

# Hydroinformatik II: Grundlagen der Kontinuumsmechanik

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# Vorlesungsplan Hydroinformatik II SoSe 2017

#	Datum	Thema
01	07.04.2017	Einführung
02	07.04.2017	Grundlagen: Kontinuumsmechanik
–	14.04.2017	Ostern
03	21.04.2017	Grundlagen: Hydromechanik
04	28.04.2017	Qt Installation (2017) Robert Schlick
05	05.05.2017	Grundlagen: Partielle Differentialgleichungen
06	12.05.2017	Qt Einführung
07	19.05.2017	Qt Übung: Funktionsrechner; Grundlagen Numerik
08	26.05.2017	Numerik: (exp) Finite Differenzen Methode
09	02.06.2017	Numerik: (imp) Finite Differenzen Methode
–	09.06.2017	Pfingsten
10	16.06.2017	Gerinnehydraulik: Theorie - Grundlagen
11	23.06.2017	HW: Gerinnehydraulik: Programmierung, Übung 1
12	30.06.2017	Gerinnehydraulik: Programmierung, Übung 2
13	07.07.2017	Einführung - Grundwassermodellierung (MW)
14	14.07.2017	Kurs-Zusammenfassung, Ausblick und Beleg

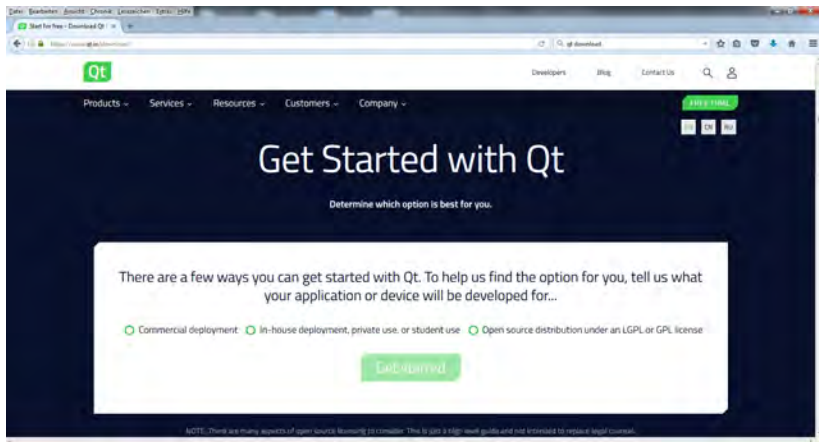
## Fahrplan für heute ...

- ▶ Qt ("The same procedure as every year, James ...")
- ▶ Qt Installation (HW to finish)
- ▶ "Hallo Qt World"

# Warum Qt

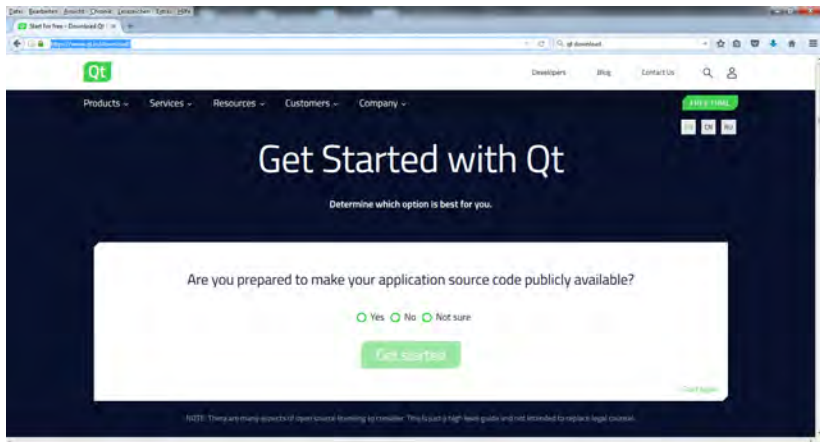
- ▶ plattformunabhängig (Windows, Mac, Linux, Ubuntu, ...)
- ▶ free and open source software
- ▶ ...
- ▶ <https://www.qt.io/download/>

# Qt Installation



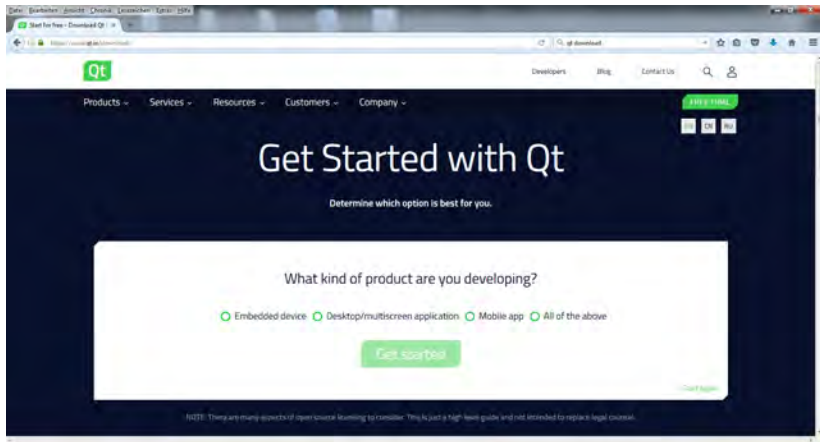
- ▶ open source

# Qt Installation



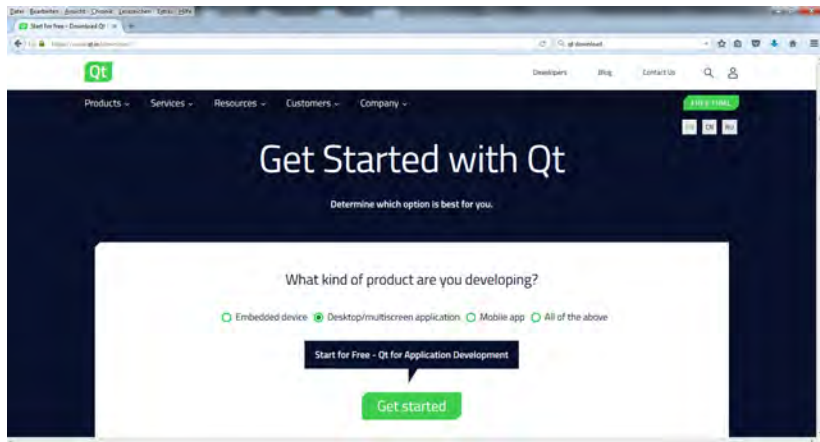
- ▶ not sure

# Qt Installation



- ▶ desktop/multiscreen application

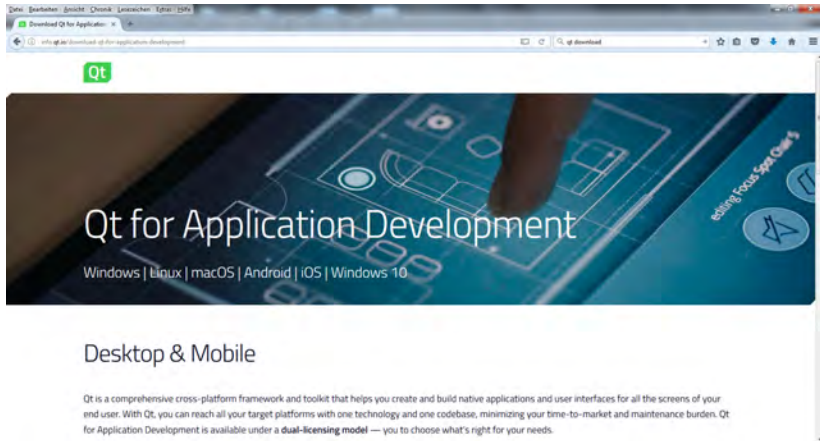
# Qt Installation



- ▶ Get started



# Qt Installation



The screenshot shows a web browser window displaying the Qt website. The browser's address bar shows the URL 'info.qt.io/download/qt-for-application-development'. The page features the Qt logo in the top left corner. The main content area has a blue background with a hand interacting with a tablet displaying technical drawings. The text 'Qt for Application Development' is prominently displayed in white, with a list of supported platforms below it: 'Windows | Linux | macOS | Android | iOS | Windows 10'. Below this, the heading 'Desktop & Mobile' is followed by a paragraph describing Qt as a cross-platform framework and toolkit.

Qt

## Qt for Application Development

Windows | Linux | macOS | Android | iOS | Windows 10

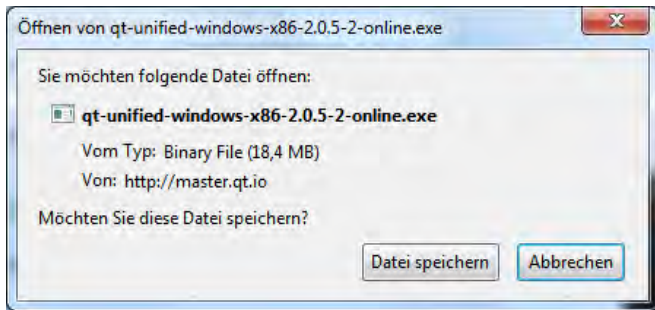
### Desktop & Mobile

Qt is a comprehensive cross-platform framework and toolkit that helps you create and build native applications and user interfaces for all the screens of your end user. With Qt, you can reach all your target platforms with one technology and one codebase, minimizing your time-to-market and maintenance burden. Qt for Application Development is available under a **dual-licensing model** — you to choose what's right for your needs.

- ▶ Get your open source package

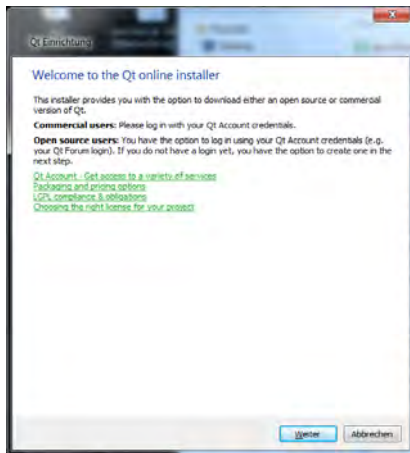


# Qt Installation



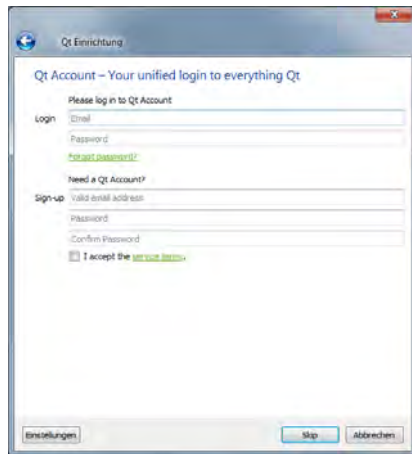
- ▶ Download now >  
qt-unified-windows-x86-2.0.5-2-online.exe
- ▶ Datei speichern und Execute (Ausführen)

# Qt Installation



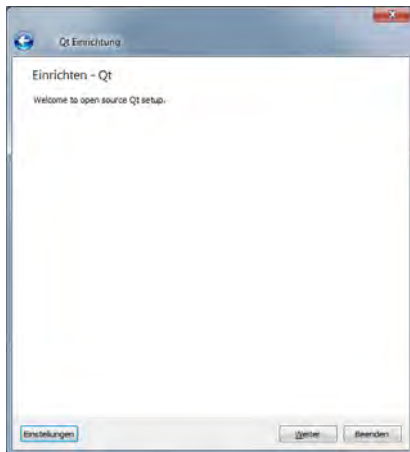
▶ Weiter

# Qt Installation



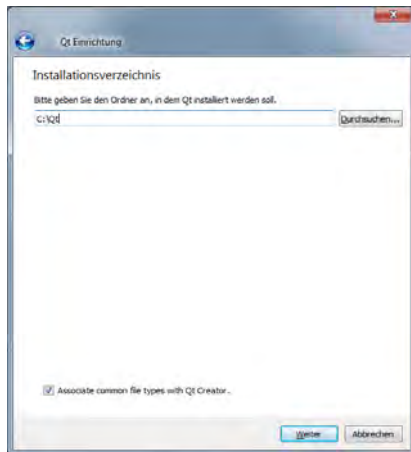
► Skip !!!

# Qt Installation



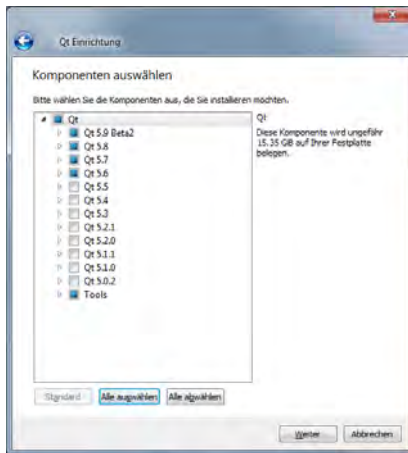
► Weiter

# Qt Installation



► Weiter

# Qt Installation



- ▶ Weiter (Standardinstallation braucht 15 GB !)



# Qt Installation



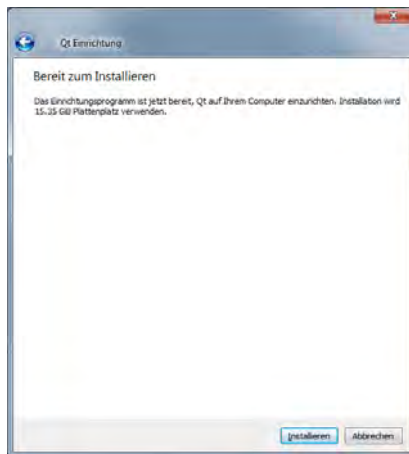
▶ Weiter

# Qt Installation



► Weiter

# Qt Installation



- ▶ "I have read and agreed ..." > Weiter

# Qt Installation



## ► Abschließen

# Qt Installation

- ▶ Die Qt Standardversion benötigt 15 GB
- ▶ Je nach Download-Geschwindigkeit dauert dies ...
- ▶ Daher besser zu Hause (hoffentlich mit stabilem Netz) erledigen (HW)

# 1. Qt Übung "Hallo Qt World"

## ▶ Quelltext

```
#include <QApplication>
#include <QLabel>

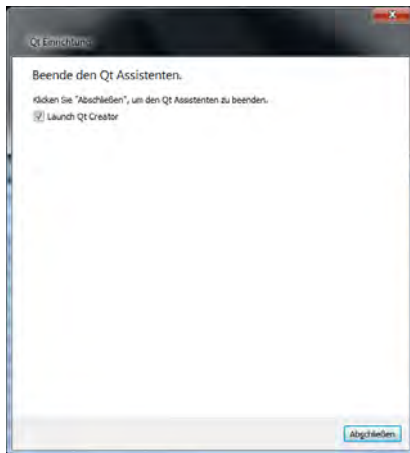
int main(int argc, char *argv[])
{
    QApplication app(argc,argv);
    QLabel *label = new QLabel("Hello Qt today 28.04.2017! : Häppy
    QLabel *label1 = new QLabel("<h1><i>Hello<!i>""<font color=red
    label1->show();
    return app.exec();
}
```

# 1. Qt Übung "Hallo Qt World"

- ▶ Projekt-Datei

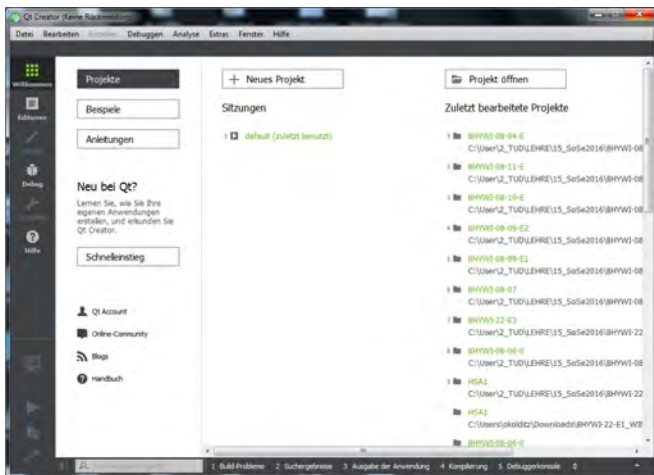
```
#####  
# Automatically generated by qmake (3.0) Fr Dez 19 11:47:51 2014  
#####  
  
TEMPLATE = app  
TARGET = E10_1_HelloQt  
INCLUDEPATH += .  
  
QT += widgets  
  
# Input  
SOURCES += helloQt.cpp
```

# 1. Qt Übung "Hallo Qt World"





# 1. Qt Übung "Hallo Qt World"



# 1. Qt Übung "Hallo Qt World"

