A maltings is an area that takes cereal grains and converts them into malt by the automated process of soaking and rousing the grains in water to trigger sprouting in a process called “steeping” where grains are transported in to silos which are then filled with water to cover the grains. Cycle of high-volume low-pressure air is then passed up thought he silo to a deflector at the top. The grains are then carried up with the air pressure and bounce off the deflector pushing them to the sides of the silo, ensuring the water can get maximum coverage of the grains. After this stage is completed the water is drained out and the grains then enter a process called “air rest”. This allows the grains to equalise in moisture content. As the grains can then start to create co2 an extractor system will pull co2 out of the silo to keep the grain alive. The following step is called the “germination” process where the grain sits in heat and gets turned twice a day for four days to develop enzymes important to brewing, then drying it in three stages in the “GKV (germination killing vessel)”. The first stage is “Free drying”, the grains are kept at a low temperature with high air content in the vessel, this removes moisture from the outside of the grain. The second stage is called “Break point”, this stage increases the temperature and reduces air flow to further remove moisture from the grains. The third step is called “Curing”, the temperature is set high with reduced air flow to drive out the moisture inside the grains. The steeping, germination and killing processes can be adjusted to produce the required style of malt. The malt is then past to a brewery for beer and whiskies but also has uses in certain foods. The role of the information systems in the enterprise is used to control which vessel the grain is going into, how much time the grain is to be spent in the steeping process, control of the CO2 levels in the “air rest” process in the steep and the time spent in the kilning process.

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| --- | --- | --- | --- | --- | --- | --- |
|  | What  (Things/Data) | How  (Processes/Function) | Where  (Locations) | Who  (People) | When  (Time) | Why  (Motivation) |
| Scope  (Planner) | List of approved grains, storage and delivery information. This is used to identify and describe important grain, storage and delivery information. Also, to highlight the main components of information used within this business. | List of approved processing, storage and delivery techniques. This is used to identify, describe and regulate processing, storage and delivery processes. Also, as a designation of the fundamental processes shared by this business. | Company owned properties detailing the assets that exist to aid decide where would be the best location for production. | Essential employees and their department functions. This is used to identify the important organisational components of the system. | Identifying customer orders and their expected delivery dates. This is used to identify and describe important delivery events. | Ensuring reliable business profits. Scoping out business boundaries. |
| Business Model  (Business owner) | Sematic description of the malting processes. This is used to define and describe the essential types of information needed for the operation of the business. | Conceptual activity model of the malting processes. This is used to identify and describe important processes, storage and delivery actions. | Structure and relationship between company owned sites. | Production system workflow. This is used to identify and define the role of anybody involved. | Sequence and timelines of production processes. This is used to determine the order and timing of the important processes. | Identifying and understanding business targets and objectives. |
| System Model  (Designer) | Logical data model for system information. This is used to describe the methods used to create a logical data model, or a non-technical description of the data used for production. | Application architecture with function and user views. This is used to describe the software structure within production processes. | Connectivity and distributed system architecture. This is used to describe the communication architecture. | Production system human interface architecture. This can be used to detail the architecture for the interaction of people with the production system. | Production stages and process components. This is used to detail the methods used to describe processes and event sequences. | System functional requirements. |
| Technology Model  (Implementor) | Practical data model for system information. This is used to describe the methods used to create a practical data model, or a non-technical description of the data used for production. | System design, language spec and structure charts. This is used to identify the technical design of the information system with structure, language and communication parts included. | System information network architecture. This is used to detail the technical network architecture of the information system. | Production system human interface description. This is used to represent technical descriptions of the interactions of people with the production system. | Production system control structures. This is used to create a technical design of the information system control and timing structures. | System operational requirements. |
| Detailed Representation  (Subcontractor) | System information metadata. This is used to highlight the physical data, fields and addresses. | Descriptions for component level applications. This is used to describe the scripts for component level applications in the information system. | Physical data network component addresses and communication protocols. This is used to describe the physical network components. | System architecture and operations. This is used to identify the people and their access to specific areas of the production system. | Production process timing descriptions. This is used to highlight the timing descriptions of the components of the production system. | Technical requirements. |
| Functional Areas  (Functioning System) | Functioning machinery, knowledge base. This is used to describe the production information. | User and system documentation. This is used to show that activities of the production. | Operating processes communication network. | System user information. | Production operations schedule. This is used to highlight the schedule of tasks and operations within the production. | Technology operational requirements. |