Accessibility for Qt and KDE

1.7.2012 - Akademy

Frederik Gladhorn <gladhorn@kde.org>

Accessibility for Qt and KDE

Orca!

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About me

Frederik Gladhorn

gladhorn@kde.org

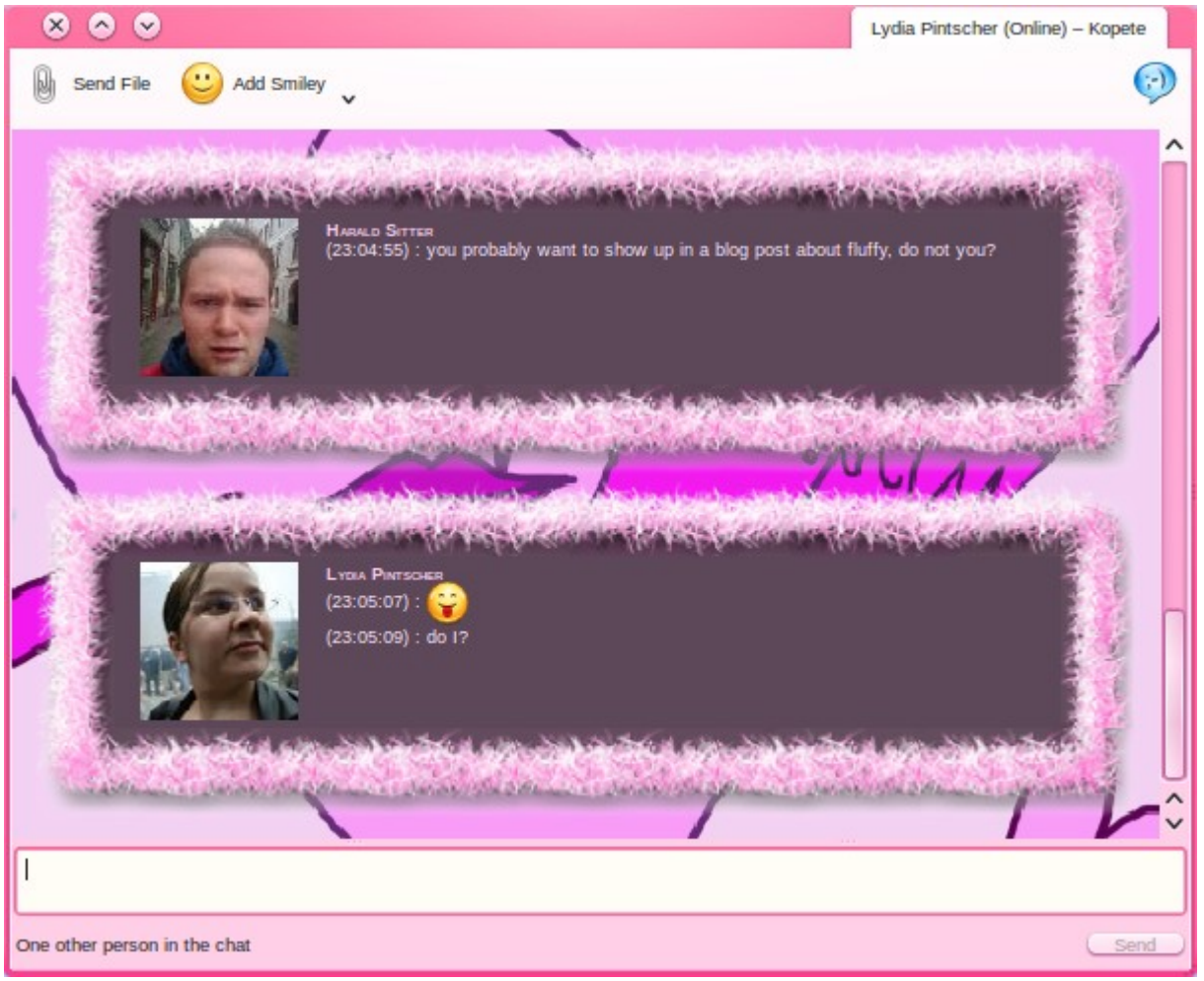
KDE

(Parley, ghns, accessibility)

Qt

(accessibility, touch handling)

About me


Lydia Pintscher (Online) – Kopete
Send File
Add Smiley
Harald Sitter
(23:04:55) : you probably want to show up in a blog post about fluffy, do not you?
Lydia Pintscher
(23:05:07) :
(23:05:09) : do I?
One other person in the chat
Send

Outline

why-what accessibility

the easy stuff (do it!)

assisitive technology and apis

qt-at-spi

libkdeaccessibilityclient

conclusion

Accessibility

degree to which a product, device, service, or environment is available to as many people as possible

Why?

Rules
Laws
Requirements
...

because we can

because we care

enable people

inform

participate

KDE Accessibility

Font and color settings

KMouseTool

Magnification KMag (KWin)

Simon

Screen readers and APIs

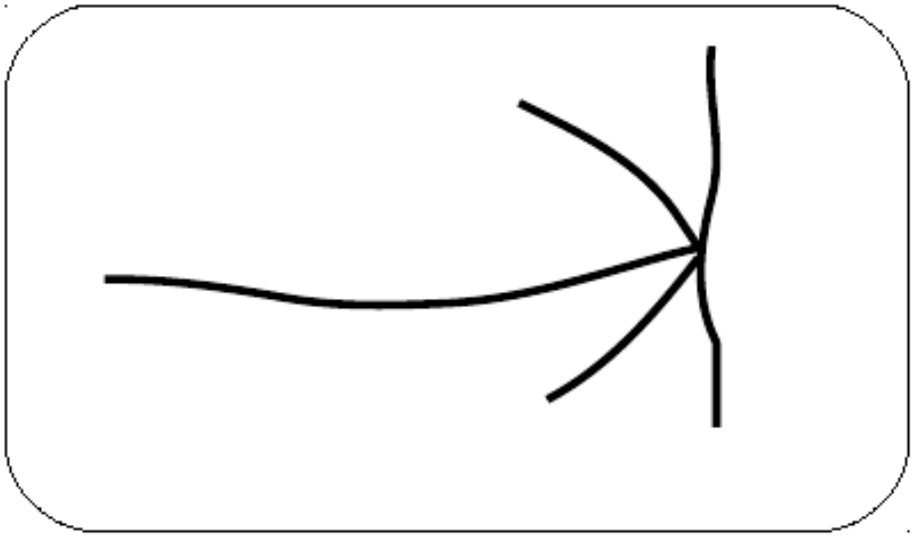
YOUR app

Colors

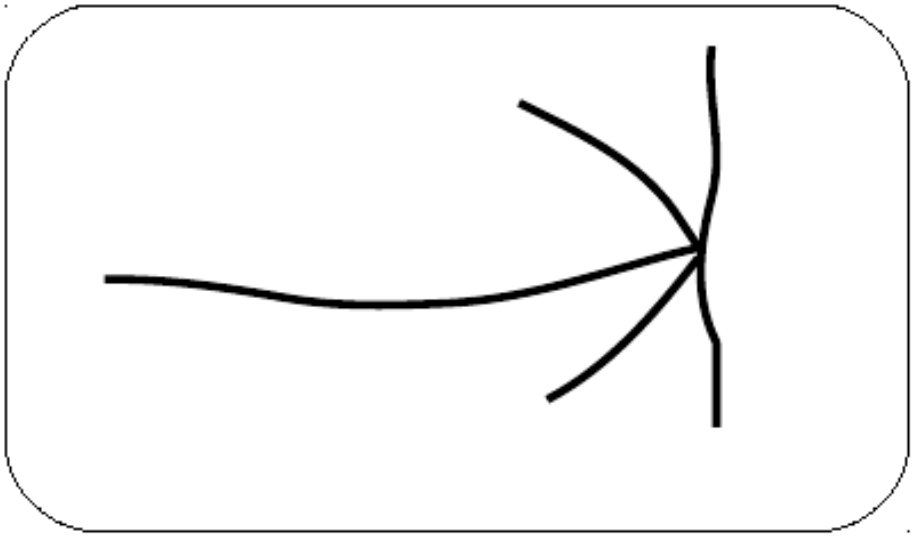
Fonts

Keyboard navigation

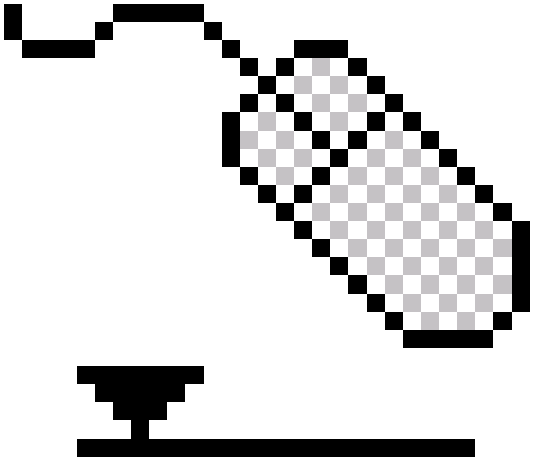
→ hig guidelines



Keyboard navigation!



KMouseTool

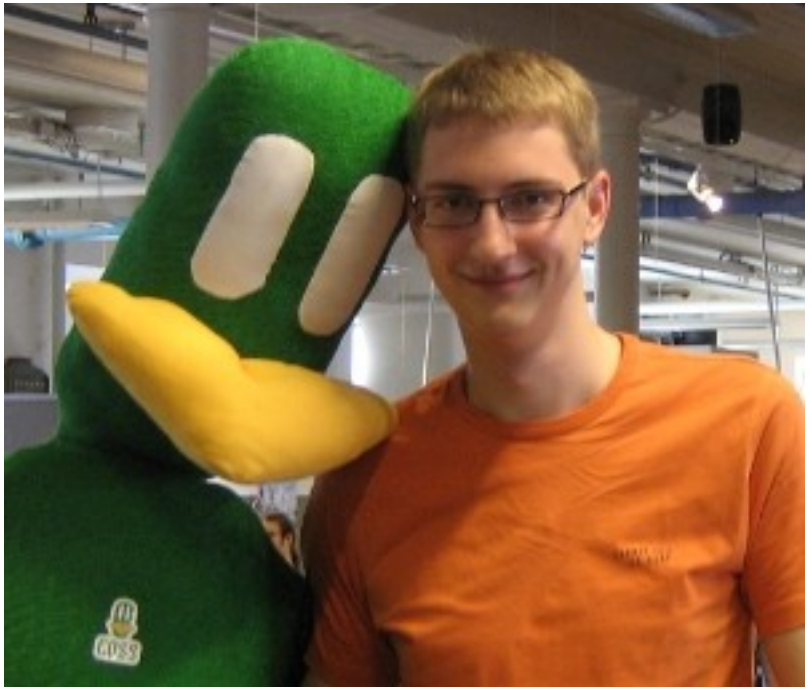


Magnification

KMag updates

LibKdeAccessibilityClient

Simon



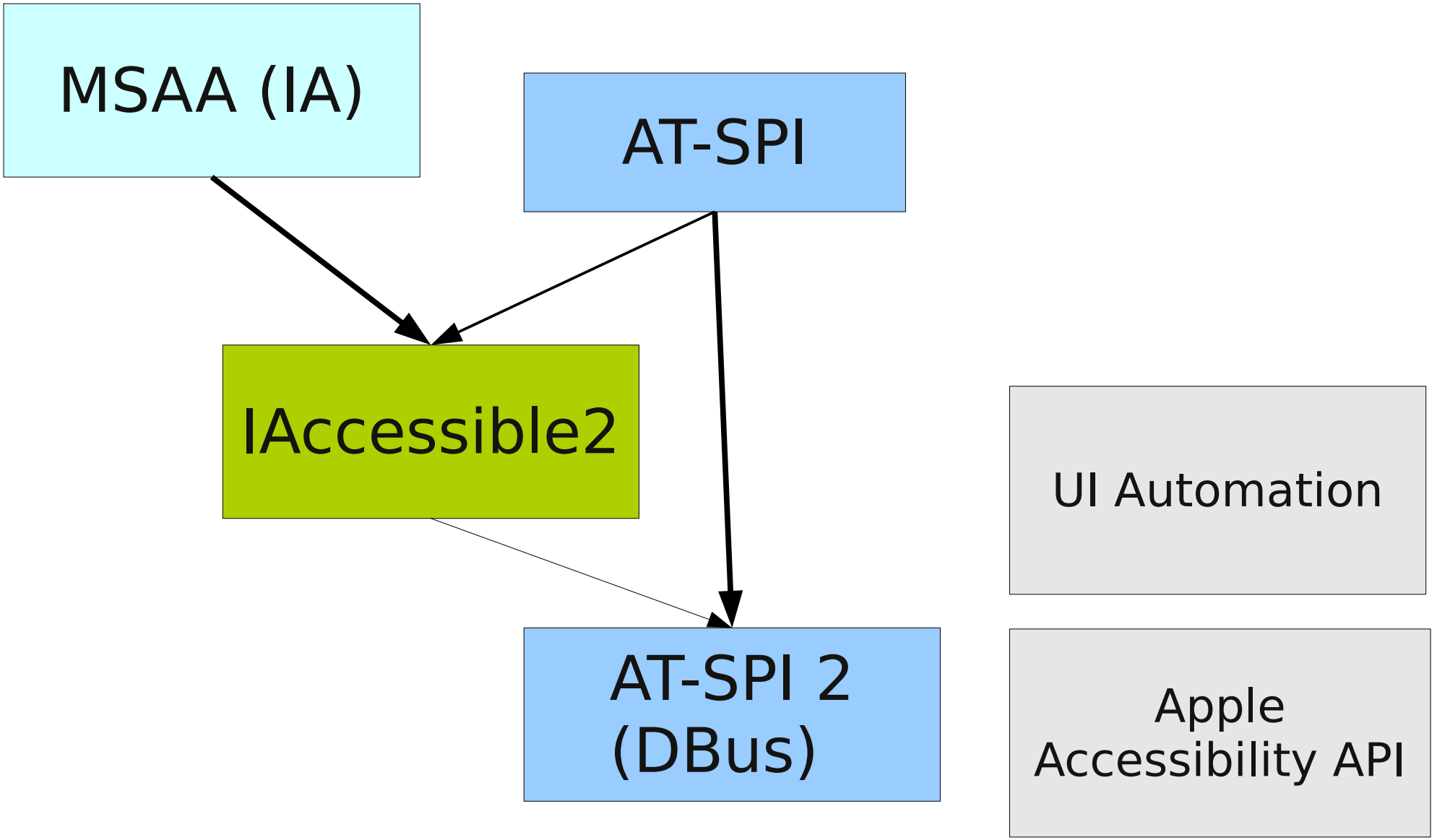
Assistive Technology

Virtual Keyboards

Screen Reader

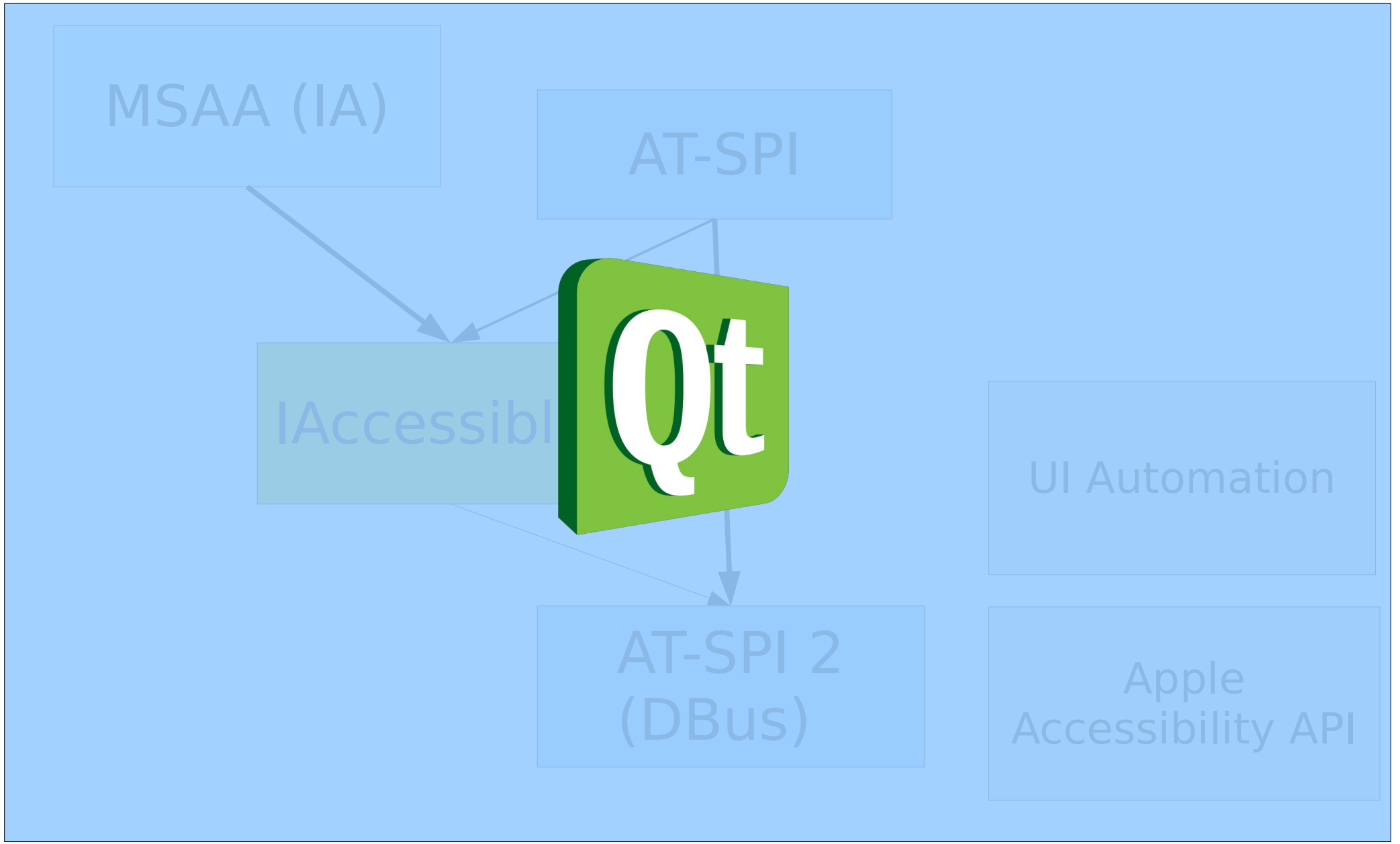
Braille

Accessibility APIs



SAPPORO
QUEENS
10689 km
CERVINIA
8894 km
8892 km
SKI SHOP
7 m
RESERVATIONS
47 m
South Africa
SKI DECK
8937 km

Accessibility APIs



Why now?

How to get it running?

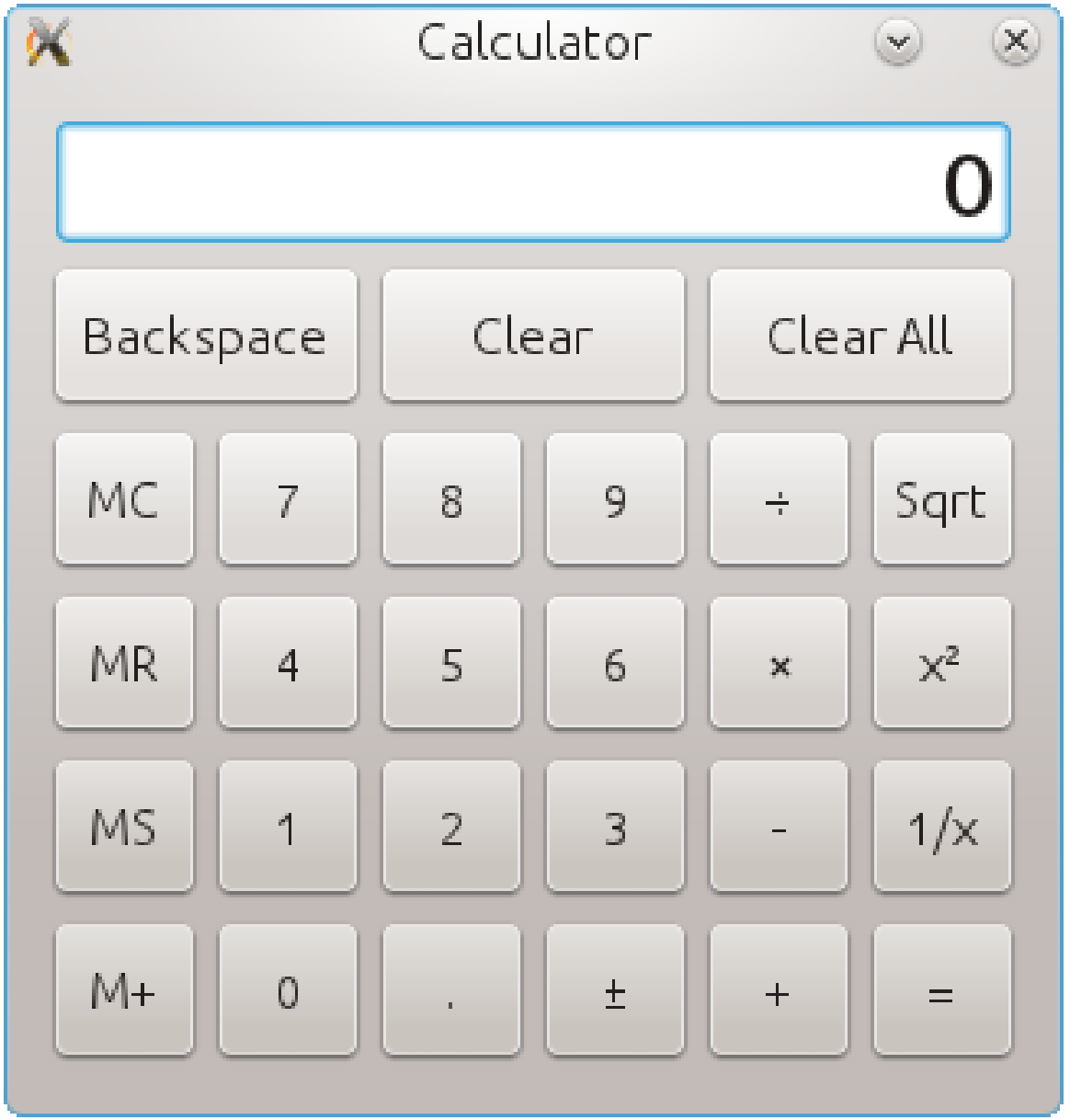
qt-at-spi

Available in most distributions now

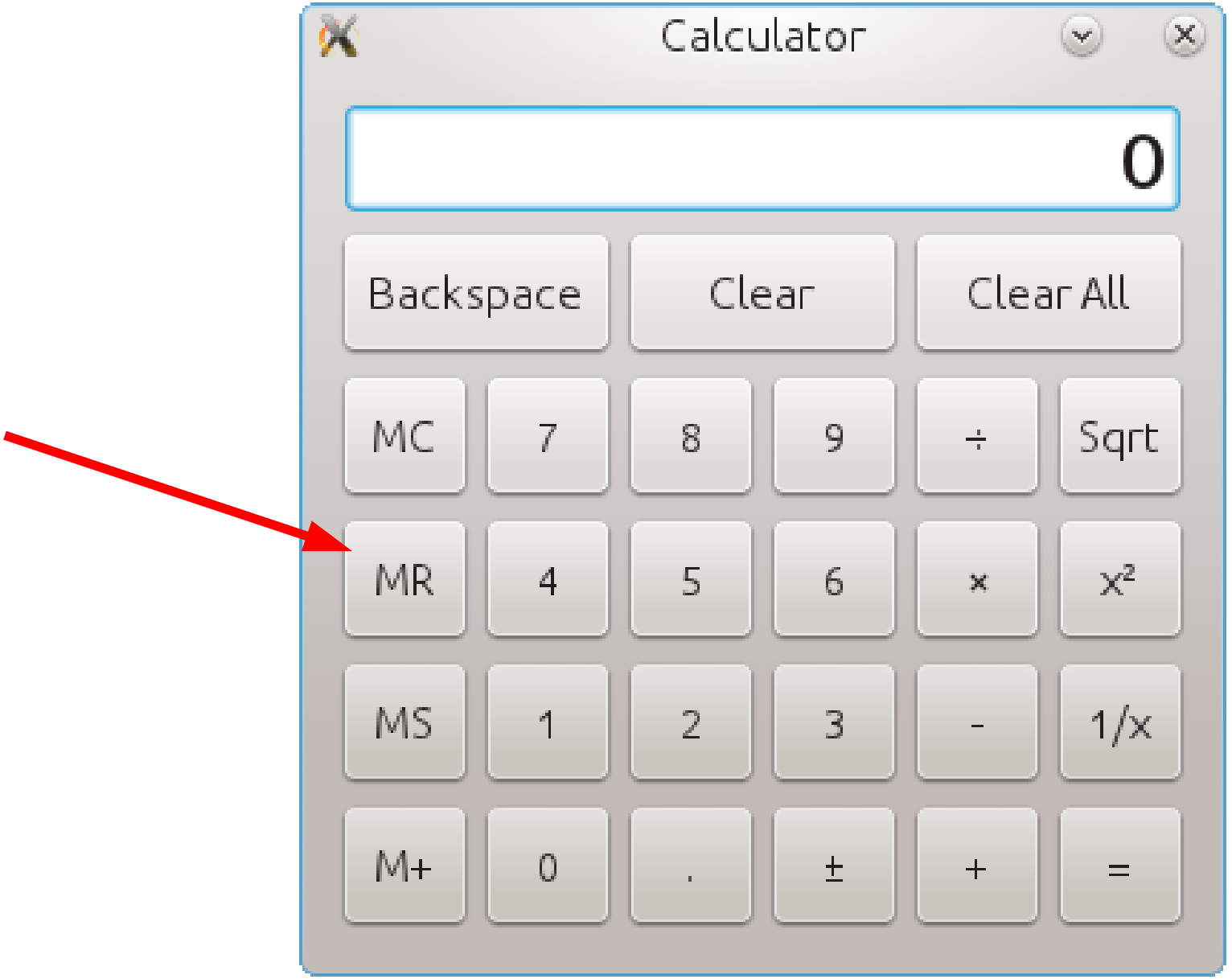
Qt 4: projects.kde.org/qtatspi

Qt 5: pending review to be integrated in QtBase

Getting our hands dirty


Calculator
0
Backspace
Clear
Clear All
MC
7
8
9
÷
Sqrt
MR
4
5
6
×
x²
MS
1
2
3
-
1/x
M+
0
.
±
+
=

Now do the keyboard thing again


Calculator
0
Backspace
Clear
Clear All
MC
7
8
9
÷
Sqrt
MR
4
5
6
×
x²
MS
1
2
3
-
1/x
M+
0
.
±
+
=

Let's fix it!

We did it

designer

code

code

```
widget->
  setAccessibleName(i18n(“next”));
```

Do this at home

Have AT-SPI-2 running
(bug your distro if not)

Grab Qt 4.8

Get qt-at-spi

`projects.kde.org/qtatspi`

QAccessiblePlugin

(for your custom widgets)

LibKdeAccessibilityClient

(yes, for clients, like the name says!?!)

KAccessible/Orca/KAccessible2
(better name anyone?)

Challenges

Plasma
Qt Quick 2
Qt WebKit
Virtual keyboard
Input methods and touch

Qt Quick 2

```
66          verticalScrollBar.value = verticalScrollBar.maxim
67      }
68
69      Accessible.role: Accessible.EditableText
70      Accessible.name: text
71
72      TextEdit {
73          MouseArea {
```

Feedback and help appreciated

Go ahead, test with Orca

Check your app!

Colors, fonts

Keyboard navigation

Run with screen reader

Questions?

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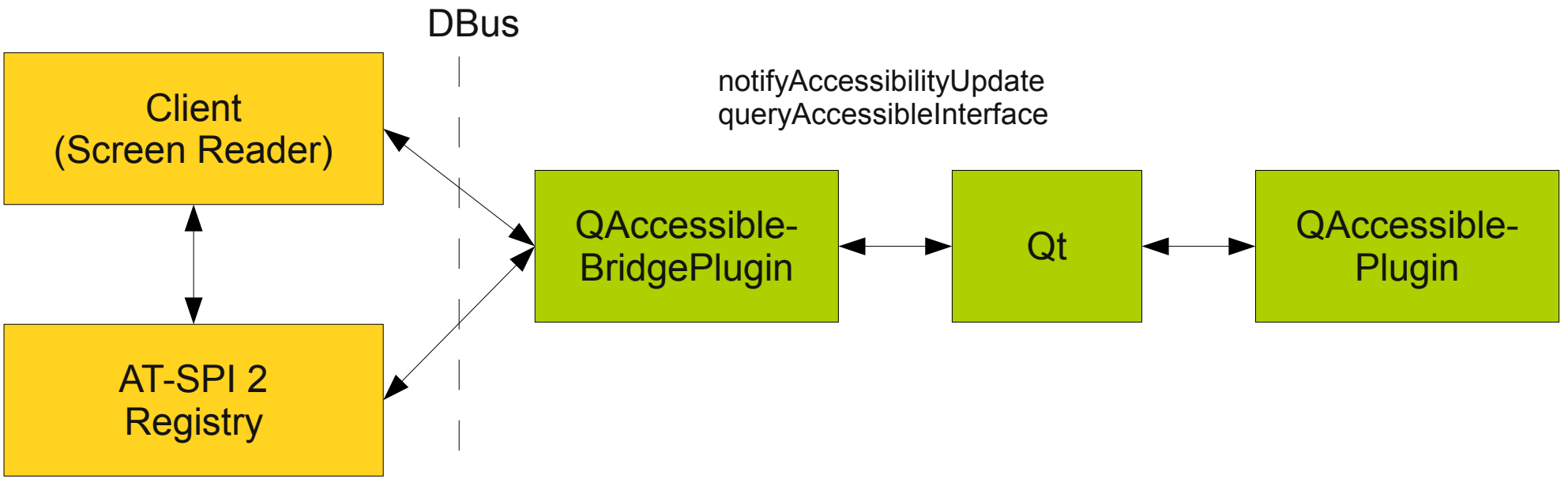
DBus
Client
(Screen Reader)
AT-SPI 2
Registry
notifyAccessibilityUpdate
queryAccessibleInterface
QAccessible-
BridgePlugin
Qt
QAccessible-
Plugin