Food & Beverage

We Make Your Automation Possible

Adroit Technologies

Adroit Solutions

Food & Beverage

Adroit Technologies concerns itself mainly with R&D, Production, Sales & Marketing, Training and Support of software products for Automation, SCADA, MIS and MES solutions. In addition, Adroit Technologies has a professional services arm, known as Adroit Technologies Technical Services that consults in and develops customised industrial IT, MIS and MES solutions for customers.

The **Food & Beverage Industry** is a vast and complex one and the Adroit SCADA is ideally suited to assist in the efficient monitoring and control of even the most complicated production plant.

The rigid and quality driven nature of this industry is ideally suited to the Adroit SCADA/HMI product. The time tested and proven reliability of the product sees Adroit being used by large producers to safely run these valuable and strategic assets.

The Adroit architecture and openness offers companies a unique capability of not only traditional SCADA/HMI functionality but the ability to integrate all aspects of their operations. By adopting a more holistic approach to Operations Management significant savings and operational efficiencies can be realised.

In this sector, Adroit is uniquely placed to ensure a superior quality of supply in all aspects of the operations and management of these facilities.

Adroit SCADA Capabilities and Benefits:-

- Process Visualisation
- Process Events and Alarming Management
- Quality Management
- Historical Data Logging and Trending
- Fully Object orientated
- Process Improvement / Built in Auditing functionality
- Reporting and Analysis
- Integration into Business Applications

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Target Areas

- Packaging Machines
- Processing Plants
- Bakeries
- Batching Plants
- Conveying Systems

Challenges

- Productivity
- Energy Efficiency
- Predictive Maint.
- Remote Monitoring
- Reporting

Solutions

- SCADA
- PLC
- HMI
- Servo & Motion
- Robot & Cobot

Golden Macadamia Nuts, South Africa

Golden Macadamias is a traditional company, with a unique approach that combines active involvement from leading macadamia farmers with a forward-thinking focus on quality and the consumer. As part of their ethos, all of their shareholders are high-quality macadamia farmers. They currently have a state-of-the-art production facility, with an annual capacity of 6000 tons dry-in-shell. Quality control is at the heart of their cultivation production process. Their customers are amongst the largest nut processors and users in the world.

Golden macadamia approached Adroit to replace the existing Rockwell RSView32 SCADA with an Adroit system, enabling the system to communicate to various PLC systems. The project entailed the re-engineering of the existing graphics to the Adroit system as well as to do the engineering for an extra drying room that was added to accommodate the growing delivery of the product from the farmers.

Stand Alone Configuration

- 25000 Scan Points

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Cadbury, Port Elizabeth

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Cadbury's Limited has grown to one of the worlds largest international producers of chocolate by combining sophisticated technology with the highest standards of quality, technical skills and innovation.

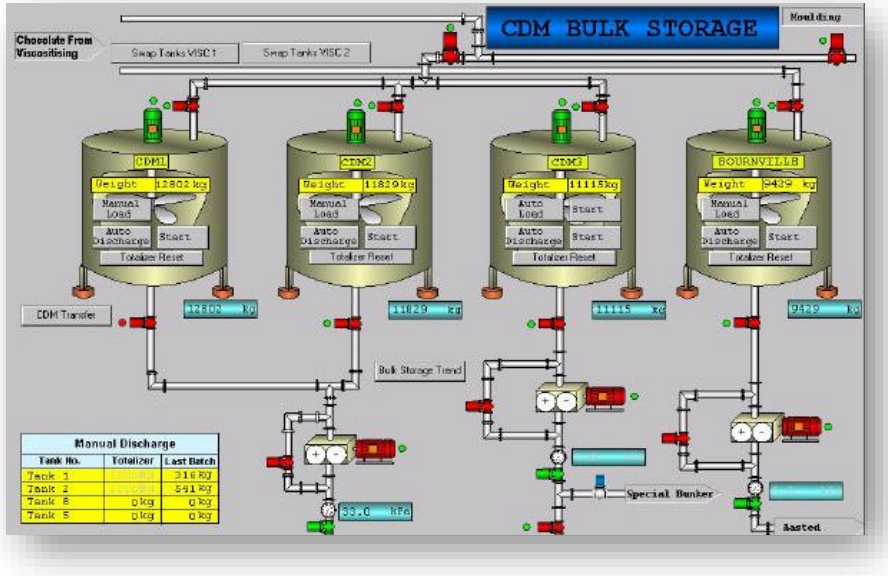
Cadbury's Port Elizabeth launched Project Olympus, an undertaking to build a world-class chocolate manufacturing plant incorporating state-of-the-art facilities and best practices in manufacturing and production.

To monitor and control this South African flagship, Cadbury's chose to completely integrate the plant using technologically advanced 32-bit, open automation Adroit SCADA system.

The Adroit SCADA provides a window into this largely unmanned plant, which sports three stories of production processes interspersed with an additional three mezzanine levels.

Stand Alone Configuration

– 25 000 Scan Points and 4 Remote Client Connections



Confidential

Kraft Foods, Johannesburg

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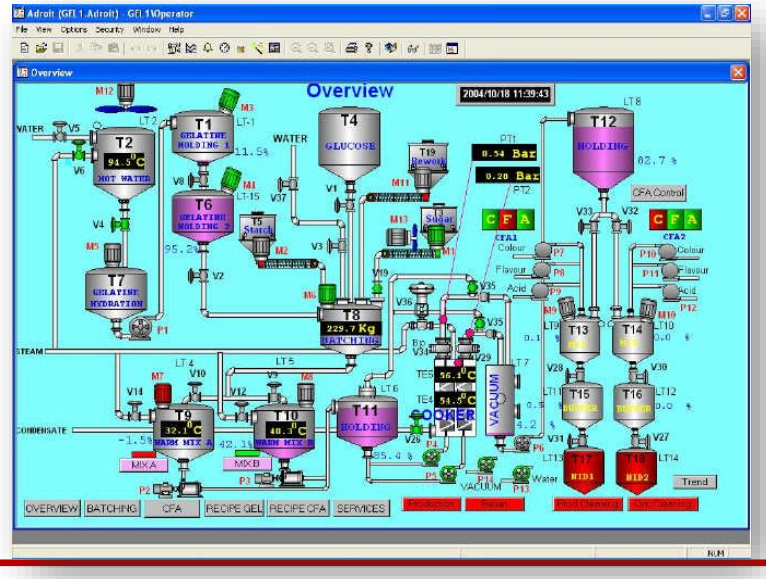
Kraft Foods faced a huge challenge when moving to their new premises in Ekurhuleni east of Johannesburg.
The machine producing gel sweets, such as jelly babies, needed to be moved and upgraded to ensure that demand could be met and that there was not a shift in client purchasing as a result of engineering delays.

Adroit started the project by identifying various temperatures, process times, pressures and pump speeds as the main control points in the process.
They were convinced that most of the waste related production loses could be eliminated if these critical processes were controlled within certain limits.

The standard Adroit SCADA version 5.0 with Recipe Manager was used on a stand-alone Windows XP based system.

Stand Alone Configuration
– 300 Scan Points and 1 Remote Client Connections



Animal Food Plant – Pellet Mill, Turkey

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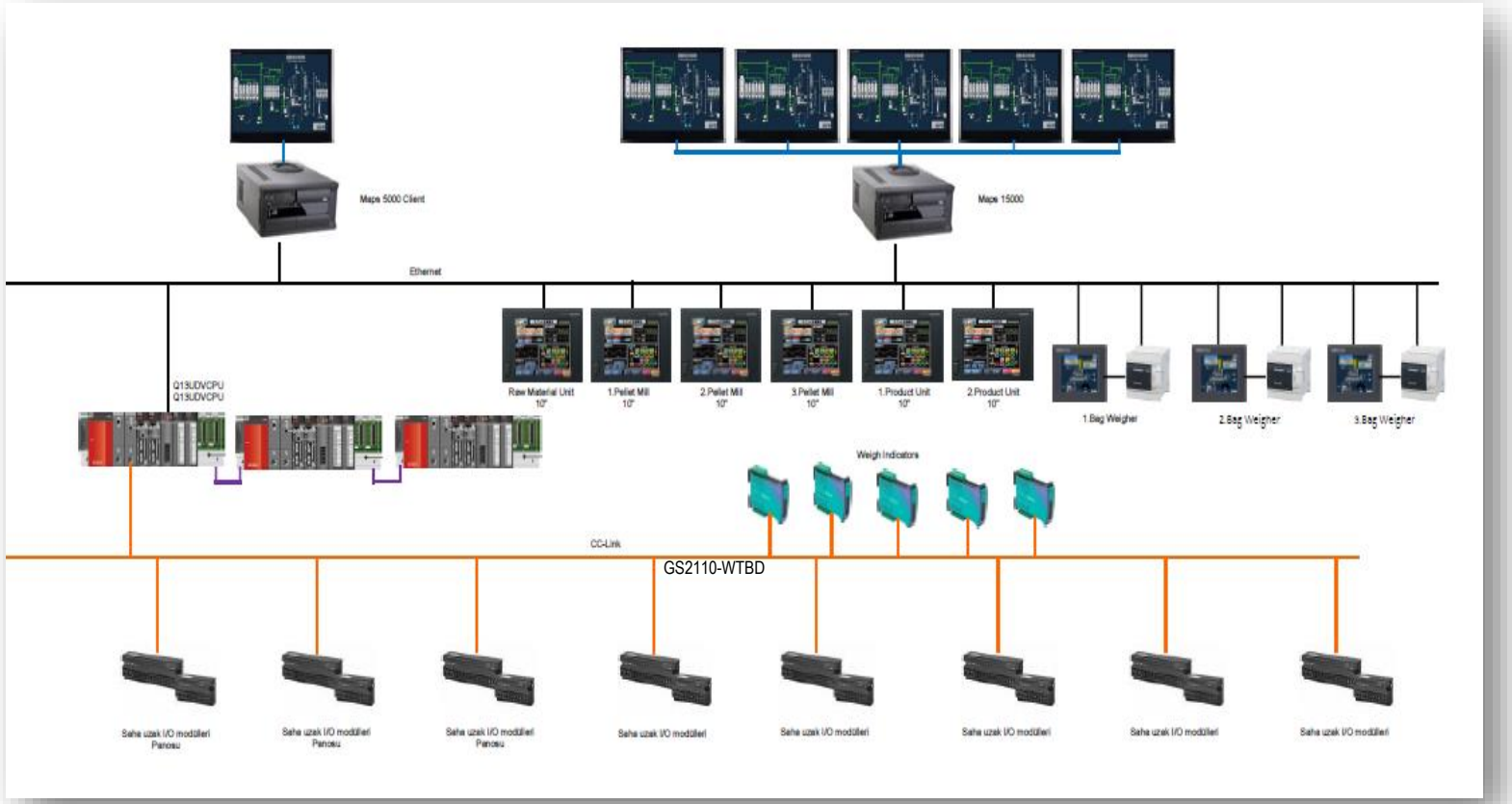
System Design



MAPS
MITSUBISHI ADROIT PROCESS SUITE

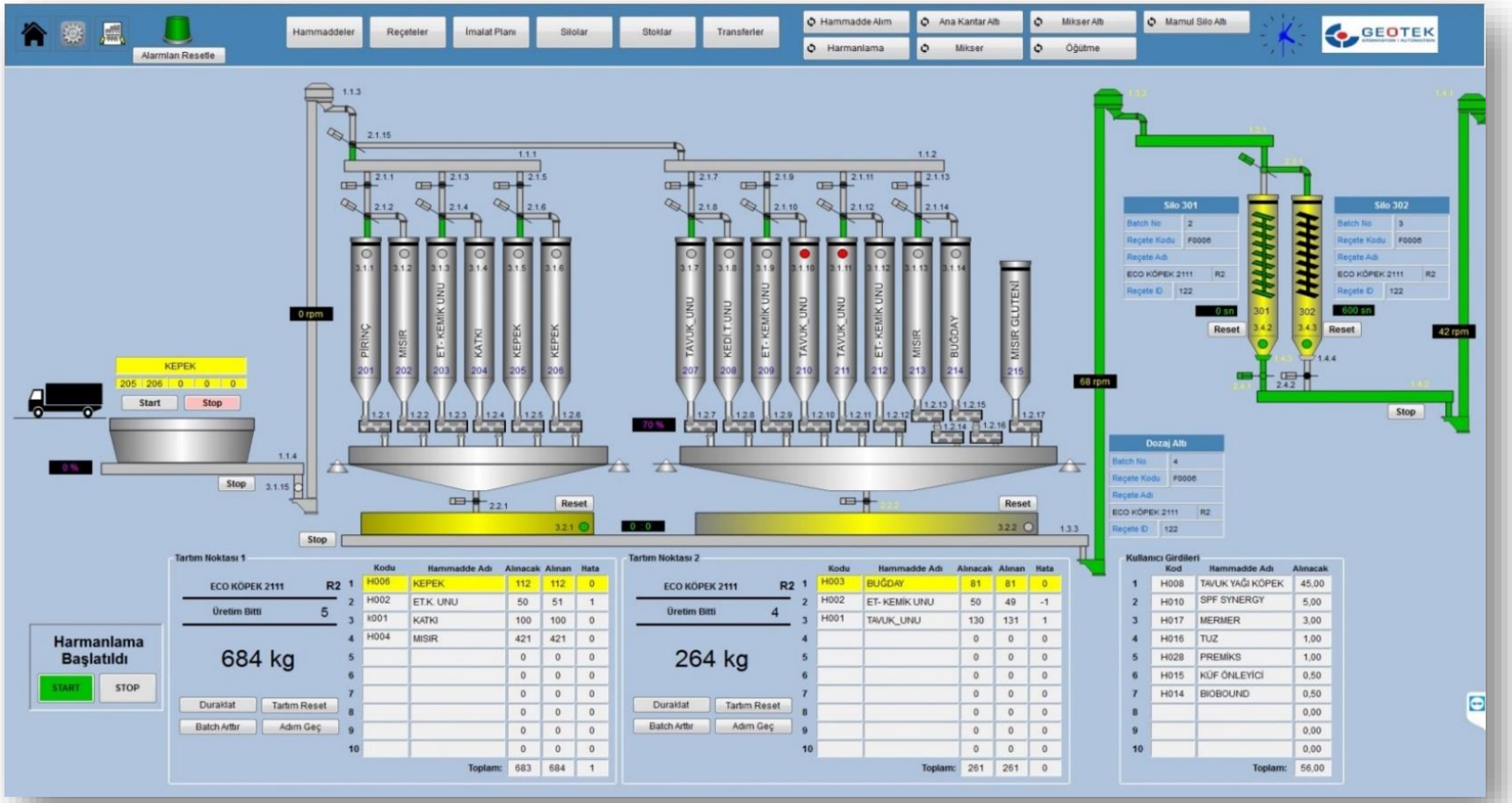
15000 Scan Points

2X Q13UDVCPU

AJ65SBTB1

DI = 1470
DO = 646
AI = 16
AO = 24
PT100 = 16
Comms = MODBIS TCP and CC-Link

Animal Food Plant – Pellet Mill, Turkey



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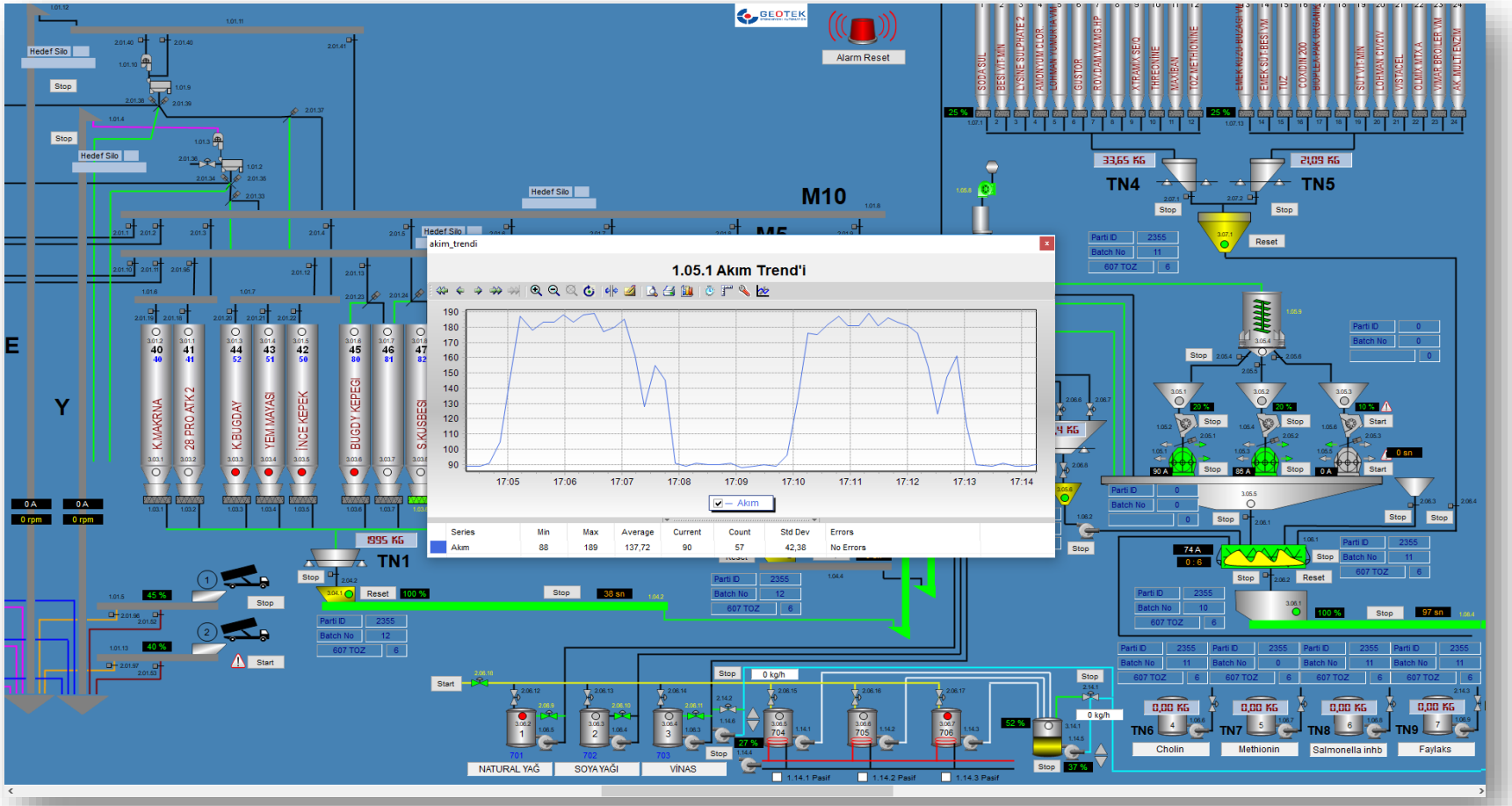
Animal Food Plant – Pellet Mill, Turkey



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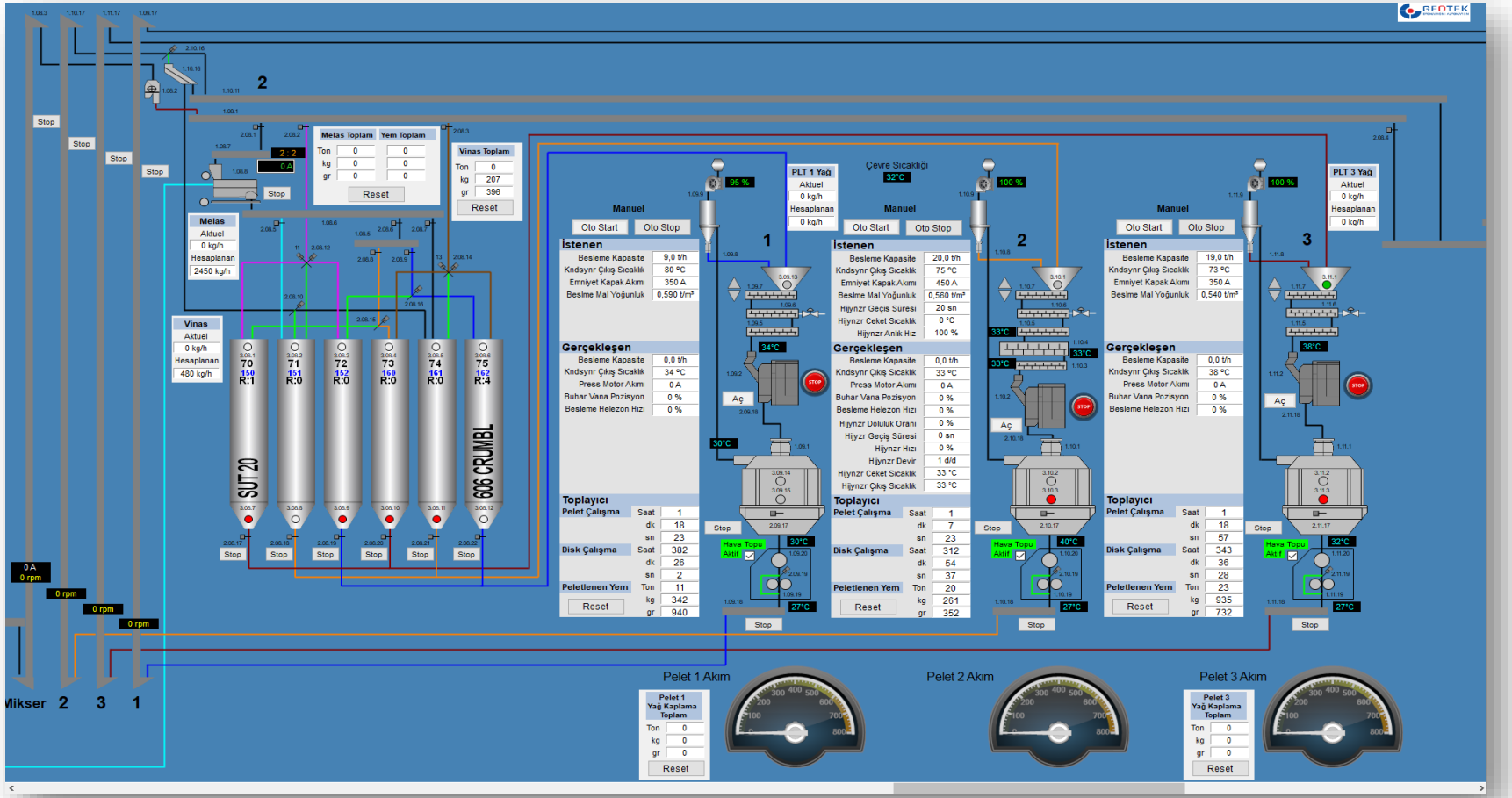
Animal Food Plant – Pellet Mill, Turkey



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Food Mixing and Batching Plant, Ireland

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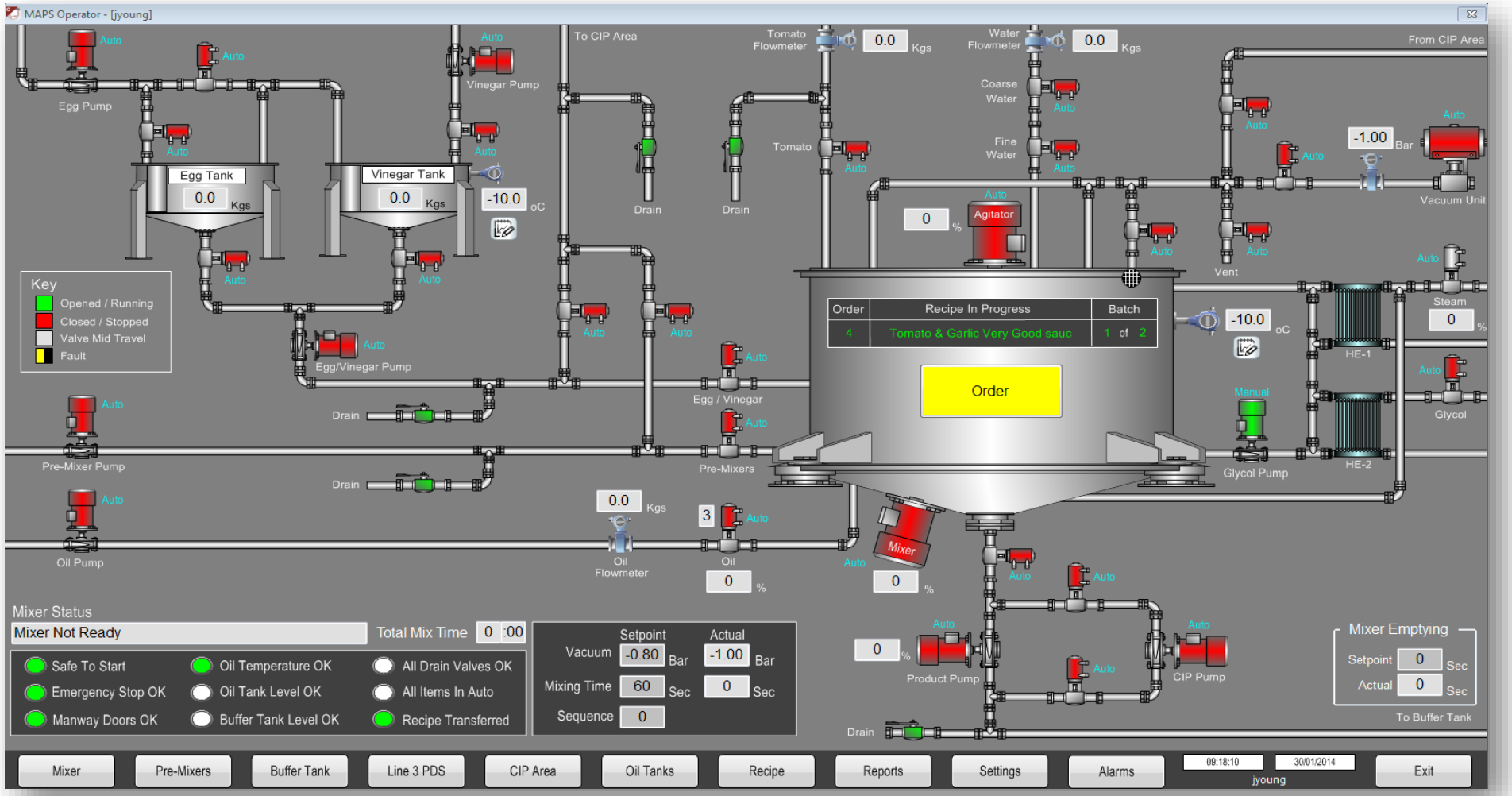
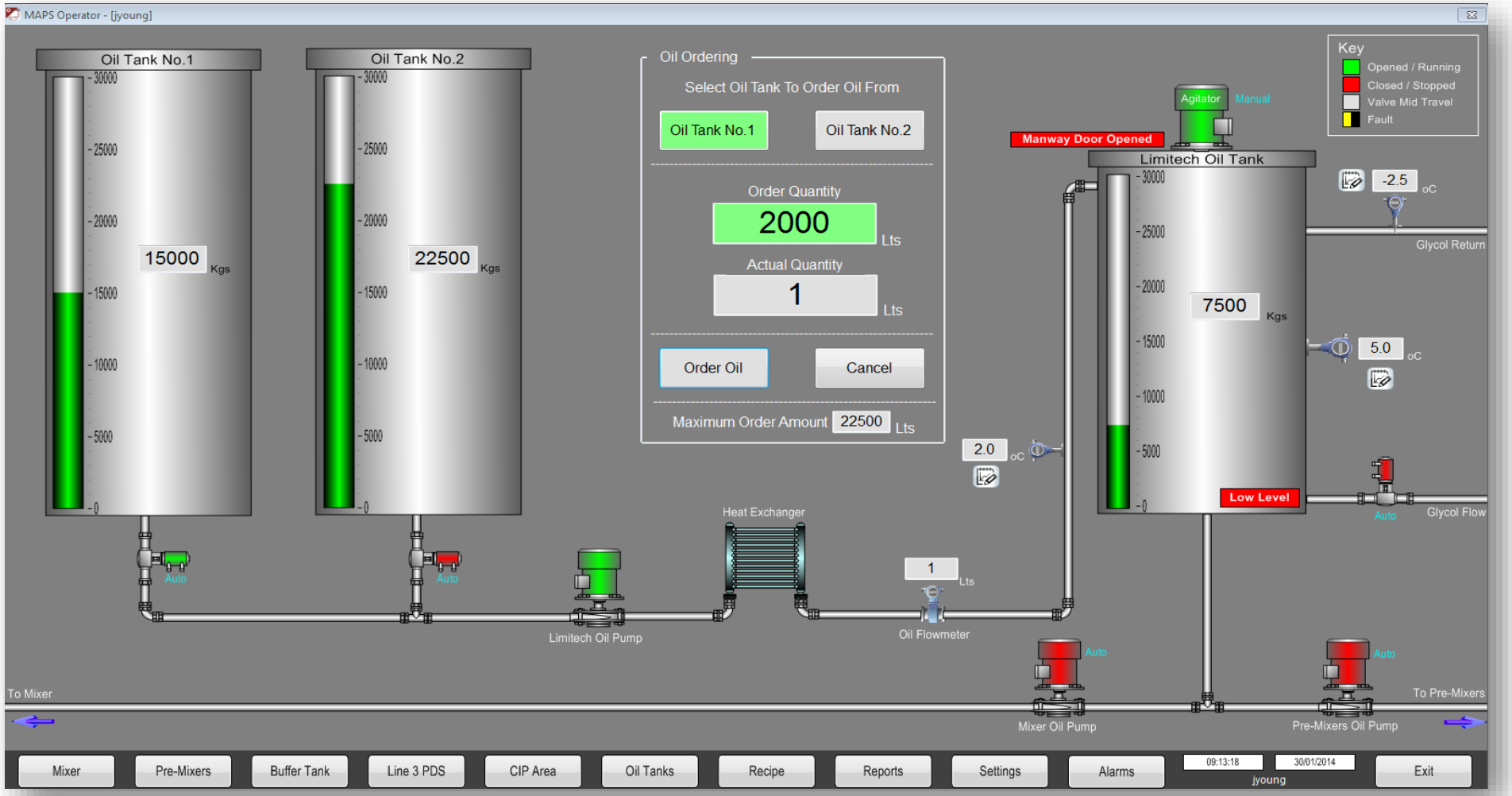


Food Mixing and Batching Plant, Ireland



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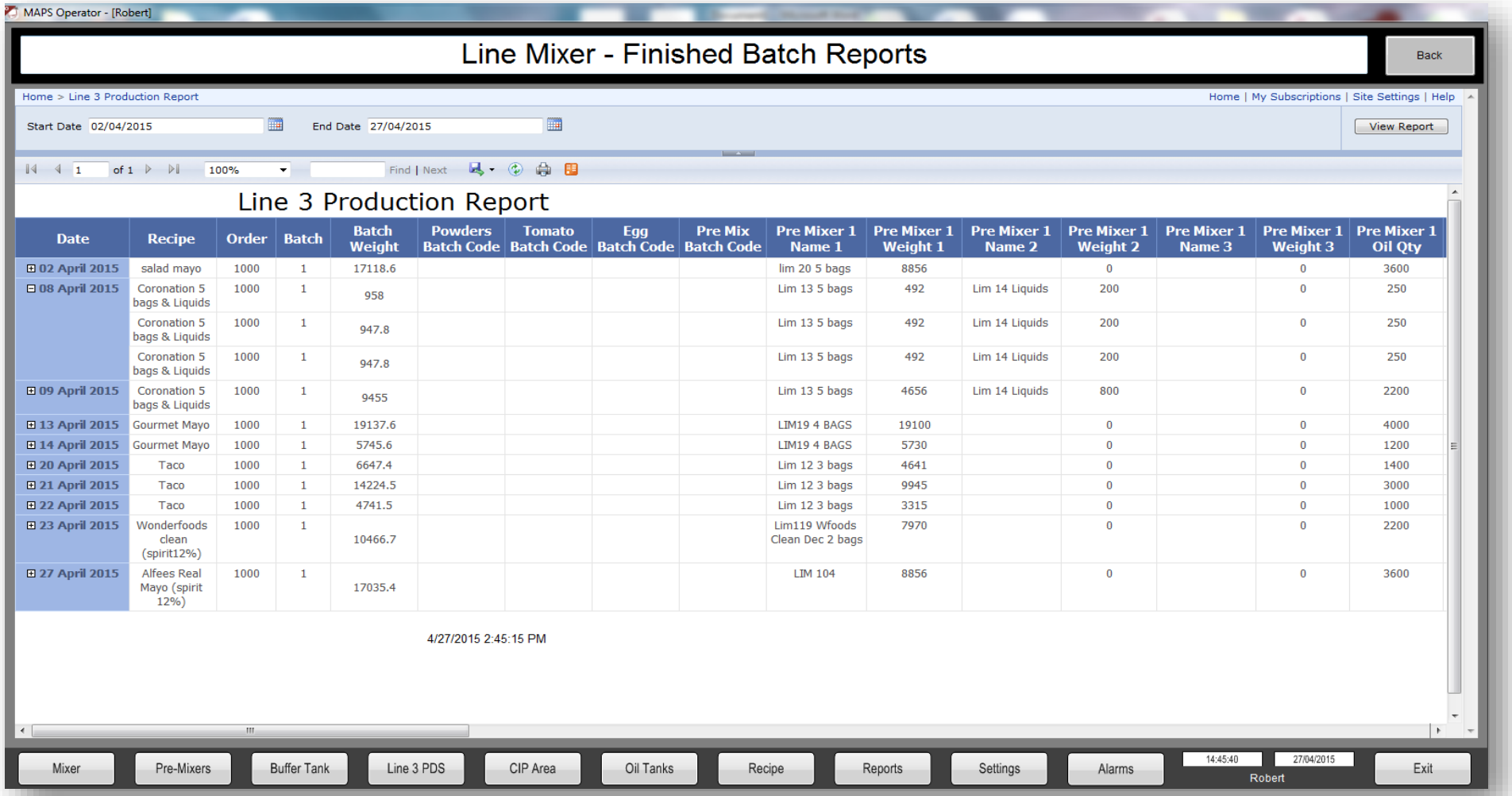

Date	Recipe	Order	Batch	Batch Weight	Powders Batch Code	Tomato Batch Code	Egg Batch Code	Pre Mix Batch Code	Pre Mixer 1 Name 1	Pre Mixer 1 Weight 1	Pre Mixer 1 Name 2	Pre Mixer 1 Weight 2	Pre Mixer 1 Name 3	Pre Mixer 1 Weight 3	Pre Mixer 1 Oil Qty
⊞ 02 April 2015	salad mayo	1000	1	17118.6					lim 20 5 bags	8856		0		0	3600
⊟ 08 April 2015	Coronation 5 bags & Liquids	1000	1	958					Lim 13 5 bags	492	Lim 14 Liquids	200		0	250
	Coronation 5 bags & Liquids	1000	1	947.8					Lim 13 5 bags	492	Lim 14 Liquids	200		0	250
	Coronation 5 bags & Liquids	1000	1	947.8					Lim 13 5 bags	492	Lim 14 Liquids	200		0	250
⊞ 09 April 2015	Coronation 5 bags & Liquids	1000	1	9455					Lim 13 5 bags	4656	Lim 14 Liquids	800		0	2200
⊞ 13 April 2015	Gourmet Mayo	1000	1	19137.6					LIM19 4 BAGS	19100		0		0	4000
⊞ 14 April 2015	Gourmet Mayo	1000	1	5745.6					LIM19 4 BAGS	5730		0		0	1200
⊞ 20 April 2015	Taco	1000	1	6647.4					Lim 12 3 bags	4641		0		0	1400
⊞ 21 April 2015	Taco	1000	1	14224.5					Lim 12 3 bags	9945		0		0	3000
⊞ 22 April 2015	Taco	1000	1	4741.5					Lim 12 3 bags	3315		0		0	1000
⊞ 23 April 2015	Wonderfoods clean (spirit12%)	1000	1	10466.7					Lim119 Wfoods Clean Dec 2 bags	7970		0		0	2200
⊞ 27 April 2015	Alfees Real Mayo (spirit 12%)	1000	1	17035.4					LIM 104	8856		0		0	3600

Bakery - CSM Baldwin, UK

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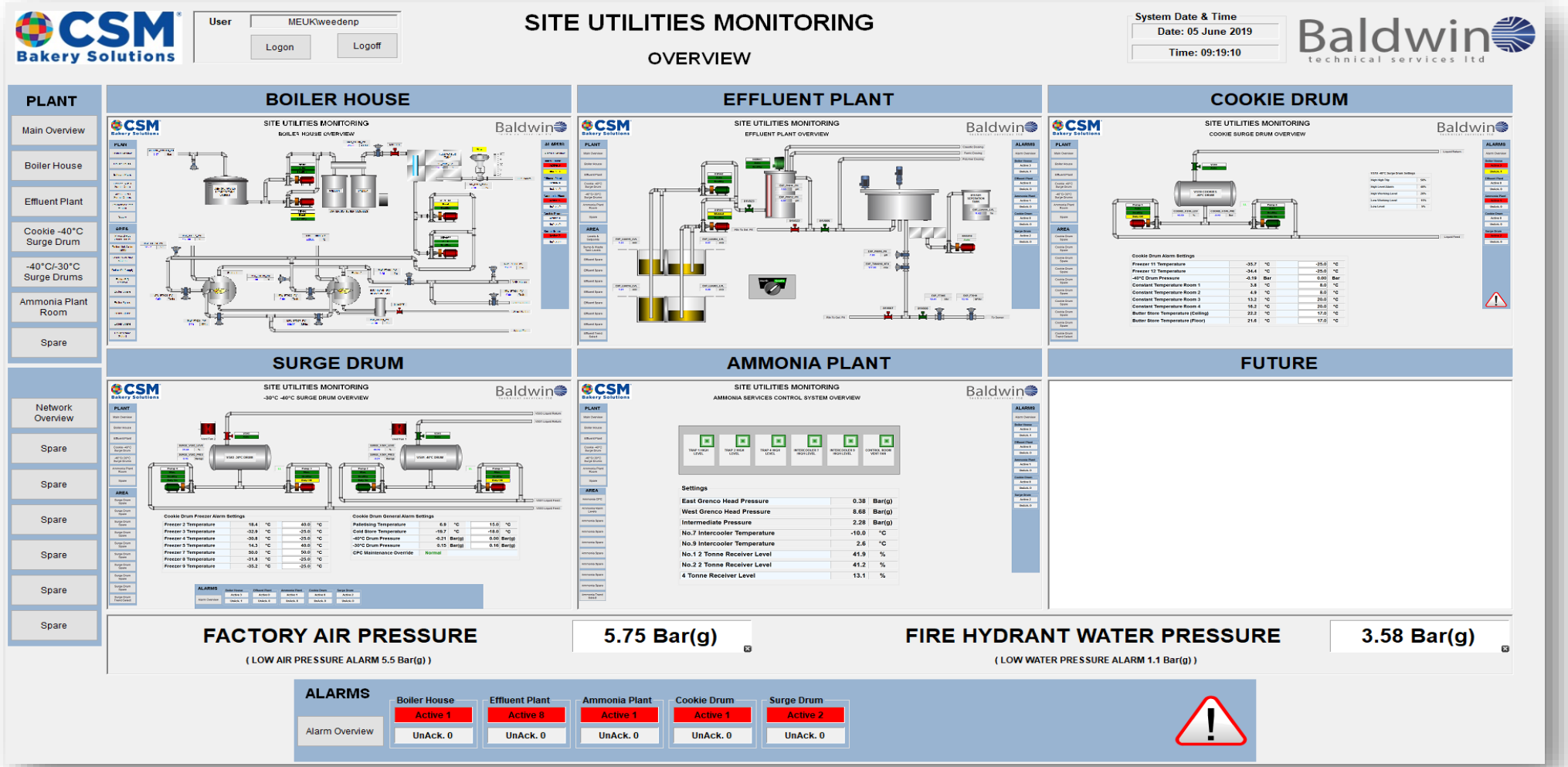
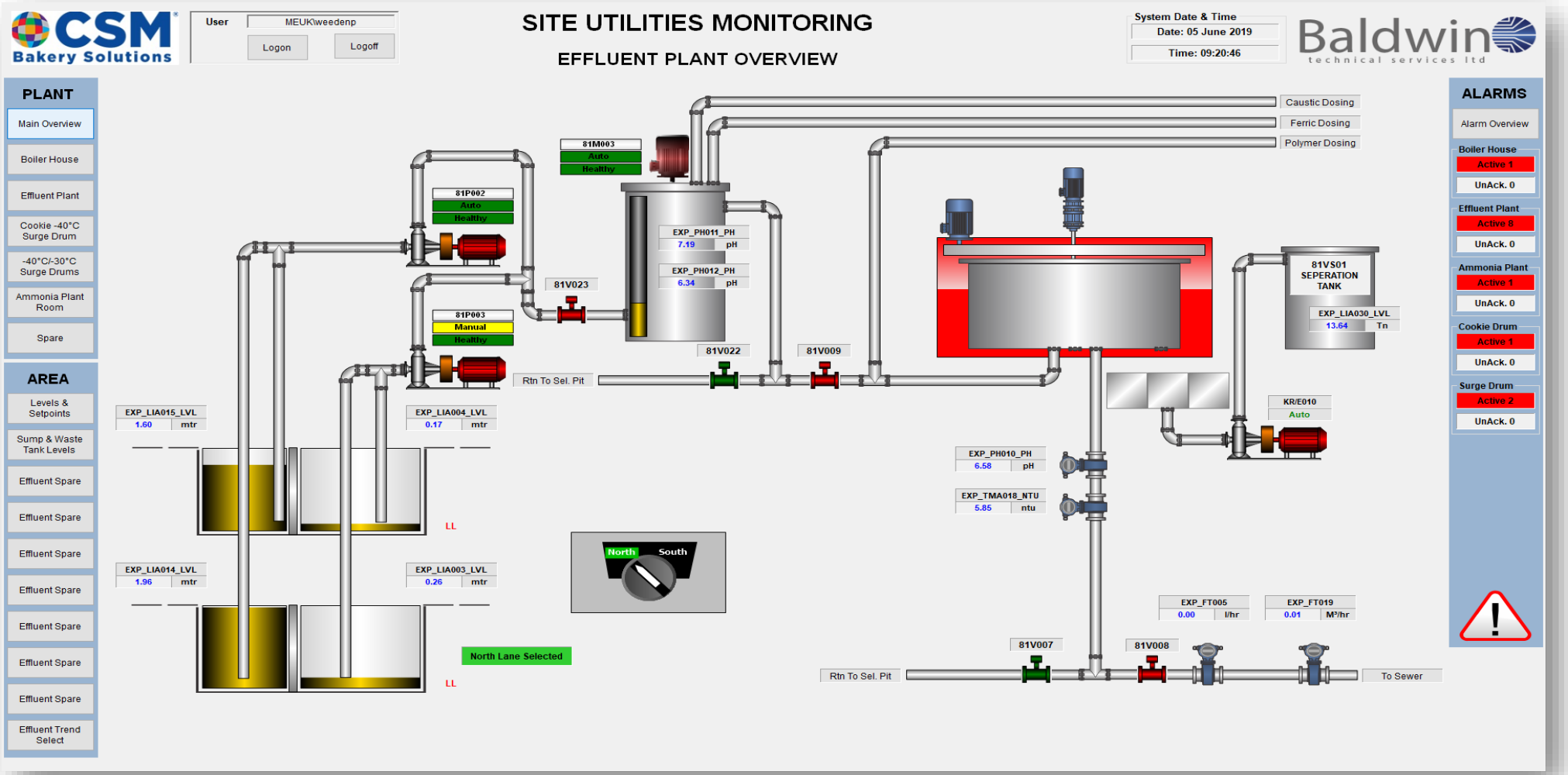


Bakery - CSM Baldwin, UK



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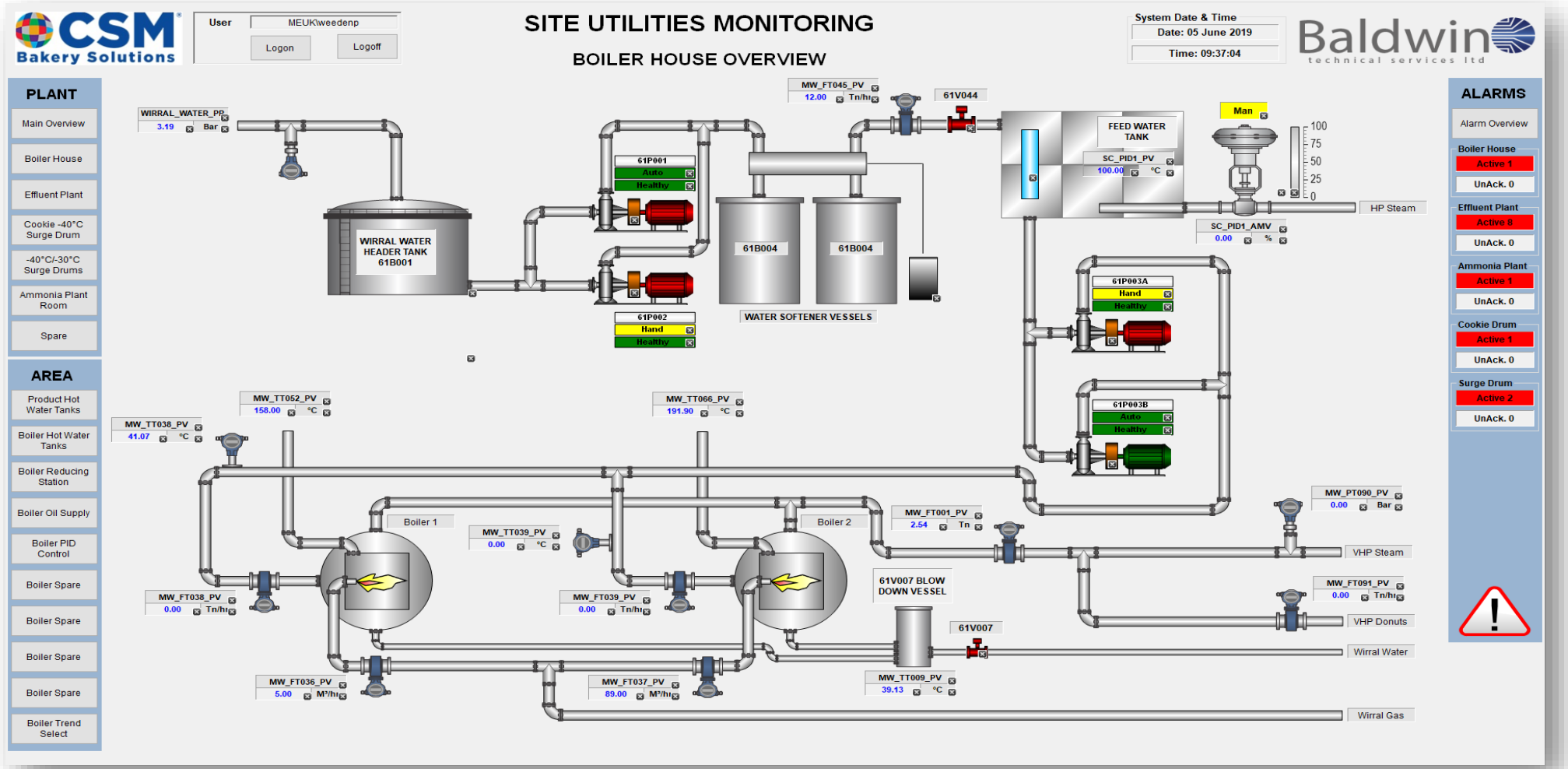
Bakery - CSM Baldwin, UK



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Group Wide **Production Reporting**, South Africa

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Premier

Mill Flour Report

From Date: 6/26/2016 3:00:00 PM To Date: 6/27/2016 3:00:00 PM 2016/06/27 03:27

			Silo 1	Silo 2	Silo 3	Silo 4	Totals
Durban	⊞ 2016-06-26 05:00:00.000	Total	119,387				119,387
	⊞ 2016-06-26 05:00:00.043	Total			22,456		22,456
	⊞ 2016-06-26 06:58:22.667	Total	10,823	41,875			52,697
	⊞ 2016-06-27 05:00:00.000	Total	27,828				27,828
	⊞ 2016-06-27 05:00:00.010	Total			11,268		11,268
	⊞ 2016-06-27 05:00:00.013	Total	17,676	12,556			30,232
	Total		175,714	54,431	33,724		**263,869**
Middelburg	⊞ 2016-06-26 05:00:00.037	Total	24,772	20,644	61,740		107,157
	⊞ 2016-06-27 05:00:00.010	Total	14,777		9,436	15,009	39,222
	Total		39,549	20,644	71,177	15,009	**146,378**
Pretoria	⊞ 2016-06-26 02:00:00.007	Total	672	42,371	59,074	672	102,789
	⊞ 2016-06-27 02:00:00.010	Total	6,709	18,068	33,246		58,023
	Total		7,381	60,439	92,320	672	**160,812**
Vereeniging	⊞ 2016-06-26 05:00:00.060	Total		23,424	11,841		35,265
	⊞ 2016-06-27 05:00:00.043	Total			16,664	305	16,969
	Total			23,424	28,505	305	**52,235**

Report Name: Mill Flour Report
Last ETL Run: 6/27/2016 3:05:32 PM

Premier

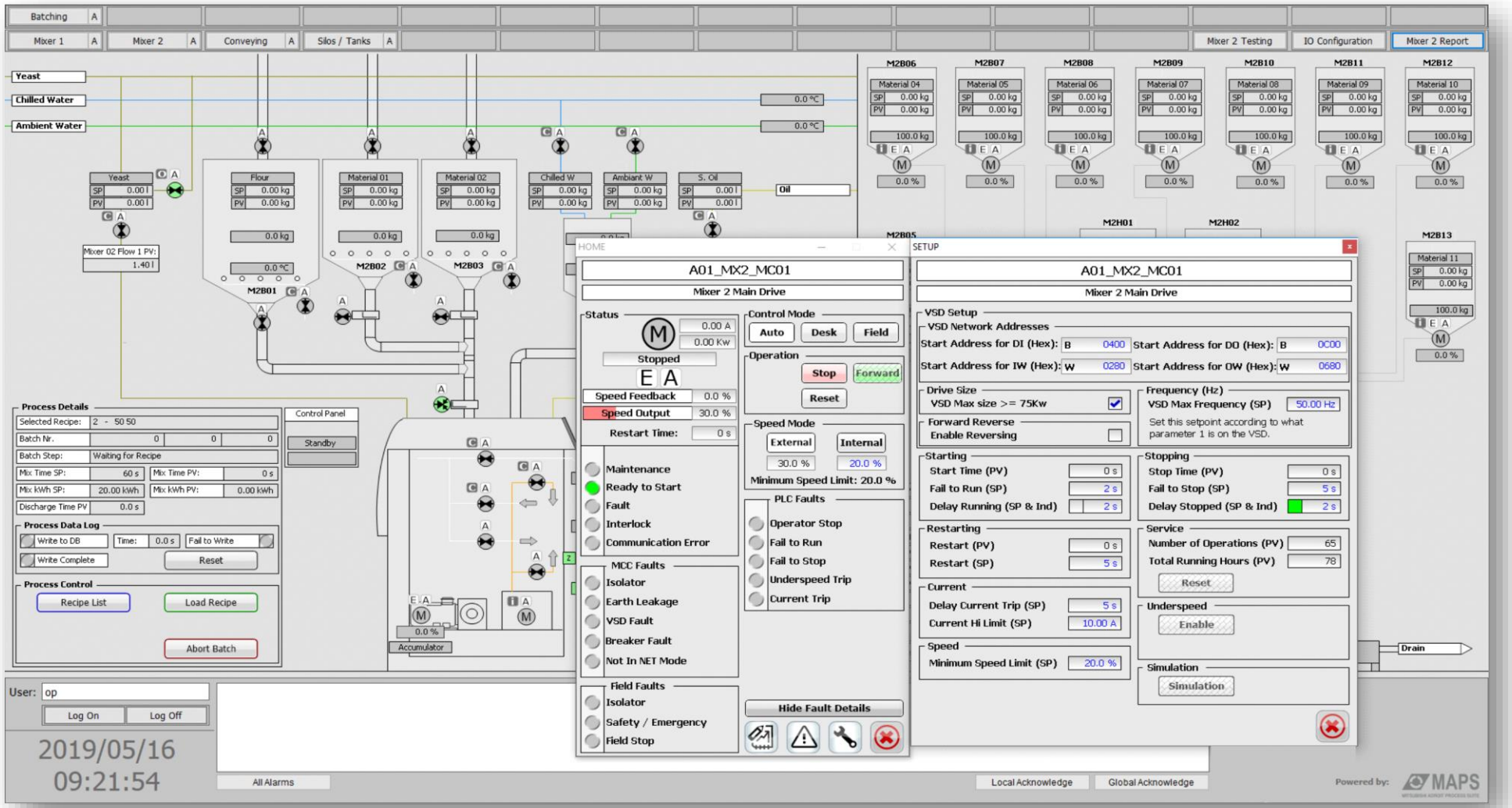
1 of 1

Bakery Mixing System, South Africa

Solution

- Mitsubishi Electric Q-Series local IO
- CC-Link IE Field basic network
- MAPS ver 4.0 approx. 2700 scanned points
- One central point for development and configuration
- MAPS objects and function blocks standardization
  - Standard Tag Naming
  - Redundancy
  - Auditing and Traceability
  - Standardization of faceplates (improved maintenance)
  - Automatically updated IO list

Bakery Mixing System, South Africa



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Bakery Mixing System, South Africa

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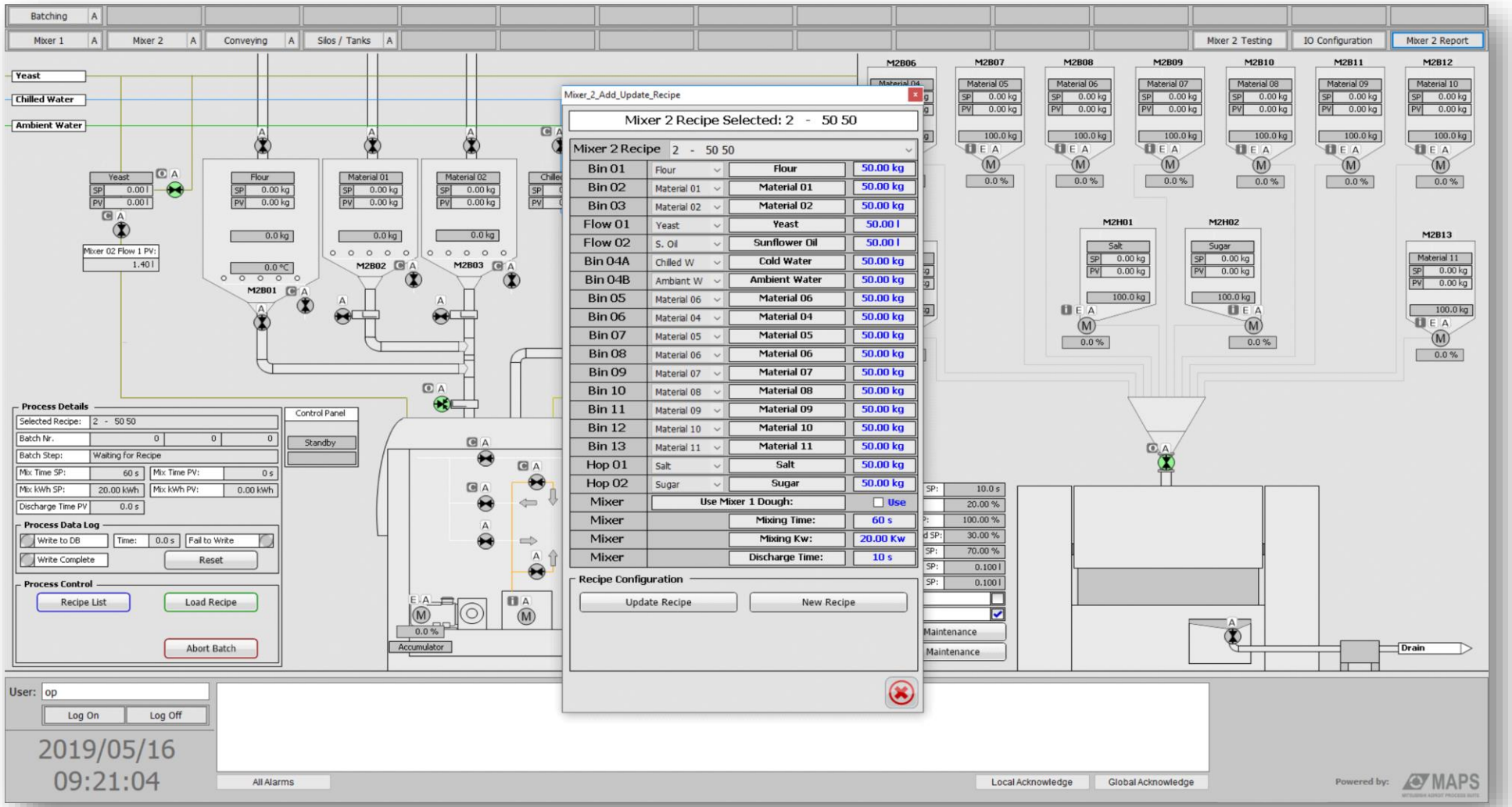
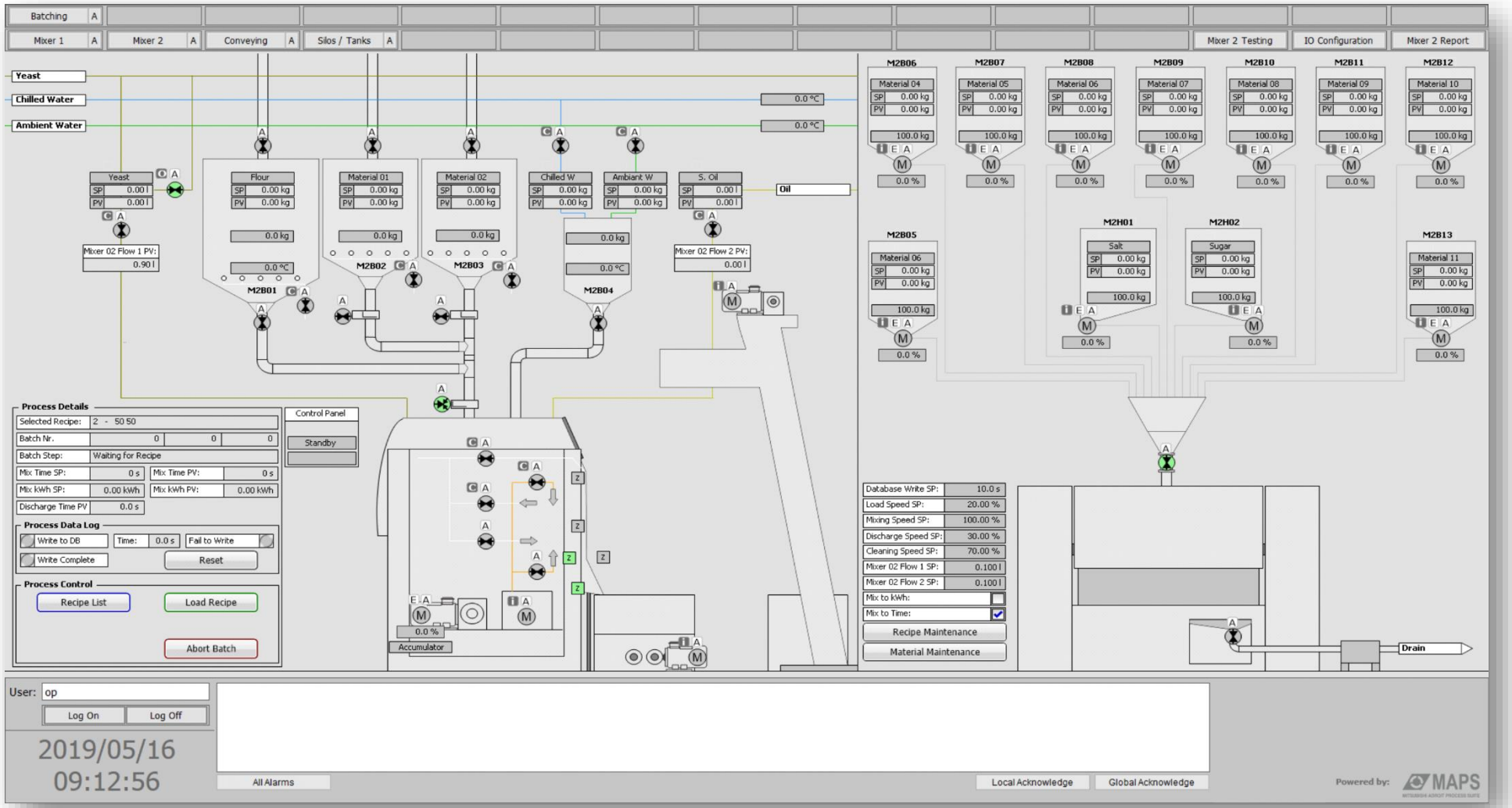


Bakery Mixing System, South Africa



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Bakery Mixing System, South Africa

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