

Hydroinformatik II

”Prozesssimulation und Systemanalyse”

Hydroinformatik II Übungen @ 2020

Olaf Kolditz

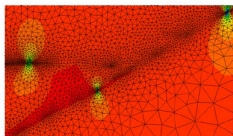
*Helmholtz Centre for Environmental Research – UFZ

¹Technische Universität Dresden – TUDD

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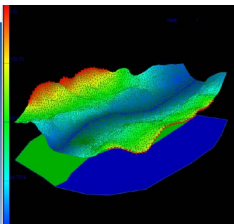
17.04.2020 - Dresden

$$\frac{d\psi}{dt} = \frac{\partial\psi}{\partial t} + \mathbf{v}^E \nabla \psi$$

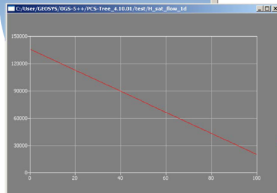
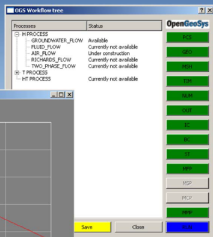


Basics
Mechanik

Anwendung



Numerische
Methoden



Programmierung
Visual C++

Prozessverständnis



Projekt konfigurieren

Für das Projekt **BHYWI-08-02-E** können die folgenden Kits verwendet werden:

Das Projekt **BHYWI-08-02-E** ist noch nicht konfiguriert.
Qt Creator verwendet das Kit **Desktop**, um das Projekt auszuwerten.

Kits nach Namen filtern...

Alle Kits auswählen

Desktop Qt 5.0.2 MSVC2010 32bit Details ▾

Desktop Qt 5.0.2 MSVC2010 32bit OpenGL Details ▾

Desktop Qt 5.0.2 MSVC2012 64bit Details ▾

Desktop Qt 5.0.2 MinGW 32bit Details ▾

Build importieren von... Details ▾

Projekt konfigurieren

Exercise: Get example files from GitHub

- <https://github.com/envinf/Hydroinformatik-II>

- Per Git:

```
git clone https://github.com/envinf/Hydroinformatik-II
```

- Or as ZIP

envinf / Hydroinformatik-II

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Professur für Angewandte Umweltsystemanalyse an der TU Dresden, Übungen BHYWI 08 <https://www.ufz.de/index.php?de=40425> Edit

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2 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find File Clone or download

bilke Initial

BHYWI-08-01-E	Initial
BHYWI-08-02-E	Initial
BHYWI-08-03-E	Initial
BHYWI-08-04-E	Initial
BHYWI-08-05-E	Initial

Clone with HTTPS Use SSH

Use Git or checkout with SVN using the web URL.

Git URL <https://github.com/envinf/Hydroinformatik-II>

Open in Desktop Download ZIP

2 days ago

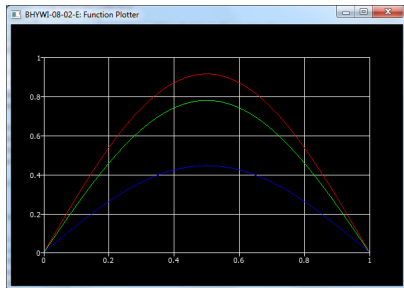


- Qt: Grafische Programmierung in C++
- Dialog - Plots

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

E2: Funktionssimulator

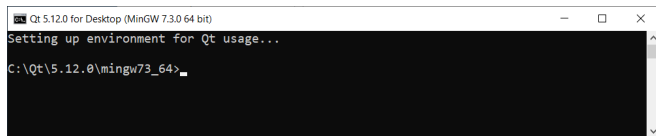
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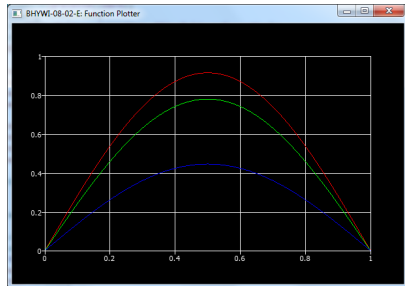
- Darstellung einfacher Funktionen
- Analytische Lösungen
- x-y Plots

Qt: Compile a Qt project from command Line

BHYWI-08-02-E



```
Qt 5.12.0 for Desktop (MinGW 7.3.0 64 bit)
Setting up environment for Qt usage...
C:\Qt\5.12.0\mingw73_64>
```



- 1 `cd /your_project_folder/`
- 2 `qmake -project` (creates pro-file)
- 3 `qmake` (creates makefile)
- 4 `mingw32-make` (creates exe-file)