

33 QDockWidget

33.1 停靠组件

类型为QDockWidget的对象表示停靠组件，它们是环绕在主窗口中心组件周围，停靠于主窗口边框或其它停靠组件边缘的小组件。

停靠组件由两个重要的属性，一个是QDockWidget::DockWidgetFeatures类型的features属性，表示停靠特性，由下表中的常量通过位或组合：

QDockWidget::DockWidgetFeature	停靠特性
DockWidgetClosable	可关闭
DockWidgetMovable	可移动
DockWidgetFloatable	可悬浮
AllDockWidgetFeatures	可关闭、移动、悬浮
NoDockWidgetFeatures	不可关闭、移动、悬浮
DockWidgetVerticalTitleBar	带垂直标题栏

另一个是Qt::DockWidgetAreas类型的allowedAreas属性，表示可停靠区域，由下表中的常量通过位或组合：

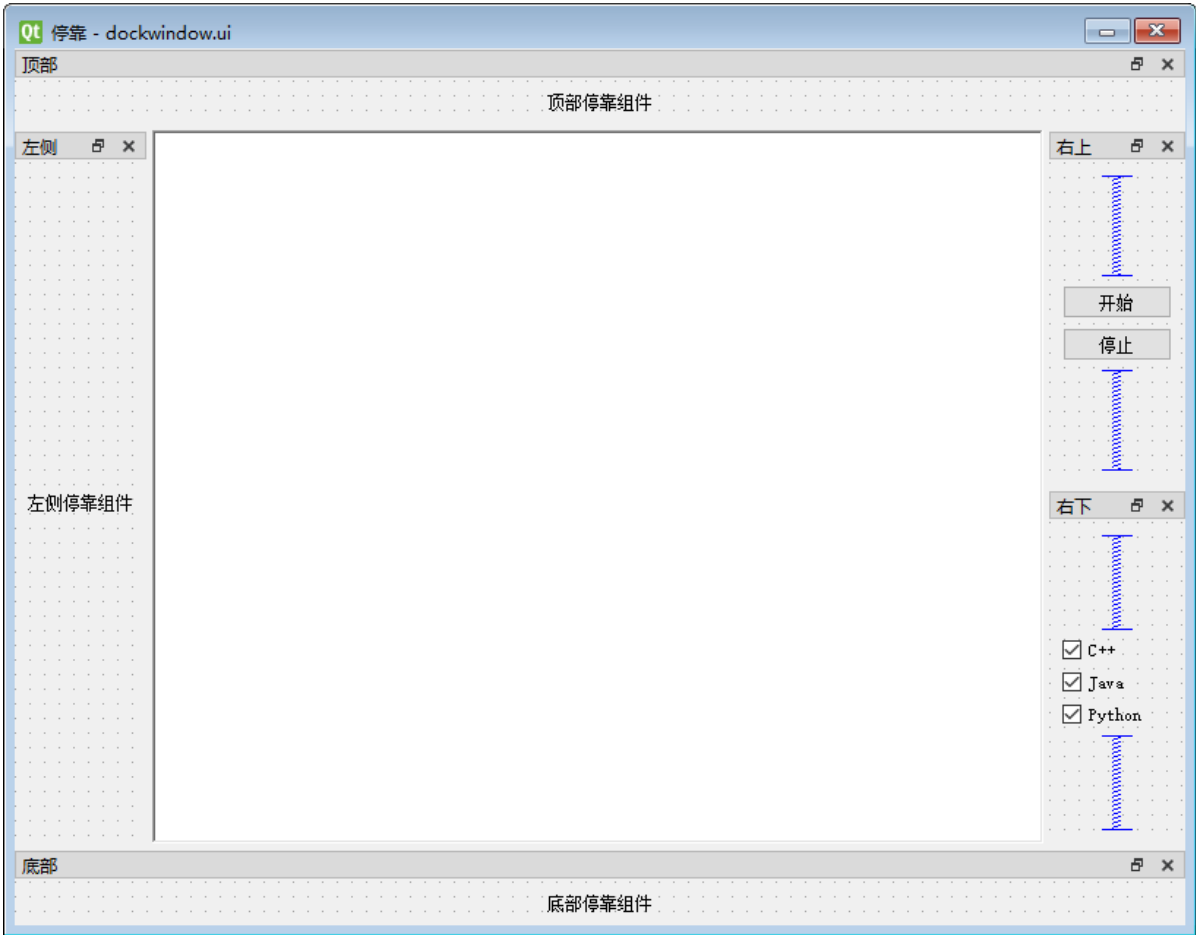
Qt::DockWidgetArea	可停靠区域
LeftDockWidgetArea	左侧
RightDockWidgetArea	右侧
TopDockWidgetArea	顶部
BottomDockWidgetArea	底部
AllDockWidgetAreas	哪都可以停靠
NoDockWidgetArea	哪都不能停靠

33.2 案例

33.2.1 创建项目

通过QtCreator，在C:\Users\Minwei\Projects\Qt路径下，创建名为Dock的项目。

33.2.2 设计界面



对象	类
▼ DockWindow	QMainWindow
▼ m_central	QWidget
m_editCentral	QTextEdit
▼ m_dockTop	QDockWidget
▼ m_contentsTop	QWidget
m_labTop	QLabel
▼ m_dockBottom	QDockWidget
▼ m_contentsBottom	QWidget
m_labBottom	QLabel
▼ m_dockLeft	QDockWidget
▼ m_contentsLeft	QWidget
m_labLeft	QLabel
▼ m_dockUpperRight	QDockWidget
▼ m_contentsUpperRight	QWidget
m_btnStart	QPushButton
m_btnStop	QPushButton
m_spacerStart	Spacer
m_spacerStop	Spacer
▼ m_dockLowerRight	QDockWidget
▼ m_contentsLowerRight	QWidget
m_checkCpp	QCheckBox
m_checkJava	QCheckBox
m_checkPython	QCheckBox
m_spacerCpp	Spacer
m_spacerPython	Spacer

C:\Users\Minwei\Projects\Qt\Dock\dockwindow.ui:

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <ui version="4.0">
3 <class>Dockwindow</class>
4 <widget class="QMainWindow" name="dockwindow">
5 <property name="geometry">
6 <rect>
7 <x>0</x>
8 <y>0</y>
9 <width>800</width>
10 <height>600</height>
11 </rect>
12 </property>
13 <property name="windowTitle">
14 <string>停靠</string>
15 </property>
16 <widget class="QWidget" name="m_central">
17 <layout class="QHBoxLayout" name="m_layoutCentral">
18 <property name="leftMargin">
19 <number>0</number>
20 </property>
21 <property name="topMargin">
22 <number>0</number>
23 </property>

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```
24 <property name="rightMargin">
25 <number>0</number>
26 </property>
27 <property name="bottomMargin">
28 <number>0</number>
29 </property>
30 <item>
31 <widget class="QTextEdit" name="m_editCentral">
32 <property name="frameShape">
33 <enum>QFrame::winPanel</enum>
34 </property>
35 </widget>
36 </item>
37 </layout>
38 </widget>
39 <widget class="QDockWidget" name="m_dockTop">
40 <property name="windowTitle">
41 <string>顶部</string>
42 </property>
43 <attribute name="dockWidgetArea">
44 <number>4</number>
45 </attribute>
46 <widget class="QWidget" name="m_contentsTop">
47 <layout class="QHBoxLayout" name="m_layoutTop">
48 <item>
49 <widget class="QLabel" name="m_labTop">
50 <property name="text">
51 <string>顶部停靠组件</string>
52 </property>
53 <property name="alignment">
54 <set>Qt::AlignCenter</set>
55 </property>
56 </widget>
57 </item>
58 </layout>
59 </widget>
60 </widget>
61 <widget class="QDockWidget" name="m_dockBottom">
62 <property name="windowTitle">
63 <string>底部</string>
64 </property>
65 <attribute name="dockWidgetArea">
66 <number>8</number>
67 </attribute>
68 <widget class="QWidget" name="m_contentsBottom">
69 <layout class="QHBoxLayout" name="m_layoutBottom">
70 <item>
71 <widget class="QLabel" name="m_labBottom">
72 <property name="text">
73 <string>底部停靠组件</string>
74 </property>
75 <property name="alignment">
76 <set>Qt::AlignCenter</set>
77 </property>
78 </widget>
79 </item>
```

```
80     </layout>
81     </widget>
82 </widget>
83 <widget class="QDockWidget" name="m_dockLeft">
84     <property name="windowTitle">
85         <string>左侧</string>
86     </property>
87     <attribute name="dockWidgetArea">
88         <number>1</number>
89     </attribute>
90     <widget class="QWidget" name="m_contentsLeft">
91         <layout class="QHBoxLayout" name="m_layoutLeft">
92             <item>
93                 <widget class="QLabel" name="m_labLeft">
94                     <property name="text">
95                         <string>左侧停靠组件</string>
96                     </property>
97                     <property name="alignment">
98                         <set>Qt::AlignCenter</set>
99                     </property>
100                 </widget>
101             </item>
102         </layout>
103     </widget>
104 </widget>
105 <widget class="QDockWidget" name="m_dockUpperRight">
106     <property name="windowTitle">
107         <string>右上</string>
108     </property>
109     <attribute name="dockWidgetArea">
110         <number>2</number>
111     </attribute>
112     <widget class="QWidget" name="m_contentsUpperRight">
113         <layout class="QVBoxLayout" name="m_layoutUpperRight">
114             <item>
115                 <spacer name="m_spacerStart">
116                     <property name="orientation">
117                         <enum>Qt::Vertical</enum>
118                     </property>
119                     <property name="sizeHint" stdset="0">
120                         <size>
121                             <width>20</width>
122                             <height>55</height>
123                         </size>
124                     </property>
125                 </spacer>
126             </item>
127             <item>
128                 <widget class="QPushButton" name="m_btnStart">
129                     <property name="text">
130                         <string>开始</string>
131                     </property>
132                 </widget>
133             </item>
134             <item>
135                 <widget class="QPushButton" name="m_btnStop">
```

```
136     <property name="text">
137         <string>停止</string>
138     </property>
139 </widget>
140 </item>
141 <item>
142     <spacer name="m_spacerStop">
143         <property name="orientation">
144             <enum>Qt::vertical</enum>
145         </property>
146         <property name="sizeHint" stdset="0">
147             <size>
148                 <width>20</width>
149                 <height>54</height>
150             </size>
151         </property>
152     </spacer>
153 </item>
154 </layout>
155 </widget>
156 </widget>
157 <widget class="QDockWidget" name="m_dockLowerRight">
158     <property name="windowTitle">
159         <string>右下</string>
160     </property>
161     <attribute name="dockWidgetArea">
162         <number>2</number>
163     </attribute>
164     <widget class="QWidget" name="m_contentsLowerRight">
165         <layout class="QVBoxLayout" name="m_layoutLowerRight">
166             <item>
167                 <spacer name="m_spacerCpp">
168                     <property name="orientation">
169                         <enum>Qt::vertical</enum>
170                     </property>
171                     <property name="sizeHint" stdset="0">
172                         <size>
173                             <width>20</width>
174                             <height>51</height>
175                         </size>
176                     </property>
177                 </spacer>
178             </item>
179             <item>
180                 <widget class="QCheckBox" name="m_checkCpp">
181                     <property name="text">
182                         <string>C++</string>
183                     </property>
184                     <property name="checked">
185                         <bool>true</bool>
186                     </property>
187                 </widget>
188             </item>
189             <item>
190                 <widget class="QCheckBox" name="m_checkJava">
191                     <property name="text">
```

```
192     <string>Java</string>
193     </property>
194     <property name="checked">
195         <bool>true</bool>
196     </property>
197 </widget>
198 </item>
199 <item>
200     <widget class="QCheckBox" name="m_checkPython">
201         <property name="text">
202             <string>Python</string>
203         </property>
204         <property name="checked">
205             <bool>true</bool>
206         </property>
207     </widget>
208 </item>
209 <item>
210     <spacer name="m_spacerPython">
211         <property name="orientation">
212             <enum>Qt::vertical</enum>
213         </property>
214         <property name="sizeHint" stdset="0">
215             <size>
216                 <width>20</width>
217                 <height>50</height>
218             </size>
219         </property>
220     </spacer>
221 </item>
222 </layout>
223 </widget>
224 </widget>
225 </widget>
226 <resources/>
227 <connections/>
228 </ui>
```

33.2.3 测试验证

运行效果如图所示:

