

Doc no.:	<b>Functional Design Specification</b>	Date: 25/10/2015
----------	--	------------------

Spike

MyUnit

# Functional Design Specification for Manufacturing Control System

Doc no.:	<b>Functional Design Specification</b>	Date: 25/10/2015
----------	--	------------------

## Table of Contents

Table of Contents .....	2
1.    Unit .....	3
1.1. Properties .....	3
1.2. Parameters.....	3
2.    Equipment Modules and Control Modules.....	4
3.    CFB Code .....	5

Doc no.:	<b>Functional Design Specification</b>	Date: 25/10/2015
----------	--	------------------

## 1. Unit

Unit Name	Diagram	Process Cell
MyUnit	SampleTank	processcell

### 1.1. Properties

Description	Version	Security Area	Security Level
		Null	Null

### 1.2. Parameters

Name	Description	Units	Value
currentlevel	current level in tank	perC	0

Doc no.:	<b>Functional Design Specification</b>	Date: 25/10/2015
----------	--	------------------

## 2. Equipment Modules and Control Modules

Equipment Module	Control Modules
EM-lvlctrl	FV-MyUnit-inlet
	Agi-MyUnit-1
	LT-MyUnit-1

Equipment Module	Control Modules
EM1-Tempctrl	TCV-MyUnit-1
	PID-MyUnit-1
	TT-MyUnit-1

Doc no.:	<b>Functional Design Specification</b>	Date: 25/10/2015
----------	--	------------------

### 3. CFB Code

```
#####
# Date Created: 12/08/2015, 12:07:16
# CFB: MyUnit/CFB
#####

def main():
    """Main Function"""

    # the following code is continuously executed once a campaign is running...

    # system helper function first scan allows for one off initialisation of variables upon
start of script execution

    if firstScan:
        opc('LT-MyUnit-1').IsInSimulate = True
        opc('TT-MyUnit-1').IsInSimulate = True

    # create some level simulation code.

    mytanklevel = opc('LT-MyUnit-1').Value

    if opc('FV-MyUnit-inlet').Value == True:
        opc('LT-MyUnit-1').Simulate(mytanklevel + 2.5)
    #
    if opc('FV-MyUnit-outlet').Value == True:
        opc('LT-MyUnit-1').Simulate(mytanklevel - 2.5)

    # update the current level unit parameter

    opc('MyUnit').SupportModule.UpdateParameter('currentlevel', mytanklevel)
```