

1. Description

1.1. Project

Project Name	Controle
Board Name	Controle
Generated with:	STM32CubeMX 4.17.0
Date	05/10/2017

1.2. MCU

MCU Series	STM32F0
MCU Line	STM32F0x0 Value Line
MCU name	STM32F030C8Tx
MCU Package	LQFP48
MCU Pin number	48

1.3. Caution

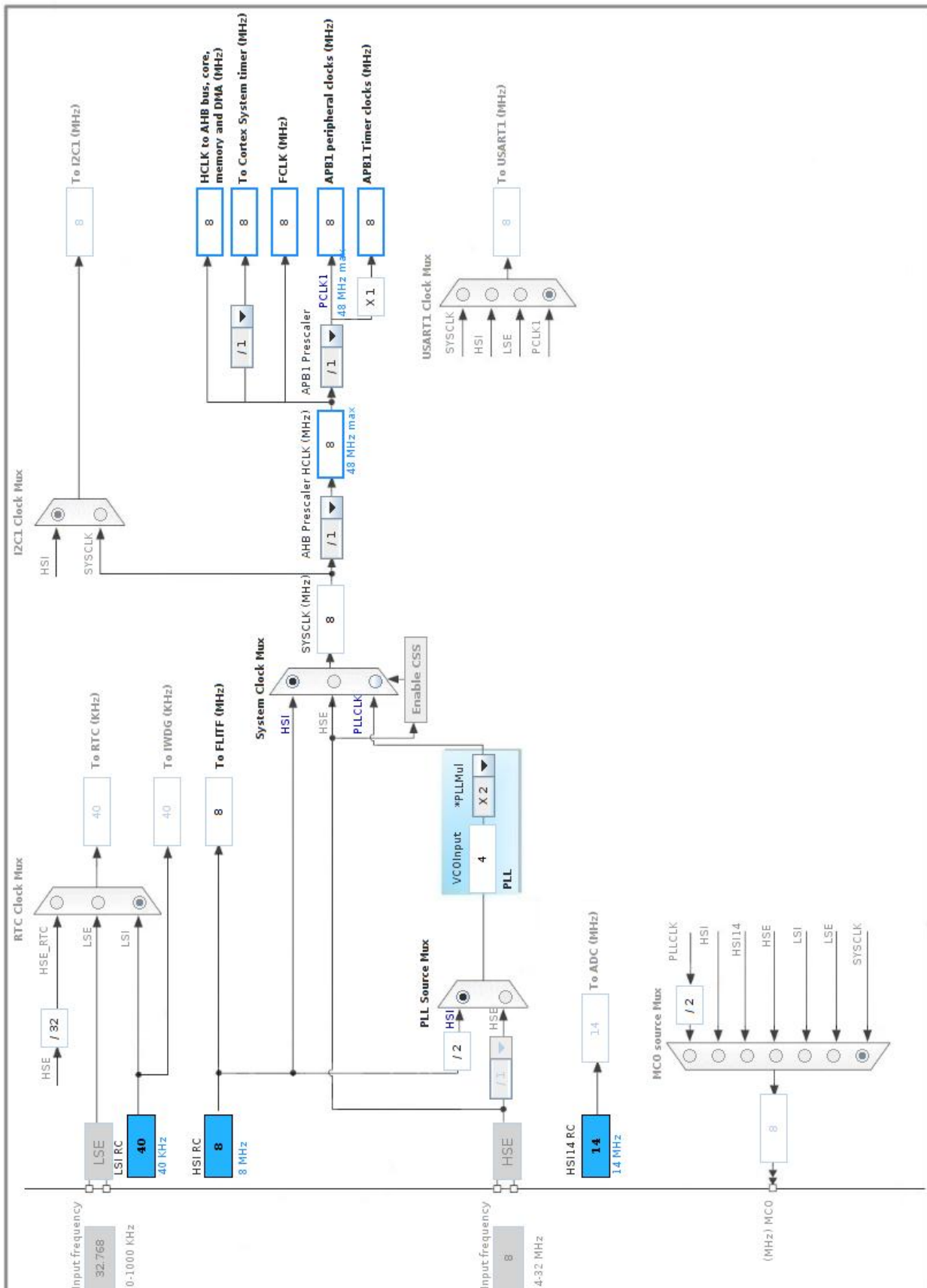
The report was generated although the configuration was in a modified state. It may be not accurate

3. Pins Configuration

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VDD	Power		
2	PC13 *	I/O	GPIO_Output	S8
3	PC14-OSC32_IN *	I/O	GPIO_Output	S9
4	PC15-OSC32_OUT *	I/O	GPIO_Output	S10
5	PF0-OSC_IN *	I/O	GPIO_Output	S11
6	PF1-OSC_OUT *	I/O	GPIO_Output	S12
7	NRST	Reset		
8	VSSA	Power		
9	VDDA	Power		
23	VSS	Power		
24	VDD	Power		
34	PA13	I/O	SYS_SWDIO	
37	PA14	I/O	SYS_SWCLK	
39	PB3 *	I/O	GPIO_Output	S1
40	PB4 *	I/O	GPIO_Output	S2
41	PB5 *	I/O	GPIO_Output	S3
42	PB6 *	I/O	GPIO_Output	S4
43	PB7 *	I/O	GPIO_Output	S5
44	BOOT0	Boot		
45	PB8 *	I/O	GPIO_Output	S6
46	PB9 *	I/O	GPIO_Output	S7
47	VSS	Power		
48	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. SYS

mode: Debug Serial Wire

Timebase Source: TIM1

5.2. FREERTOS

mode: Enabled

5.2.1. Config parameters:

Versions:

CMSIS-RTOS version	1.02
FreeRTOS version	8.2.3

Kernel settings:

USE_PREEMPTION	Enabled
CPU_CLOCK_HZ	SystemCoreClock
TICK_RATE_HZ	1000
MAX_PRIORITIES	7
MINIMAL_STACK_SIZE	128
MAX_TASK_NAME_LEN	16
USE_16_BIT_TICKS	Disabled
IDLE_SHOULD_YIELD	Enabled
USE_MUTEXES	Enabled
USE_RECURSIVE_MUTEXES	Disabled
USE_COUNTING_SEMAPHORES	Disabled
QUEUE_REGISTRY_SIZE	8
USE_APPLICATION_TASK_TAG	Disabled
TOTAL_HEAP_SIZE	3072
Memory Management scheme	heap_4
USE_ALTERNATIVE_API	Disabled
ENABLE_BACKWARD_COMPATIBILITY	Enabled
USE_PORT_OPTIMISED_TASK_SELECTION	Disabled
USE_TICKLESS_IDLE	Disabled
USE_TASK_NOTIFICATIONS	Enabled

Hook function related definitions:

USE_IDLE_HOOK	Disabled
USE_TICK_HOOK	Disabled
USE_MALLOC_FAILED_HOOK	Disabled

CHECK_FOR_STACK_OVERFLOW Disabled

Run time and task stats gathering related definitions:

USE_TRACE_FACILITY Enabled

GENERATE_RUN_TIME_STATS Disabled

Co-routine related definitions:

USE_CO_ROUTINES Disabled

MAX_CO_ROUTINE_PRIORITIES 2

Software timer definitions:

USE_TIMERS Disabled

TIMER_TASK_PRIORITY 2

TIMER_QUEUE_LENGTH 10

TIMER_TASK_STACK_DEPTH 256

Interrupt nesting behaviour configuration:

LIBRARY_LOWEST_INTERRUPT_PRIORITY 3

LIBRARY_MAX_SYSCALL_INTERRUPT_PRIORITY 3

5.2.2. Include parameters:

Include definitions:

vTaskPrioritySet Enabled

uxTaskPriorityGet Enabled

vTaskDelete Enabled

vTaskCleanUpResources Disabled

vTaskSuspend Enabled

vTaskDelayUntil Disabled

vTaskDelay Enabled

xTaskGetSchedulerState Enabled

xTaskResumeFromISR Enabled

xQueueGetMutexHolder Disabled

xSemaphoreGetMutexHolder Disabled

pcTaskGetTaskName Disabled

uxTaskGetStackHighWaterMark Disabled

xTaskGetCurrentTaskHandle Disabled

eTaskGetState Disabled

xEventGroupSetBitFromISR Disabled

xTimerPendFunctionCall Disabled

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
SYS	PA13	SYS_SWDIO	n/a	n/a	n/a	
	PA14	SYS_SWCLK	n/a	n/a	n/a	
GPIO	PC13	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S8
	PC14-OSC32_IN	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S9
	PC15-OSC32_OUT	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S10
	PF0-OSC_IN	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S11
	PF1-OSC_OUT	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S12
	PB3	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S1
	PB4	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S2
	PB5	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S3
	PB6	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S4
	PB7	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S5
	PB8	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S6
	PB9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	S7

6.2. DMA configuration

nothing configured in DMA service

6.3. NVIC configuration

Interrupt Table	Enable	Preenmption Priority	SubPriority
Non maskable interrupt	true	0	0
Hard fault interrupt	true	0	0
System service call via SWI instruction	true	0	0
Pendable request for system service	true	3	0
System tick timer	true	3	0
TIM1 break, update, trigger and commutation interrupts	true	0	0
Flash global interrupt	unused		
RCC global interrupt	unused		

* User modified value

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F0
Line	STM32F0x0 Value Line
MCU	STM32F030C8Tx
Datasheet	024849 Rev2

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	Controle
Project Folder	/home/rcluze/Projet/Autres/rampesLeds/soft/Controle
Toolchain / IDE	SW4STM32
Firmware Package Name and Version	STM32Cube FW_F0 V1.6.0

8.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Copy only the necessary library files
Generate peripheral initialization as a pair of '.c/.h' files	Yes
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No