor has flexible capability to display a square or asymmetric magnified image to help compensate for the 16:9 panels
 - In addition to magnification flexibility, the processor can shift individual segments of the displayed image to correctly line-up with the array of panels
- This document helps users choose the best format for their video wall by illustrating the effect of different plasma and processor image magnification setups – the choice depends on user preferences
 - Of course, the video material can also be edited to reduce the effect of losing the top and bottom of the video material, but this is expensive and only suitable where the video wall will display only edited material

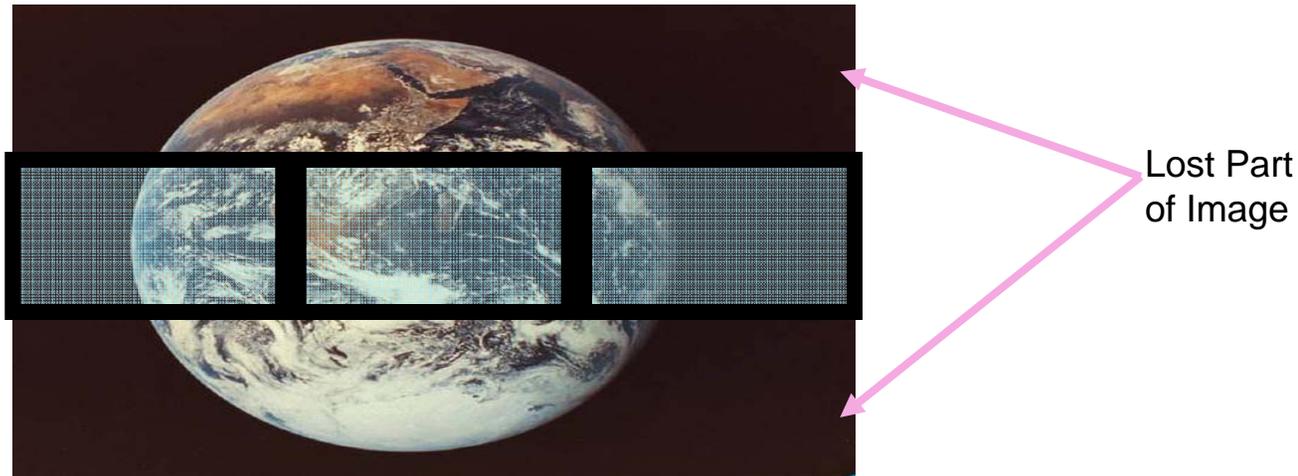
1x3 Video Wall

**1x3 Video Wall with Plasma/LCD monitors set to Letterbox mode
Processor set to Square 3x3 magnification**



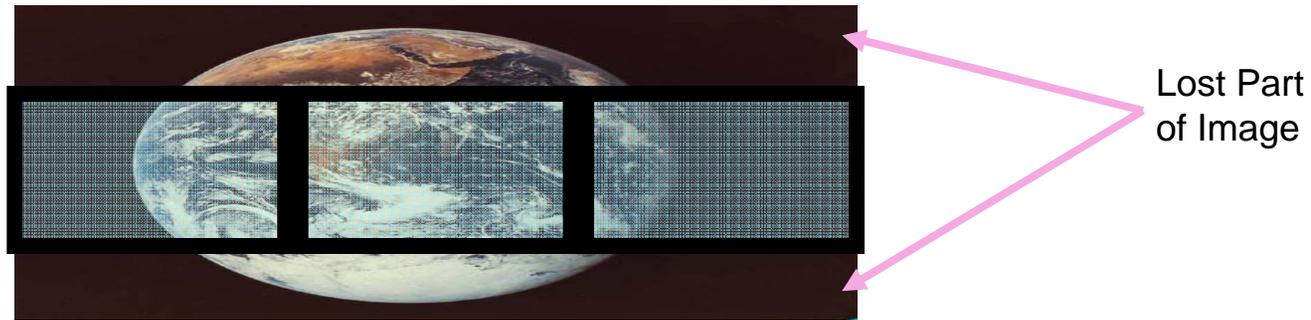
Advantage that magnified image has correct aspect.
Disadvantage that magnified and x1 images are cropped.

**1x3 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Square 3x3 magnification**



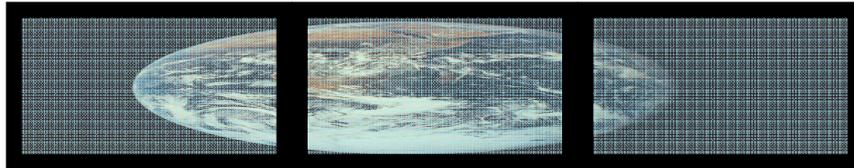
Advantage that less of magnified image cropped and x1 images not cropped.
Disadvantage that magnified and x1 images compressed.

**1x3 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 2x3 magnification**



Advantage that less of magnified image cropped and x1 images not cropped.
Disadvantage that magnified and x1 images compressed.

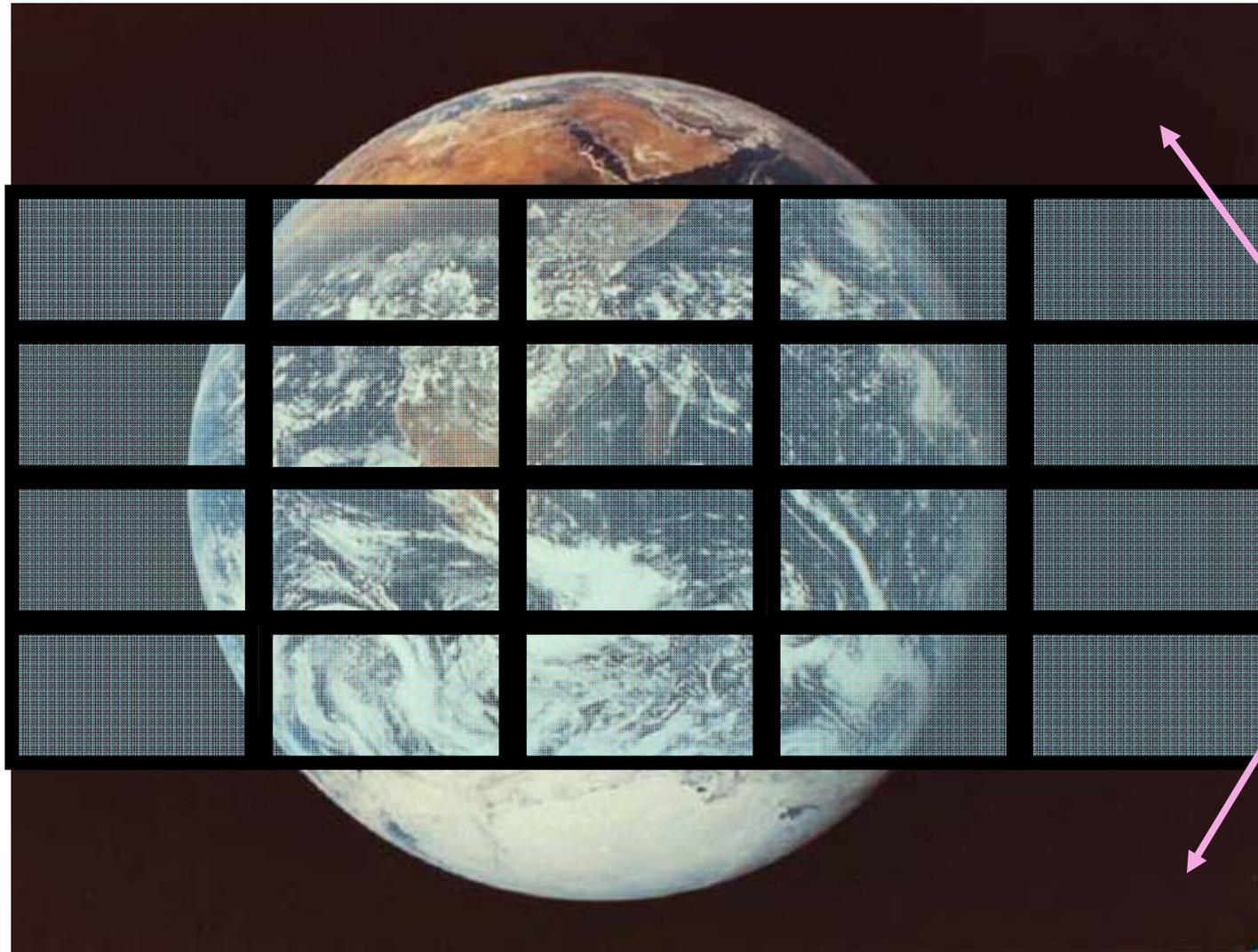
**1x3 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 1x3 magnification**



Advantage that magnified image has normal aspect and x1 images not cropped.
Disadvantage that magnified image cropped and x1 images compressed.

5x4 Video Wall

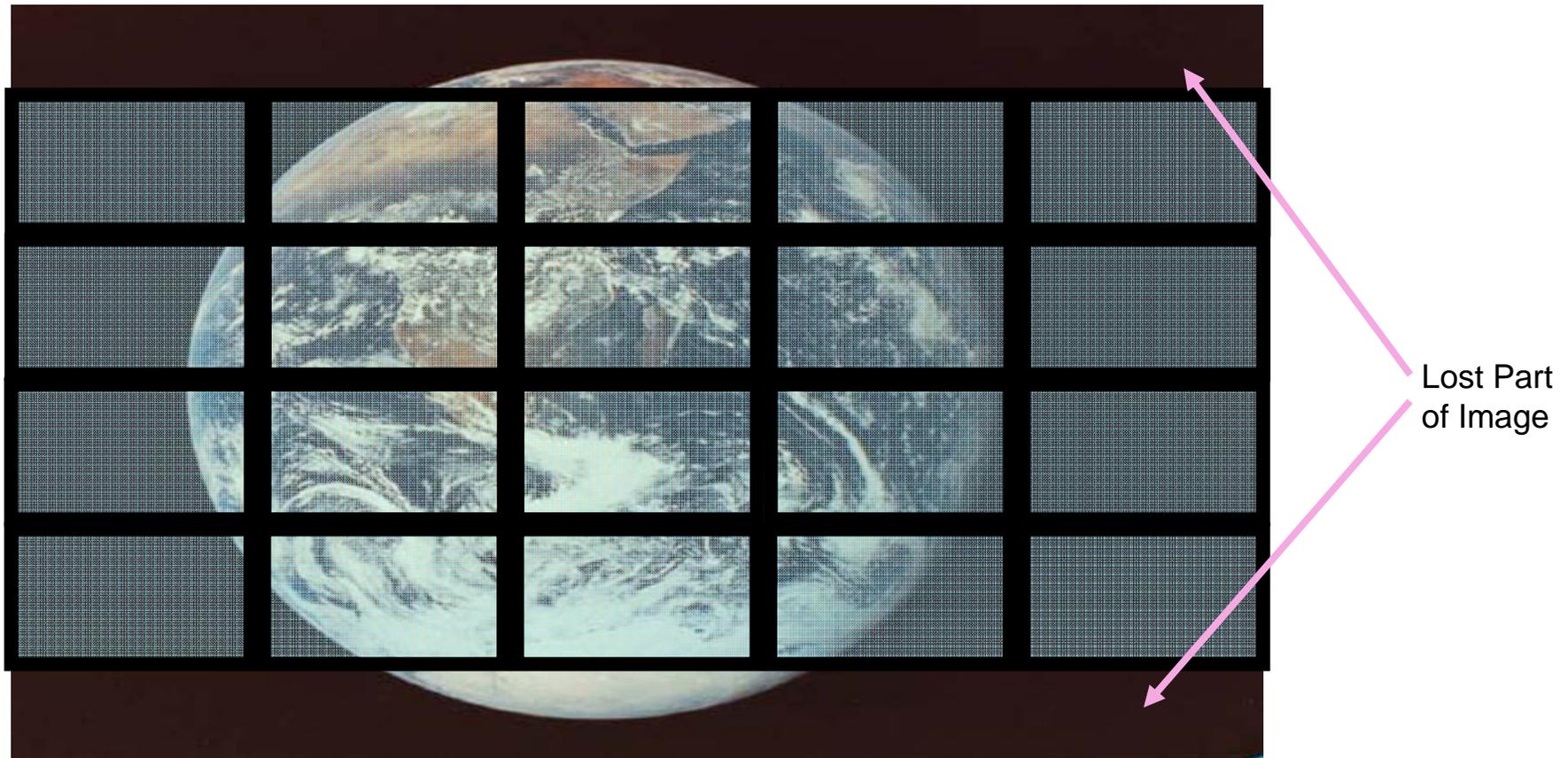
**5x4 Video Wall with Plasma/LCD monitors set to Letterbox mode
Processor set to Square 5x5 magnification**



Lost Part
of Image

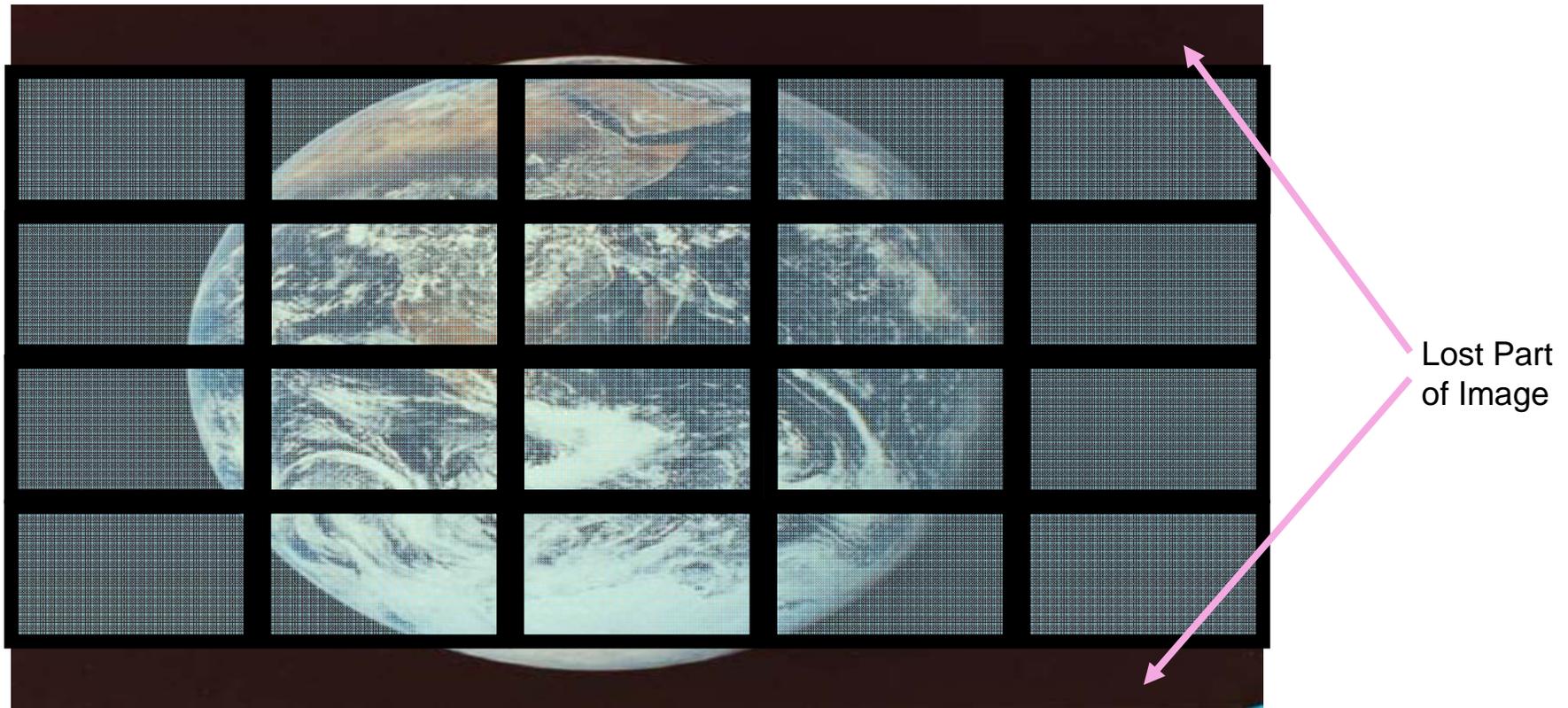
Advantage that magnified image has correct aspect.
Disadvantage that magnified and x1 images are cropped.

**5x4 Video Wall with Plasma/LCD monitors set to Letterbox mode
Processor set to Asymmetric 5x4 magnification**



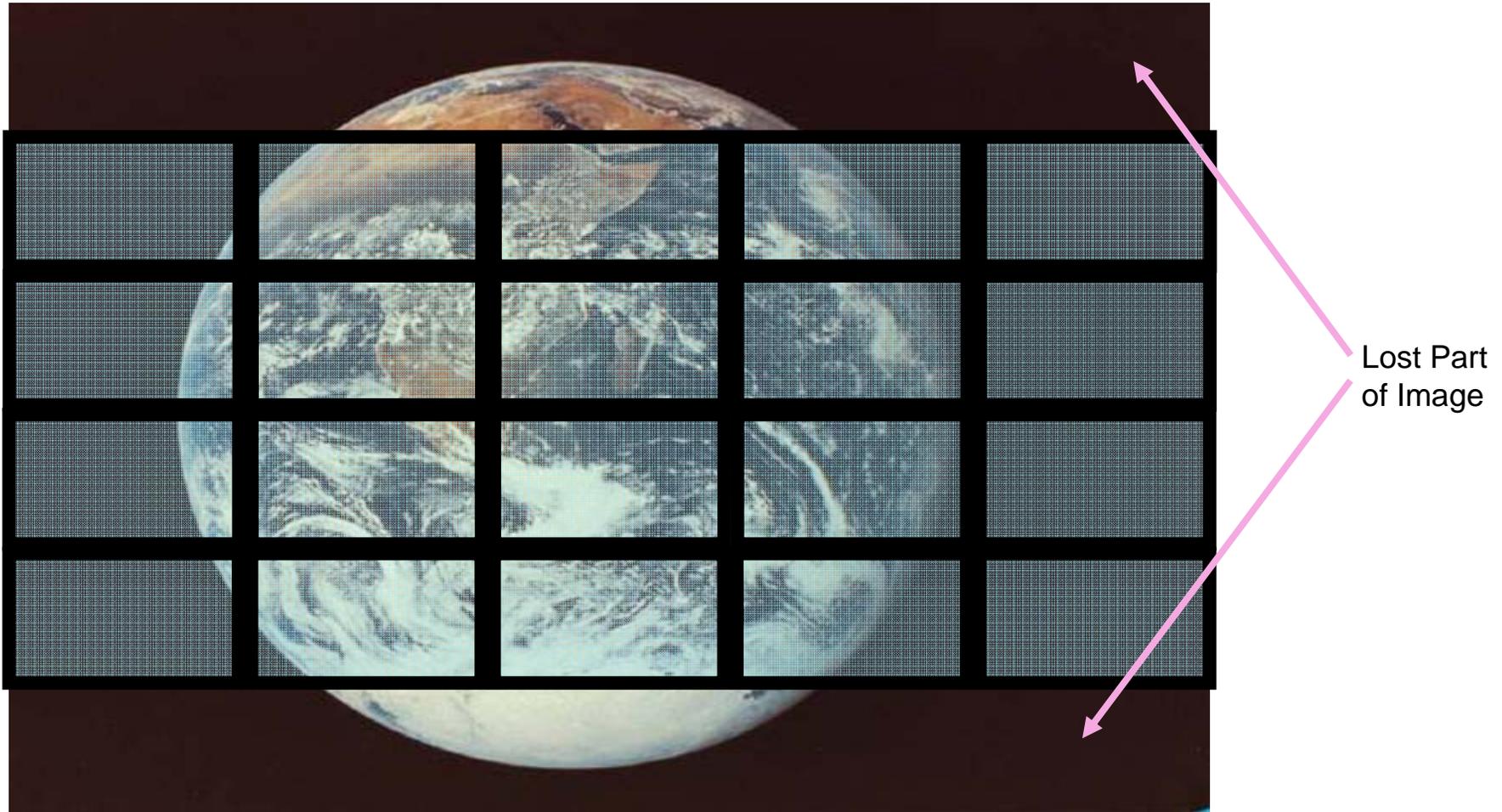
Advantage that less of the magnified image is cropped.
Disadvantage that magnified image is compressed and x1 images are cropped.

**5x4 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Square 5x5 magnification**



Advantage that less of the magnified image is cropped and x1 images not cropped.
Disadvantage that magnified and x1 images compressed.

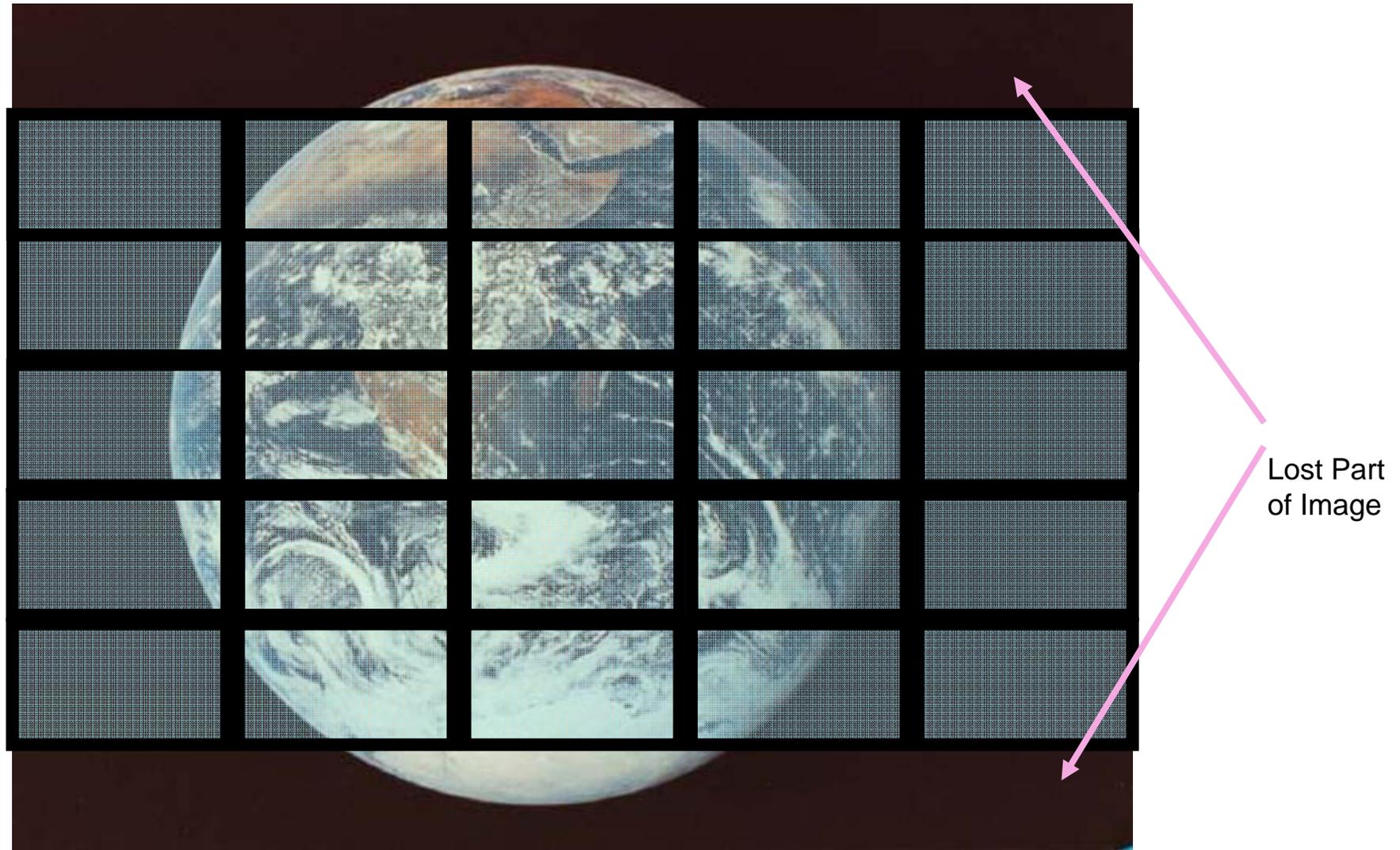
**5x4 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 5x6 magnification**



Advantage that magnified image has normal aspect and x1 images not cropped.
Disadvantage that magnified image is cropped.

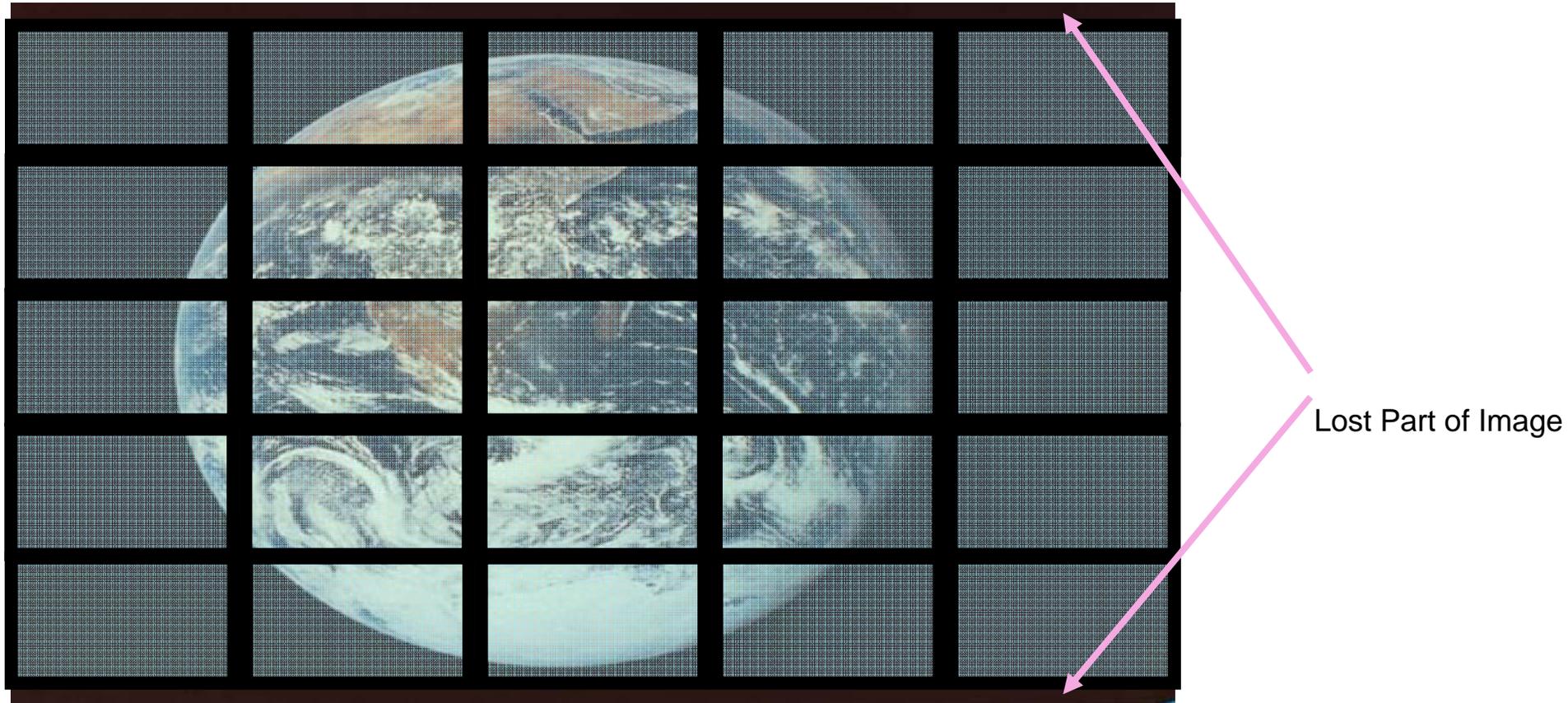
5x5 Video Wall

**5x5 Video Wall with Plasma/LCD monitors set to Letterbox mode
Processor set to Square 5x5 magnification**



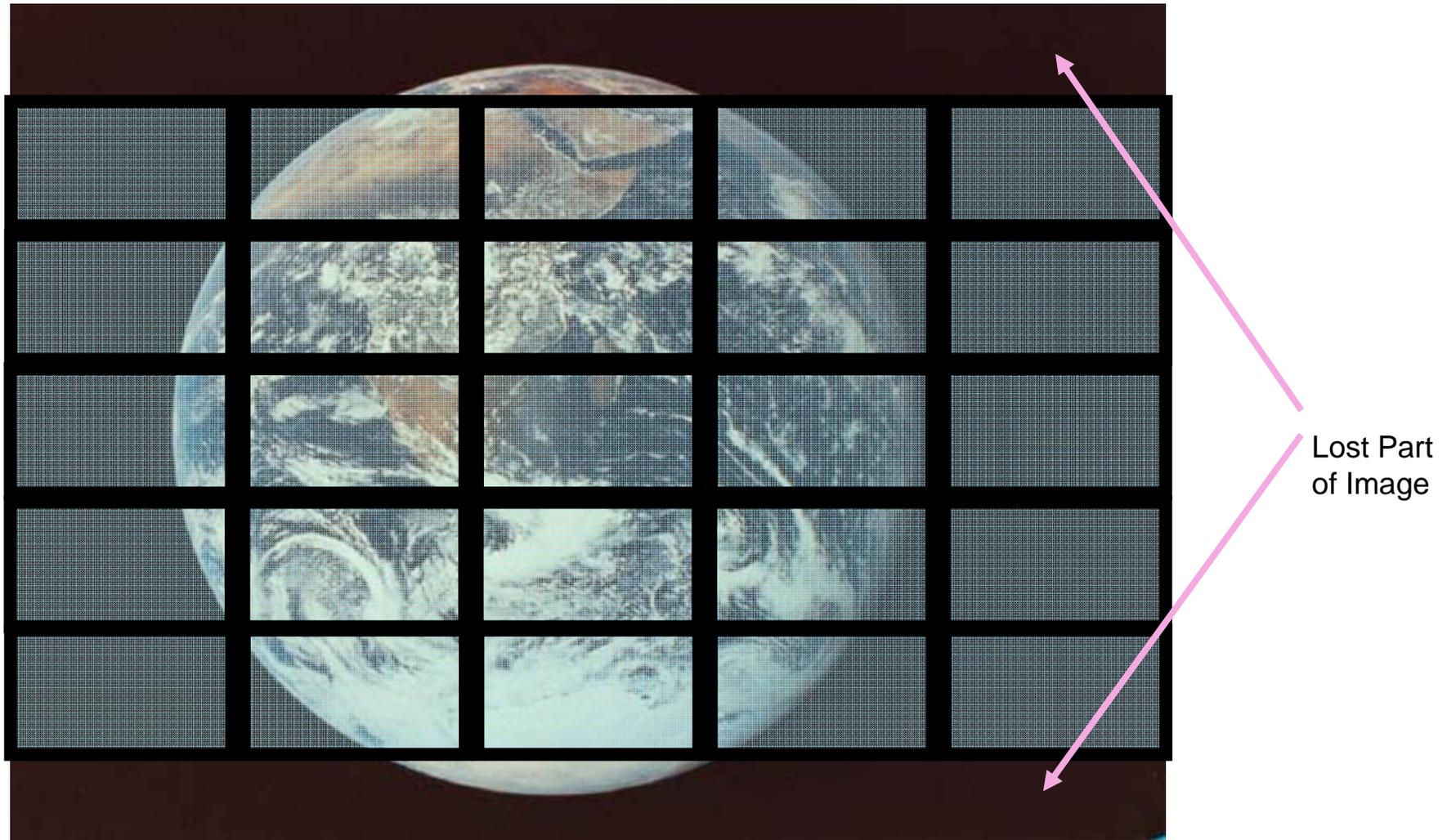
Advantage that images have normal aspect.
Disadvantage that magnified and x1 images are cropped.

**5x5 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Square 5x5 magnification**



Advantage that magnified image less cropped and x1 images not cropped.
Disadvantage that magnified and x1 images are compressed.

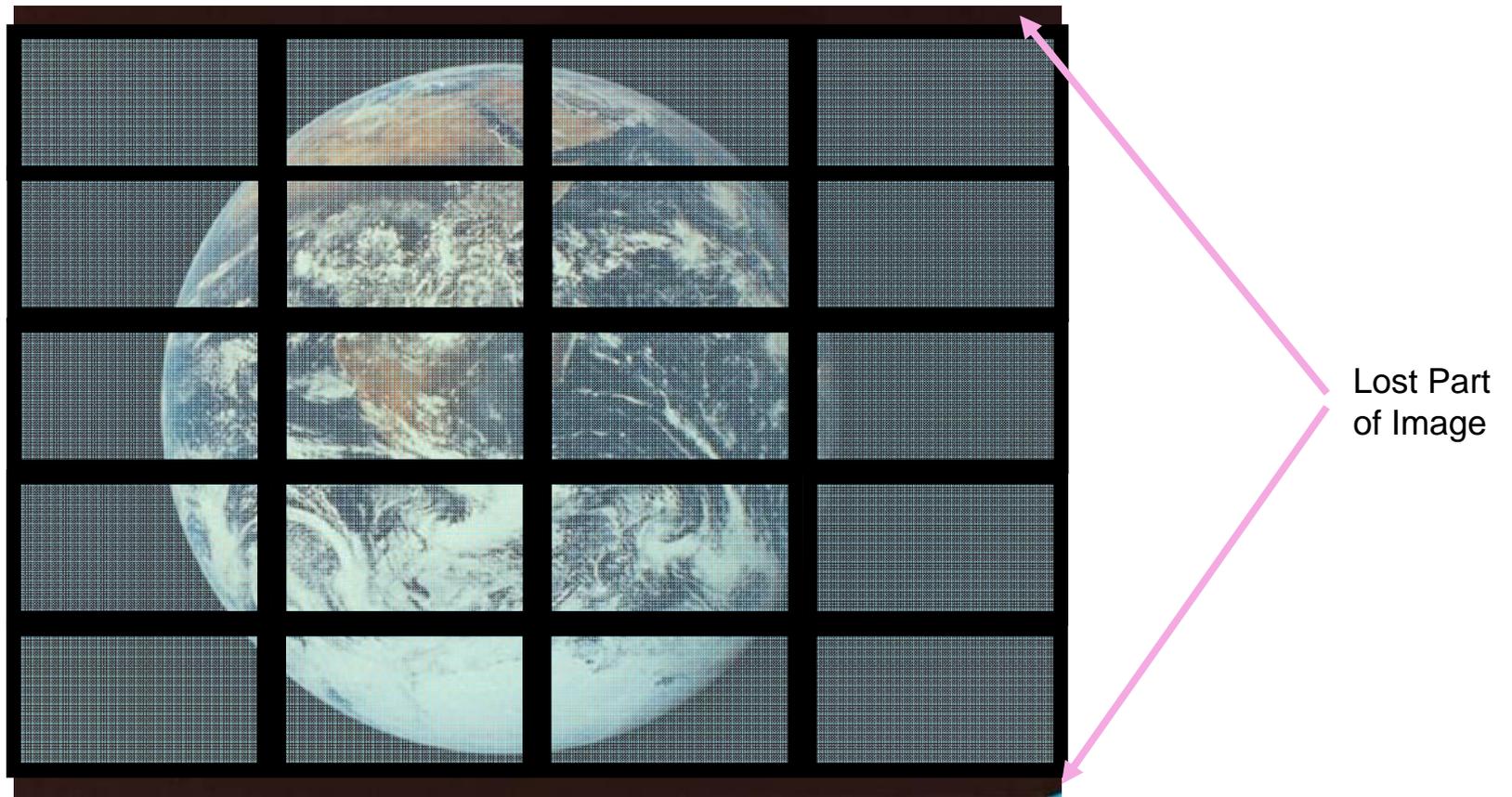
**5x5 Video Wall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 5x6 magnification**



Advantage that magnified image has normal aspect and x1 images not cropped.
Disadvantage that magnified image is cropped and x1 images compressed.

4x5 Video Wall

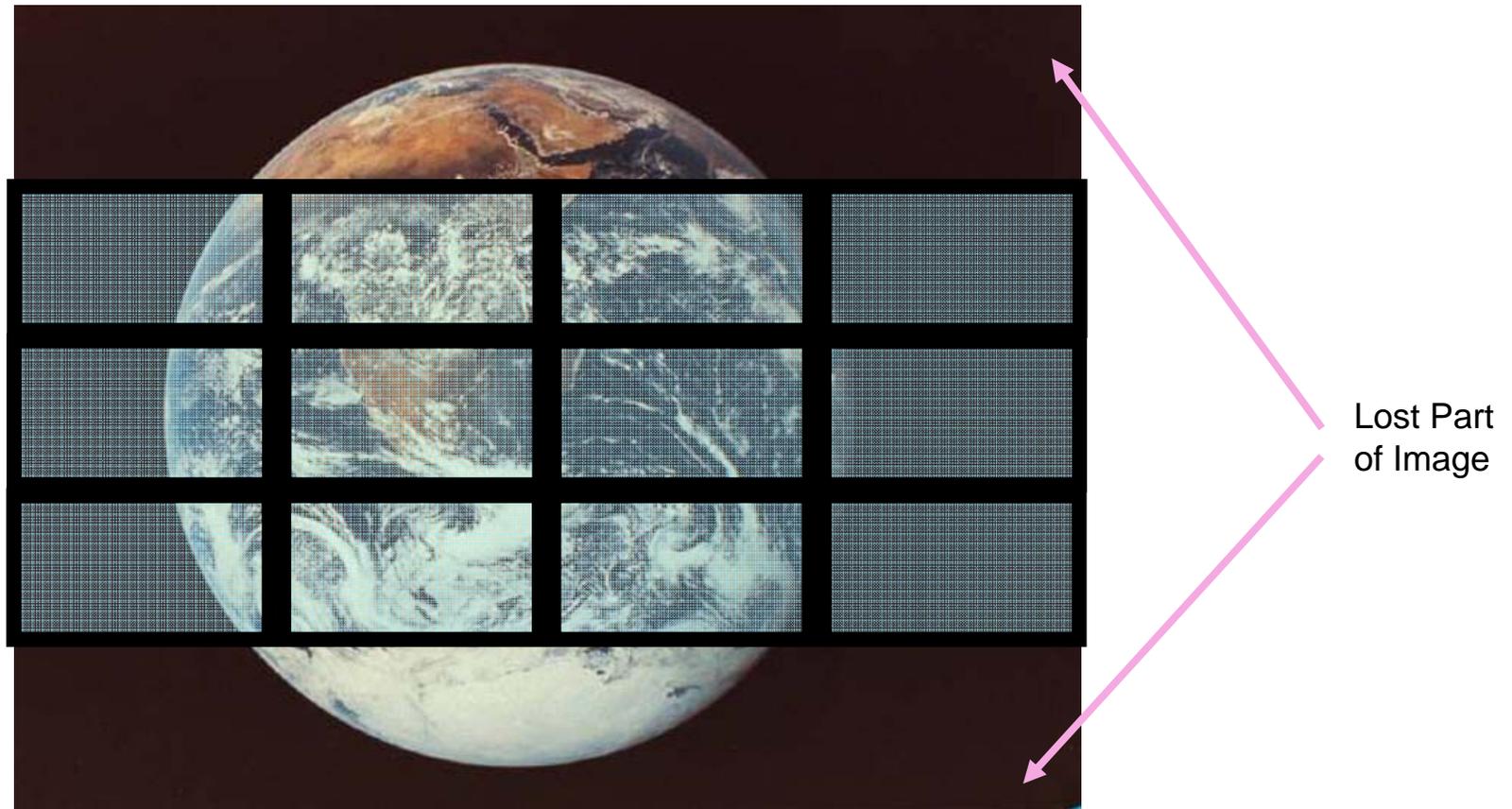
**4x5 Videowall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 4x5 magnification**



Advantage that magnified image has normal aspect and x1 images not cropped.
Disadvantage that x1 images compressed.

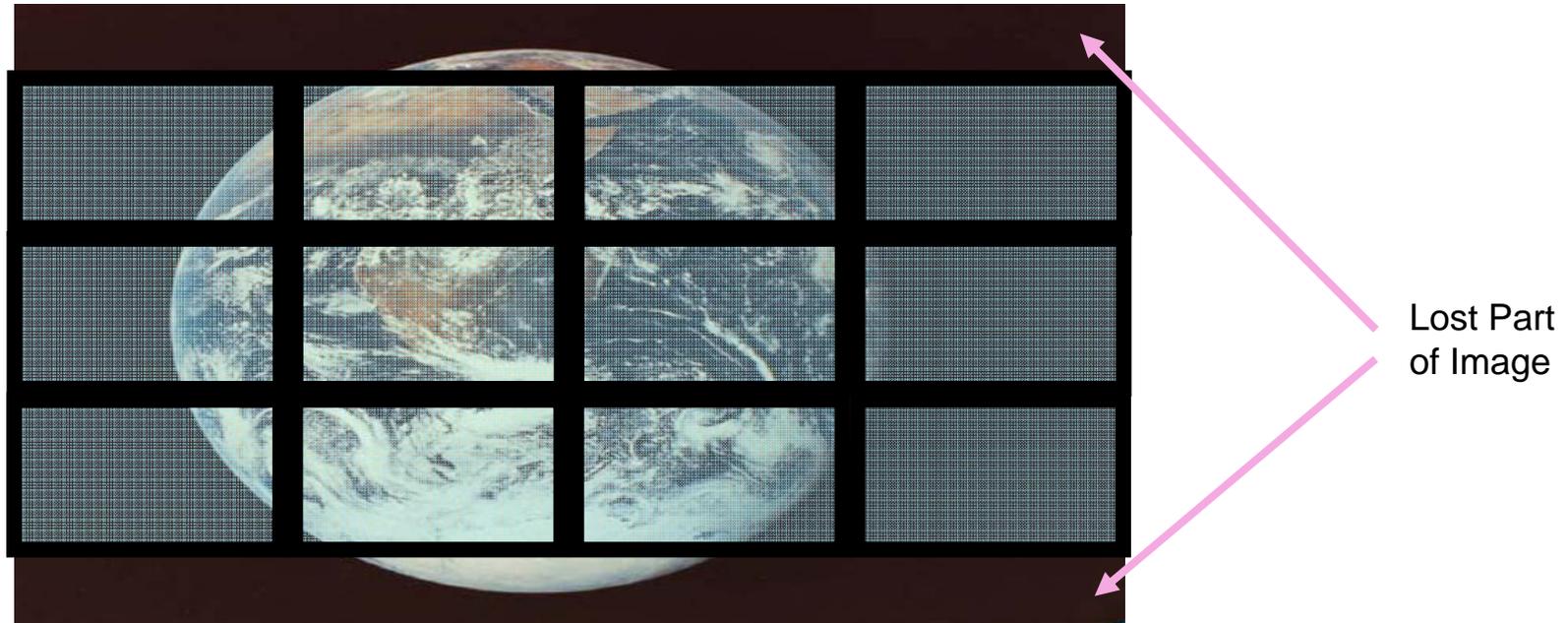
4x3 Video Wall

**3x4 Videowall with Plasma/LCD monitors set to Letterbox mode
Processor set to Square 4x4 magnification**



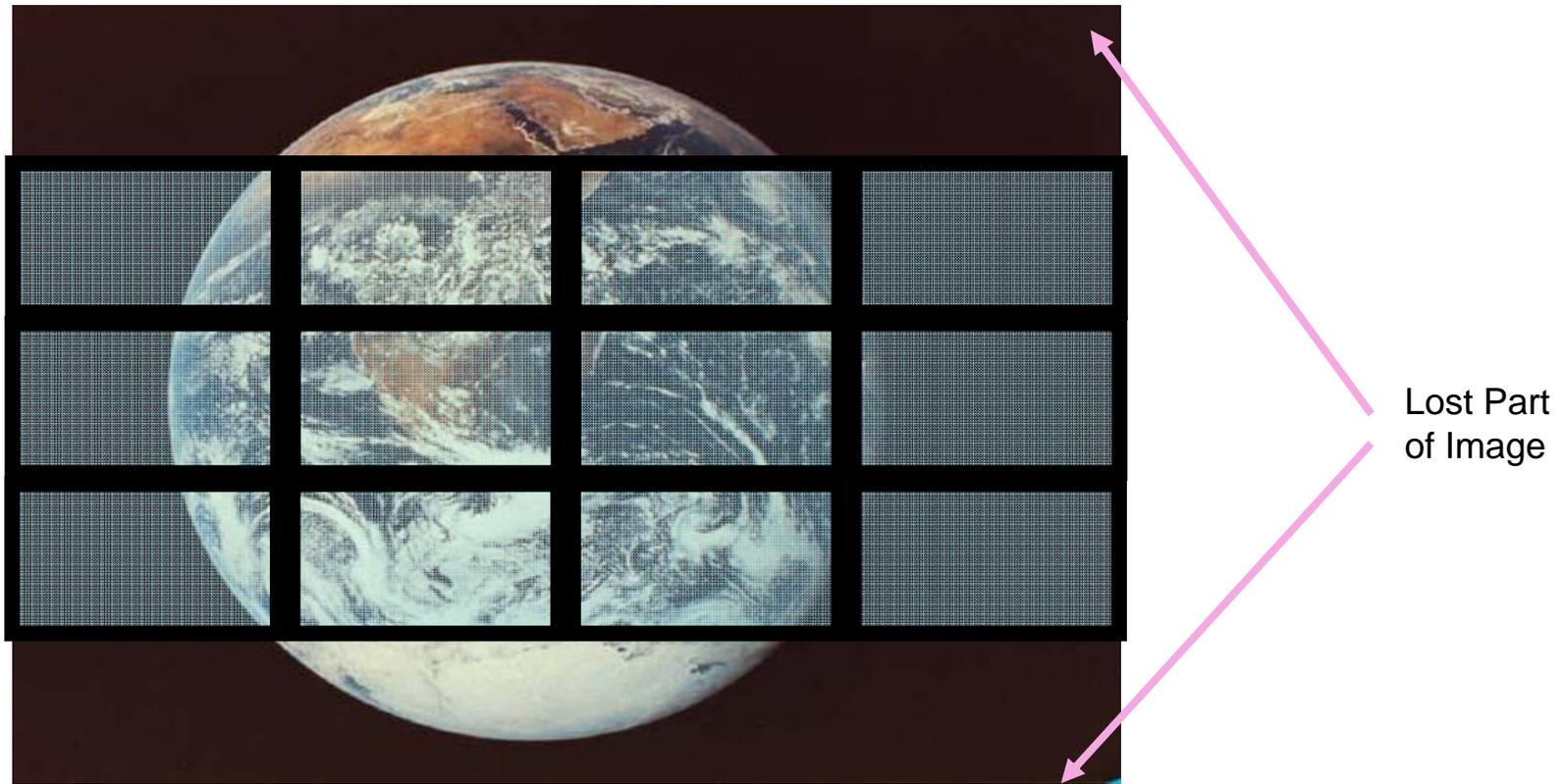
Advantage that magnified image has normal aspect.
Disadvantage that magnified and x1 images are cropped.

**3x4 Videowall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Square 4x4 magnification**



Advantage that less of magnified image cropped and x1 images not cropped.
Disadvantage that magnified and x1 images compressed.

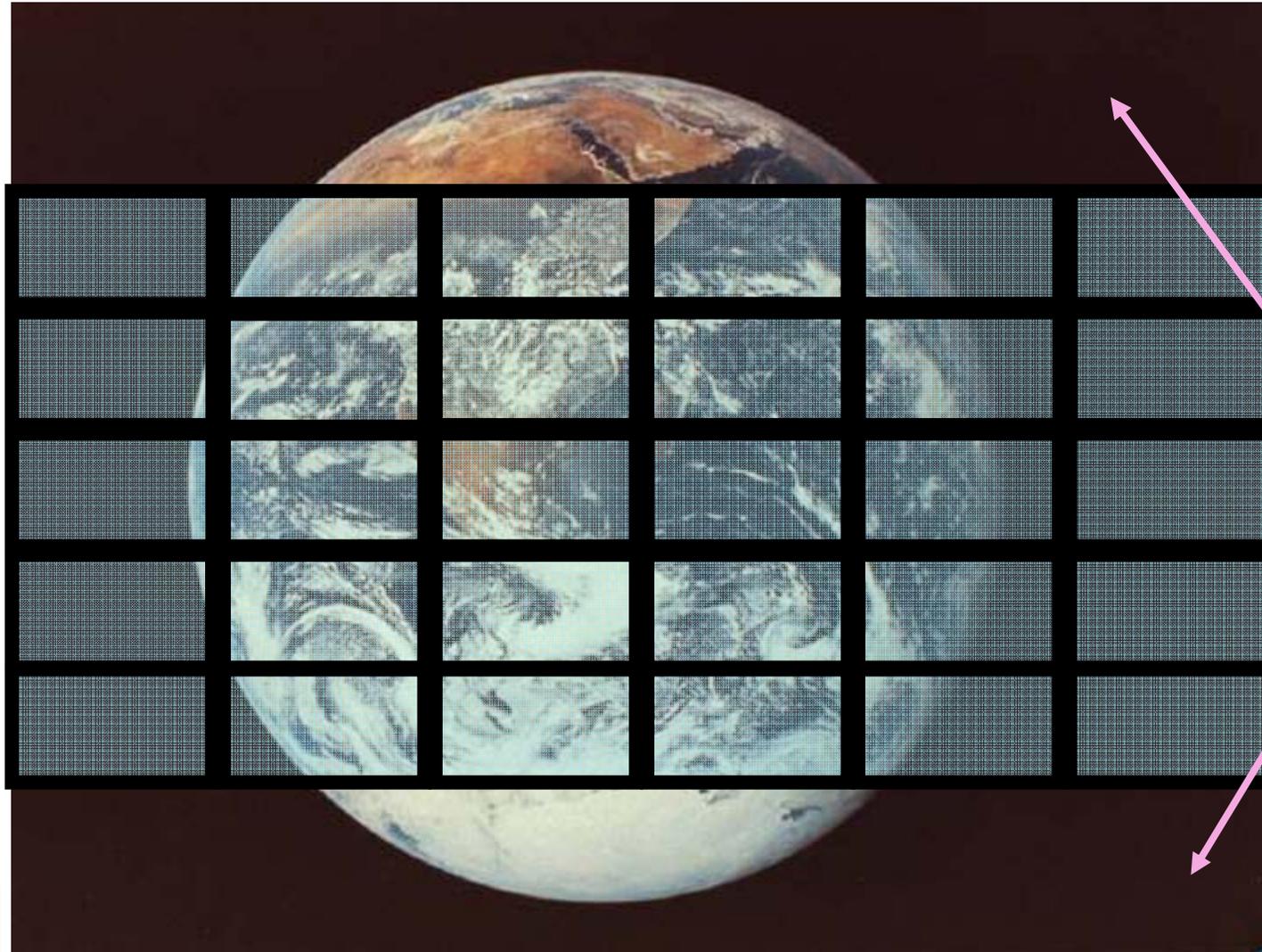
**3x4 Videowall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 5x4 magnification**



Advantage that magnified image has normal aspect and x1 images not cropped.
Disadvantage that magnified image cropped and x1 images compressed.

6x5 Video Wall

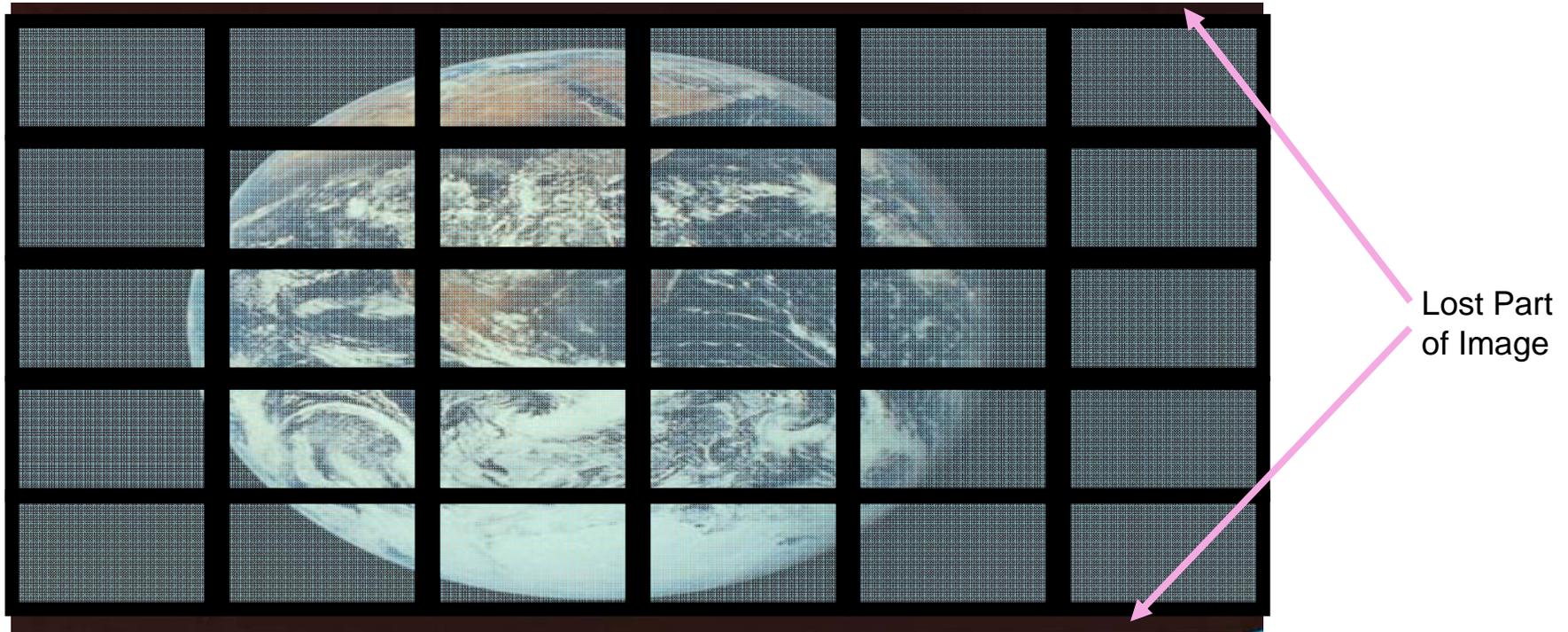
6x5 Videowall with Plasma/LCD monitors set to Letterbox mode
Processor set to Square 6x6 magnification



Lost Part
of Image

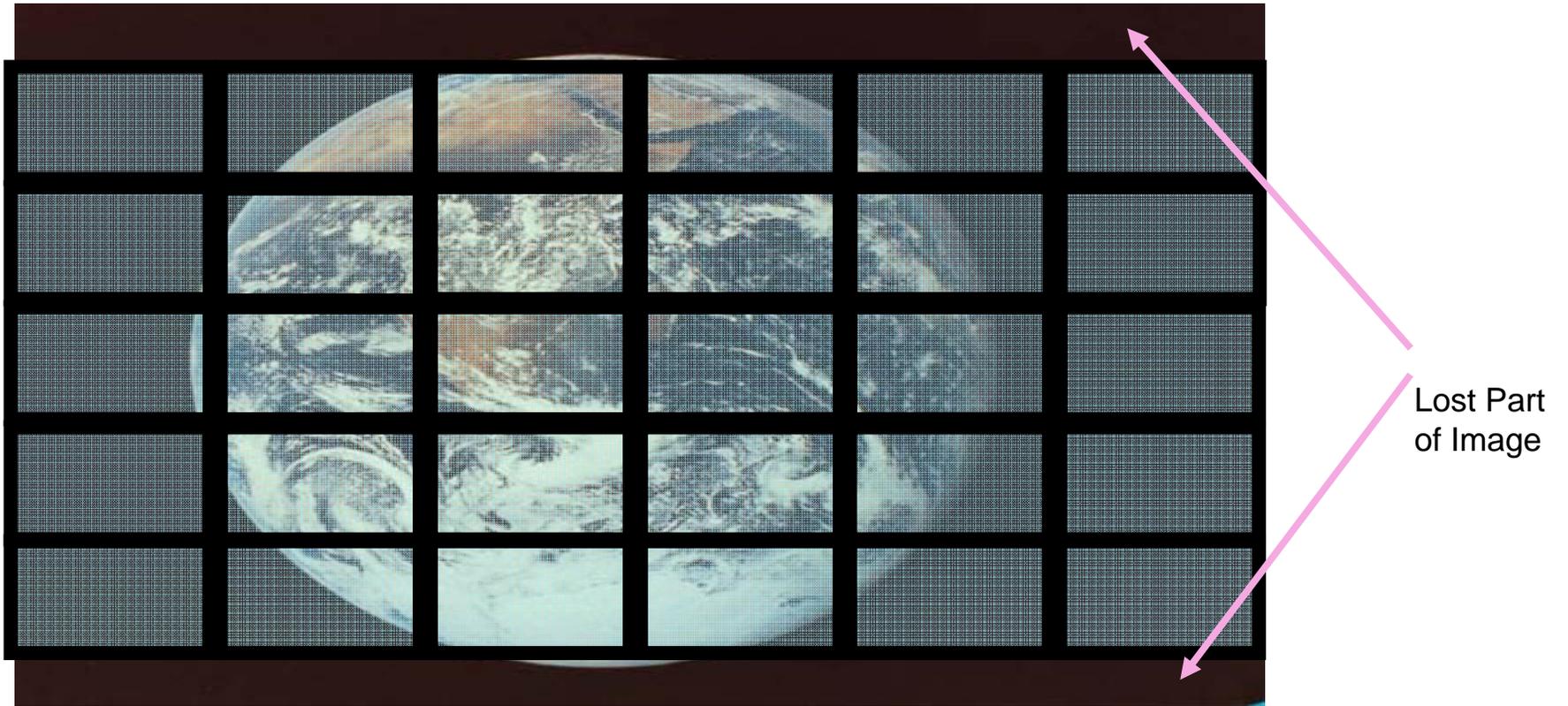
Advantage that magnified image has normal aspect.
Disadvantage that magnified and x1 images are cropped.

**6x5 Videowall with Plasma/LCD monitors set to Letterbox mode
Processor set to Asymmetric 6x4 magnification**



Advantage that less of the magnified image is cropped.
Disadvantage that the image is compressed and x1 images are cropped.

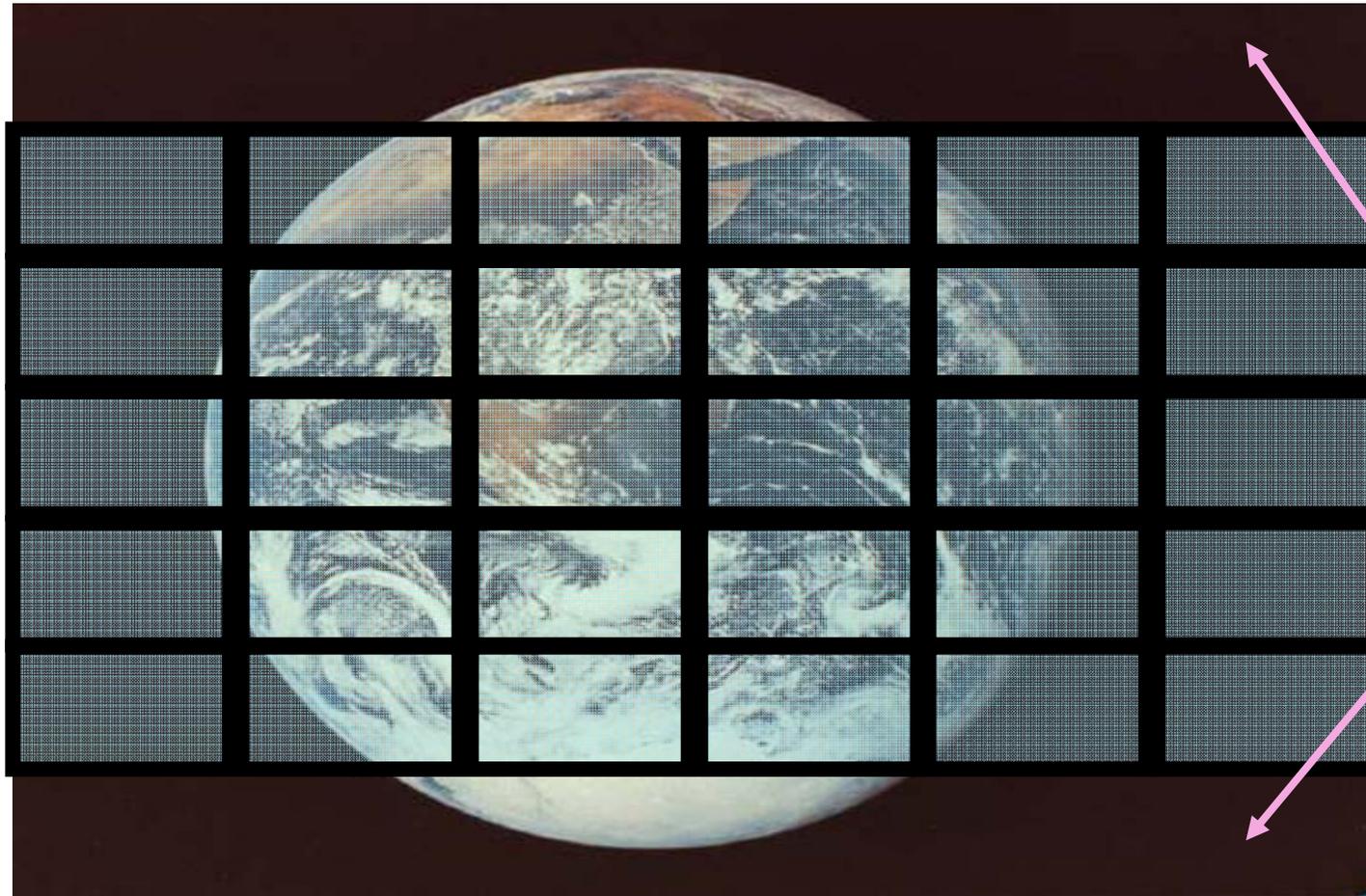
**6x5 Videowall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Square 6x6 magnification**



Advantage that less of magnified image is cropped and x1 images not cropped

Disadvantage that magnified and x1 images are compressed.

**6x5 Videowall with Plasma/LCD monitors set to Fill Screen mode
Processor set to Asymmetric 6x7 magnification**



Lost Part of Image

Advantage that magnified image has near-normal aspect and x1 images not cropped.
Disadvantage that x1 images are compressed.