

Robotik-Projekt WS 2005

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Kurzinfos:

1. Coding Style
2. Doxygen
3. SVN

Coding Style I

- Keine Tabs
- Englische Worte
- Englische Dokumentation
- Worte ohne _ zusammenschreiben:
kein `void get_value()`;
- Jeden Wortanfang groß:
`void GetValue()`;

Coding Style II

- Möglichst einzeilige Kommentare (C++-style):

```
if ( !isValid() )  
    return 0; // no valid calibration values
```

- Oder:

```
// Check if data is valid and  
// return 0 if invalid.  
if ( !isValid() )  
    return 0; // no valid calibration values
```

Coding Style III

- Eine Datei pro Klasse
- Dateiname = Klassename
- Keine Variablen *public* deklarieren, sondern:

```
class EMGCalib
{
protected:
    float Shape, Scale, Range;

public:
    void Set(float Shape, float Scale);
    float CalcForce(float EMG) const;
    ...
};
```

Coding Style IV

- Beispiel-Files in

ExoProject/Projects/ForceControl/Source/EMGCalib.*

Doxxygen I

- **Erzeugen der Dokumentation:**

~/ExoProject> make doc

- **Dokumentation unter:**

~/ExoProject/Documents/DoxyDocs/html/index.html

- **Doxxygen-Dokumentation im Internet:**

<http://www.stack.nl/~dimitri/doxygen/>

Exoskeleton - Konqueror

Dokument Bearbeiten Ansicht Gehe zu Lesezeichen Extras Einstellungen Fenster Hilfe

Adresse: file:/home/fleischer/ExoProject/Documents/DoxyDocs/html/index.html

SuSE Exo Dienste Firmen Motoren Exoskeleton Google Medizin

Exoskeleton

- Main Page
- + File List
- + Compound List
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Exoskeleton Documentation

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Doxxygen III

```
////////////////////////////////////////////////////////////////  
/// \class EMGCalib  
/// \brief Contains the values for a calibration curve and allows to calculate  
/// the resulting muscle force.  
////////////////////////////////////////////////////////////////  
  
class EMGCalib  
{  
protected:  
    float Shape,Scale,Range;  
  
public:  
    void Set(float Shape, float Scale);           //!<< Sets some parameters ...  
    void Set(float Shape, float Scale, float Range); //!<< Sets some parameters ...  
    void SetRange(float Range);                   //!<< Sets the EMG range ...  
    bool IsValid() const;                        //!<< Returns true, if ...  
    float CalcForce(float EMG) const;             //!<< Calculates the ...  
  
    void Print(bool AddReturn=true) const;         //!<< Prints the current...  
    EMGCalib(float _Shape=0.0, float _Scale=0.0, float _Range=0.0); //!<< Constru...  
};
```

Doxxygen IV

```
////////////////////////////////////////////////////////////////
/// \file
/// \brief Implementation of EMGCalib.h
////////////////////////////////////////////////////////////////
...
////////////////////////////////////////////////////////////////
/// Calculates the force output of a muscle corresponding to the given...
/// \param EMG The muscles activation.
/// \return Force of the muscle for a given activation. Is always >= 0.
////////////////////////////////////////////////////////////////

float EMGCalib::CalcForce(float EMG) const
{
...
}
```

SVN I

- Repository holen:

```
svn co svn://user@dontcry/ExoProject ExoProject
```

- Sourcen+Doku übersetzen:

```
~/ExoProject> make
```

- Eigenes Unterverzeichnis in Projects erstellen

SVN II

- Neuerungen von anderen einspielen:

```
~/ExoProject/.../GeaendertesVerzeichnis> svn update
```

- Eigene Neuerungen ins Repository
(erstes Mal)

```
~/ExoProject/Projects/MeinProjekt> svn add files dirs
```

SVN III

- Eigene Neuerungen ins Repository
(Änderungen)

~/ExoProject/Projects/MeinProjekt> svn commit -m "Text"

- **WICHTIG:** Wer SVN nicht kennt, bitte vorher Doku lesen **und** mich fragen!!

! Viel Spaß !

