Examining BPEL's Compensation Construct

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What is WS-BPEL (née BPEL4WS)?

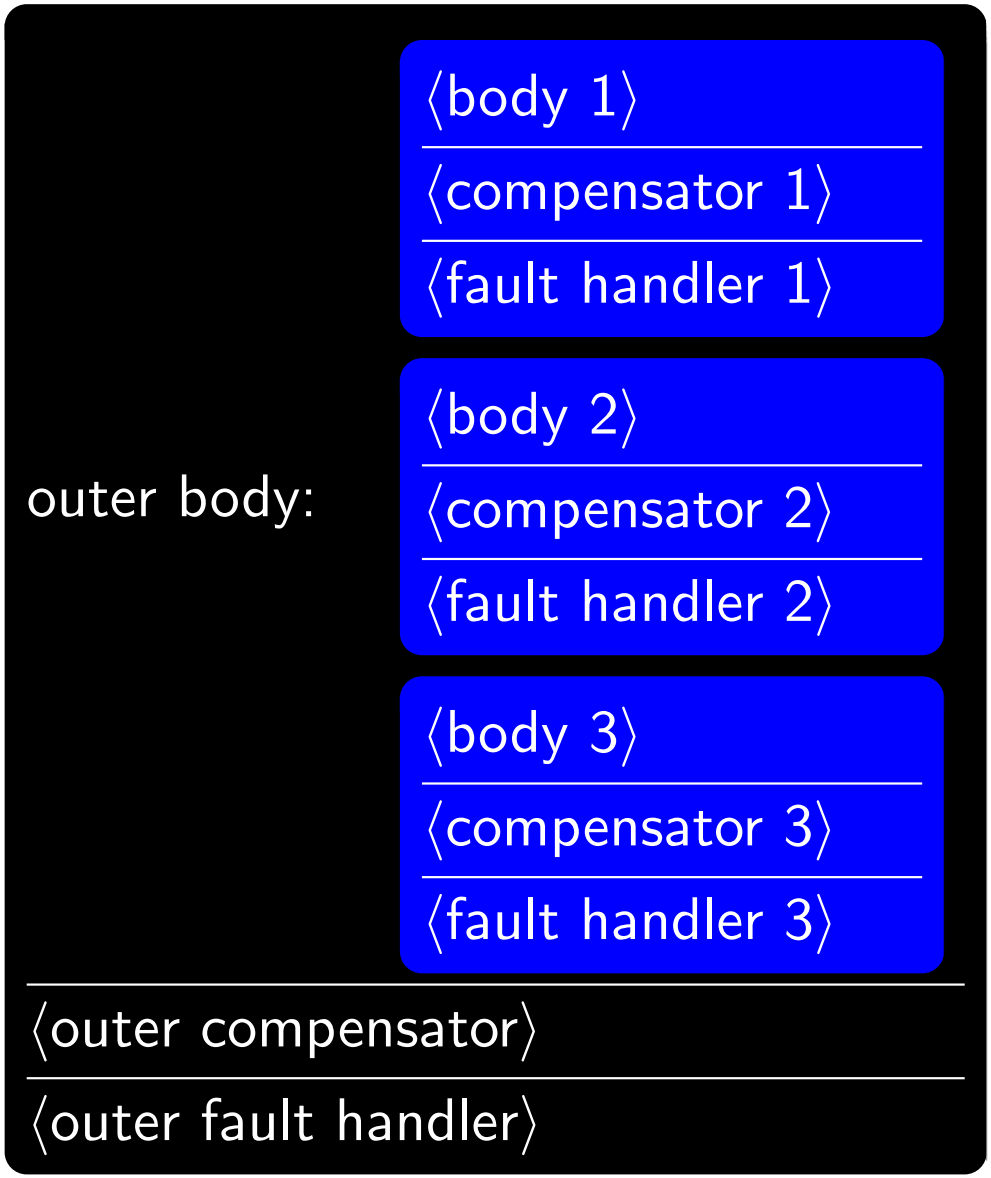
- Business Process Execution Language
- Web Services language
- Aimed at modelling the behaviour of
  - participants in business processes
  - the visible message-level behaviour of business protocols
- Under development by an OASIS Technical Committee
- Includes "compensation"

What is Compensation?

- It is:
  - Situation recovery
  - Post-completion
  - "Integrity" preserving
- It is not necessarily:
  - State rollback
  - Strict reversal
  - ACID
  - Error recovery

BPEL and Compensation

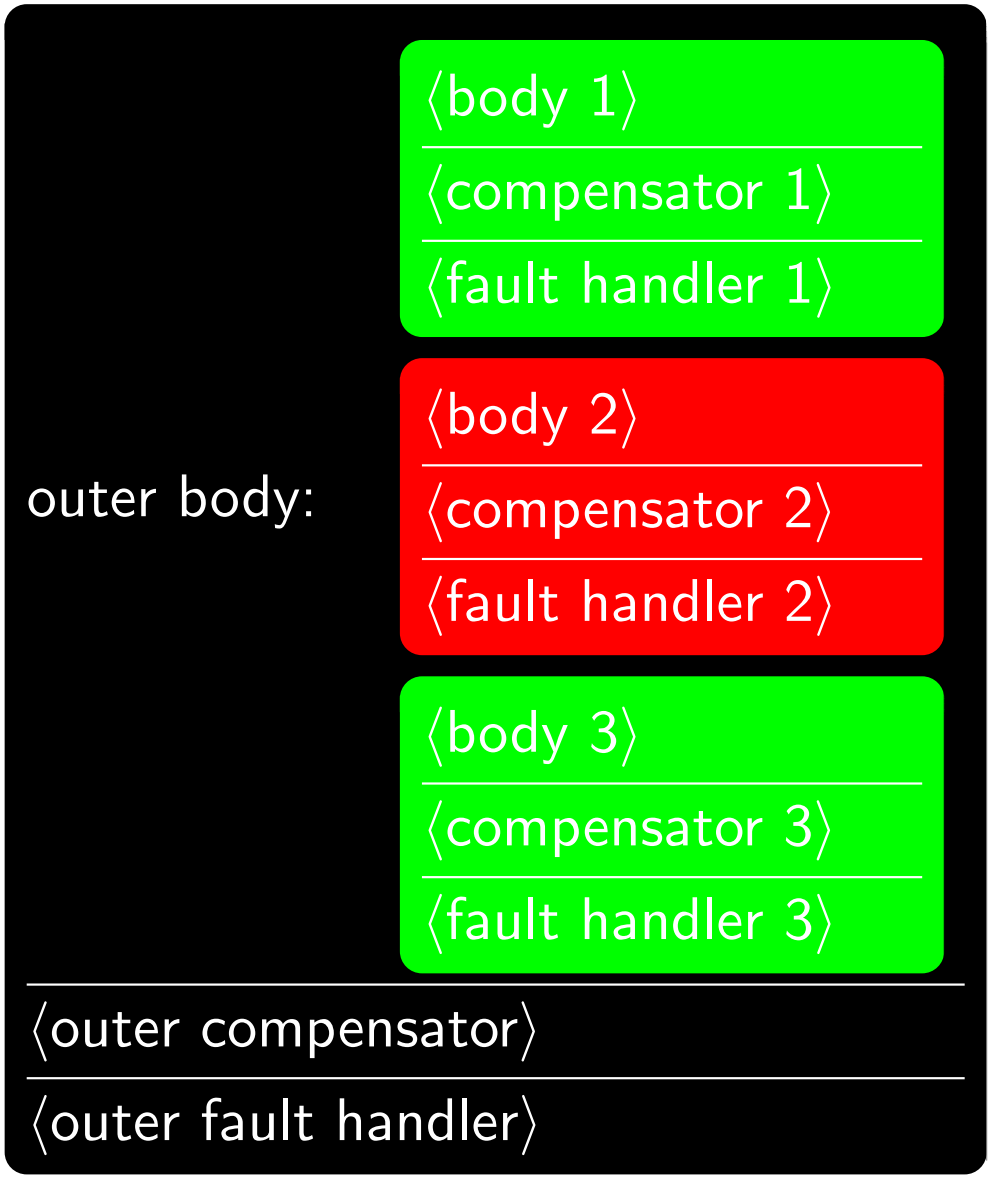
One outer scope with three nested scopes



BPEL and Compensation

The 1st and 3rd scope succeed, and the 2nd scope fails.

Only the 1st and 3rd compensators are installed.



Conclusion

- Exception handling construct
  - Modularized
  - Reorderable
- It is *not* generalized compensation
  - Invocation restricted
  - Scope restricted