NAME

XSolarisGetVisualGamma – obtain gamma information for a visual

SYNTAX

```
Status
XSolarisGetVisualGamma(Display *display, int screen_number,
                       Visual *visual, double *gamma)
```

ARGUMENTS

display	Specifies the connection to the X server.
screen_number	Specifies the number of the screen.
visual	Specifies the visual.
gamma	Returns the gamma value for the specified visual.

DESCRIPTION

The **XSolarisGetVisualGamma** function returns the gamma value of a specified visual. This value is the exponent of the power function describing the intensity response of colors displayed using that visual. This is the intensity response of the entire path from the frame buffer pixel store through the monitor. The equation of the intensity response is:

IntensityOut = (*FramebufferColor*)***gamma*

(i.e. the color in the frame buffer raised to the power of gamma).

FramebufferColor refers to the the RGB values stored in the frame buffer pixel store and processed by any color mapping LUTs that are in the output path.

Note: the term "gamma" used here refers the mapping applied along the entire path, not merely the exponent of the gamma correction function.

The gamma value returned defines the color-to-intensity mapping for all three channels: red, green, and blue.

A status of **Success** is returned if the function was able to determine the gamma successfully. If a request failure occured while calling the function, a **BadAccess** error code is returned. If there is an internal inconsistency (e.g. the gamma value for one of the color channels is different from the others) a **BadMatch** error code is returned. Whenever an error code is returned, the argument *gamma* is left untouched.

The gamma value returned represents the best information available on the intensity response of the visual. Depending on the device, it may or may not include the actual monitor characteristics (some devices have no way of determining the type of monitor so they may assume a default monitor gamma). As such, it represents the system's "best guess" about the intensity response. Since this function gets its information from the same property used by Solaris color managment systems, if more accurate information on the monitor response is configured or calibrated through these systems, this function will return a more accurate value for gamma.

If the intensity mapping is not a power function, the returned gamma value may only be approximate. This should usually happen only when the device gamma correction has been incorrectly configured.

To use this function, an application should link with **libXmu**.

SEE ALSO

Solaris X Window System Developers Guide
(Visuals and Display Devices chapter)