

| g_p_font_digit (5x8 array) | Value (Binary) |
|-------------------------------|---|
| FONT_DIGIT_0 | B01110, B10001, B10011, B10101, B11001, B10001, B10001, B01110 |
| FONT_DIGIT_1 | B00100, B01100, B10100, B00100, B00100, B00100, B00100, B11111 |
| FONT_DIGIT_2 | B01110, B10001, B00001, B00010, B00100, B01000, B10000, B11111 |
| FONT_DIGIT_3 | B01110, B10001, B00001, B00110, B00001, B00001, B10001, B01110 |
| FONT_DIGIT_4 | B10001, B10001, B10001, B11111, B00001, B00001, B00001, B00001 |
| FONT_DIGIT_5 | B11111, B10000, B10000, B11110, B00001, B00001, B00001, B11110 |
| FONT_DIGIT_6 | B01111, B10000, B10000, B11111, B10001, B10001, B10001, B01110 |
| FONT_DIGIT_7 | B11111, B00001, B00001, B00010, B00100, B00100, B00100, B00100 |
| FONT_DIGIT_8 | B01110, B10001, B10001, B01110, B10001, B10001, B10001, B01110 |
| FONT_DIGIT_9 | B01110, B10001, B10001, B11111, B00001, B00001, B10001, B01110 |

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SOFTWARE ARCHITECTURE

MAIN

CCLOCK

CLOCK

DISPLAY

LEDMATRIX

| Constant | Value |
|--------------------|-------|
| CYCLE_1S_WAIT | 3 |
| DIRECTION_INCREASE | true |
| DIRECTION_DECREASE | false |
| MAX_VALUE_SECOND | 59 |
| MAX_VALUE_MINUTE | 59 |
| MAX_VALUE_HOUR | 23 |
| MAX_VALUE_DAY_28 | 28 |
| MAX_VALUE_DAY_29 | 29 |
| MAX_VALUE_DAY_30 | 30 |
| MAX_VALUE_DAY_31 | 31 |
| MAX_VALUE_MONTH | 12 |
| MAX_VALUE_YEAR | 9999 |

| Constant | Value |
|----------------|-------|
| DEFAULT_SECOND | 0 |
| DEFAULT_MINUTE | 30 |
| DEFAULT_HOUR | 7 |
| DEFAULT_DAY | 11 |
| DEFAULT_MONTH | 5 |
| DEFAULT_YEAR | 2024 |

| Constant | Value |
|------------------|----------|
| COLOR_DEFAULT | 0xFFFF00 |
| COLOR_BACKGROUND | 0x0 |
| FONT_WIDTH | 5 |
| FONT_HEIGHT | 8 |
| NUMBER_WIDTH_2 | 2 |
| NUMBER_WIDTH_4 | 4 |

| Variable | Type | Scope | Format |
|-------------------|---------------|--------|--------|
| g_cycle_1s_count | | GLOBAL | |
| g_1s_signal | boolean | GLOBAL | |
| g_increase_signal | boolean | GLOBAL | |
| g_clock_second | | GLOBAL | |
| g_clock_minute | | GLOBAL | |
| g_clock_hour | | GLOBAL | |
| g_clock_day | | GLOBAL | |
| g_clock_month | | GLOBAL | |
| g_clock_year | | GLOBAL | |
| g_p_font_digit | const pointer | GLOBAL | |

| Constant | Value |
|----------|-------|
| POS_SS_X | 1 |
| POS_SS_Y | 1 |
| POS_MI_X | 16 |
| POS_MI_Y | 1 |
| POS_HH_X | 31 |
| POS_HH_Y | 1 |
| POS_DD_X | 1 |
| POS_DD_Y | 13 |
| POS_MO_X | 16 |
| POS_MO_Y | 13 |
| POS_YY_X | 31 |
| POS_YY_Y | 13 |

