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Documentation of Workflows in Business Processes

- ▶ What are workflows?
- ▶ Why it is important to document workflows?
- ▶ What do we expect out of the documentation system?
- ▶ What are the alternative ways of documenting workflows?
- ▶ An example to illustrate Petrinet uses in Auditing.

What are workflows?

- ▶ Flow of goods
- ▶ Flow of information
- ▶ Flow of documents

Why it is important to document workflows?

- ▶ Can help in designing information systems for accounting & auditing
- ▶ Can help us in auditing
- ▶ Can help us in planning
 - ▶ Computing Capacity
 - ▶ Auditing schedules, plans
 - ▶ Production
- ▶ Can help us run simulations of operations

What do we expect out of the documentation system?

- ▶ Should help us plan
- ▶ Should help us simulate operations of system
- ▶ Should help us analyze the system to study its properties
- ▶ Should help us find any flaws in the design of the system
- ▶ Should help us audit the system
- ▶ Should have a rigorous theory underlying it so that we can place reliance on the results of its analysis

What are the alternative ways of documenting workflows?

▶ Systems Flowcharts

- ▶ Easy to understand
- ▶ used widely in accounting and auditing
- ▶ Too many symbols
- ▶ Too little semantics; not possible to represent concurrent processes
- ▶ No underlying rigorous theory
- ▶ No analysis capabilities
- ▶ Not possible to use in the design of systems
- ▶ Not possible to study the properties of the system designed

▶ Petrinet diagrams

- ▶ Somewhat difficult to understand
- ▶ Not used widely in accounting
- ▶ Only three symbols (circle, rectangle, arrows)
- ▶ Rich semantics; possible to represent concurrent processes)
- ▶ Sound theory underlies the model
- ▶ Excellent analytical framework
- ▶ It is used in the design of systems
- ▶ It is possible to study the properties of the system designed

An example to illustrate Petrinet uses in Auditing.

