

Volumetric Windows

Designed in YE 32 by [Kage Yaichiro](#), Volumetric Windows are a replacement for the transparent [Zesuaium](#) windows which have been standard on all Star Army craft. Their cost and the safety risk in using them has been offset by the fact that no better alternative could be found. Advances in volumetric and sensor technology driven by Power Armor stealth, however, allow standard types of armor such as [Durandium Alloy](#) or [Yamataium](#) with [Yarvex](#) backing and [Xiulurium](#) coating to be used.

Thin panels with volumetrics and sensors are installed inside and outside matching locations on the ship to provide the illusion of windows inside and outside without any changes in the actual armor structure nor any sacrifices in structural integrity. Windows no longer need to be structural weak points, nor do they need to be dangerous to stand near in an emergency or combat situation. It is also notably less costly.

The windows communicate wirelessly through most types of armor, at a low enough power output to be negligible to sensors. For walls that have Zesuaium components, the internal parts of the window have to communicate with the external parts via the ship's existing transceiver. While both modes are low enough in power to evade detection, some Captains may elect to disable all of the ship's windows when in a combat or silent running situation – just to be on the safe side.

Additional benefits to volumetric windows exist, as they can work in conjunction with ship's sensors to display objects outside the visible spectrum, zoom in on small objects, or even for automated brightness control if near a star. It is also possible to have the internal sensors deactivate, giving a person privacy in their cabin while being able to look outside for example. A panel which receives no sensor input automatically reveals the standard armor hull underneath, though it is also possible to use the external hull to provide illusions of an empty ship or turned off lights. Another possible illusion would be to make windows in a faux bridge structure relay activity from the actual bridge in the body of a ship, to fool boarding parties.

Volumetric Windows also have the ability to act as interactive monitors. One can use such a display in their quarters not only as a window, but as a computer-controlled big screen volumetric television or computer monitor to add a large degree of comfort or working capability. The two-way ability of the screen to “look back” at the user allows for it to detect finger and hand motions of the user and emulate a tactile interface, like a mid-air keyboard or the ability to use a finger as a cursor. They can be used in briefing rooms as well to act as visual aids for detailing a mission (usually built into the walls or table), as a form of teleconferencing or webcam/video chat, and even allow the Commanding officer or those she permits access to view through any volumetric window aboard the ship as a security option; with or without sending her image to the party being observed.

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