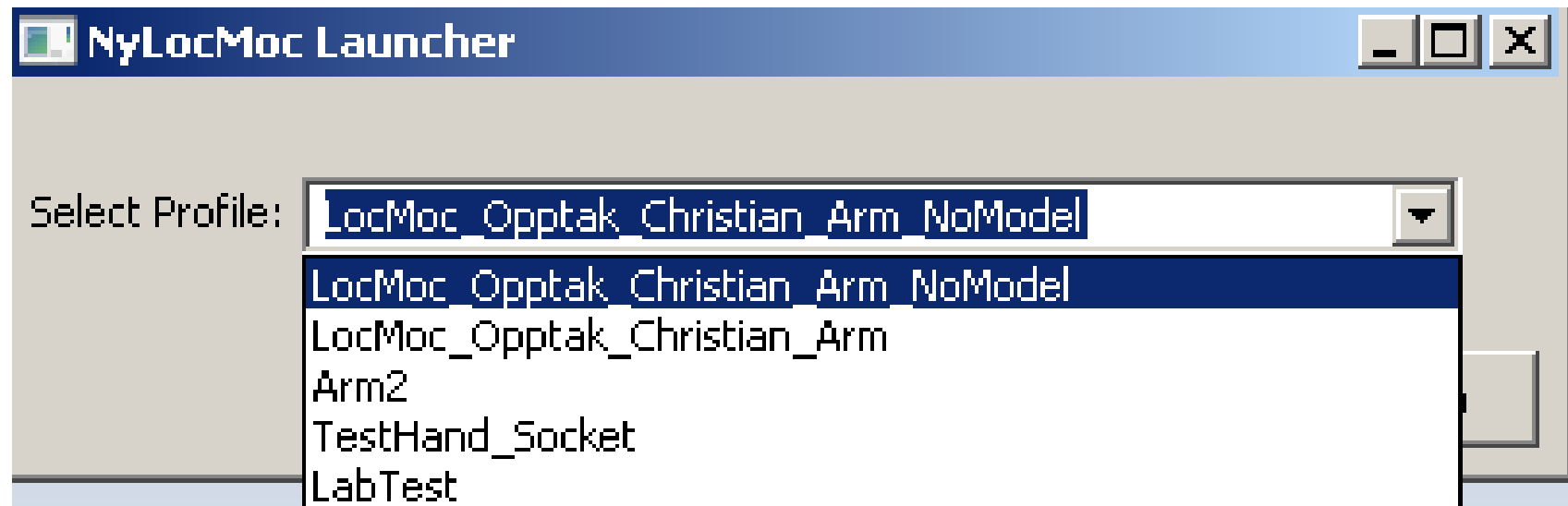
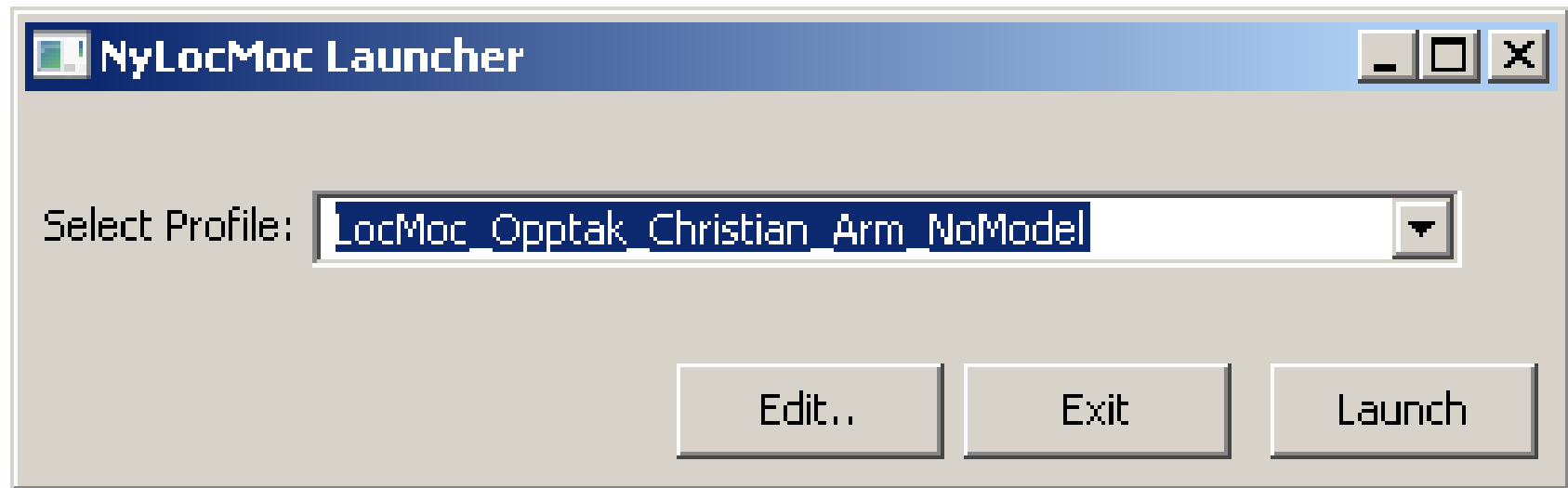


LocMoc Avatar

- Intro
- Konfigurasjonvelger
- Kalibreringhjelper
- Navigasjonslinje
- Optimalisering

Konfigurasjonsvelgeren



Settings.xml

- Bildet viser en forenklet versjon
- Kan se hva en enkel konfigurasjon gjør
- Redigering



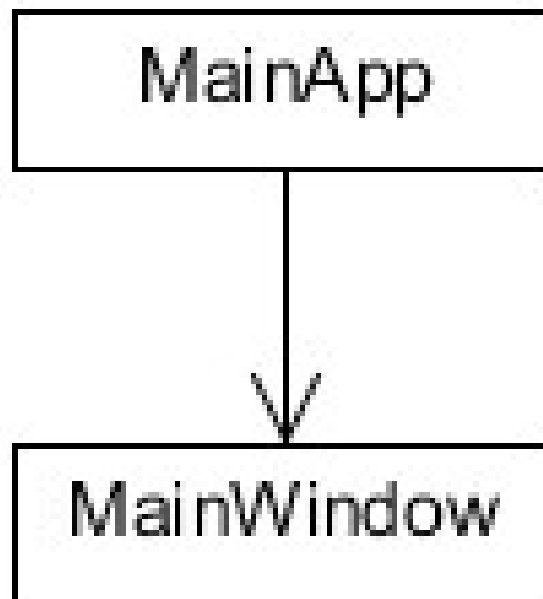
Konfigurasjoner

```
<?xml version="1.0" encoding="utf-8" ?>
<LocMocSettings usingConfigId="LocMoc Opptak Christian_Arm_NoModel">
  <config id="LocMoc_Opptak_Christian_Arm_NoModel">
    <input type="file">
      <filename>MoCapOpptak/Chr_h_arm_2.tsv</filename>
    </input>
    <axis>
      <right>z</right>
      <up>x</up>
      <in>y</in>
    </axis>
    <rootBone>UpArm_R</rootBone>
    <rootMarker1>h_skulder_b</rootMarker1>
    <rootOffset>
      <x>40</x>
      <y>-40</y>
      <z>30</z>
    </rootOffset>
    <mappingMode>NO_MAPPING</mappingMode>
    <enablePhysics>>false</enablePhysics>
    <markersToBonesMappingXMLFile>chr2Mapping.xml</markersToBonesMappingXMLFile>
    <modelScale>105</modelScale>
  </config>
  <config id="LocMoc_Opptak_Christian_Arm">
    <input type="file">
      <filename>MoCapOpptak/Chr_h_arm_1.tsv</filename>
    </input>
```

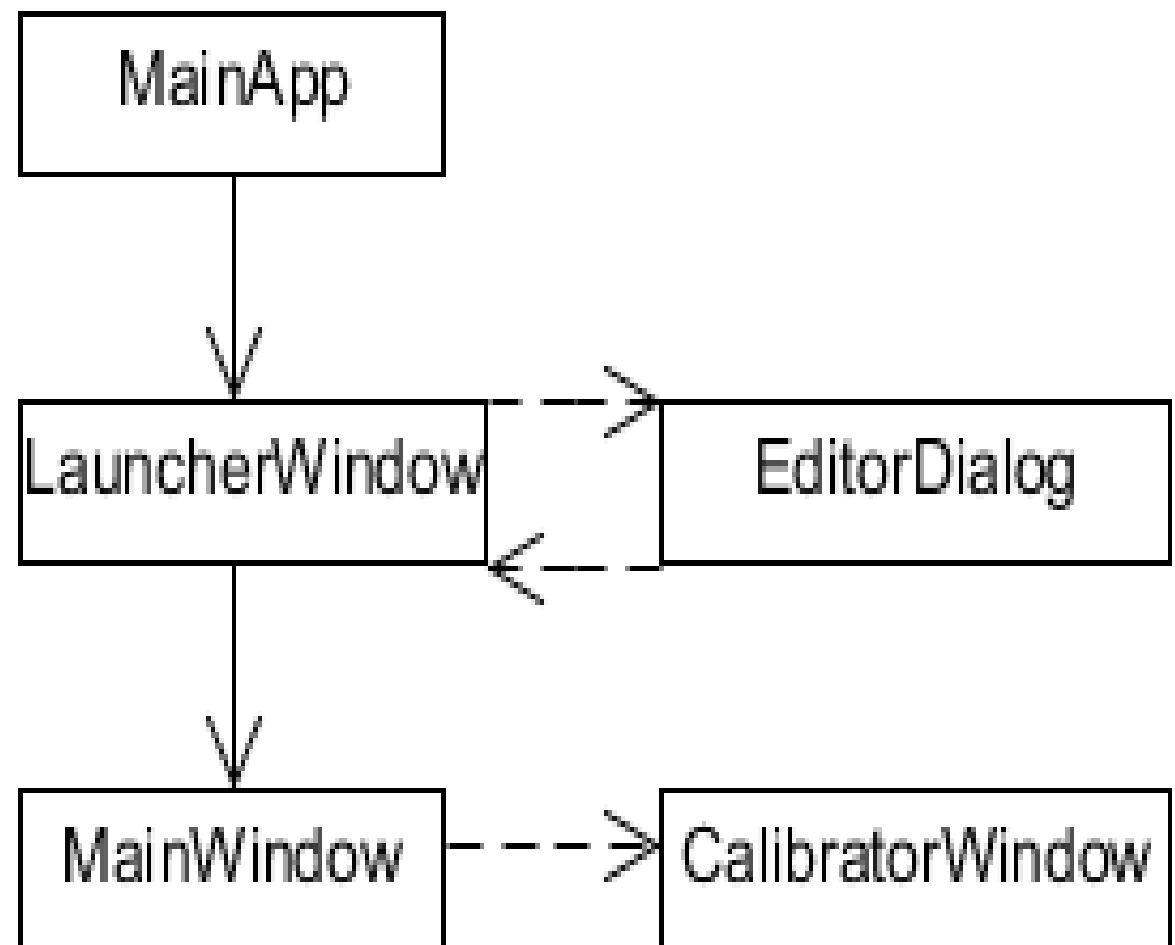


Ny Programflyt

Før

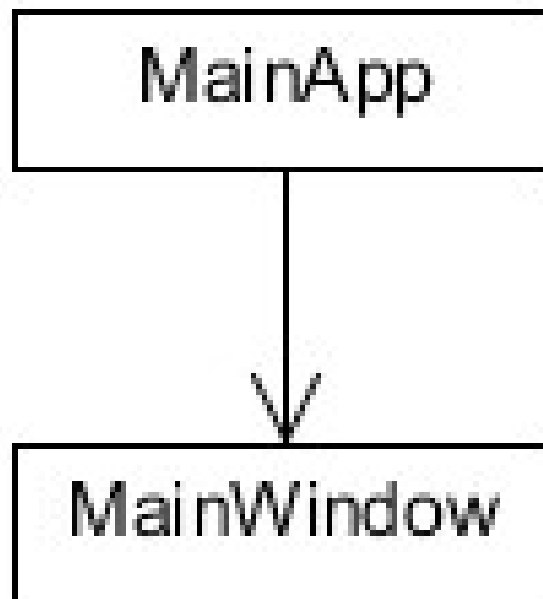


Etter

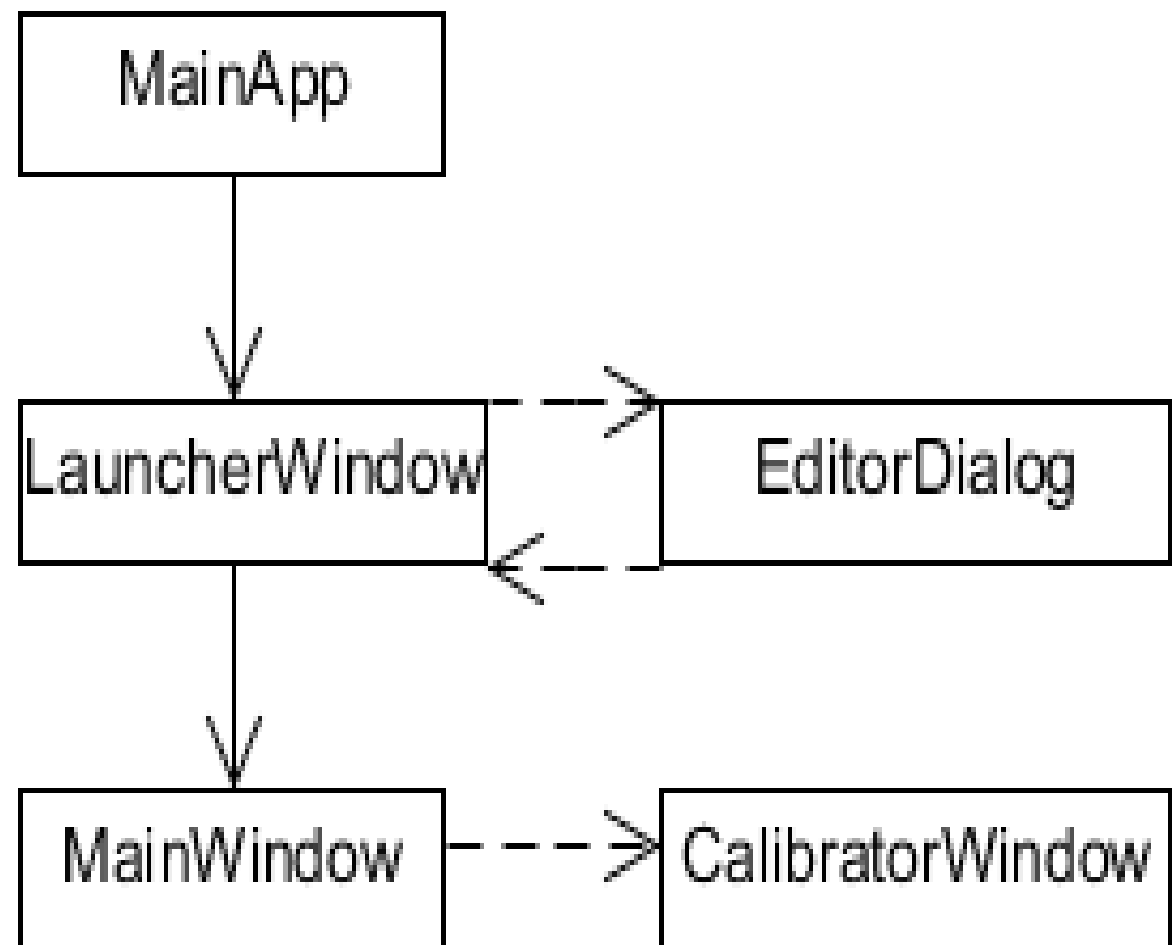


Ny Programflyt

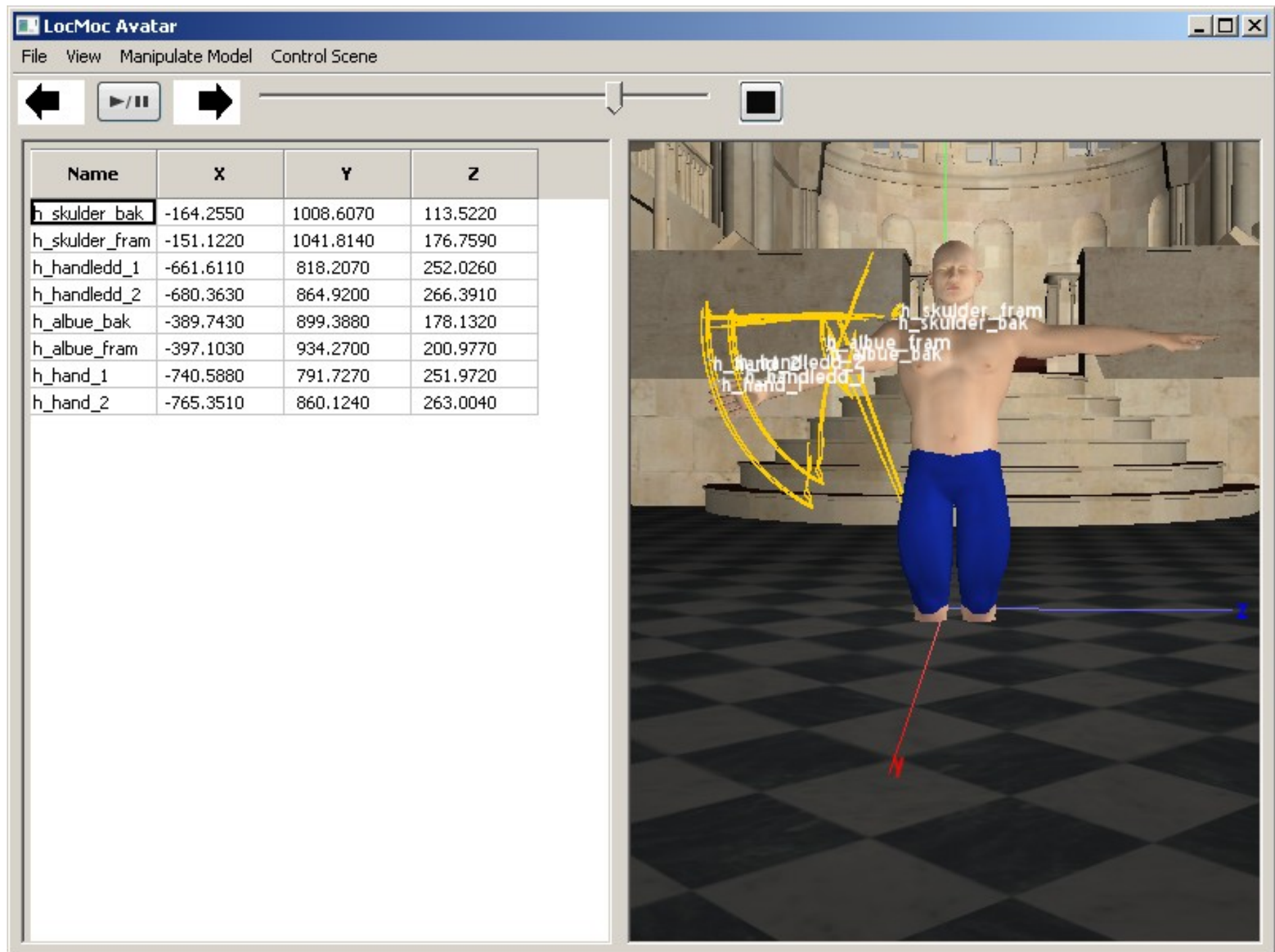
Før



Etter



MainWindow - Før



MainWindow - Etter

LocMoc Avatar

File View Manipulate Model Control Scene

Name	X	Y	Z
h_skulder_bak	-178.5680	983.4520	122.8400
h_skulder_fram	-170.4290	1009.0910	187.9060
h_handledd_1	-394.5940	458.4270	253.2410
h_handledd_2	-380.6440	452.4420	304.6150
h_albue_bak	-293.6740	731.9920	211.6500
h_albue_fram	-268.6730	723.6460	244.4820
h_hand_1	-422.7290	377.3440	259.0250
h_hand_2	-410.1760	376.1140	331.3960

h_skulder_bak

h_skulder_fram

h_albue_bak

h_albue_fram

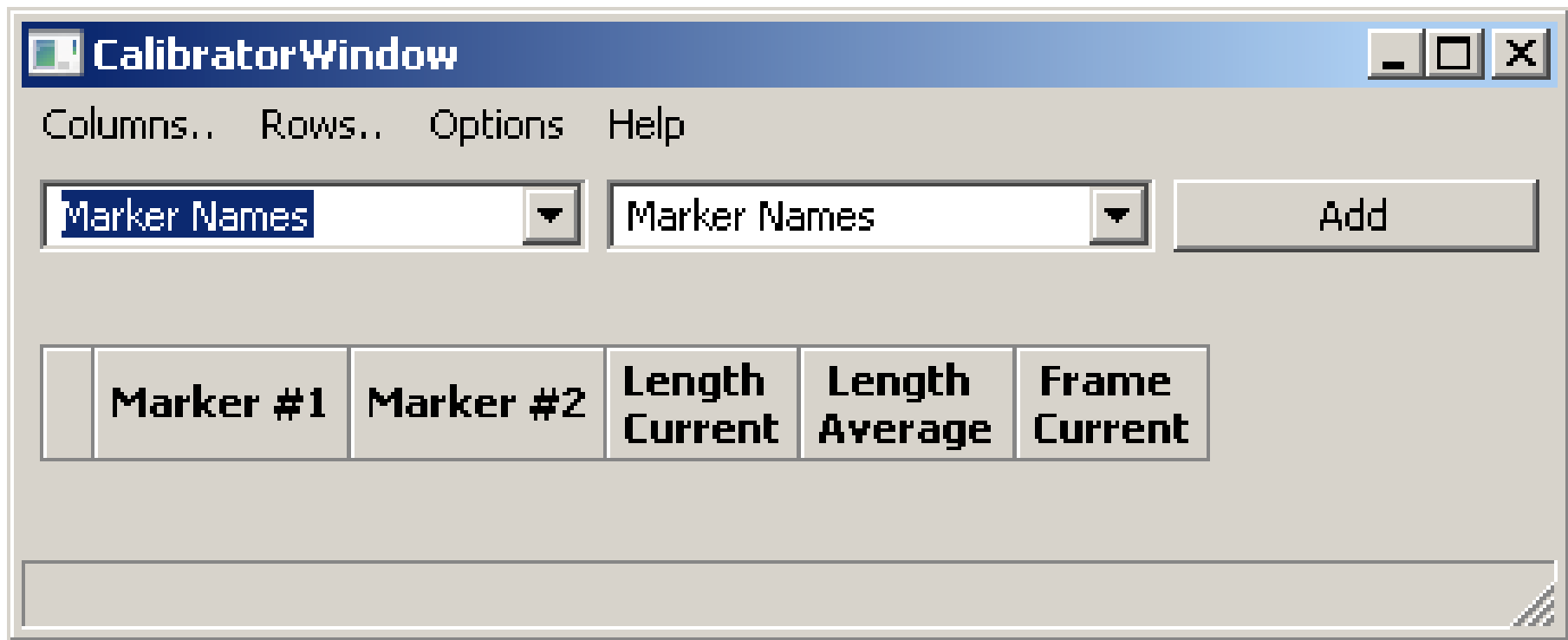
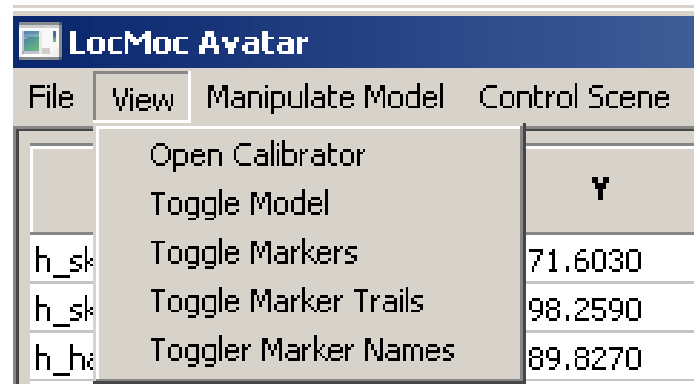
h_handledd_2

h_hand_2

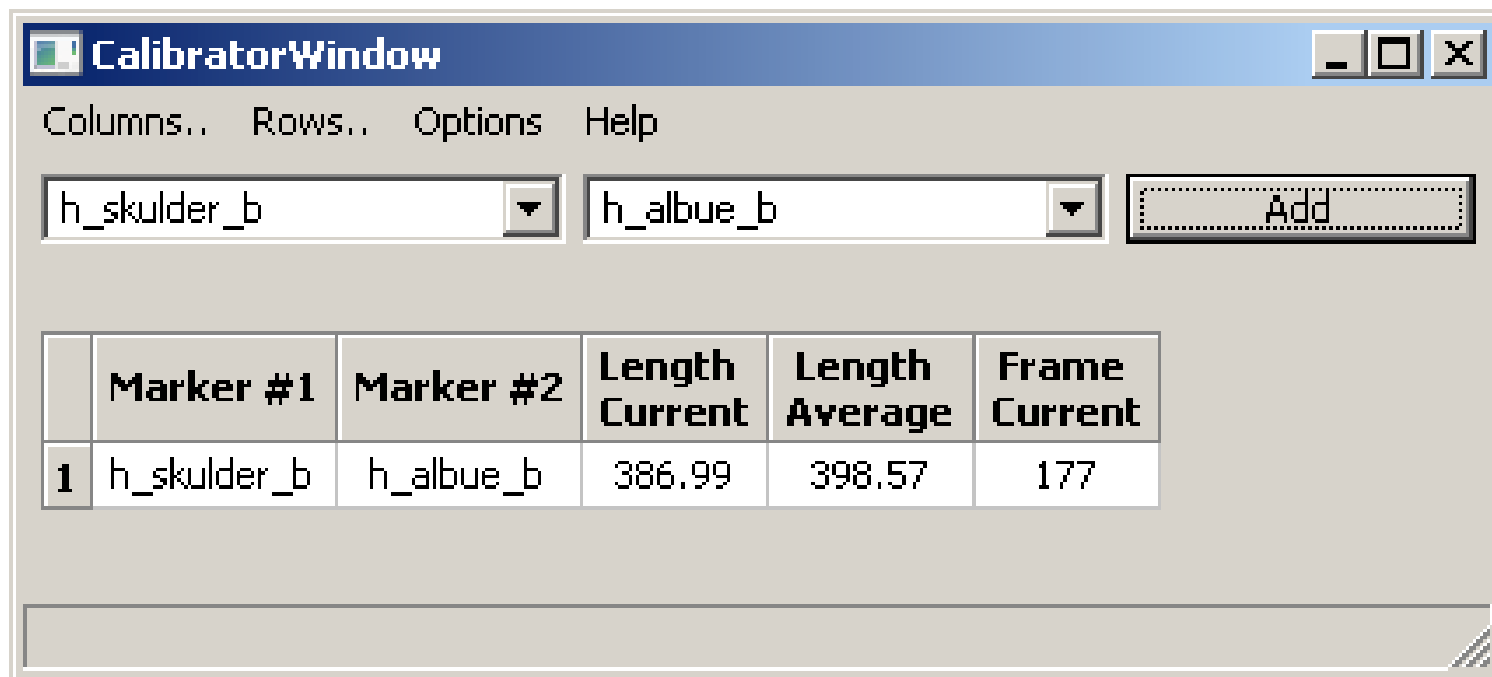
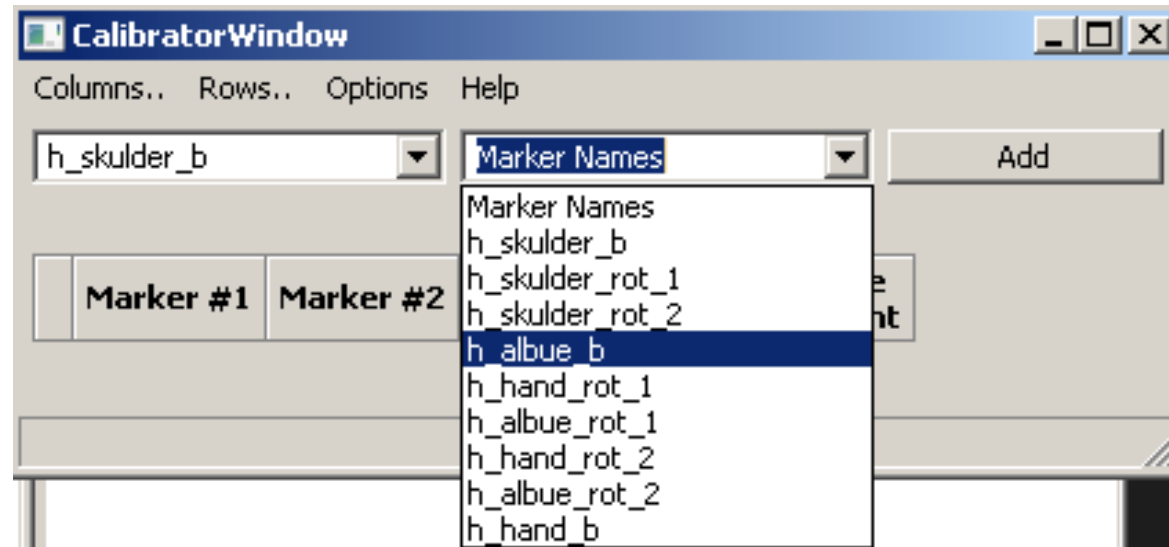
Frame 374/750

Kalibreringshjelpere

Åpnes I menyen "View"



Kalibreringshjælper



- Dynamiske Kolonner

CalibratorWindow

Columns.. Rows.. Options Help

Show All
Hide All
Remove Selected

▼ h_albue_b Add

#2	Length Current	Length Average	Length Min	Length Min(Frame)	Length Max	Length Max(Frame)	Std. Deviation σ	Frame Current	Frame Amount	ZeroVecs Count	ZeroVecs %
b	398.22	395.41	336.20	166	410.03	200	15.37	271	105	0	0.00

☒ Marker #1
☒ Marker #2
☒ Length Current
☒ Length Average
☒ Length Min
☒ Length Min(Frame)
☒ Length Max
☒ Length Max(Frame)
☒ Std. Deviation σ
☒ Frame Current
☒ Frame Amount
☒ ZeroVecs Count
☒ ZeroVecs %

- Automatisk endring av vindu-størrelse ved manipulering av tabell

Import\Export

CalibratorWindow

Columns.. Rows.. Options Help

Marker Names Marker Names Add

	Marker #1	Marker #2	Length Current	Length Average	Frame Current
1	h_skulder_b	h_skulder_rot_1	107.76	108.36	287
2	h_skulder_b	h_skulder_rot_2	93.08	93.94	287
3	h_skulder_b	h_albue_b	397.69	387.50	287
4	h_skulder_b	h_hand_rot_1	647.45	631.19	287
5	h_skulder_b	h_albue_rot_1	462.12	450.86	287
6	h_skulder_b	h_hand_rot_2	645.80	621.27	287
7	h_skulder_b	h_albue_rot_2	462.50	442.70	287
8	h_skulder_b	h_hand_b	571.73	550.60	287
9	h_skulder_rot_1	h_skulder_rot_2	48.47	47.78	287
10	h_skulder_rot_1	h_albue_b	300.72	286.50	287
11	h_skulder_rot_1	h_hand_rot_1	552.14	531.84	287
12	h_skulder_rot_1	h_albue_rot_1	367.50	351.55	287
13	h_skulder_rot_1	h_hand_rot_2	546.75	520.23	287
14	h_skulder_rot_2	h_hand_b	479.91	464.14	287
15	h_skulder_rot_2	h_hand_rot_2	555.13	537.99	287

- Kan være tungvindt å legge til markør-par
- Eksport
 - Markørpar
 - Tabelldata
- Import
 - Markørpar

Export - Markørpar

Dataset.xml X CalibratorWindow.cpp

```
<?xml version="1.0" ?>
<row data0="h_skulder_b" data1="h_skulder_rot_1" />
<row data0="h_skulder_b" data1="h_skulder_rot_2" />
<row data0="h_skulder_b" data1="h_albue_b" />
<row data0="h_skulder_b" data1="h_hand_rot_1" />
<row data0="h_skulder_b" data1="h_albue_rot_1" />
<row data0="h_skulder_b" data1="h_hand_rot_2" />
<row data0="h_skulder_b" data1="h_albue_rot_2" />
<row data0="h_skulder_b" data1="h_hand_b" />
<row data0="h_skulder_rot_1" data1="h_skulder_rot_2" />
<row data0="h_skulder_rot_1" data1="h_albue_b" />
<row data0="h_skulder_rot_1" data1="h_hand_rot_1" />
<row data0="h_skulder_rot_1" data1="h_albue_rot_1" />
<row data0="h_skulder_rot_1" data1="h_hand_rot_2" />
<row data0="h_skulder_rot_2" data1="h_hand_b" />
<row data0="h_skulder_rot_2" data1="h_hand_rot_2" />
```

Export - HTML

Tabellen blir eksportert som den er i vinduet

Marker #1	Marker #2	Length Current	Length Average	Frame Current
h_skulder_b	h_skulder_rot_1	108.58	108.52	191
h_skulder_b	h_skulder_rot_2	94.24	94.29	191
h_skulder_b	h_albue_b	405.06	379.07	191
h_skulder_b	h_hand_rot_1	662.30	614.87	191
h_skulder_b	h_albue_rot_1	472.04	441.30	191
h_skulder_b	h_hand_rot_2	650.40	596.68	191
h_skulder_b	h_albue_rot_2	465.30	427.27	191
h_skulder_b	h_hand_b	576.92	531.24	191
h_skulder_rot_1	h_skulder_rot_2	47.02	47.60	191
h_skulder_rot_1	h_albue_b	302.19	276.18	191
h_skulder_rot_1	h_hand_rot_1	557.72	514.51	191
h_skulder_rot_1	h_albue_rot_1	370.42	339.72	191
h_skulder_rot_1	h_hand_rot_2	543.47	496.12	191
h_skulder_rot_2	h_hand_b	485.35	448.97	191
h_skulder_rot_2	h_hand_rot_2	560.70	519.40	191

Vinduet

- Fortløpende datasamling
- En enkel how-to og kolonnebeskrivelser
- Always-on-top

Navigasjonslinja

- Ny grafikk
- Ny funksjonalitet
 - Step 1 [Bak/Fram] og Jump To



- Frame Info
 - Nåværende/Max
- Merk: Bildet tatt fra gammel versjon
 - Feiljusterte kontroller og en dårlig tegnet knapp

Kompileringstid

- Framoverdeklareringer
- Fjerning av unødvendige header-inkluderinger
- Testet på 2 Pcer
 - Laptop med 2.0GHz Intel Dual-Core, 4GB RAM og 5400rpm HDD
 - Stasjonær Intel i7 Quad-Core 2.8GHz, 6GB RAM og SSD

(Global Scope)

```
//Processors
#include "SocketReader.h"
#include "CharConverter.h"
#include "PointRenderer.h"
#include "MarkerConverter.h"
#include "OgreRenderer.h"
#include "FileReader.h"
#include "ModelRenderer.h"
#include "MarkerTrails.h"
#include "CameraController.h"
#include "ScaleModel.h"
#include "TranslateModel.h"
#include "RotateModel.h"
#include "Physics.h"
#include "StreamManager.h"
#include "LastStepInitializer.h"
#include "Markernames.h"
#include "Environment.h"
```

```
//andre
#include "Settings.h"
#include "Pipeline.h"
#include "PipelineData.h"
#include "Processor.h"
#include "OgreRoot.h"
#include <OgreEntity.h>
#include <vector>
#include <string>
#include "Axis.h"
```

```
class Initializer
{
```

Eksempel

Header

```
#ifndef MY_INITIALIZER
#define MY_INITIALIZER
```

```
#include "Processor.h"
#include <vector>
#include "Settings.h"
#include "Pipeline.h"
```

```
class OgreRenderer;
class FileReader;
class PipelineData;
//pipeline
```

```
class Initializer
{
private:
```

Eksempel forts. .cpp

```
#include "Initializer.h"
Initializer::Initializer(OgreRenderer *ogreR)
```

```
#include "Initializer.h"
#include "SocketReader.h"
#include "CharConverter.h"
#include "PointRenderer.h"
#include "MarkerConverter.h"
#include "OgreRenderer.h"
#include "FileReader.h"
#include "ModelRenderer.h"
#include "MarkerTrails.h"
#include "CameraController.h"
#include "ScaleModel.h"
#include "TranslateModel.h"
#include "RotateModel.h"
#include "Physics.h"
#include "StreamManager.h"
#include "LastStepInitializer.h"
#include "Markernames.h"
#include "Environment.h"

#include "PipelineData.h"
#include "OgreRoot.h"
#include <OgreEntity.h>
#include "Axis.h"
#include "CalibrationHelper.h"

Initializer::Initializer(OgreRenderer *ogreR)
```

Resultater

- For Laptop
 - 5min 5sek vs 3min
- For Stasjonær
 - 2min 10 sek vs 1min 30sek
- 2min 5sek forskjell for tregere maskiner
- 40 sekunder forskjell på raskere maskiner

Slutt

- Takk
- Demo og spørsmål