Stoll Production Planning System V2.1

Core requirements

- Before the installation , the customer must sign the EULA
- Powerful Server or Workstation PC made for 24/7 usage,
  Windows Server (2016 R2) **2019 64 Bit** as **member server**,
  (by less than 30 machines optional **Windows 10 64 Bit** [Professional with **English user interface**, **Ultimate**, or **Enterprise with English language pack**]) ,
  Windows operating systems which are not based on Windows 10, may be usable but are not supported,
  any virtual machine or virtualization may not be used, because they cause in general problems,
  8 Core **Xeon** E5 v3 CPU (e.g. **Xeon E5-1660 v3** 3.00 GHz) or better,
  System and data hard drive, **2 SSD (>=250GB)**,
  In addition: **ECC** RAM (RAM with Extended Correction Code)
  - **Up to 500** managed machines
    RAM 16GB DDR3-1600 or better
    At least **2 SSD** hard drives (**>=500GB**) (e.g. Samsung 850 Pro 512GB MZ-7KE512BW for professional use and with 10-year Limited Warranty)
  - **Up to 750** managed machines
    RAM 32GB DDR4-2133 or better
    At least **2 SSD** hard drives (**>=1TB**) power class Samsung 950 Pro NVMe M.2 **PCIe 3.0** or Intel 750 NVMe **PCIe 3.0**
  - **Up to 1000** managed machines
    RAM 32GB DDR4-2133 or better
    At least **2 SSD** hard drives (**>=1TB**) power class Samsung 950 Pro NVMe M.2 **PCIe 3.0** or Intel 750 NVMe **PCIe 3.0**
    Raid 0, **5** or **10** with advantage, Postgres DB can be installed on one SSD drive

- In case file sharing on the PPS Server is to be used e.g. for pattern, logfiles, MC updates accessed by more than 30 machines, **Windows Server 2019** is recommended. Other options to overcome the access limitations of a standard Windows OS:
  - Use of a FTP Server for file access like the PPS build in FTP Server
  - Or you use another FTP Server
  - Or you use another fileserver without these limitations and reference it in PPS.

- The operating system must be freshly installed on an empty drive and all updates of the operating system must be installed
- English version or **English language** pack of **windows** must be **installed**
- For backup purposes USB 3.0 and external drive (1-2TByte) or network share must be available to store the database backups.
- DirectX 9 graphics device with WDDM 1.0 or higher and 2 or more monitor ports
- The machine must be networked via **1 GBit** network <u>LAN</u> (not per Wifi) and the PC on which the PPS is running must have access to the machines.
- For easy installation, UDP messages on Port 7103 may not be blocked. If PPS and machines are using different network segments, this UDP is needed also across all segments.

- The client browser must be HTML5 capable (at least IE11 or Chrome V> = 50)
- Orders can be created manually at the PPS and automatically with ERP system or middleware in XML files, for which the customer must program his own software.
- For an effective and economic way of support, the customer **must** provide the technical requirements for **TeamViewer access** to the PPS. This requires **internet access** at the **PPS** server.
- On the CMS an up-to-date PPS capable SW and the EVP (extended value package) must be installed. The test EVP will expire as agreed and new EVP must be installed.
- Presumably the PPS is installed for a local user generated by PPS installer. If a known network or local user should be used, the login information must be available before installation
- CMS require network sharing on drives to access pattern and files. Customers need to organize the network file sharing.

Optional requirements
- PC with Excel 2007 installed with access to the PPS server DB (not blocked by the firewall). Excel can also install on the PPS server itself.
- Printer must be available that is installed locally on the server PPS.
- If tablets or Smartphone's will be used a WLAN is required. Display resolution should be at least 1200x800 pixels. Full HD is recommended.
- To use the alarm system an E-mail server must be available and / or an E-Mail to SMS Service Provider
- If the customer wants to use the functionality Sykpe, he must have Skype installed on the clients (PCs, tablets and smart phones)
- If the customer wants external PPS access, VPN connection is required to its network
- A topography figure of the PPS system is attached for better understanding
- To improve the PPS safety an uninterruptible power supply should be provided
- On local installation by Stoll employee, guest access to the internet must be made available
- For the training, the stuff to be introduced must be relieved from the day-to-day business and it should be a quiet room with network access and where appropriate a beamer available.

Minimum requirements for PPS testing with a maximum of 20 machines
Deviating from the above, an existing PC can be used for PPS testing. Please consider, however, if you have to purchase this equipment and decide to use the PPS later, you must purchase another PC with the above requirements and have to carry out the installation again.
Minimum requirements:
- Desktop PC with processor of the performance class Intel Core i7-4790K
- Windows 7 Professional 64 bit with **English language interface**
- 8-12 GB RAM
- 2 x SSDs á 256 GB
- 100 MBit LAN

knitFTP:21
VNC:5900

Access from PPS and SKR via knitFTP

Access from MC to pattern or other files via network share or PPS FTP. Factory documents to support operators, can be hostet on SNS or Jboss Server and made available in ticket view.

Printers for routing slips near machines

OKC/EBO Machines register themself at SNS

Apache

PostgreSQL

Live backup of PostgreSQL DB

e.g. HD at USB 3.0

SNS-Service + Database

SKR Machine Event DB

PPS DB

SNS
http:80
Rewrite to PPS Port 8080

Stored Procedure

TCP: 5432

Client browsers inside factory HTML5

email   sms

SMTP: E-Mail to SMS provider for alarm

STOLL Service

Stoll Service per TeamViewer

WIFI   Wired Network

Excel Report

Default Printer

E-Mail Server for alarms

VPN

Client outside factory

PPS

JBoss
by Red Hat

FTP:21
(more ~ 50 MCs)

http:8080
UDP:7103

skype

TeamViewer
For Stoll service

GUACAMOLE
VNC gateway

WK<html>TOpdf
Routing slips printing support

BIRT
Report Designer

Shared network drive for ERP and machines less ~50MCs

ERP
resource process enterprise project system planning software changes