

# WarpLite™

Part of the Northstar™ Simulation Display Solution



## Integrated Software Warp & Blend Processing for Seamless Immersive Displays

3D perception's WarpLite™ is a cost-effective warp and blend image processing software package, offering a unique set of features never before available. Designed for flexibility, ease of use, and reliability, this real-time software is capable of processing any resolutions supported by the customer's Image Generator (IG) and supports manual or automatic alignment and color calibration.

WarpLite is managed by 3DP's nControl™ software, enabling the user to perform all the image adjustments necessary to create a seamless and high-quality image across a curved or flat projected display.

With projector control through LAN cables and integration with 3DP's nControl, WarpLite provides unique features such as Scenario Management for gradual transition from dusk to dawn and non-linear automatic color correction with Northstar ChromaSync.



### Key Features

- Cost effective image processing for seamless curved screens
- Fully integrates with other 3DP Northstar products for auto-alignment and auto-calibration
- Combine an unlimited number of channels
- Supports Linux (unique in industry) & Windows
- Current support for OpenGL
- Draw method invoked after rendering
- Non-linear image warping
- Multi-sided edge blending
- Advanced image masking
- Non-linear color correction
- Advanced built-in test pattern generator
- Projector Control via LAN through nControl
- Zero frame latency
- Scenario management via nControl
- Supports any framerate

### About 3D perception

3D perception provides advanced display components and immersive simulation display systems.



### Main Offices

Europe  
Solbråveien 20  
N-1383 Asker, Norway  
+47 66 98 70 70

United States  
12600 Challenger Parkway, Suite 155  
Orlando, Florida 32826  
+1 321-235-7999

[info@3d-perception.com](mailto:info@3d-perception.com)  
[www.3d-perception.com](http://www.3d-perception.com)

**SUPPORTED DISPLAY OUTPUTS AND INPUTS**

Unlimited number of channels  
 Supports all resolutions including 4K projectors

**ADVANCED DISPLAY PROCESSING WITH nCONTROL**

Projector control  
 Image warping curved screen  
 Image blending curved screen (multi-sided)  
 Advanced image masking (multi-sided)  
 Inset masking/blending for high-resolution Areas of Interest  
 Internal test pattern generator  
 Manual geometry correction and image alignment  
 Manual color correction  
 Automatic geometry correction via WarpSync  
 Automatic color correction via ChromaSync

**RESOLUTIONS**

Any resolution supported by the Image Generator  
 Multiple resolution support

**COMPATIBLE IG OPERATING SYSTEMS**

Linux (CentOS, RedHat, Ubuntu)  
 Windows 7/8

**IG SYSTEM REQUIREMENTS**

Nvidia or ATI video cards w/ OpenGL 3.2 or later  
 GPU RAM of 512 min, 2048 MB or greater recommended

**NORTHSTAR PRODUCT COMPATIBILITY**

Auto-Calibration:  
 - WarpSync  
 - ChromaSync  
 - StarScan  
 Aurora Screens  
 Dynamic Optical Blenders  
 nControl



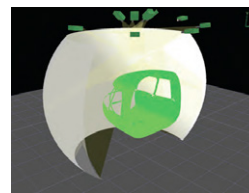
**nControl™**

Display system management software

nControl is an intuitive, user-friendly graphical software interface for installation, user control and maintenance. nControl is responsible for maintaining a consistently pixel-perfect image, and in concert with WarpLite or nBox and 3DP's autocalibration products, it performs geometry adjustment, edge blending, color balancing, and gamma correction. With a push of a button, nControl automates maintenance procedures and will readjust the system's image in seconds.

**Key Features**

- Centralized interface for integrated control of entire display system
- One-click power up/down and maintenance
- Save/load multiple training configurations - changes eyepoints, accounts for different obstructions
- Scenario Management - through IG Interface, transition time of day during live training session
- Control projector shutters for night time training
- Automate procedures which could otherwise take hours



**About 3D perception**

3D perception provides advanced display components and immersive simulation display systems.



**Main Offices**

Europe  
 Solbråveien 20  
 N-1383 Asker, Norway  
 +47 66 98 70 70

United States  
 12600 Challenger Parkway, Suite 155  
 Orlando, Florida 32826  
 +1 321-235-7999

[info@3d-perception.com](mailto:info@3d-perception.com)  
[www.3d-perception.com](http://www.3d-perception.com)