Create a 61131-3 sequential function chart in ASCII art for a traffic light. Include proper delays for switching the lights.

A sequential function chart (SFC) is a graphical representation of a control program, often used in industrial automation systems. SFCs are typically designed using standardized symbols and notations, making ASCII art not the most appropriate medium for them. However, I'll try my best to provide a simple, text-based representation of a traffic light control program using a pseudo SFC-style.

Please note that this ASCII representation is an approximation and may not adhere to exact IEC 61131-3 standards. You should use proper software for creating SFCs in a professional context.

Here's the ASCII art representation of the traffic light control sequence:

sql Copy code

```
+-----------------------+
|         START         |
+-----------------------+
            ||
            \/
+-----------------------+
| Initialize Variables  |
+-----------------------+
            ||
            \/
+-----------------------+
|       Green ON        |
+-----------------------+
            ||
  +---->Delay (5s)-------+
  |       ||
  |       \/
  | +---------------------+
  | |    Yellow ON        |
  | +---------------------+
  |       ||
  +---->Delay (2s)---------+
          ||
          \/
+-----------------------+
|       Red ON          |
+-----------------------+
            ||
  +---->Delay (5s)-------+
  |       ||
  |       \/
  | +---------------------+
  | |    Yellow ON        |
  | +---------------------+
  |       ||
  +---->Delay (2s)---------+
          ||
          \/
          ++
          ||
          \/
+-----------------------+
|       Repeat          |
+-----------------------+
```

This control sequence for a traffic light operates as follows:

1. Start the program and initialize variables.
2. Turn the green light on and wait for 5 seconds.
3. Turn the yellow light on and wait for 2 seconds.
4. Turn the red light on and wait for 5 seconds.
5. Turn the yellow light on again and wait for 2 seconds.
6. Repeat the sequence from step 2.

Please note that the delays mentioned here are arbitrary and might not match real-world traffic light timing. You can adjust these delays as needed for your application.