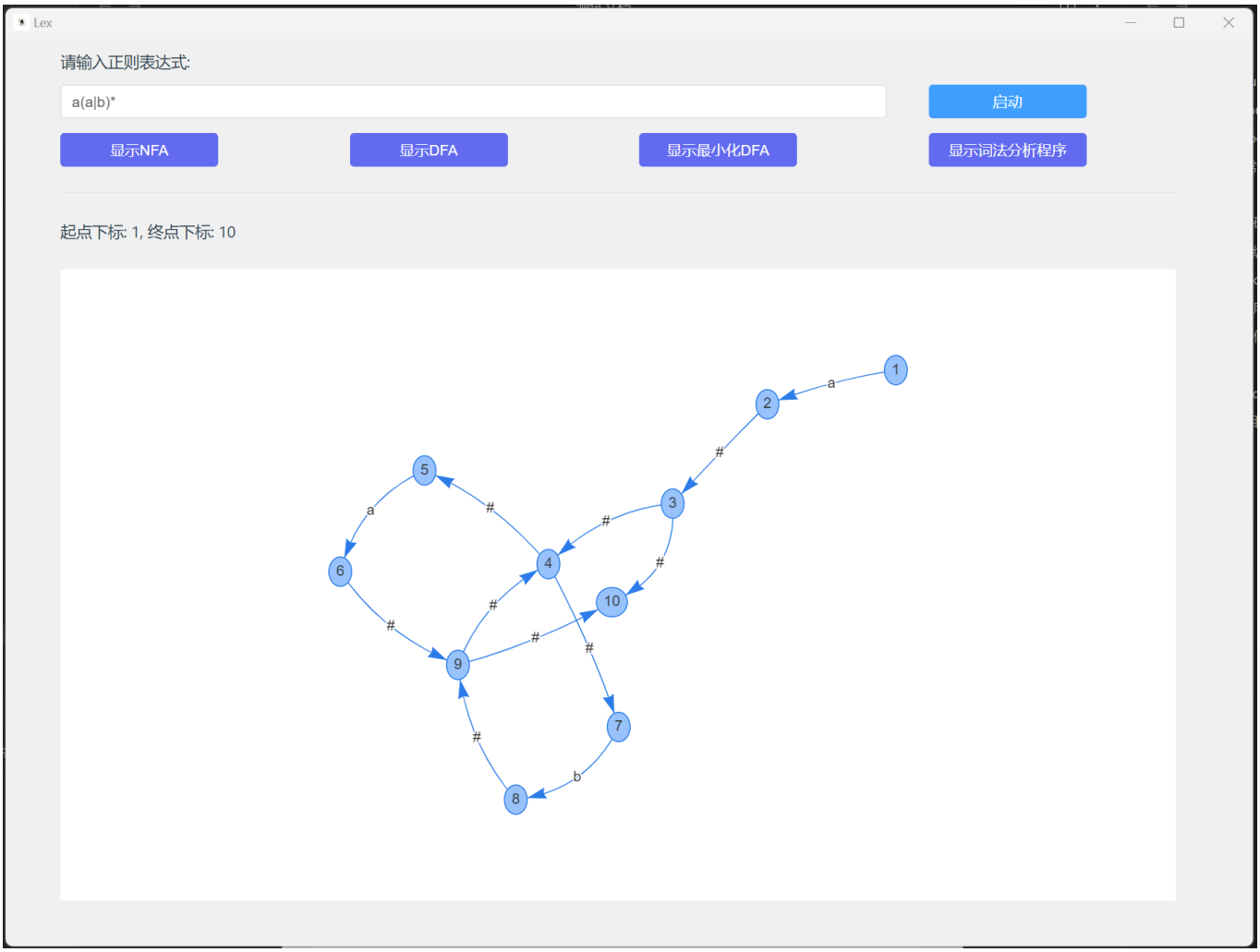
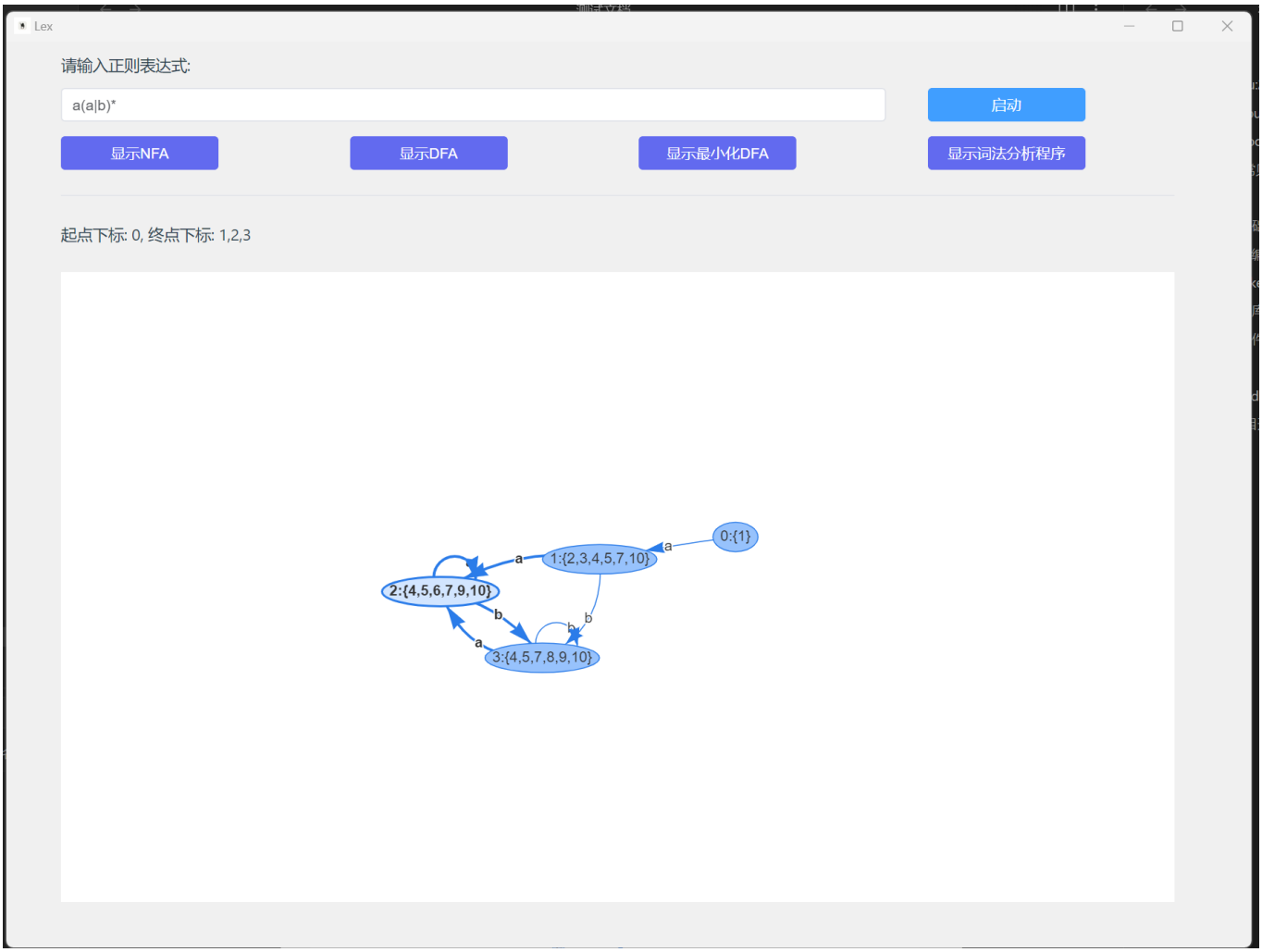
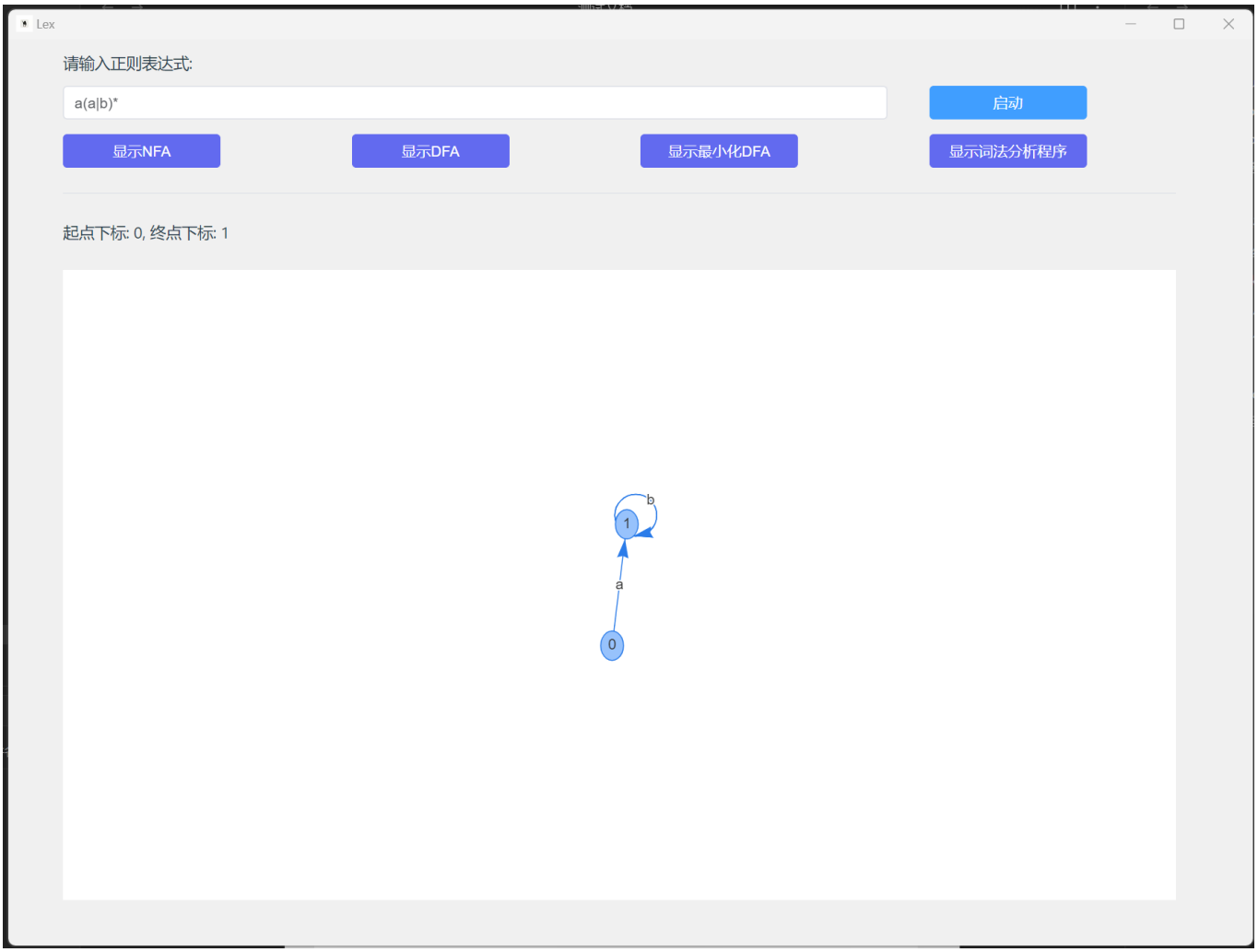
测试文档

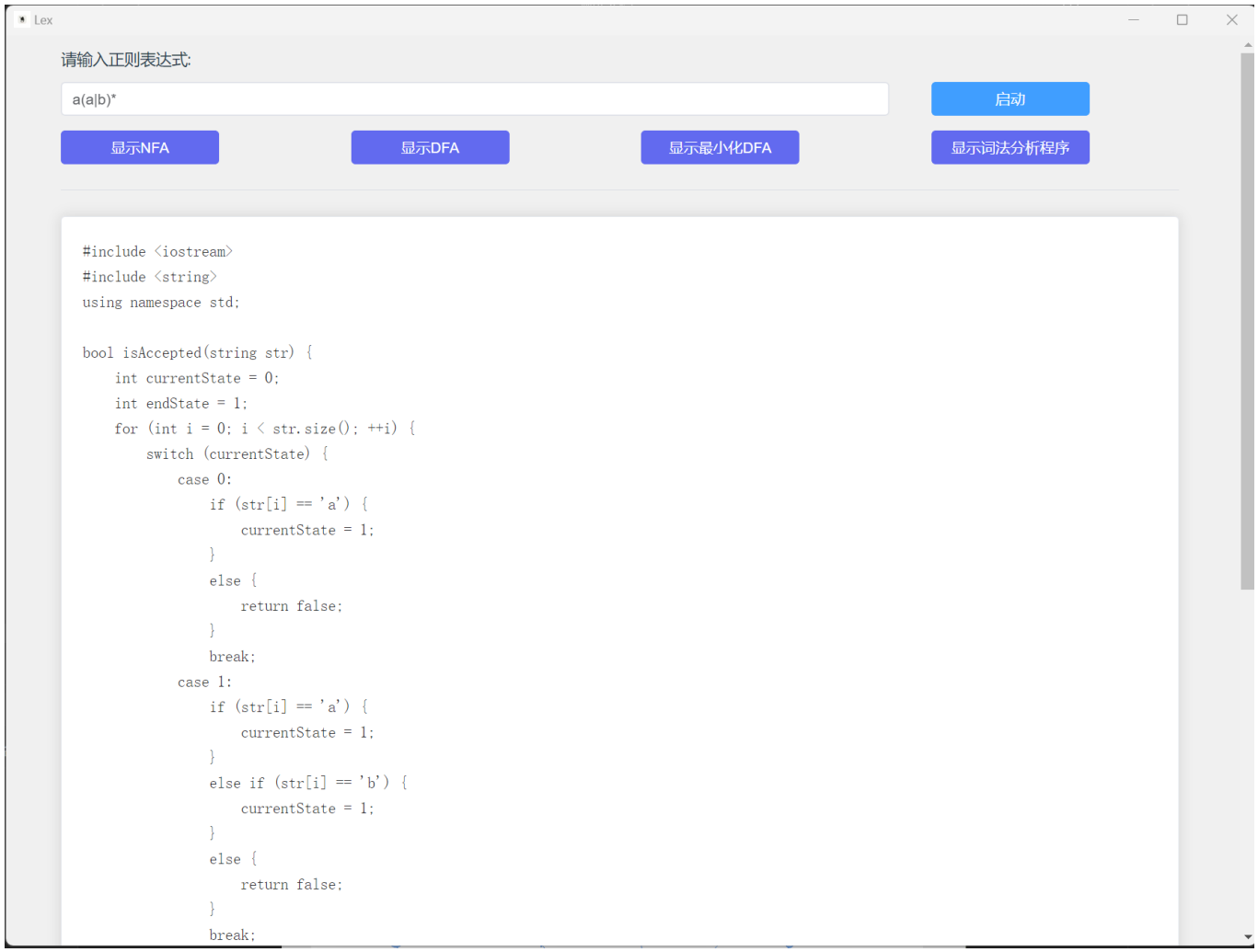
测试数据1 `a(a|b)*` ：





这里稍微在前端绘制拓扑图的时候有一点 `bug` ，如果一个节点同时有两条不同的回边，那这两条回边会重合。


Lex
请输入正则表达式:
a(a|b)*
启动
显示NFA
显示DFA
显示最小化DFA
显示词法分析程序
起点下标: 0, 终点下标: 1
b
1
a
0




```cpp
#include <iostream>
#include <string>
using namespace std;

bool isAccepted(string str) {
    int currentState = 0;
    int endState = 1;
    for (int i = 0; i < str.size(); ++i) {
        switch (currentState) {
            case 0:
                if (str[i] == 'a') {
                    currentState = 1;
                }
                else {
                    return false;
                }
                break;
            case 1:
                if (str[i] == 'a') {
                    currentState = 1;
                }
                else if (str[i] == 'b') {
                    currentState = 1;
```

```
                }
                else {
                    return false;
                }
                break;
            default:
                return false;
        }
    }
    if (currentState == endState) {
        return true;
    }
    return false;
}

int main() {
    string str;
    cin >> str;
    if (isAccepted(str)) {
        cout << "accepted" << endl;
    }
    else {
        cout << "can not accepted" << endl;
    }
    return 0;
}
```

测试数据2 `((ab*|c)d|ac)adc*` ：

Lex

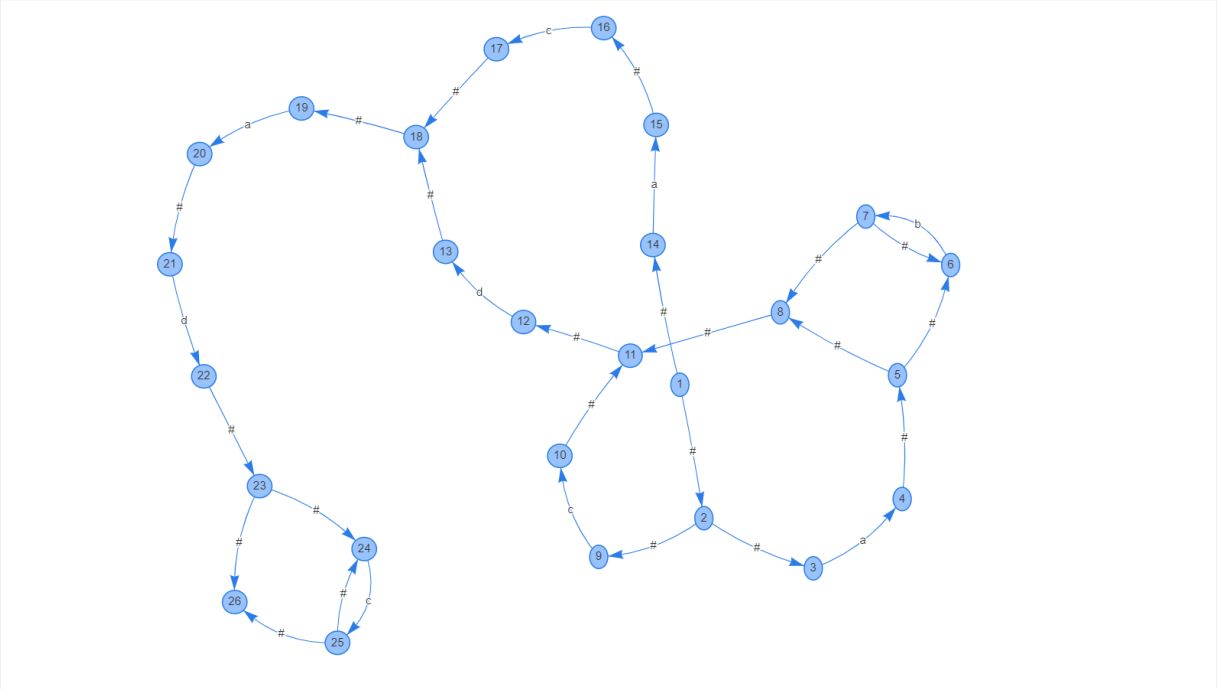
请输入正则表达式:

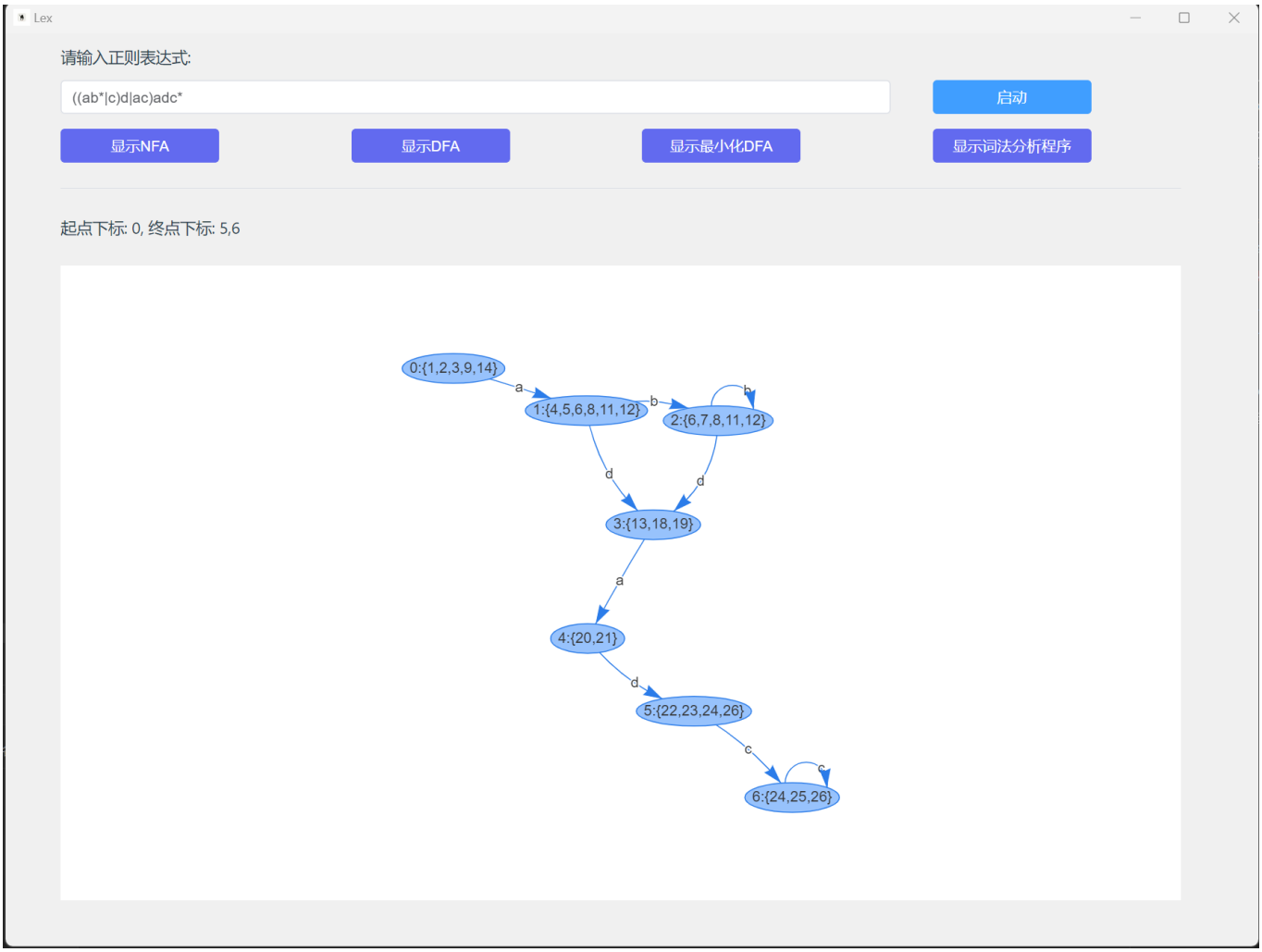
((ab*|c)d|ac)adc*

启动

显示NFA　显示DFA　显示最小化DFA　显示词法分析程序

起点下标: 1, 终点下标: 26




Lex
请输入正则表达式:
((ab*|c)d|ac)adc*
启动
显示NFA
显示DFA
显示最小化DFA
显示词法分析程序
起点下标: 0, 终点下标: 5,6
0:{1,2,3,9,14}
a
1:{4,5,6,8,11,12}
b
2:{6,7,8,11,12}
b
d
d
3:{13,18,19}
a
4:{20,21}
d
5:{22,23,24,26}
c
6:{24,25,26}
c

Lex

请输入正则表达式:

((ab*|c)d|ac)adc*

启动

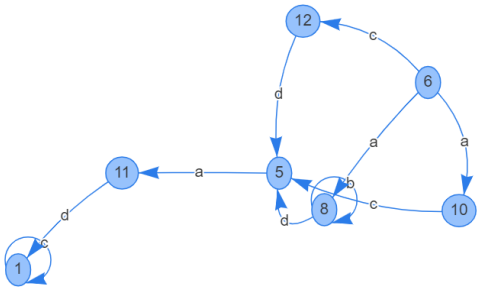
显示NFA

显示DFA

显示最小化DFA

显示词法分析程序

起点下标: 6, 终点下标: 1




```cpp
#include <iostream>
#include <string>
using namespace std;

bool isAccepted(string str) {
    int currentState = 6;
    int endState = 1;
    for (int i = 0; i < str.size(); ++i) {
        switch (currentState) {
            case 1:
                if (str[i] == 'c') {
                    currentState = 1;
                }
                else {
                    return false;
                }
                break;
            case 5:
                if (str[i] == 'a') {
                    currentState = 11;
                }
                else {
                    return false;
```

```
            }
            break;
        case 6:
            if (str[i] == 'a') {
                currentState = 8;
            }
            else if (str[i] == 'c') {
                currentState = 12;
            }
            else if (str[i] == 'a') {
                currentState = 10;
            }
            else {
                return false;
            }
            break;
        case 8:
            if (str[i] == 'b') {
                currentState = 8;
            }
            else if (str[i] == 'd') {
                currentState = 5;
            }
            else {
                return false;
            }
            break;
        case 10:
            if (str[i] == 'c') {
                currentState = 5;
            }
            else {
                return false;
            }
            break;
        case 11:
            if (str[i] == 'd') {
                currentState = 1;
            }
            else {
                return false;
            }
            break;
        case 12:
            if (str[i] == 'd') {
                currentState = 5;
            }
            else {
                return false;
            }
            break;
        default:
            return false;
```

```
        }
    }
    if (currentState == endState) {
        return true;
    }
    return false;
}

int main() {
    string str;
    cin >> str;
    if (isAccepted(str)) {
        cout << "accepted" << endl;
    }
    else {
        cout << "can not accepted" << endl;
    }
    return 0;
}
```

除了绘制拓扑图的显示有点问题，其它都是对的。