INTRODUCTION TO THE SIMATIC MANAGER

- The four phases for creating an automation solution
- Runtime environment of the SIMATIC Manager
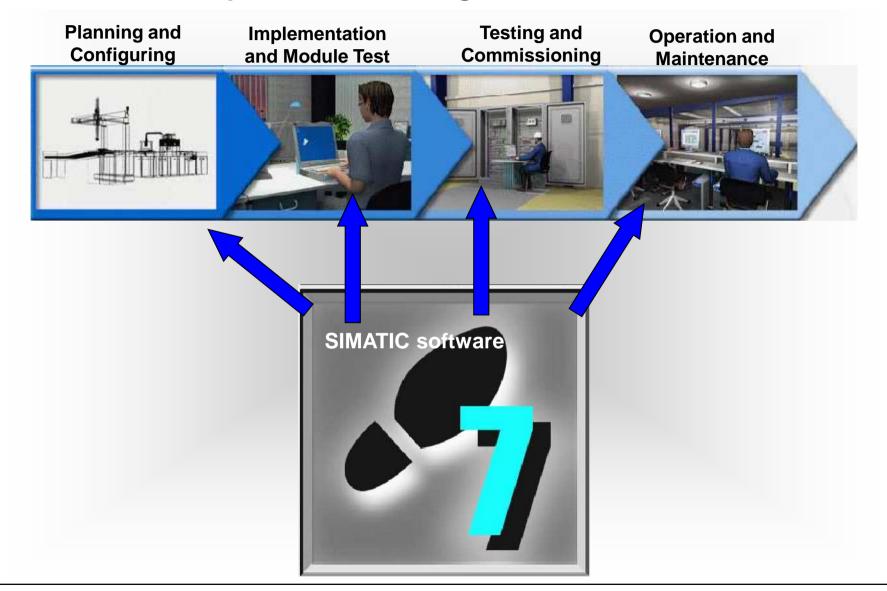- Integrated tools in STEP 7 Professional

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SIMATIC MANAGER

The four phases for creating an automation solution

| Planning and Configuring | Implementation and Module Test | Testing and Commissioning | Operation and Maintenance |

SIMATIC software

Runtime environment of the SIMATIC Manager

SIMATIC software

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SIMATIC MANAGER

Integrated tools in STEP 7 Professional

Block diagram of the SIMATIC Manager

- ❑ **Tasks of the SIMATIC Manager**
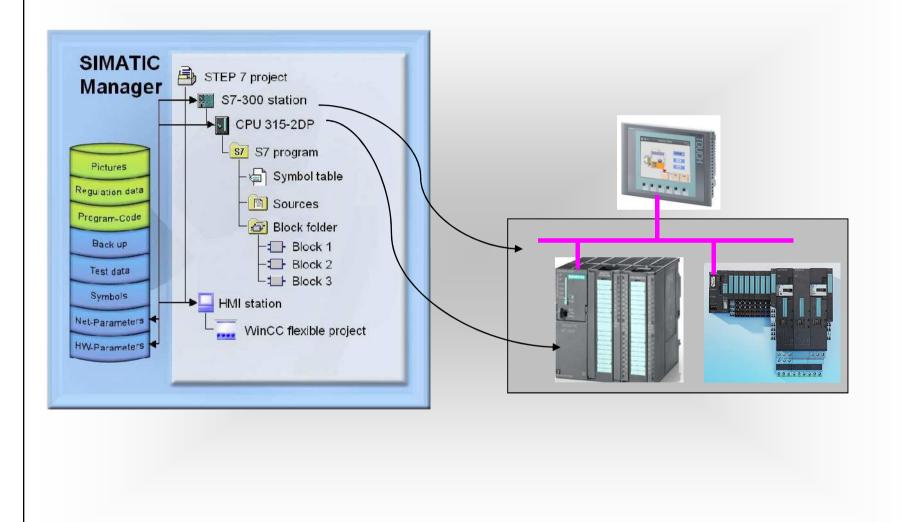- ❑ **Project structure of an automation plant in the SIMATIC Manager**

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Tasks of the SIMATIC Manager

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SIMATIC MANAGER

Project structure of an automation plant in the SIMATIC Manager

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SIMATIC MANAGER

Demonstration of a typical project creation with the SIMATIC Manager

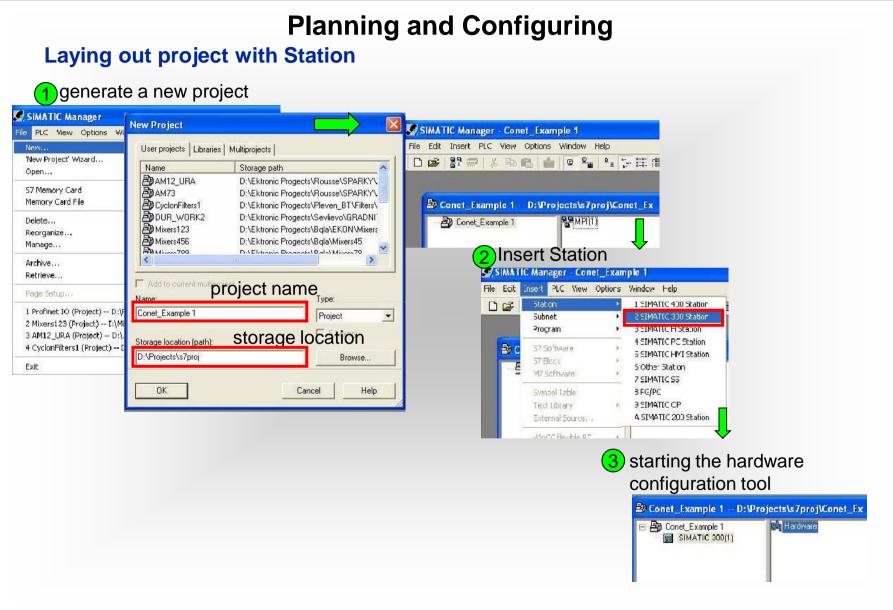| Planning and Configuring	Implementation and Module Test	Testing and Commissioning	Operation and Maintenance

- Laying out project with station
- Configuring hardware
- Projecting connection

- Create the symbols
- Develop the control program
- Program test module by module
- Configure the visualization

- Loading program
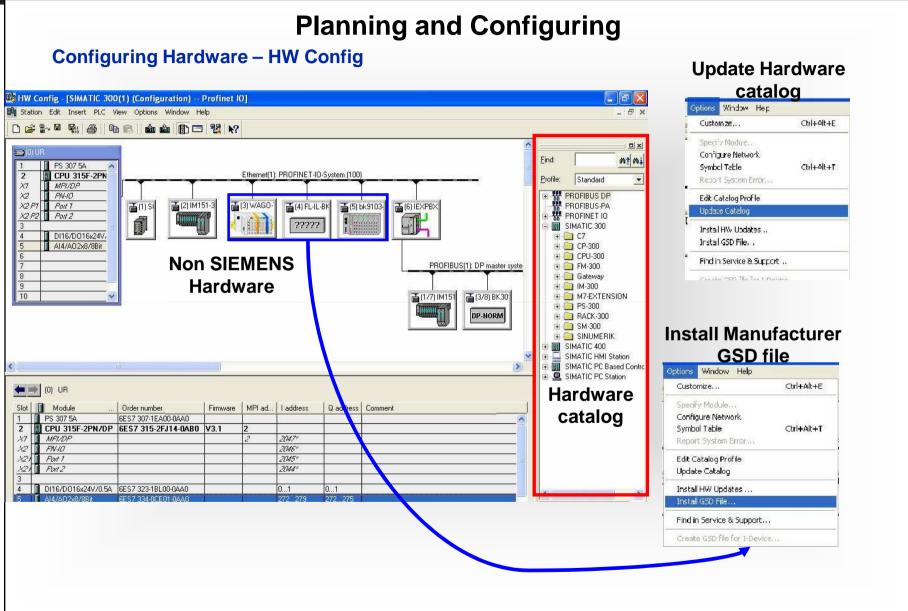- Test in the regular operation
- Archiving and backup

- Teleservice

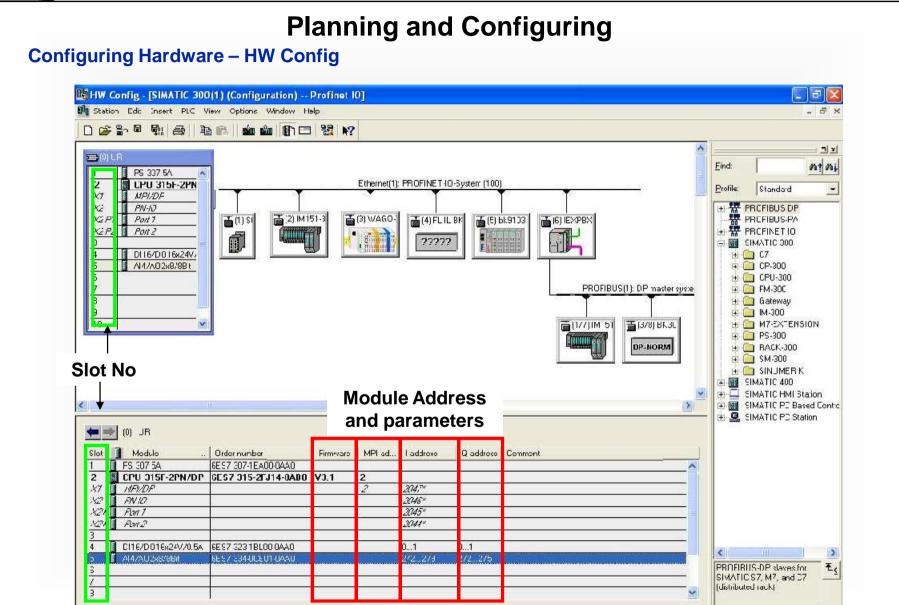*University of Ruse*

SIMATIC MANAGER

Planning and Configuring

Laying out project with Station

① generate a new project

② Insert Station

③ starting the hardware configuration tool

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SIMATIC MANAGER

Planning and Configuring

Configuring Hardware – HW Config

Update Hardware catalog

Non SIEMENS Hardware

Hardware catalog

Install Manufacturer GSD file

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SIMATIC MANAGER

Planning and Configuring

Configuring Hardware – HW Config

Slot No

Module Address and parameters

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Planning and Configuring

Configuring Hardware – HW Config

Manual tuning

Negative result of the check

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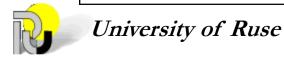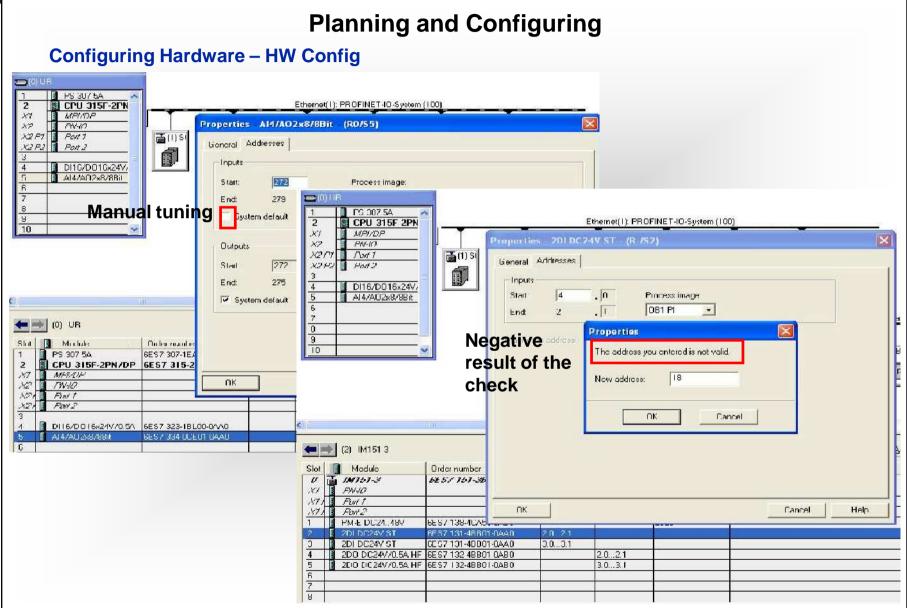**SIMATIC MANAGER**

Planning and Configuring

Configure network

Implementation and Module Test

Create the symbols

	Status	Symbol △	Address		Data type		Comment
1		EMER_STOP_off	I	0.0	BOOL		The complete plant stops.
2		1-color code	IB	2	BYTE		seect color coce
3		1-cycle	QW	1	WORD		
4		1-DB-Glob-Laser MS	DB	2	DB	2	Memory Laser Data Line 1
5		1-DB-Glob-Quality In	DB	12	DB	12	Memory Quality Data Line 1
6		1-DB FB-Laser MS	DB	1	FB	1	Instanz Data Block of FB1 (1-FB1-Laser Marking Sys)
7		1-DB FB-Palletizer	DB	21	FB	21	Instanz Data Block of FB21 ('-FC-Palletizer)
8		1-DB FB-Quality Inspect	DB	11	FB	11	Instanz Data Block of FB11 ('-FB-Quality Inspection)
9		1-DB FB1-Conveyor	DB	31	FB	31	Instanz Data Block of FB31 ('-FB1-Conveyor)
10		1-DB FB2-Conveyor	DB	32	FB	32	Instanz Data Block of FB 32 (1-FB2-Conveyor)
11		1-FB-Palletizer	FB	21	FB	21	
12		1-FB-Quality Inspection	FB	11	FB	11	
13		1-FB1-Conveyor	FB	31	FB	31	
14		1-FB1-Laser Marking ...	FB	1	FB	1	
15		1-FB2-Conveyor	FB	32	FB	32	
16		1-FB2-Laser Marking ...	FB	2	FB	2	
17		1-FC-Laser Markng S...	FC	1	FC	1	
18		1-FC-Marking Line 1	FC	0	FC	0	
19		1-FC-Quality Inspection	FC	11	FC	11	
20		1-FC1-Conveyor	FC	31	FC	31	
21		1-FC1-Palletizer	FC	21	FC	21	
22		1-Light barrier	I	0.3	BOOL		Lichtbarrier Line1
23		1-material temperature	MD	14	DWORD		
24		1-Product number	MD	10	DWORD		
25		1-Start	I	0.1	BOOL		Start Line 1

Press F1 to get Help.
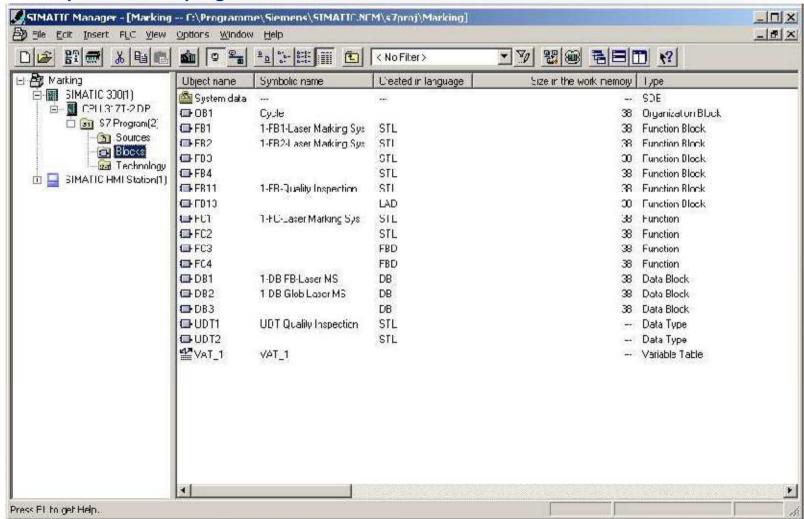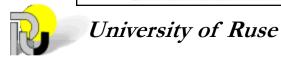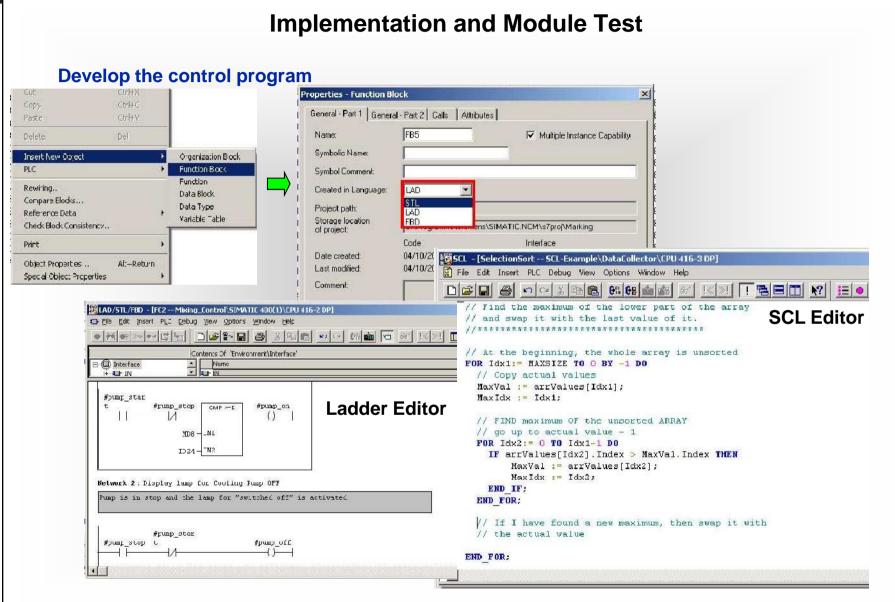
Implementation and Module Test

Develop the control program

Implementation and Module Test

Develop the control program

SCL Editor

Ladder Editor

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SIMATIC MANAGER

Implementation and Module Test

Program test module by module – S7 PLCSIM

PLCSIM
Start Button

Implementation and Module Test

Configure the visualization – WinCC Flexible

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Testing and Commissioning

Loading program

Program Download Start Button

Program Download

Show program Online

Testing and Commissioning

Test in the regular operation

Monitoring and control of variables

Forcing of variables

Program status

Single-step mode with stop points

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Testing and Commissioning

Archiving and backup

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Operation and Maintenance

Teleservice

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SIMATIC MANAGER
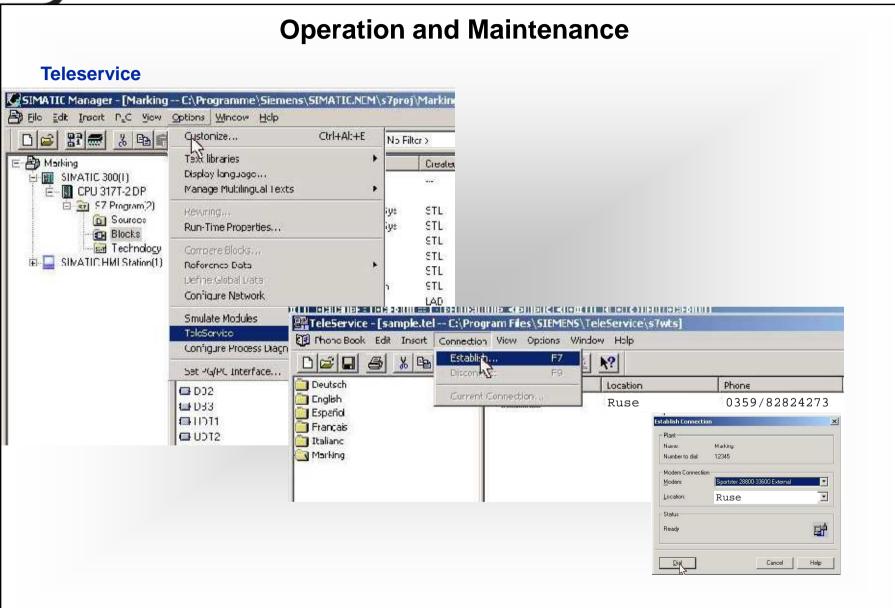
Literature

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2. **SIMATIC Configuring Hardware and Communication Connections with STEP 7, Manual, A5E00706939-01, SIEMENS Edition 03/2006.**