

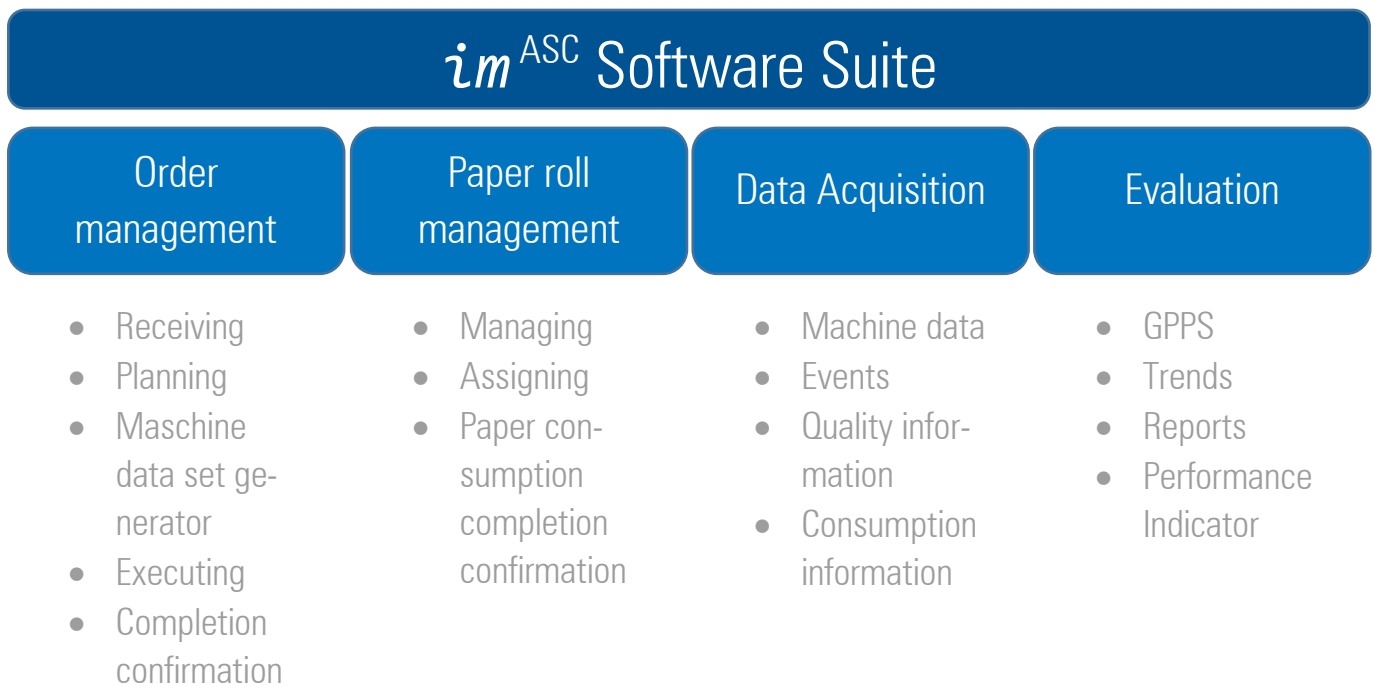
im^{ASC} Software Suite

Brief Product Description

General description of *im*^{ASC} Software Suite

im^{ASC} is a process control system, which offers insights in all production outputs, downtimes, material- and energy consumption of impregnation process by comparing setpoint and actual value. Thereby, Key-Performance Indicators (KPI's) can be determined, and exact product flows, such as the quality values, can be indicated. Thus, the fulfilling of corporate goals can already be shown during the production process.

The following figure demonstrates the composition of the software system including all available modules:



Working process with *im*^{ASC}

The working process with *im*^{ASC} is structured as the following: *im*^{ASC} receives a complete production process with appropriate order lists from the ERP System. In the following step a detailed planning of the order lists for the production can be conducted in *im*^{ASC}. Thereafter, the order, which should be produced, is sent to the production line. The current production can be supervised in *im*^{ASC} with the aid of several tools such as "Performance Indicator" (optimal production speed), "Trend ASC" (Trending of important process parameters for early problem detection), and Event- or Performance Acquisition. All downtimes and performance losses must be explained in *im*^{ASC}. Production outcomes can be analyzed by reporting and diverse analytic tools. Production outcomes, as well as consumption and material information, will be shown as end signal in *im*^{ASC}. Thanks to the insights of the analyzed data in *im*^{ASC} the production will be optimized sustainably.

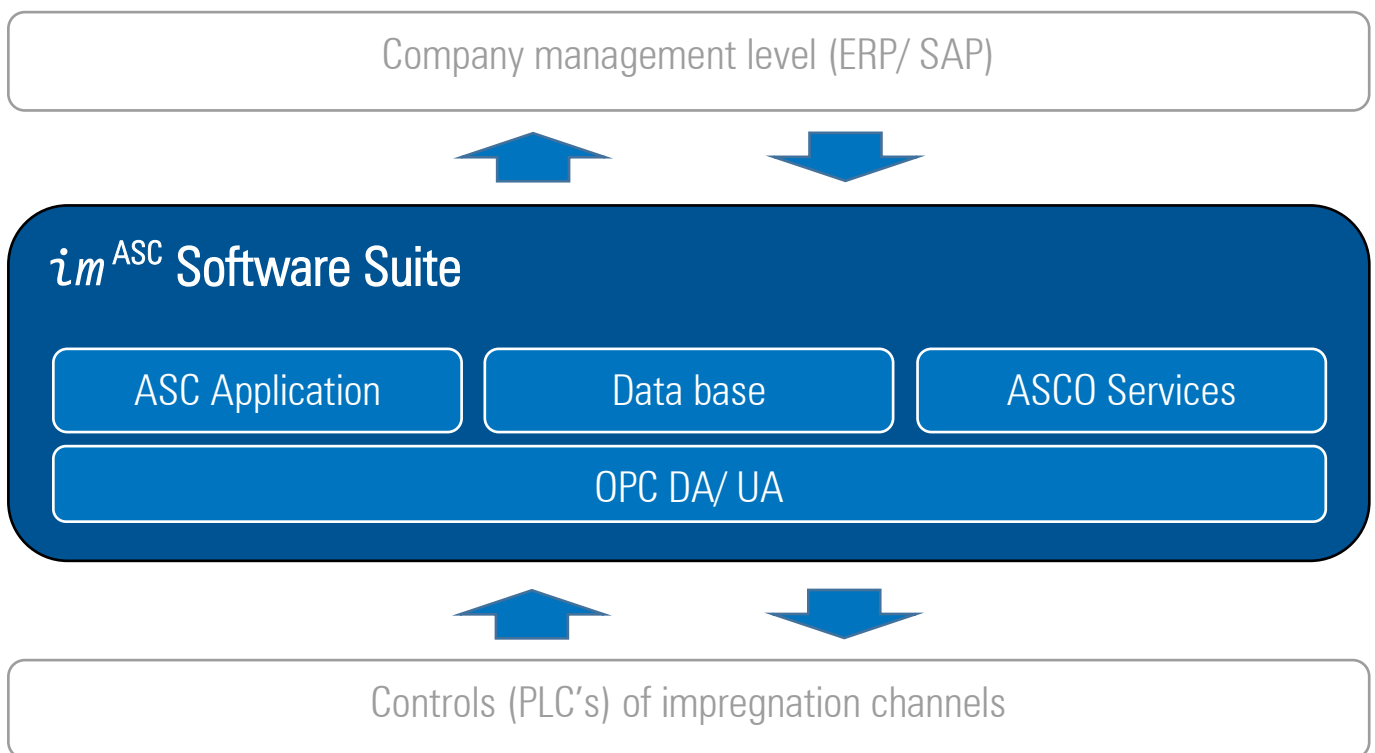
Software and Hardware of the *im*^{ASC} Software Suite

Software package

im^{ASC} is a software package that can be divided into four parts:

1. OPC DA/UA Server to connecting PLC's
2. Data base to manage and save all information
3. ASCO Services (Data, Logic, Print)
4. ASC / ASCO Application represents the user interface, where user interact with the system

im^{ASC} is classified in the software environment of production between the supervising Enterprise Resource Planning and the machine level.



Recommended Hardware

We recommend for our software package *im*^{ASC} the use of Windows terminal server 2016, whereby the hardware and installation effort can be reduced. In most cases, customers used virtual server in extern data center, which brings further advantages of maintenance and actualizations. The interface to the process is carried out by a TANI-OPC-Server. They can be designed in redundancy and are executed as OPC-UA-Server in such a way as to make the access of several clients possible without any difficulties.

Installation and Maintenance

The installation will be carried out during the implementation, because the program will be configured individually according to existing conditions. For installations, support and software updates we need Remote-Access.