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# ECONOMIC AND SOCIAL COUNCIL

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#### **Economic and Social Commission for Western Asia**

Expert Group Meeting on Project Planning and Management in Research and Development and Quality Assurance Beirut, 21-23 September 1999

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Y2K PROJECT MANAGEMENT (POWERPOINT PRESENTATION)

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# United Nations Economic and Social Commission for Western Asia

Y2K Project Management

- What We Have Learned

#### Frank R. Parth



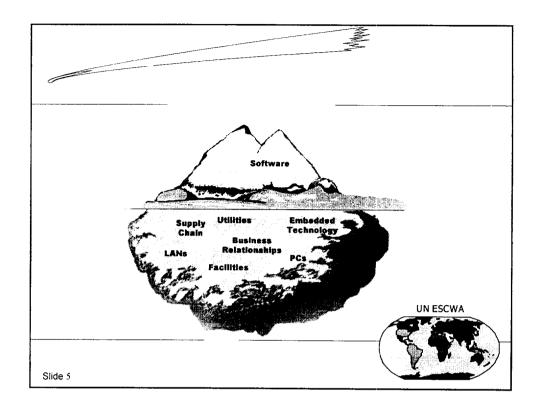
Expert Group Meeting on Project Planning and Management in R & D and Quality Institutions

Sept. 21-24, 1999

### **Topics**

- Problem Basics
  - Software & Hardware
- Impact of Problem
  - Technical Impact
  - Business Impact
- Y2K Project Management
  - Unique Problems of Y2K
  - How We Attacked It
  - Lessons Learned

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# Impact - Technical

#### • Software

- Early versions of operating systems will roll back to either 1900 or 1980 after Dec. 31, 1999.
  - Some, such as Windows NT, need to be current <u>and</u> to run on compliant hardware
- Many early versions of applications could not process dates if they were after 2000
  - Most current versions can, but there are many areas to be careful of.



### Impact - Technical

- Networks
  - Servers and routers
  - External interfaces
  - Connected PCs
- Communications
  - Telephones
  - Voice mail
  - EDI/EDF



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### Impact - Technical

- Embedded systems
  - Facilities (HVAC, elevators, power)
  - Process control systems in manufacturing plants and distribution facilities
  - Some models of Siemens and Hitachi chips will roll back to 1900
    - · Millions of Hitachi chips manufactured per month up to 1994



### Y2K Project Management

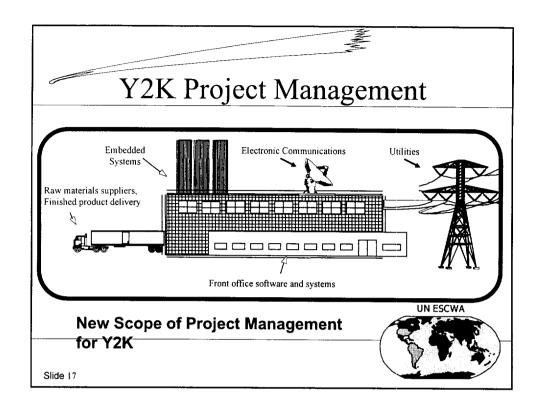
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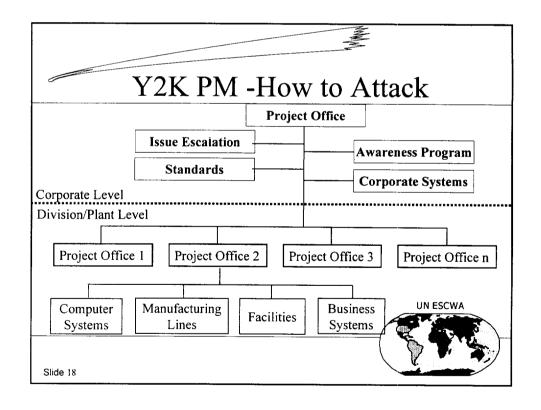


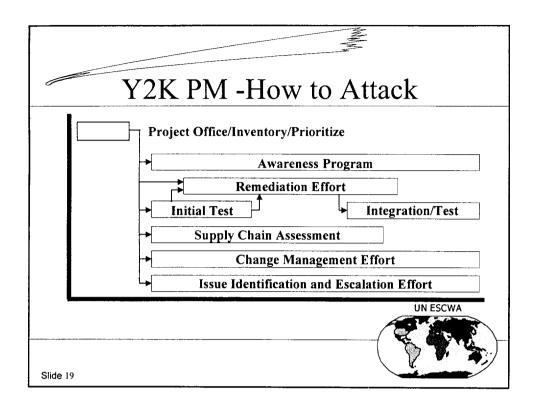
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## Y2K PM - Unique Problems

- No possibility of changing the end date
  - Maybe the first time in PM history
- Project = Requirements + Resources + Schedule + Costs
- Y2K project = Costs + Resources + a few simple requirements + lots of administration
- Extraordinary costs







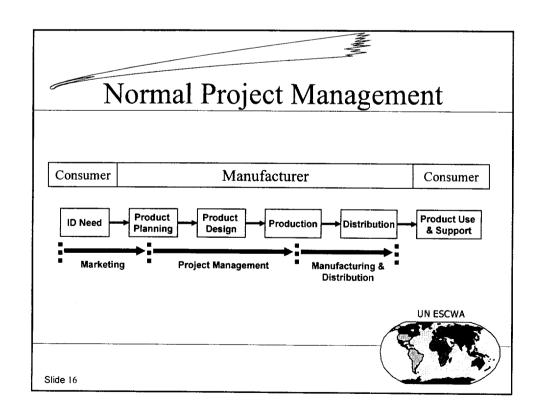
#### Y2K PM -Lessons Learned

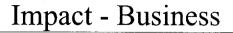
- Look beyond the boundaries of the technical problem to the enterprise level
- Become an advocate for the project
- How to manage multiple administrative efforts in parallel in different areas
- Identify and fight for the resources you need
- Be flexible!
- Build contingency plans!



## Y2K PM - Unique Problems

- Limited number of remediation approaches
- Broad scope of problem
  - All parts of the enterprise
  - Infrastructure
  - External relationships
- No history of finding and fixing date-related problems
- Late acceptance of the problem





- Human Resources
  - Employee files, annual reviews, and raises
- Finance
  - Payroll, accounts receivable, accounts payable, tax databases
- Legal
- Manufacturing
  - MRP and Inventory Control
  - Production lines



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## Impact - Business

- Distribution
  - Your raw materials suppliers or finished goods distributors
    - General Motors has over 5,000 primary suppliers
- Sales
  - Sales predictions and customer orders
- Product development stops
- Investor relationships



## Impact - Technical

- Data Bases
  - Most early versions of data bases cannot store non-1900 dates properly
- Spreadsheets
  - Microsoft Excel has many problems with date storage and processing



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### Impact - Technical

- Hardware
  - Mainframe IBM, DEC, Burroughs, etc.
  - Mid-sized Sys 36, AS/400, RS/6000, Tandems
    - System 36 O/S is non-compliant, and IBM will not produce a compliant version
    - AS/400 early versions
  - PCs All varieties based on Intel chips



#### Problem Basics - Software

- Early programmers used only two digits to represent a year in order to save expensive storage space
  - "99" instead of "1999"
- Later programmers copied what earlier programmers did for compatibility
- No date standards in programming



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#### Problem Basics - Hardware

- Some processing needs all four year digits, so "1900" was built into the hardware.
- Until 1997 Intel-based PCs had a Real-Time Clock (RTC) with "1900" designed into the chip.
  - This is read by the BIOS and fed to the system.
- Many computer chips embedded into non-computer systems have "1900" built in.

