

レイアウトマネージャ (コンポーネントの配置)

Exec201.java

```
1: //FlowLayout
2:
3: import java.awt.Container;
4: import java.awt.FlowLayout;
5:
6: import javax.swing.JButton;
7: import javax.swing.JFrame;
8: import javax.swing.JLabel;
9: import javax.swing.JPanel;
10: import javax.swing.JTextField;
11:
12: //JFrame Simple
13: public class Exec201 extends JFrame{
14:     JFrame execFrame;
15:     public Exec201(){
16:         execFrame = new JFrame("Exec201");
17:         execFrame.setSize(400, 400);
18:         execFrame.setVisible(true);
19:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
20: //kokokara
21:         JPanel flowPanel = new JPanel();
22:         flowPanel.setLayout(new FlowLayout()); //koko
23:
24:         flowPanel.add(new JLabel("AS01"));
25:         flowPanel.add(new JButton("AS02"));
26:         flowPanel.add(new JTextField("AS03"));
27:
28:         flowPanel.add(new JLabel("AS01"));
29:         flowPanel.add(new JButton("AS02"));
30:         flowPanel.add(new JTextField("AS03"));
31:
32:         flowPanel.add(new JLabel("AS01"));
33:         flowPanel.add(new JButton("AS02"));
34:         flowPanel.add(new JTextField("AS03"));
35:
36:         flowPanel.add(new JLabel("AS01"));
37:         flowPanel.add(new JButton("AS02"));
38:         flowPanel.add(new JTextField("AS03"));
39:
40:         flowPanel.add(new JLabel("AS01"));
41:         flowPanel.add(new JButton("AS02"));
42:         flowPanel.add(new JTextField("AS03"));
43:
44:         Container execContainer = execFrame.getContentPane();
45:         execContainer.add(flowPanel);
46:         execFrame.setVisible(true);
47:
48:     }
49:     public static void main(String[] args) {
50:         // TODO 自動生成されたメソッド・スタブ
51:         new Exec201();
52:     }
53:
54: }
```

Exec202.java

```
1: //BorderLayout
2:
3: import java.awt.BorderLayout;
4: import java.awt.Container;
5:
6: import javax.swing.JButton;
7: import javax.swing.JFrame;
8: import javax.swing.JPanel;
9:
10: //JFrame Simple
11: public class Exec202 extends JFrame{
12:     JFrame execFrame;
13:     public Exec202() {
14:         execFrame = new JFrame("Exec202");
15:         execFrame.setSize(400, 400);
16:         execFrame.setVisible(true);
17:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
18: //kokokara
19:         JPanel directionPanel = new JPanel();
20:         directionPanel.setLayout(new BorderLayout()); //koko
21:
22:         directionPanel.add(new JButton("N"), BorderLayout.NORTH );
23:         directionPanel.add(new JButton("S"), BorderLayout.SOUTH );
24:         directionPanel.add(new JButton("E"), BorderLayout.EAST );
25:         directionPanel.add(new JButton("W"), BorderLayout.WEST );
26:         directionPanel.add(new JButton("C"), BorderLayout.CENTER );
27:
28:
29:         Container execContainer = execFrame.getContentPane();
30:         execContainer.add(directionPanel);
31:         execFrame.setVisible(true);
32:
33:     }
34:     public static void main(String[] args) {
35:         // TODO 自動生成されたメソッド・スタブ
36:         new Exec202();
37:     }
38:
39: }
```

Exec203.java

```
1: //GridLayout
2:
3: import java.awt.Container;
4: import java.awt.GridLayout;
5:
6: import javax.swing.JButton;
7: import javax.swing.JFrame;
8: import javax.swing.JPanel;
9:
10: //JFrame Simple
11: public class Exec203 extends JFrame{
12:     JFrame execFrame;
13:     public Exec203(){
14:         execFrame = new JFrame("Exec203");
15:         execFrame.setSize(400, 400);
16:         execFrame.setVisible(true);
17:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
18:         //kokokara
19:         JPanel gridPanel = new JPanel();
20:         gridPanel.setLayout(new GridLayout(2, 3)); //koko 行,列 で均等分割される
21:                                                     //行が優先
22:         gridPanel.add(new JButton("AS01"));
23:         gridPanel.add(new JButton("AS02"));
24:         gridPanel.add(new JButton("AS03"));
25:         gridPanel.add(new JButton("AS04"));
26:         gridPanel.add(new JButton("AS05"));
27:         gridPanel.add(new JButton("AS06"));
28:
29:         Container execContainer = execFrame.getContentPane();
30:         execContainer.add(gridPanel);
31:         execFrame.setVisible(true);
32:
33:     }
34:     public static void main(String[] args) {
35:         // TODO 自動生成されたメソッド・スタブ
36:         new Exec203();
37:     }
38:
39: }
```

Exec204.java

```
1: //GridBagLayout
2:
3: import java.awt.Container;
4: import java.awt.GridBagConstraints;
5: import java.awt.GridBagLayout;
6:
7: import javax.swing.JButton;
8: import javax.swing.JFrame;
9: import javax.swing.JPanel;
10:
11: //JFrame Simple
12: public class Exec204 extends JFrame{
13:     JFrame execFrame;
14:     public Exec204 () {
15:         execFrame = new JFrame("Exec204");
16:         execFrame.setSize(400, 400);
17:         execFrame.setVisible(true);
18:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
19:         //kokokara
20:         JPanel gridBagPanel = new JPanel();
21:         gridBagPanel.setLayout(new GridBagLayout()); //koko
22:         GridBagConstraints place = new GridBagConstraints(); //koko
23:         //x,y
24:         JButton b1 = new JButton("B 1"); //0,0 1,0 2,0
25:         place.gridx = 2; place.gridy = 0; //0,1 1,1 2,1
26:         gridBagPanel.add(b1, place); //0,2 1,2 2,2
27:
28:         JButton b2 = new JButton("B 2");
29:         place.gridx = 0; place.gridy = 2;
30:         gridBagPanel.add(b2, place);
31:
32:         JButton b3 = new JButton("B 3");
33:         place.gridx = 1; place.gridy = 1;
34:         gridBagPanel.add(b3, place);
35:
36:         Container execContainer = execFrame.getContentPane();
37:         execContainer.add(gridBagPanel);
38:         execFrame.setVisible(true);
39:     }
40:     public static void main(String[] args) {
41:         // TODO 自動生成されたメソッド・スタブ
42:         new Exec204();
43:     }
44: }
45: }
```

Exec205.java

```
1: //BoxLayout
2:
3: import java.awt.Container;
4:
5: import javax.swing.BoxLayout;
6: import javax.swing.JButton;
7: import javax.swing.JFrame;
8: import javax.swing.JPanel;
9:
10: //JFrame Simple
11: public class Exec205 extends JFrame{
12:     JFrame execFrame;
13:     public Exec205(){
14:         execFrame = new JFrame("Exec205");
15:         execFrame.setSize(400,400);
16:         execFrame.setVisible(true);
17:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
18:         //kokokara
19:         //X : 左から右へ配置   Y : 上から下へ配置
20:         JPanel boxLayoutPanel = new JPanel();
21:         boxLayoutPanel.setLayout(new BoxLayout(boxLayoutPanel, BoxLayout.Y_AXIS));
22:         //koko
23:         boxLayoutPanel.add(new JButton("Number 1"));
24:         boxLayoutPanel.add(new JButton("Number 2"));
25:         boxLayoutPanel.add(new JButton("Number 3"));
26:         boxLayoutPanel.add(new JButton("Number 4"));
27:         boxLayoutPanel.add(new JButton("Number 5"));
28:
29:         Container execContainer = execFrame.getContentPane();
30:         execContainer.add(boxLayoutPanel);
31:         execFrame.setVisible(true);
32:     }
33:     public static void main(String[] args) {
34:         // TODO 自動生成されたメソッド・スタブ
35:         new Exec205();
36:     }
37:
38: }
```

Exec206.java

```
1: //Customized Layout bounds
2:
3: import java.awt.Color;
4: import java.awt.Container;
5:
6: import javax.swing.JButton;
7: import javax.swing.JFrame;
8: import javax.swing.JPanel;
9:
10: //JFrame Simple
11: public class Exec206 extends JFrame{
12:     JFrame execFrame;
13:     public Exec206() {
14:         execFrame = new JFrame("Exec206");
15:         execFrame.setSize(400, 400);
16:         execFrame.setVisible(true);
17:         execFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
18:         //kokokara
19:         JPanel boundsPanel = new JPanel();
20:         // set contentPane' s layout as null, using customized layout.
21:         boundsPanel.setLayout(null); //koko
22:
23:         JButton execButton = new JButton("Click!");
24:         boundsPanel.add(execButton);
25:         execButton.setBounds(50, 30, 90, 30);
26:         boundsPanel.setBounds(50, 30, 190, 130); // X, Y, 幅, 高さ
27:         boundsPanel.setBackground(Color.red);
28:
29:         Container execContainer = execFrame.getContentPane();
30:         execContainer.setLayout(null); //コンテナのレイアウトもnullにする
31:         execContainer.add(boundsPanel);
32:         execFrame.setVisible(true);
33:     }
34:     public static void main(String[] args) {
35:         // TODO 自動生成されたメソッド・スタブ
36:         new Exec206();
37:     }
38: }
39: }
```