



FOOD AND BEVERAGE CASE STUDY

“As part of its expansion strategy, a leading beverage and healthcare company set up a new greenfield facility to produce its popular summer drink Ruafza. To ensure reliable operations, high product quality, and modern automation standards, the project required a complete instrumentation solution along with a robust Distributed Control System (DCS). Our team successfully executed the end-to-end scope—covering instrumentation supply, erection, commissioning, and the development of customized reporting—enabling the client to achieve smooth plant startup and efficient production management.”



“We empower food & beverage plants with automation solutions that deliver consistency, traceability, and efficiency.”

Our team, M/s Instrumentation & Control Solutions, successfully executed the end-to-end scope instrumentation supply, erection, commissioning, and the development of customized reporting enabling the client to achieve smooth plant startup and efficient production management.

Way Through Challenges

Network and Communication

- Initial ring network planning revealed signal issues during execution.
- To resolve this, ETAP studies were conducted and managed switches were configured.
- Rockwell managed switches were not available at that time, so Cisco switches were arranged and successfully deployed.

Pandemic

- Consecutive lockdowns during COVID caused interruptions in site visits and delayed execution.
 - Varying government guidelines across states complicated planning.
 - Discontinuous transportation created logistical hurdles.
- We overcame these by using remote collaboration, coordinating with authorities, and arranging alternate logistic routes.**

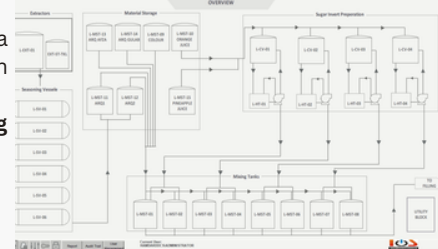
Batch and Report Tracking

- Smooth commissioning of the greenfield facility despite pandemic and seasonal challenges.
- Reliable control and automation across process and utility operations.
- Batch tracking system that ensured product traceability and compliance.
- Customized reporting tools for management and operational decision-making.
- Future-ready communication infrastructure supporting scalability.
- Production involved 4 cooking vessels → 4 holding tanks → 8 mixing tanks → filling stations, making batch tracking complex.
- With the help of VBScript and database integration, batches were tracked across all lines.
- Dropdown selection in DCS ensured no batch was misrouted to the wrong destination.
- After enabling batch tracking in DCS a dedicated database we completed the Report work.

Demand for peak production

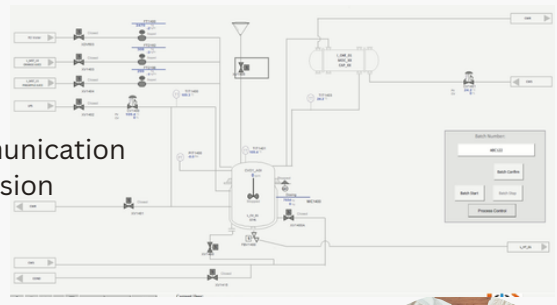
- Commissioning coincided with the client’s peak summer production season.
 - Plant shutdown was not possible, so we adopted a phased commissioning approach, starting production lines on DCS within the minimum possible timeline.
- This allowed the client to continue manufacturing throughout the season without interruptions.**

Batch No.	Address	Operator Name	Start Time
00000001	L-01-01	001	2022-07-10 08:00:00
00000002	L-01-01	001	2022-07-10 08:00:00
00000003	L-01-01	001	2022-07-10 08:00:00
00000004	L-01-01	001	2022-07-10 08:00:00
00000005	L-01-01	001	2022-07-10 08:00:00
00000006	L-01-01	001	2022-07-10 08:00:00
00000007	L-01-01	001	2022-07-10 08:00:00
00000008	L-01-01	001	2022-07-10 08:00:00
00000009	L-01-01	001	2022-07-10 08:00:00
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00000012	L-01-01	001	2022-07-10 08:00:00
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Benefits to Client

- ✓ Improved Efficiency
- ✓ Regulatory Compliance
- ✓ Reduced Downtime
- ✓ Reliable & Secure Communication
- ✓ Scalable for Future Expansion



“Despite the pandemic, lockdowns, and seasonal production pressures, we successfully automated the client’s greenfield plant with DCS, reporting, and batch tracking solutions – ensuring uninterrupted production of Ruafza.”

