

Just-In-Time VS. Just-In-Sequence

INSEQUENCE White Paper



What's The Difference Between Just-In-Time and Just-In-Sequence?



Just-In-Time

Someone unfamiliar with advanced supply chain and lean strategies may use Just-In-Time (JIT) and Just-In-Sequence (JIS) interchangeably. While they do have similar characteristics JIT and JIS cater to different manufacturing needs.

Just-In-Time simply refers to delivering parts or materials to manufacturers at or near the time they are needed for assembly. The primary goal of Just-In-Time is to produce goods with minimal waste including time, resources, and materials. Just-In-Time works to reduce inventory quantities or buffer inventory by providing manufacturers with components, and consumers with finished goods right when they need them. As a result, potential errors have greater consequences than traditional methods. Generally, the Just-In-Time strategy is difficult to implement successfully but can result in significant efficiency improvements.

Just-In-Sequence



Just-In-Sequence, also known as *In-Line Vehicle Sequencing (ILVS)* or *Sequential Parts Delivery (SPD)*, takes Just-In-Time strategies one step further by ensuring that parts are delivered at the scheduled time and in the exact order needed for assembly. For example, if an OEM was manufacturing side view mirrors and was planning on assembling these mirrors sequentially, they would communicate their sequenced demand to the supplier via “a data interchange”. The supplier would then prepare loads of parts in sequential order according to the OEM’s demand. These loads are also known as racks, pallets, or containers.

Just-In-Sequence eliminates the time required for the OEM warehouse to pick parts as the parts are already delivered in the exact order they will be assembled. While sequenced loads reduce time to pick items, it adds an additional layer of complexity to the manufacturing process. Communication between OEM and supplier is even more critical when operating with Just-In-Sequence. Suppliers must prepare, as well as ship components in the correct order.

While Just-In-Time is often utilized in production cycles of low complexity, Just-In-Sequence excels in complex production environments because various parts are delivered in the order of assembly. Just-In-Sequence allows for much more flexibility than Just-In-Time and traditional manufacturing methods. JIS allows manufactures to execute mix modeled manufacturing.

With mixed modeled manufacturing, different product models can be produced on the same assembly line. As a result, Just-In-Sequence manufacturing techniques are most commonly found within the automotive industry.

The specificity and complexity of Just-In-Sequence make it critical to have flexible and reliable software in place. One “out of sequence” part will disrupt the entire production sequence. If the mistake is not caught in time, all subsequent products will have the wrong component installed. When implementing Just-In-Sequence solutions, it helps to have experts that are very familiar with automotive sequencing and have implemented JIS successfully. Insequence makes it easy to sequence all types of parts with its Just-In-Sequence, Sequential Part Delivery Software which is highly customizable and able to handle the sequencing process from start to finish. No project is too large or complex for its proprietary SPD Pro Delivery system, implemented by suppliers around the world.

Insequence Corporation

Insequence is a leading provider of sequencing and manufacturing software solutions. Easily tailored to individual facilities, our software's modular design can fulfill requirements no matter the size or complexity of the system. This results in a standard sequencing system, SPD Pro that is more complete and capable than any other solution. In addition to just-in-sequence (JIS), Insequence provides MES, Inventory Management, and SCADA solutions.

With experience throughout the Americas and Europe, plus over 20 standard automotive OEM interfaces and 24 x 7 x 365 customer support, Insequence is at the forefront of supply chain software solution providers. As a result, we still work with our original customer from 1996.



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