

# Looking back at GTK+-2.0

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# Introduction

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What did we do?

How did we do it?

How did it go?

How do we do it better next time?

# Scope

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GObject

GDK Improvements

- Ports (Win32, linux-fb)

- 32-bit coordinates

- Double buffering

Pango, Unicode

New Widgets

- GtkTextView

- GtkTreeView

gdk-pixbuf

Accessibility

# General ideas

Make GTK+ a world class toolkit

Do large scale cleanups

- GObject

- Port infrastructure

Fix problem widgets

- GtkText => GtkTextView

- GtkList, GtkTree, GtkCList, GtkCTree => GtkTreeView

Add support for the hard stuff

- Internationalization

- Accessibility

# Timeline

Feb 1999 - Branched 1.3

Mar 1999 - Start integrating in Win32

Jul 1999 - Coding starts in GScript (later Pango)

Nov 1999 - Add port structure (gdk/x11,win32)

Apr 2000 - GtkTextView

Apr 2000 - Pango integrated

May 2000 - GObject integrated

Jun 2000 - gdk-pixbuf integrated

Oct 2000 - GtkTreeView integrated

Dec 2000 - Xft support added

Jan 2001 - Started using Bugzilla

May 2001 - Dependency on ATK added

Mar 2002 - Released 2.0.0

# Stats

## ChangeLog

45,000+ lines

1.5+ megabytes

## Lines of code added

Over 300,000 lines of code added

More than 1 line every 5 minutes over 3 years

## Bugzilla bugs resolved

More than 1600

## Contributors

288 separate people credited in release announcements

(Core team of 10-15)

# Organization

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Small core team (Tim and Owen)

Give people authority over areas they work on

Threading - Sebastian Wilhelmi

GtkTextView - Havoc

GtkTreeView - Jonathan, Kristian Rietveld

Documentation - Matthias Clasen

ATK - Sun accessibility team

Ideal is to have two eyes look at any change

# Planning

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Rough scope decided early 2000 (1 year in)

Plan was GObject, Pango, GDK enhancements, GtkTextView

GtkTreeView added later that year

Atk added in early 2001

No public roadmap; informal discussions



# Tools

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CVS

Bugzilla

Mailing lists

`gtk-devel-list@gnome.org`

# Bugzilla

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Defect tracking

Bugs

Issue tracking

Things that need to be done

Enhancement tracking

Things to do

# Project documentation

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CVS history + ChangeLog + Bugzilla + Lists

Cross-references give coherency

- ChangeLog references bug #

- Bug report references mailing lists

Design Documents

- Go to mailing list

- Do they need to be separately maintained, updated?

# What went well

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Lots of new functionality

High quality

Careful review of code going in  
Always was in a working state

Community contributions

Lots of testing, people using it in last year or so

Time to correct API mistakes

# What went badly

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## Schedule

Timescale not ridiculous for amount of work

Prediction poor (about a year longer than expected)

## Design work somewhat private

## Division of labor

Most of work still done by a few people

Users got no significant enhancements for 3 years

# Process improvements

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## Shorter release cycles

- Better predictability

- Shorter "time to market"

## Public design documents

## Separation of roles

- Release mechanics

# Future roadmap

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## 2.2

Multihead support (Erwann Chenede)

Official Win32 support (Tor and Hans)

## 2.4

File selection

"Combo" widget(s) (Kristian Rietveld)

New Menu API (James Henstridge)

## 2.x

Icon list

Sheet widget

Help API

Enhanced geometry management

## 3.x

"Java2D" like rendering

New theme system