NAME

XSolarisOvlSelectPair – selects an optimal overlay/underlay visual pair that best meets the criteria

SYNOPSIS

XSolarisOvlSelectStatus
XSolarisOvlSelectPair (Display *∗display*, **int** *screen*, **int** *numCriteria*, **XSolarisOvlPairCriteria** *∗pCriteria*, **XVisualInfo** *∗ovVisinfoReturn*, **XVisualInfo** *∗unVisinfoReturn*, **unsigned long** *∗unmetOvCriteriaReturn*, **unsigned long** *∗unmetUnCriteriaReturn)*

Arguments

display Specifies the connection to the X server.

screen An integer specifying the screen on which the visuals are to be searched.

numCriteria
The number of **XSolarisOvlPairCriteria** structures in the *pCriteria* array.

pCriteria
An array of pair criteria structures in priority order from high to low specifying the criteria to be used in selecting the pair.

ovVisinfoReturn
A pointer to a caller provided *XVisualInfo* structure. On successful return, this structure contains a description of the chosen overlay visual.

unVisinfoReturn
A pointer to a caller provided *XVisualInfo* structure. On successful return, this structure contains a description of the chosen underlay visual.

unmetOvCriteriaReturn
A pointer to a bitmask that describes the criteria that were not satisfied for the overlay visual. This return argument is only meaningful when the routine returns a value of **XSolarisOvlQualifiedSuccess,** or **XSolarisOvlCriteriaFailure.**

unmetUnCriteriaReturn
A pointer to a bitmask that describes the criteria that were not satisfied for the underlay visual. This return argument is only meaningful when the routine returns a value of **XSolarisOvlQualifiedSuccess,** or **XSolarisOvlCriteriaFailure.**

Argument Types

See the Description section for a full description of how these types should be used.

XSolarisOvlPairCriteria
A structure defining various criteria to be used during visual selection, along with indications of the stringency of the criteria.

```
typedef struct {
        XSolarisOvlVisualCriteriaoverlayCriteria;
        XSolarisOvlVisualCriteriaunderlayCriteria;
} XSolarisOvlPairCriteria;
```

XSolarisOvlVisualCriteria is defined in the specification of **XSolarisOvlSelectPartner**(3)**.**

Return Types

XSolarisOvlSelectStatus

Refer to the specification of **XSolarisOvlSelectPartner**(3) for the definition of this type.

XSolarisOvlSuccess is returned if the search is completely successful in finding a pair that meets all hard and soft criteria of one of the **XSolarisOvlPairCriteria** structures.

XSolarisOvlQualifiedSuccess is returned if the chosen pair satisfies all hard criteria of one of the **XSolarisOvlPairCriteria** structures, but doesn't meet all soft criteria. In this case, *unmetOvCriteriaReturn* and *unmetUnCriteriaReturn* contains the logical OR of the soft criteria that were not met for the overlay and underlay, respectively.

XSolarisOvlCriteriaFailure indicates that no pair could be found that meets all the hard criteria of any of the **XSolarisOvlPairCriteria** structures. In this case, *unmetOvCriteriaReturn* and *unmetUnCriteriaReturn* contains the logical OR of the hard criteria that were not met by the **XSolarisOvlPairCriteria** structure with the fewest hard failures, for the overlay and underlay, respectively.

XSolarisOvlFailure is returned if some other error is encountered besides criteria match failure.

DESCRIPTION

This routine is similar to **XSolarisOvlSelectPartner**(3)**.** However, instead of selecting a partner visual given another visual, this routine simultaneously selects both the overlay and underlay visual from the set of all visual pairs for the given screen. The pair selected will be the one that best matches the given criteria.

The client is assured that, short of X errors not related to overlays, it can successfully create windows with the returned visuals.

This routine searches through all optimal visual pairs for a given screen, and then through all pairs of visuals (optimal and non-optimal), applying the specified criteria. These criteria are specified in *pCriteria.* Each element of *pCriteria* specifies criteria for both the overlay and underlay. It returns a success or failure status depending on whether it finds a pair that meets all the given criteria.

The selected pair will have an overlay that satisfies all the hard criteria specified for the overlay. The pair will have an underlay visual that satisfies all the hard criteria for the underlay. The attributes of the overlay visual are returned in *ovVisinfoReturn.* Likewise, the attributes of the underlay visual are specified in *unVisinfoReturn.* If two or more pairs are found that meet all of the hard criteria (both overlay and underlay) and the same number of soft criteria (either overlay or underlay), one of them will be chosen and returned. It is implementation dependent which one is chosen.

Like **XSolarisOvlSelectPartner**(3)**, XSolarisOvlSelectPair** supports a degradation sequence of criteria sets. This means that multiple criteria sets can be specified in a single call. First, an attempt is made to find a pair matching the first criteria set for both the overlay and the underlay. If a pair is found which meets all of the hard criteria of the first set, this pair is chosen. If no pair meets all hard criteria of the first set, a search is performed using the second criteria set. This process continues until either a pair is found that meets the all of the hard criteria of some criteria set, or all sets have been used to search. This degradation sequence allows clients to specify the criteria for the most preferred pair as the first criteria set. Pairs that are acceptable but which are less desirable can be specified in criteria sets following the first. This allows the search to proceed through a progressive relaxation in the client's requirements for the pair with a single subroutine call.

The criteria masks that can be specified are described in the specification of **XSolarisOvlSelectPartner**(3)**.**