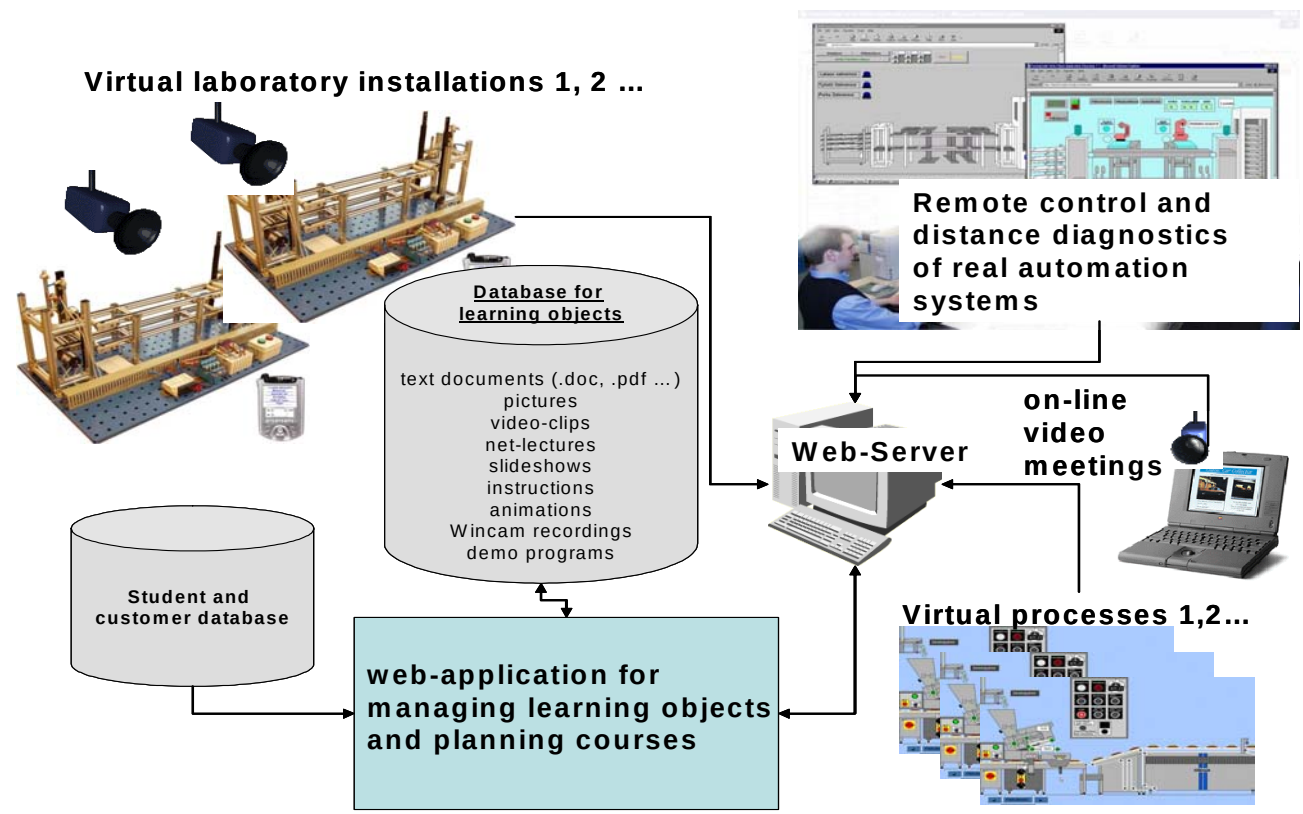
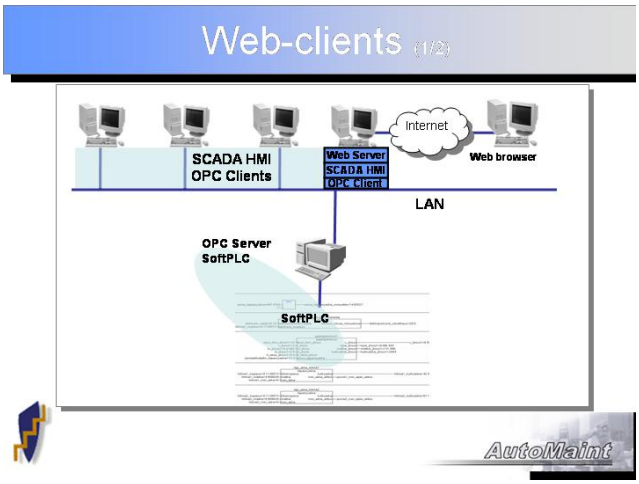
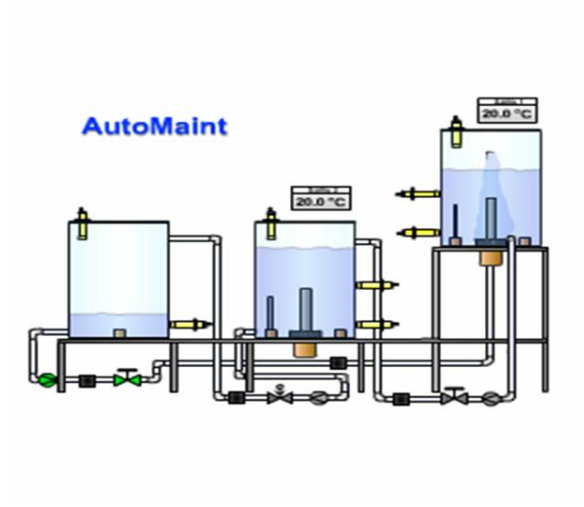
Virtual models in the PBL of production automation

- *With different models we can improve student's motivation and orientation.*
- *With models students can also make experiments which are based on their theoretical knowledge.*
- *students can also evaluate and control their learning process.*
- *Usually the main purpose for using virtual models in training of production automation is to improve student's motivation, orientation and understanding.*



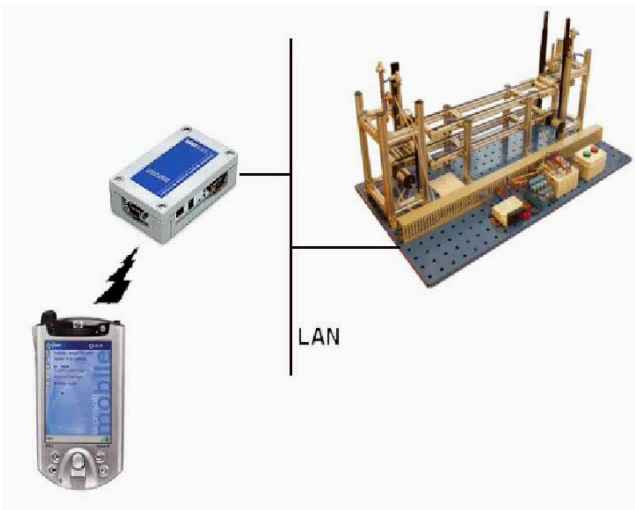
Virtualprocesses

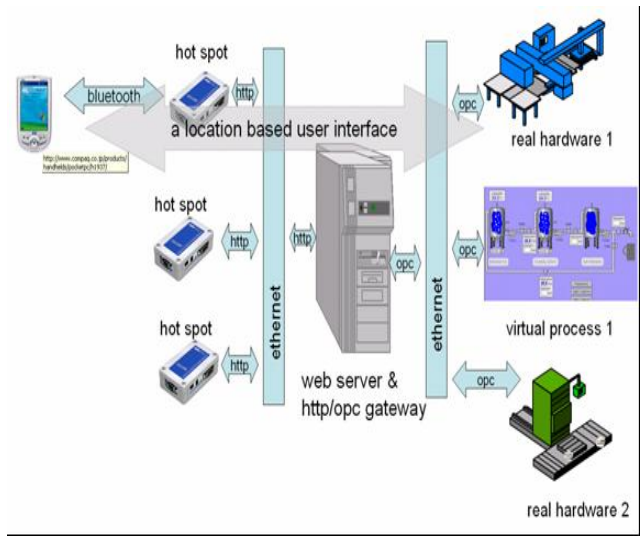




- *Web-based interactive exercises*
- *e-learning environments for PLC-programming*
- *In virtual processes there is no real process; the model of process is running in our server and it can be controlled via web.*
- *Simple (but mayby in-teractive) Flash 2D-animations can be used especially in practice instructions.*

On-line laboratories





- *In virtual laboratory applications a student can control real laboratory equipment via web by using remote control methods.*
- *With virtual laboratory installations we could improve students ability to continue with more independent practices with real automation systems.*