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# [Ch/B]erry Selection Service

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MainApp, Builddate May 28 2009, 14:37:53.

File Edit View Options Help

Transversal plane

200

100

0

127

255

Load From DICOM Folders

Add Folders Delete Selected

Foldernames

- Use Series Details
- Consider Acquisition Numbers
- Recursive
- Average duplicate gradients
- Duplicate If Single Slice

Load all Folders

0%

Available Diffusion Volumes

Save Load Remove

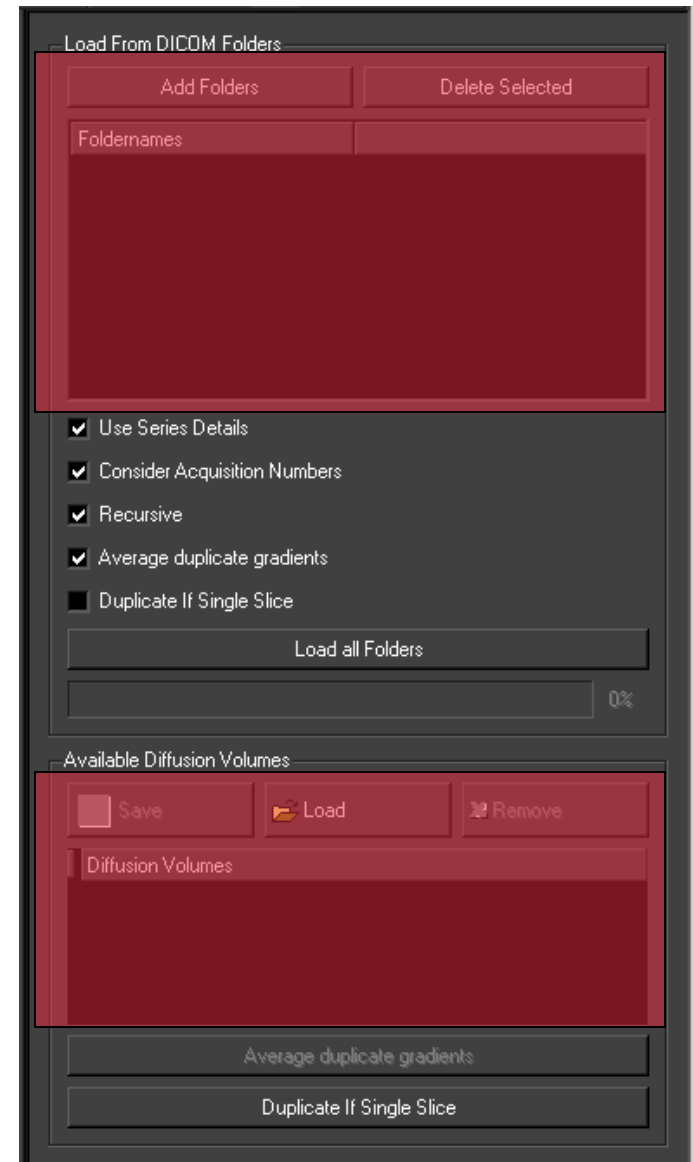
Diffusion Volumes

Average duplicate gradients

Duplicate If Single Slice

131.20 MB (3.95%)

- Platz
- Programmieraufwand

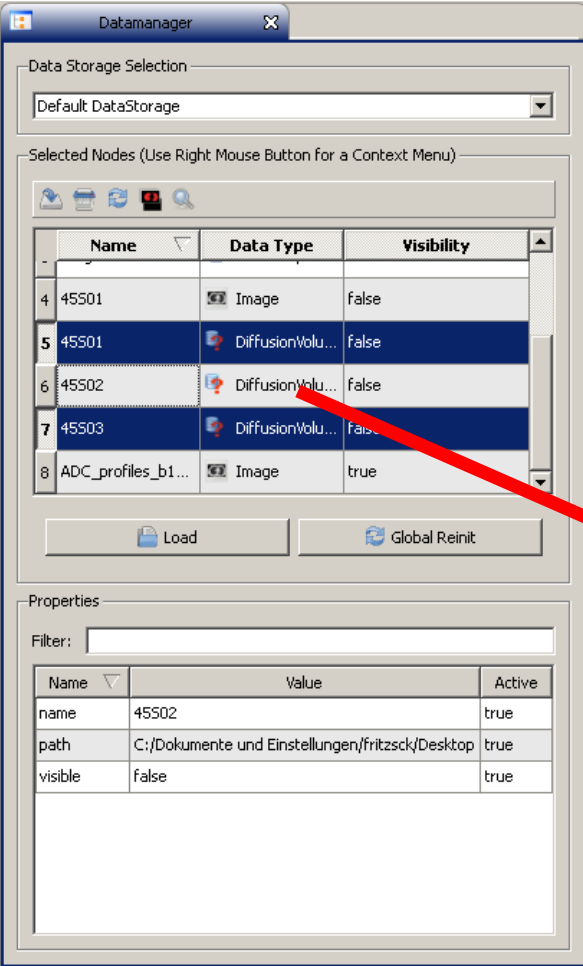


## Motivation

- Thema: Selektion von Eingabedaten
- Standard-Combobox?
  - Keine Multiselects
  - Unübersichtlich
- Eigene Lösung?
  - Nerven
  - Kosten Platz

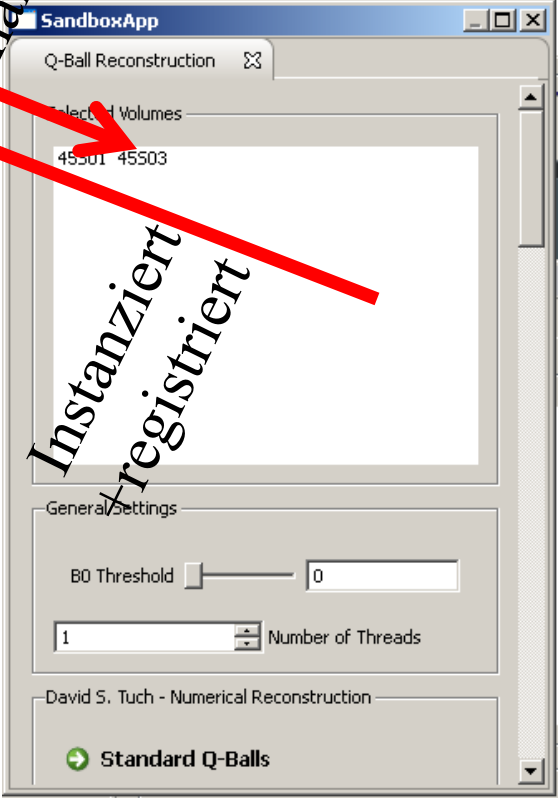
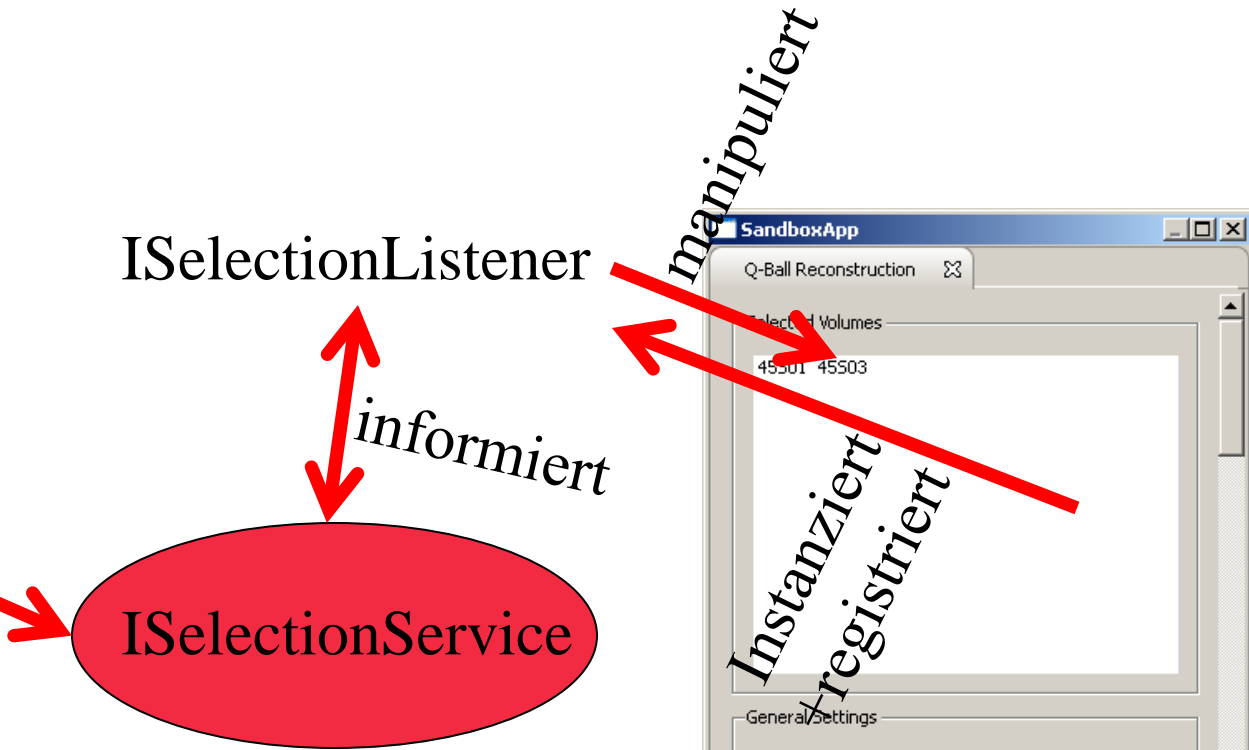
# Lösung: cherrySelectionService

„ViewPart“

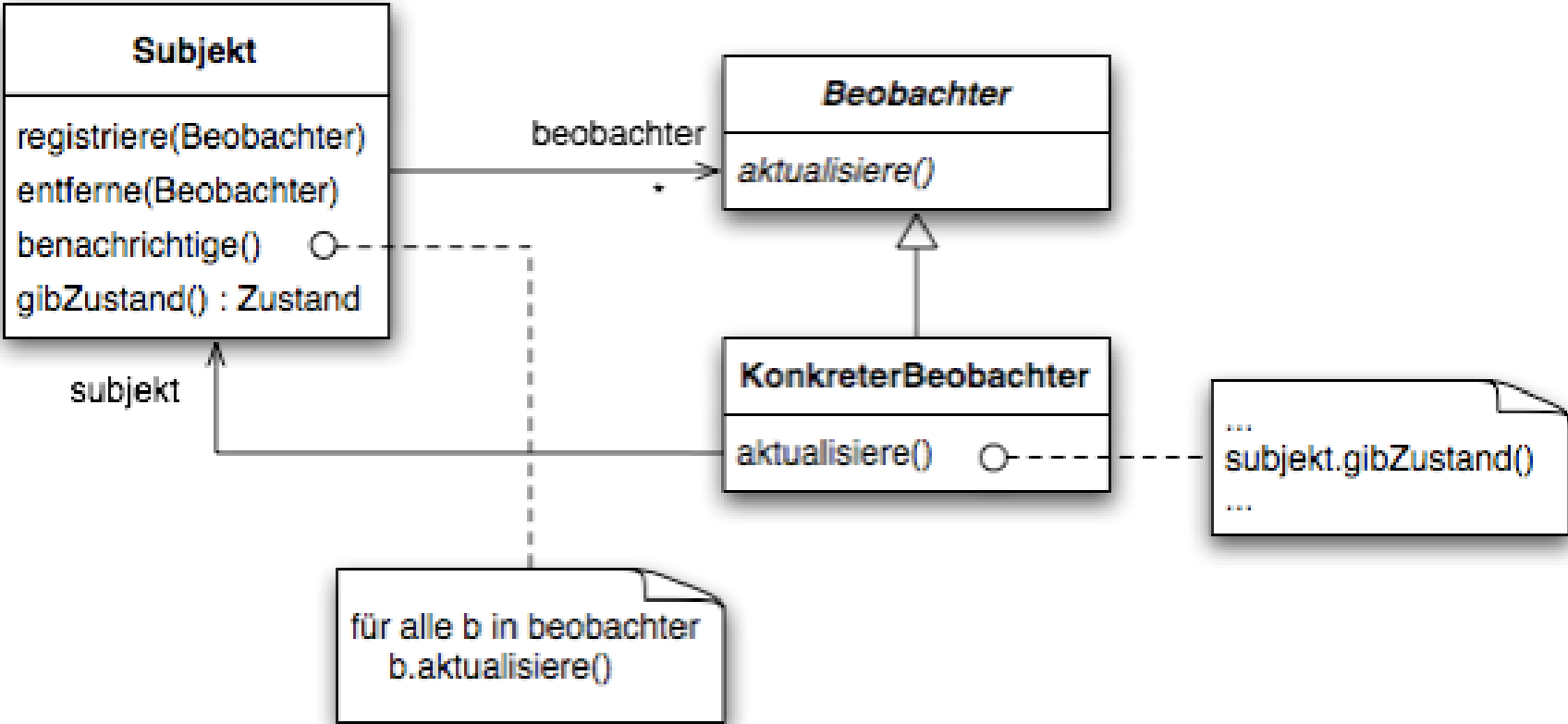


ISelectionListener

ISelectionService



# Beobachter Design-Pattern



# Implement a SelectionListener

```
1 #include "cherryIStructuredSelection.h"
2 #include "cherryIWorkbenchWindow.h"
3 #include "cherryISelectionService.h"
4
5 struct SellListener : ISelectionListener
6 {
7
8     cherryObjectMacro(SellListener);
9
10 SellListener(QmitkQBallReconstructionView* view)
11 {
12     m_View = view;
13 }
14
15 void SelectionChanged(IWorkbenchPart::Pointer part, ISelection::ConstPointer selection)
16 {
17     // 1. check, if part and selection are interesting for me
18
19     // 2. manipulate view accordingly
20 }
21
22 QmitkQBallReconstructionView* m_View;
23 };
24
```

## Register listener

```
36 void QmitkQBallReconstructionView::CreateQtPartControl(QWidget *parent)
37 {
38     // do some other stuff here
39
40     // create instance of our Listener
41     m_SelListener = cherry::ISelectionListener::Pointer(new SelListener(this));
42
43     // register listener in the selection service
44     this->GetSite()->GetWorkbenchWindow()->GetSelectionService()
45         ->AddPostSelectionListener(/"org.mitk.views.datamanager",*/ m_SelListener);
46 }
47
```



## Process selected items

```
124 void QmitkQBallReconstructionView::ProcessInput ()
125 {
126     if (m_CurrentSelection)
127     {
128
129         // iterate selection
130         for (IStructuredSelection::iterator i = m_CurrentSelection->Begin();
131             i != m_CurrentSelection->End(); ++i)
132         {
133
134             // extract datatree nodes
135             if (mitk::DataTreeNodeObject::Pointer nodeObj
136                 = i->Cast<mitk::DataTreeNodeObject>())
137             {
138                 mitk::DataTreeNode::Pointer node = nodeObj->GetDataTreeNode();
139
140                 // is this type interesting for us?
141                 if(QString("DiffusionVolumes").compare(
142                     node->GetData()->GetNameOfClass())==0)
143                 {
144                     // process node
145                 }
146             }
147         }
148     }
149 }
150
```

## Remove Listener in Destructor

```
QmitkQBallReconstructionView::~QmitkQBallReconstructionView()
{
    this->GetSite()->GetWorkbenchWindow()->GetSelectionService()
        ->RemovePostSelectionListener(m_SelListener);
}
```

# Demo??