User-friendly UI for NAG
Users' note

Contents

Introduction

This document is essential reading for every user of our user-friendly UI for NAG. It provides the information on installation and usage of this particular software. For all questions connected with installation or usage of NAG Library or dco/c++ we recommend reading corresponding Users'/Installer's Notes

Installation

Install and activate the correct versions of NAG Library (nll6i285bl) and dco/c++ (dcl6i37ngl_v370) according to corresponding Installer's notes. After successful test of installed software acquire UI from Gitlab repository using following command:

```
git clone https://git.rwth-aachen.de/tranmankhang1705/
nag-optimization-modelling-suite-ui.git
```

The acquired directory will further be referred as `[REPO_DIR]`. Now in an arbitrary directory create new directory 'build' and go there:

```
mkdir build
cd build
```

Next run following command, changing `$HOME`, if you have chosen an alternative path by installation:

```
cmake $[REPO_DIR] -DNAG_dco_cpp_DIR=$HOME/NAG/dcl6i37ngl_v370/
-DNAG_Library_DIR=$HOME/NAG/nll6i285bl/
```

Now, to compile everything use

```
make
```

Usage

To add your own program write a .cpp file, create a subfolder (referred as [SUBFOLDER]) within
`$[REPO_DIR]/examples/` and place your program there. Use following commands to compile and run you programm:

```
make examples.[SUBFOLDER]
./examples/examples.[SUBFOLDER]
```

While using e04st method, make sure to resize the y variable of constraining function by the output dimension of constraining function. For example, for $g : \mathbb{R}^n \to \mathbb{R}^m$ you should add

```
y.resize(m);
```

Doxygen

To obtain the Doxygen documentation, please execute following commands:

```
cd [REPO_DIR]/include
doxygen -g Doxyfile
doxygen Doxyfile
```

Now you can find .html files in the [REPO_DIR]/inpute folder and discover the whole documentation.

Contacts

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