Christoph Sterz

Qt on the Second Screen
A Talk about Remoting Your Application
1. The Case for a Second Screen

2. What are the Options
Show some Demos!

3. The current State
and Future Wishes
Factory-Floor Situation – SCADA

Multi-Milion Dollar Machines
—You always want to at least see their status
Surgery Situation

The device is inaccessible *for specific reasons*

Real World Example: pre-surgery briefing
Distinction

You produce "basically the same" devices as your competitors do

but yours can be controlled with a smartphone
(you win!)
No Screen

Premium variant A and mid- B have a screen

*there is a market for a C—it just has no screen*
Remote Servicing

Assist and maintain devices for your customers remotely
Remote Deployment

If your second screen can be a web-page, you multiply your opportunities to run it.
Remote Deployment

If your second screen can be a web-page, you multiply your opportunities to run it.

Users can choose where to view your second screen
BYOD
Remote Deployment

If your second screen can be a web-page, you multiply your opportunities to run it.

Users can choose where to view your second screen
BYOD

For WebASM: Deployment can become possible on formerly restricted platforms
### WebASM Case

<table>
<thead>
<tr>
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*The Qt, OpenGL and C++ experts*
WebAssembly or "wasm" is a new portable, size- and load-time-efficient format suitable for compilation to the web.
Have a second Screen, because it fits your application.
Which Technologies exist?
How can we remote apps using Qt?
Monitor

OpenGL

QSG

QML

Qt Business Logic

DataSource

CPU-rd.

Painter*

Widgets

Remote

* Paint Engines vary
Qt Remote Objects help syncing the state between Qt Objects!
Qt Remote Objects exist here as well!
Monitor
Frame
OpenGL
QSG
Painter*
QML
Widgets
Qt Business Logic
DataSource

Custom Remote
Web Browser

WebRTC
H264 (GPU accelerated)
MotionJPEG

The Qt, OpenGL and C++ experts
Yet there are still some problems on our way.
Qt has no multi-seat support

Browser A

Ctrl

Browser B

C

Monitor

OpenGL

QSG

Painter*

QML

Widgets

Qt Business Logic

DataSource
Qt has no multi-seat support
If we could have a wish...
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<th>Effort</th>
<th>FPS</th>
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<th>Displ.</th>
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Thank you!

christoph.sterz@kdab.com

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