RT.X100 vs. RT.X2 – DV editing performance compared

Both Matrox RT.X100 and Matrox RT.X2 are designed for realtime DV editing.

The architecture of RT.X100 limits realtime playback to two video layers and four graphics layers with effects.

RT.X2 outperforms RT.X100 and it is also more scalable, taking advantage of system CPU and GPU power to provide many more layers of DV video, graphics, and effects in real time. On top of the maximum realtime productivity RT.X2 gives you for your DV projects, it also provides future-proof flexibility to let you move to HDV at any time. You can even mix SD and HD clips in your Adobe Premiere Pro timelines in real time. The many additional benefits of RT.X2 over RT.X100 are described in detail in our document "Why upgrade from Matrox RT.X100 to Matrox RT.X2?"

To compare the DV editing performance of the two cards, we tested them in the same low-cost Intel-based system, which is popular with many current RT.X100 owners. It has a PCIe slot that can accommodate an RT.X2.

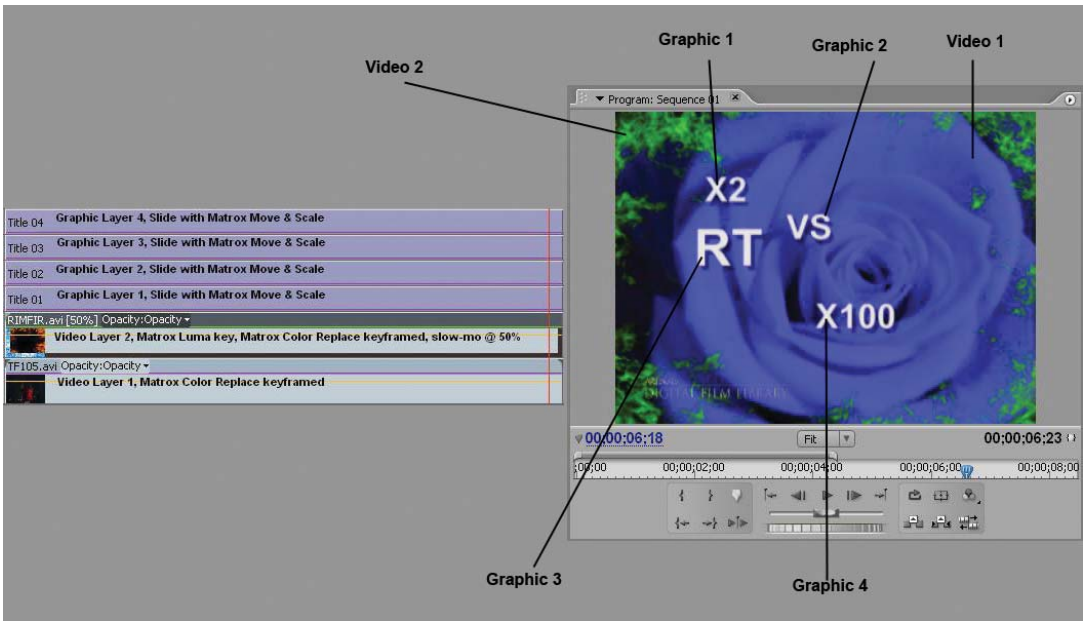
Intel-based test system *(Priced at bizrate.com on Nov. 22, 2006)*

Hardware component	Model	Cost – USD
Motherboard	Intel D945GTP	$92
CPU	Intel 2.8 GHz Dual-Core	$99
RAM (2 GB)		$212
Display card (GPU)	ATI X1900XT (512 MB)	$375
Sound card	Sound Blaster Audigy SE	$26
SATA system drive – 250 GB		$70
SATA audio/video drive – 250 GB		$70
Case	Antec Titan	$103
DVD burner		$36
Total system cost		**$1083**

The following examples illustrate the superior realtime DV editing performance of RT.X2 when compared with RT.X100 on this Intel-based system.

RT.X100

2 DV layers and 4 graphics layers in real time.



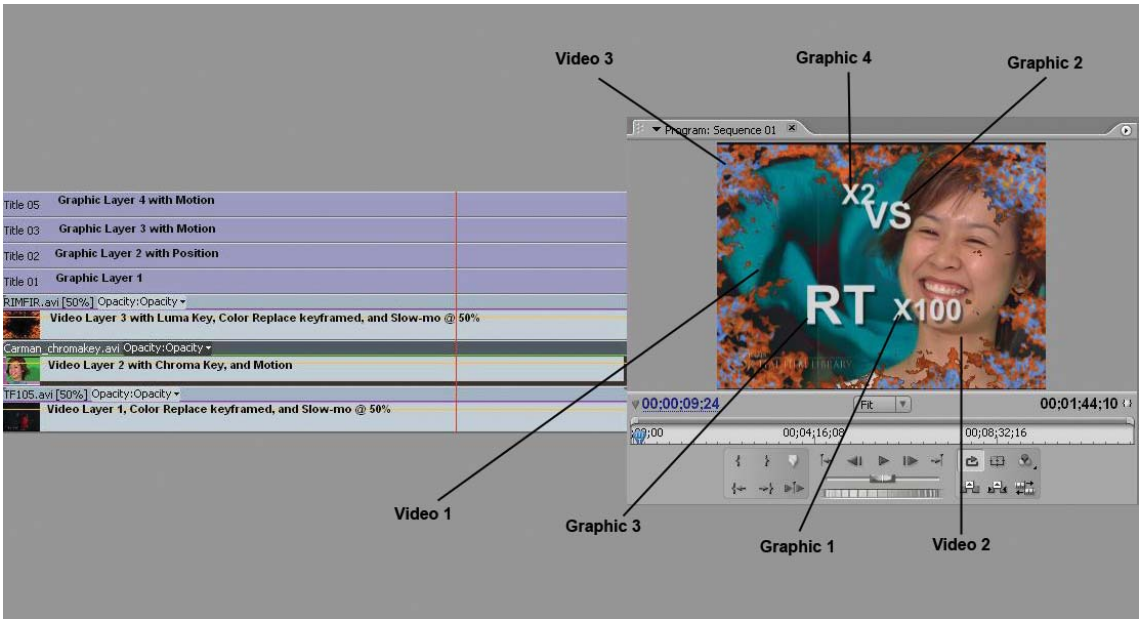
V1 – Blossoming rose
- – Keyframed Matrox Color Replace
- – Slow motion at 50%

V2 – Fire border
- – Keyframed Matrox Color Replace
- – Matrox Luma Key

G1 – Slide with Matrox Move & Scale
G2 – Slide with Matrox Move & Scale
G3 – Slide with Matrox Move & Scale
G4 – Slide with Matrox Move & Scale

RT.X2 – Example 1

3 DV layers and 4 graphics layers in real time.



V1 – Blossoming rose
- – Keyframed Matrox Color Correction to color replace rose
- – Slow motion at 50%

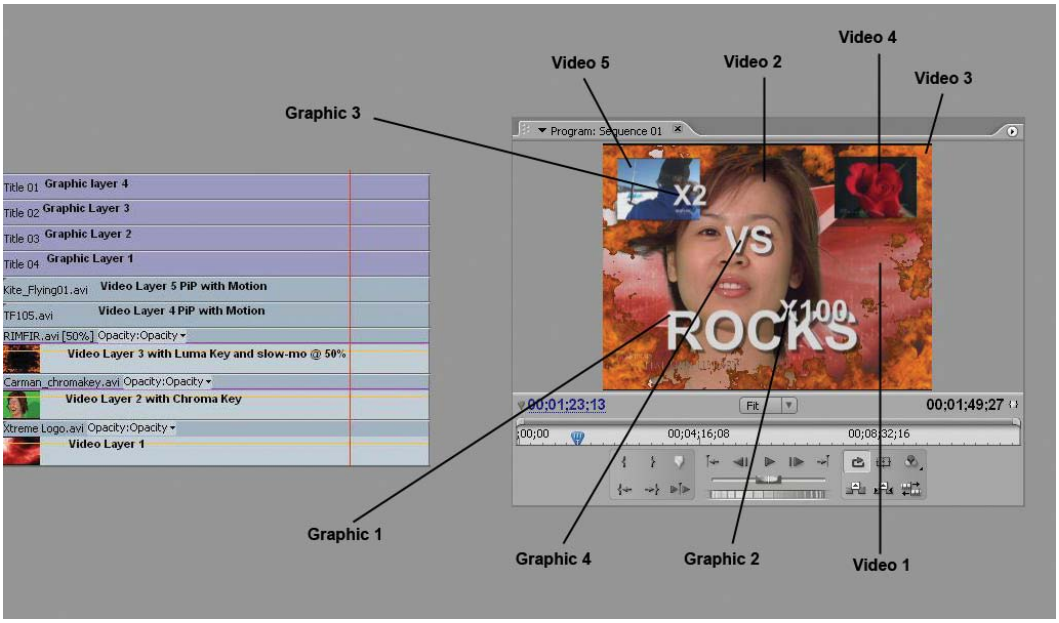
V2 – Smiling face
- – Matrox Chroma Key
- – Keyframed Adobe Motion moving subject from left to right

V3 – Fire border
- – Matrox Luma Key
- – Keyframed Matrox Color Correction to color replace fire
- – Slow motion at 50%

G1 – Static
G2 – Keyframed Adobe Motion applied to move title
G3 – Keyframed Adobe Motion applied to move title
G4 – Keyframed Adobe Motion applied to move title

RT.X2 – Example 2

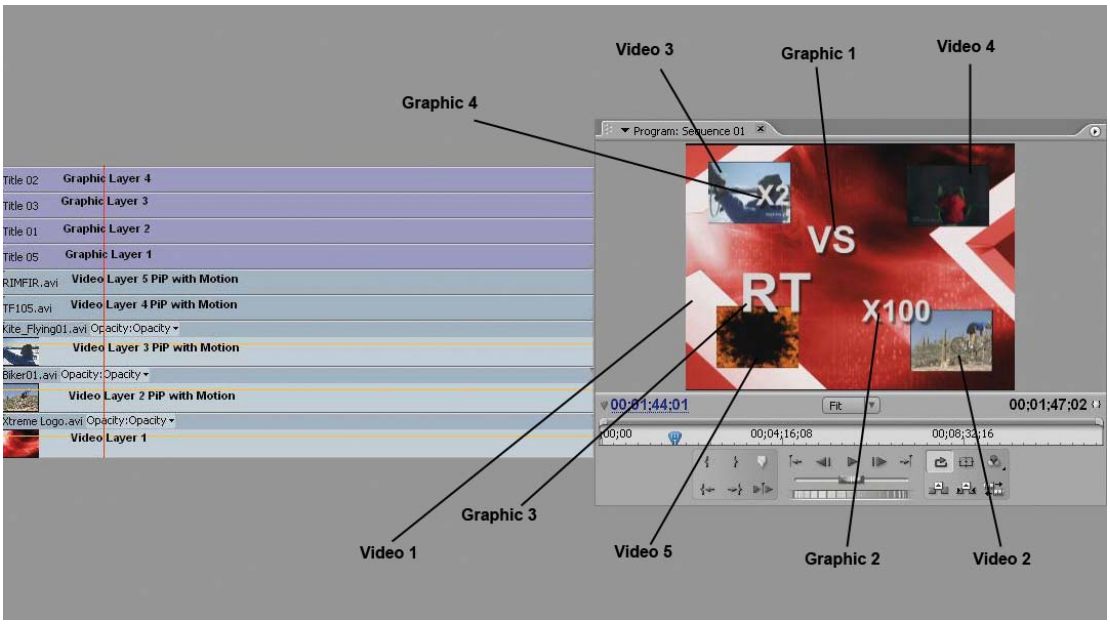
5 DV layers and 4 graphics layers in real time.



V1 – “X” animation – full screen
V2 – Smiling face
– Matrox Chroma Key
V3 – Fire border
– Matrox Luma Key
– Slow motion at 50%
V4 – Blossoming rose
– Static PiP with Adobe Motion
V5 – Kite flying
– Static PiP with Adobe Motion
G1 – Static
G2 – Static
G3 – Static
G4 – Static

RT.X2 – Example 3

5 DV layers and 4 graphics layers in real time.



V1 – “X” animation – full screen
V2 – Bicycle rider
– Static PiP with Adobe Motion
V3 – Kite flying
– Static PiP with Adobe Motion
V4 – Blossoming rose
– Static PiP with Adobe Motion
V5 – Fire border
– Static PiP with Adobe Motion
G1 – Static
G2 – Static
G3 – Static
G4 – Static

RT.X2 was also tested in a low-cost AMD-based system.

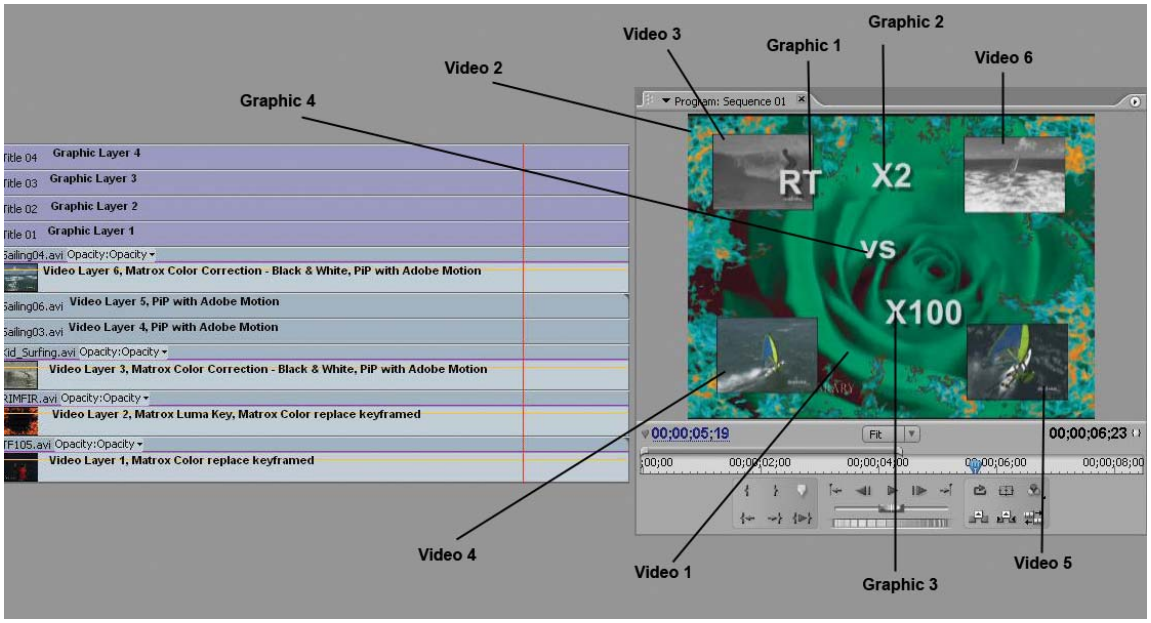
AMD-based test system *(Priced at bizrate.com on Nov. 22, 2006)*

Hardware component	Model	Cost – USD
Motherboard	Infinity NF4	$86
CPU	AMD X2 4800+	$320
RAM (2 GB)		$212
Display card (GPU)	ATI X1900XT (512 MB)	$375
SATA system drive – 250 GB		$70
SATA audio/video drive – 250 GB		$70
Case	Antec Titan	$103
DVD burner		$36
Total system cost		$1299

The following example illustrates the realtime DV editing performance of RT.X2 in this AMD-based system.

RT.X2 – Example 4 (AMD-based system)

6 DV layers and 4 graphics layers in real time.



V1 – Blossoming rose
- Keyframed Matrox Color Correction to color replace rose
- Slow motion at 50%

V2 – Fire border
- Matrox Luma Key
- Keyframed Matrox Color Correction to color replace fire

V3 – Surfing
- Matrox Color Correction (Black & White)
- Static PiP with Adobe Motion

V4 – Wind surfing 1
- Static PiP with Adobe Motion

V5 – Wind surfing 2
- Static PiP with Adobe Motion

V6 – Wind surfing 3
- Matrox Color Correction (Black & White)
- Static PiP with Adobe Motion

G1 – Static
G2 – Static
G3 – Static
G4 – Static

Matrox RT.X2 – the clear winner!

Our tests unequivocally show that Matrox RT.X2 gives you the ultimate DV editing experience. RT.X2 also provides the future-proof flexibility you need to add HDV production to your repertoire at any time. It's many additional benefits are explained in detail in our document “Why upgrade from Matrox RT.X100 to Matrox RT.X2?”