

# Co-maintaining cairo: cool community cool code

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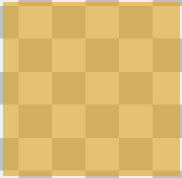


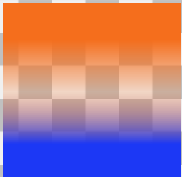


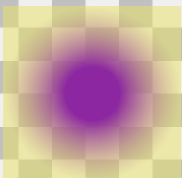


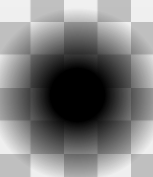



Intro



# Rendering model

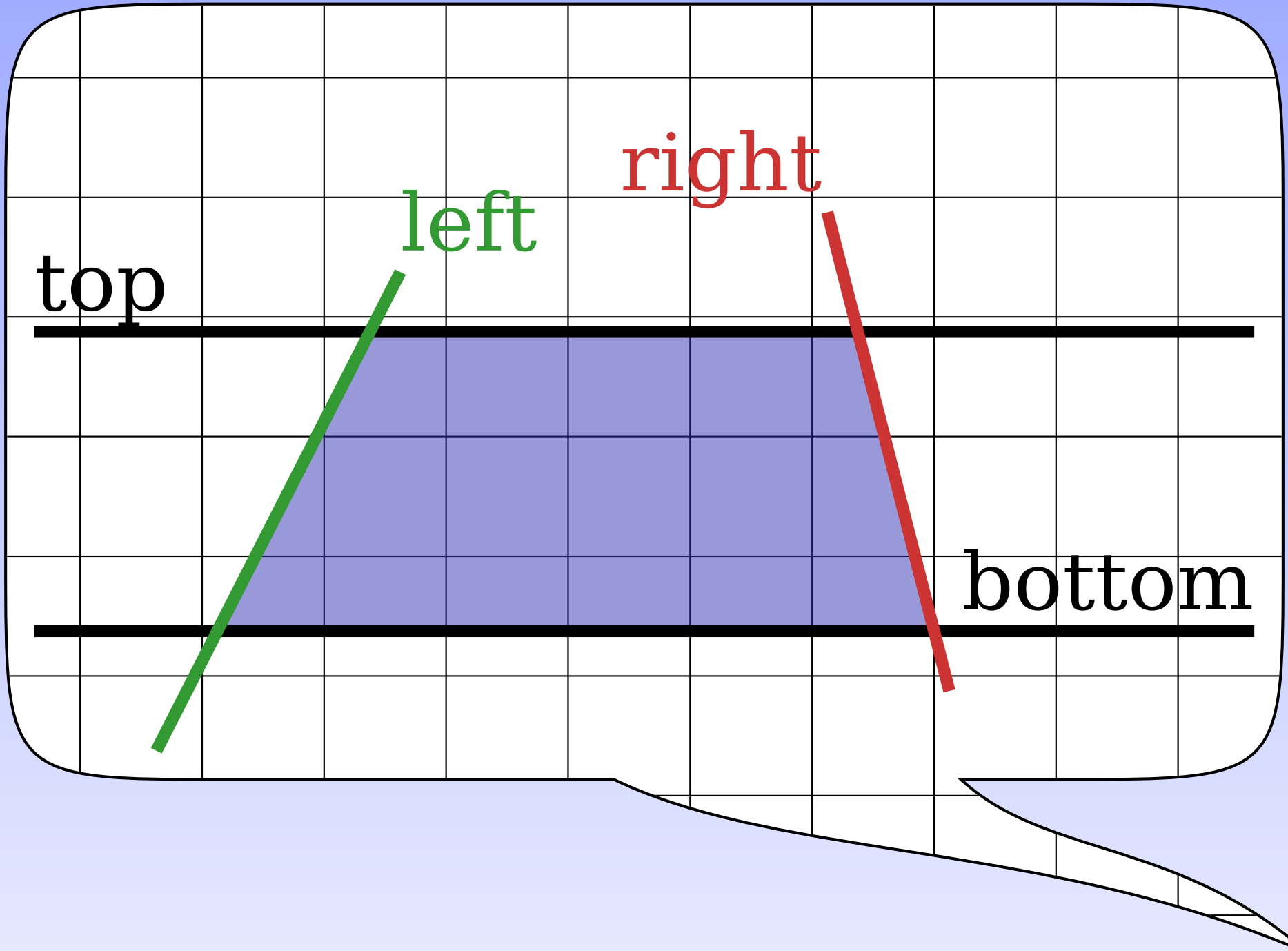


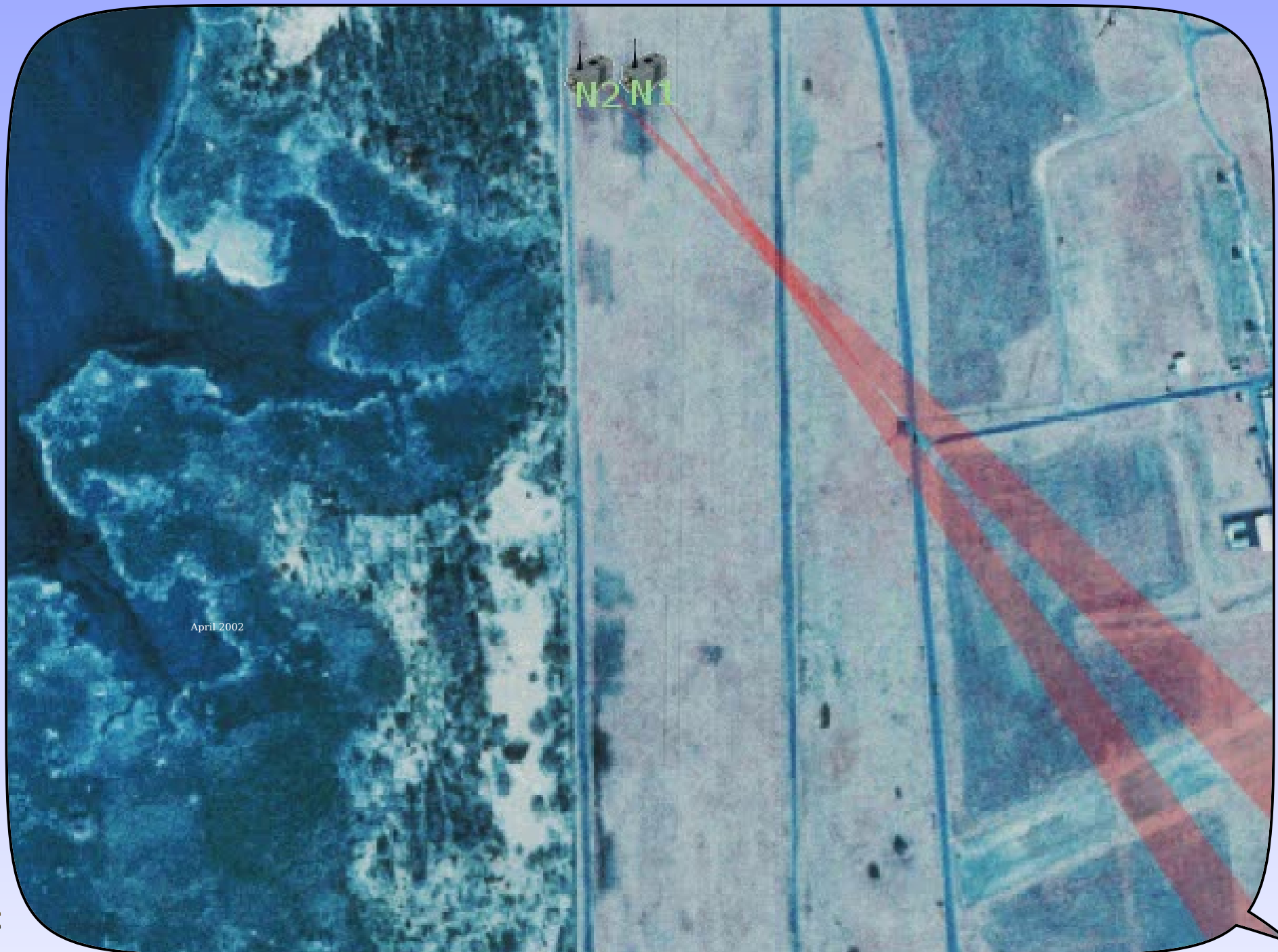
source	mask	source IN mask OVER dest
		
		
	<b>G</b>	
		



# History







Subject: Xr API strawman  
To: Keith Packard <keithp@keithp.com>  
Date: Tue, 4 Jun 2002 19:55:06 +0000

Hi Keith,

I read up a bit on PostScript. It's the obvious source of the proposals you were making.

I like it much better than GL as a model for Xr. It's cleaner in general, (IMHO). And PS has larger overlap with the primitives we want in Xr, (eg. bezier curves as opposed to just triangle meshes).

So, here's what I'm thinking of so far. This sticks fairly close to PostScript, (but with an explicit rather than an implicit state object).

Feedback welcome,

-Carl





```
/* Opaque state structure */
typedef struct _XrState XrState;

/* Functions for manipulating state objects */

/* XXX: Do we want to add `State' to any of these functions?
   eg. XrStateCreate, XrStateClone? */
XrState *XrCreate(void);
void XrDestroy(XrState *xrs);

void XrSave(XrState *xrs);
void XrRestore(XrState *xrs);

XrState *XrClone(XrState *xrs);

/* Modify state */
void XrSetPicture(XrState *xrs, XrPicture)
void XrSetColor(XrState *xrs, XrColor);

/* XXX: XrSetLineWidth, XrSetLineCap, XrSetLineJoin, XrSetDash, ... */

/* Path creation */

/* XXX: I'm thinking that it might make sense to do away with the
   notion of a "current path" in the state object and instead
   provide functions to manipulate an opaque XrPath object. This
   would add one more argument to XrStroke/XrFill, but it would
   unify support for PS "user paths" */

void XrNewPath(XrState *xrs);
void XrMoveTo(XrState *xrs, double x, double y);
void XrLineTo(XrState *xrs, double x, double y);
void XrClosePath(XrState *xrs);

/* XXX: XrRLineTo, XrArc, XrCurveTo, XrRCurveTo, ... */

/* Render current path */
void XrStroke(XrState *xrs);
void XrFill(XrState *xrs);
```



# Committers

2002	2
2003	11
2004	12
2005	26
2006	54
2007	44



## Backends

2002-06	Xlib
2003-02	image
2003-10	PostScript
2004-04	XCB
2004-09	glitz
2005-01	Win32
2005-01	PDF
2005-01	Quartz
2005-12	SVG
2005-12	BeOS
2005-12	directfb
2006-09	OS/2
2007-02	Quartz ( <i>New!</i> )



## Bindings

C++

Common Lisp

D

Haskell

Java

.NET

Nickle

O'Caml

Perl

PHP

Python

Ruby

Scheme

Squeak



News



# Mutex rework



# Error-handling



# Great malloc hunt





# PDF hotness



# Xlib work queue



# Lessons



If you don't *git* it,  
you don't get it

It's the  
Right Thing To Do



# Tiny commmits

▶ APPLY NOW

*Earn points faster*



Commit-access  
for everyone!



Tricking others  
into doing *their* work



Don't go AWOL





Why do we  
love cairo?



Why do *you*  
love cairo?

