DIGITAL FULL COLOR HOLOPRINTER KIT

The next generation in printing technology

Technical Performance Report

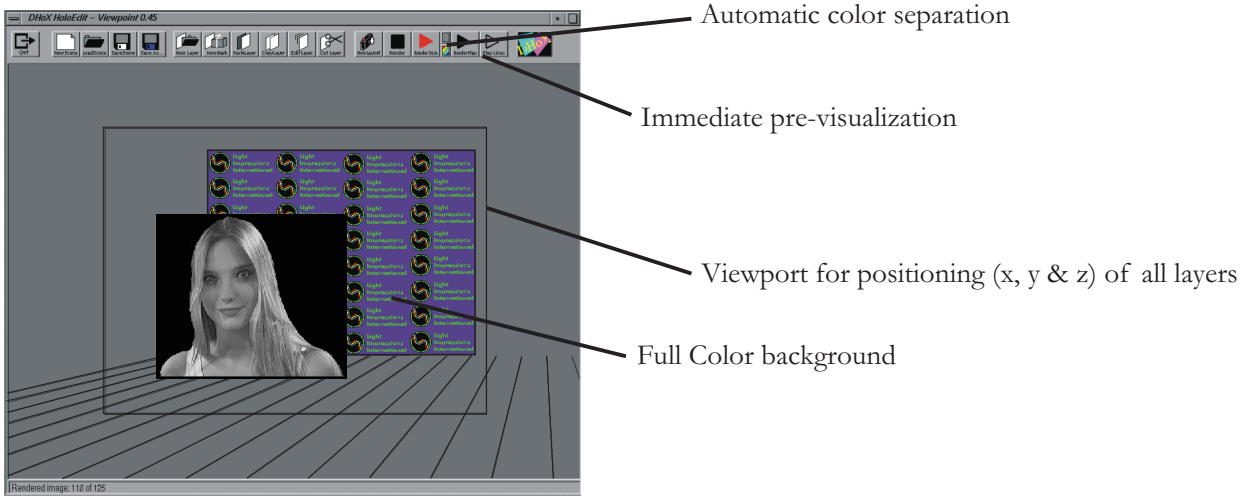
DUTCH
HOLOGRAPHIC
LABORATORY B.V.

The 'Peggy' hologram was a bench mark test for one of our customers, who was interested in the DFCH kit. The company was most interested in the HoloTrack options, so we decided to compose a Multiple PictureGenerated Hologram combined with their company logo in the background.

The making of a DFCH Hologram

A blue screen is placed behind the girl, who sits in front of the HoloTrack. With the **HoloGrab** program several recordings are made. The recordings were reviewed and the best recording was converted into a series of 120 separate frames. Using colorkeying we digitally erased the blue background, which resulted in a series of images of just the girls pretty face.

In the **HoloEdit** program (see picture below) we put the image of the girl in the image plane and added the new background. This was the clients company logo, we just received minutes before by E-mail. We placed this full color digital background behind the girl, at the desired depth. To show the register features, we added two colorbars at the bottom of the hologram, together with a small line of text: Digital Holoprinter 1996 (converted from a normal CorelDraw file).



Your DHoX HoloEdit workspace

After **HoloEdit** rendered the scene, we sent the files to the printing computer by means of the installed network. The files were loaded in the **HoloPrint** program and the master was put in place. Within 2 hours after we pressed the print button, the benchmark master hologram was ready. After changing to the transfer setup it took **HoloTransfer** just another hour to finish the benchmark hologram.

Within 3 hours, after HoloTrack recording and image processing, we had made a full color Multiple Picture Generated Hologram, which convinced our client to purchase the Digital Full Color Holoprinter kit.

DFCH Capabilities

2D/3D Holograms:
Put 2D computer graphics in full color at up to 6 different depth levels to create full color 2D/3D holograms.

Video Animated Holograms (VAH):
The only method with which your client can integrate up to 5 seconds of animated video in printed matter.

Multiple Picture Generated Holograms (MPGH):
Use the DHL Holotrack to record people or objects. Any desired background can be added using colorkeying.

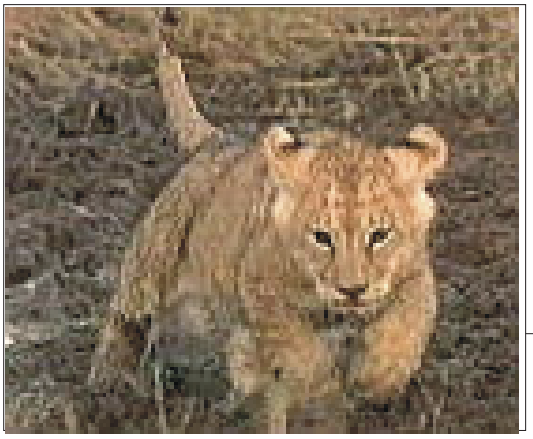
Computer Generated Holograms (CGH):
Create holograms of 3D computer graphics by the use of the optional Blender plugin.

Anti Counterfeit Holograms (ACH):
Combine all above techniques to create unique security features in your holograms.

DFCH Features

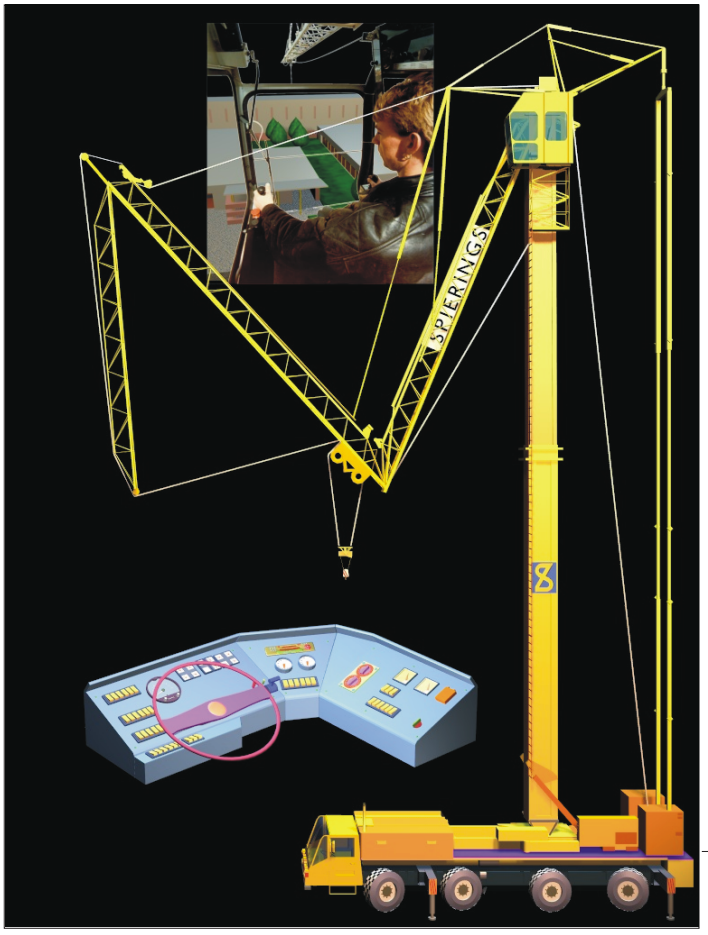
- All digital process
- No litho's required
- Full Color rainbow photoresist
- Printing quality undistinctable from slides/film
- User friendly DHoX HoloStudio Suite
- Powerful videograb software (22 Mb/sec)
- Estimated break even point 15 - 20 jobs
- Fully automated printing process, easy to operate

Digital Full Color Holoprinter Samples



Lion
8 x 5.5 cm
Video Animated Hologram
Five seconds of video were grabbed from VCR and recorded in the hologram

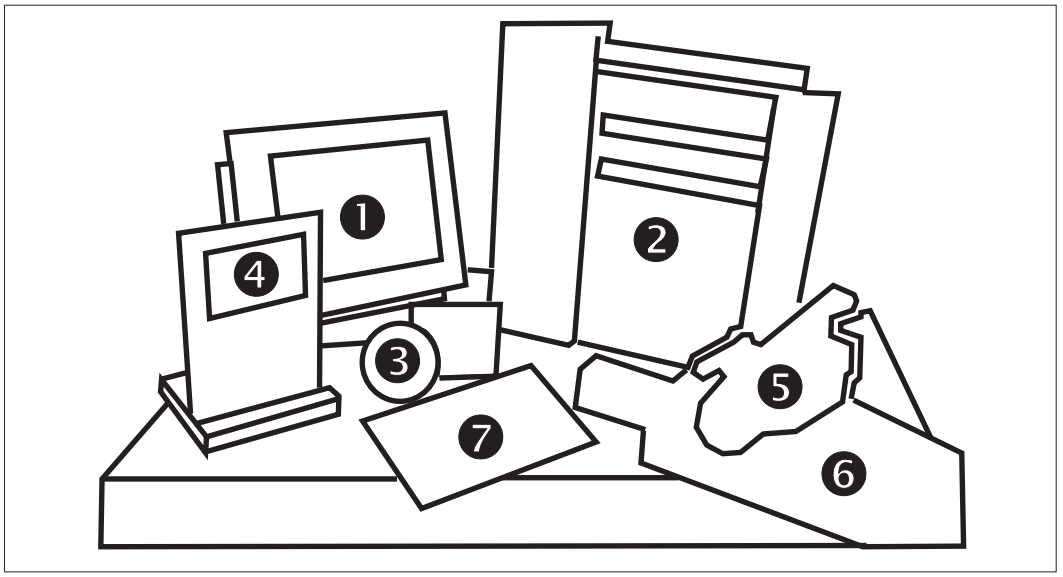
Peggy
7.5 x 10 cm
Multiple Picture Generated Hologram
True color HoloTrack recording of girl, with 2D full color background. The hologram was used as benchmark test.



Crane
9 x 12 cm
Computer Generated Hologram
Full Color 3D computer generated image with full color background.

Now you can see what's possible

DIGITAL FULL COLOR HOLOPRINTER KIT



Major components list complete kit

1 Computers & Monitors

• *Acquisition & Image processing:*
Pentium 512 Mb ram,
video grabcard (25 frames/sec),
80 Gb Harddisk ,
19" monitor
• *Printing:*
Pentium, 128 Mb ram,
40 Gb Harddisk, 17" monitor

2 Slitholder

H1-holder
Automatic colorband switch
Parallax slit

3 Software DHoX HoloStudio Suite

- HoloGrab
- FrameSequencer
- HoloEdit
- HoloPrint
- HoloTransfer
- DHoX HoloStudio Suite On Line Manual

4 LCD-screen:

1024 x 768 pixels (>200 dpi) for 24 bit
RGB
LCD Holder
LCD Electronics

5 Videocamera:

3 CCD type, 768 x 576 pixels per CCD.
Video

6 HoloTrack:

3 meters length
shear camera recording method

7 Electronic interfaces

HoloTrack Stepper controller
Printer Stepper controller

* Optional (not shown on picture):

Recombining stage (H2 holder)
Blender plugin 'HoloPath'
DMD projection interface

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