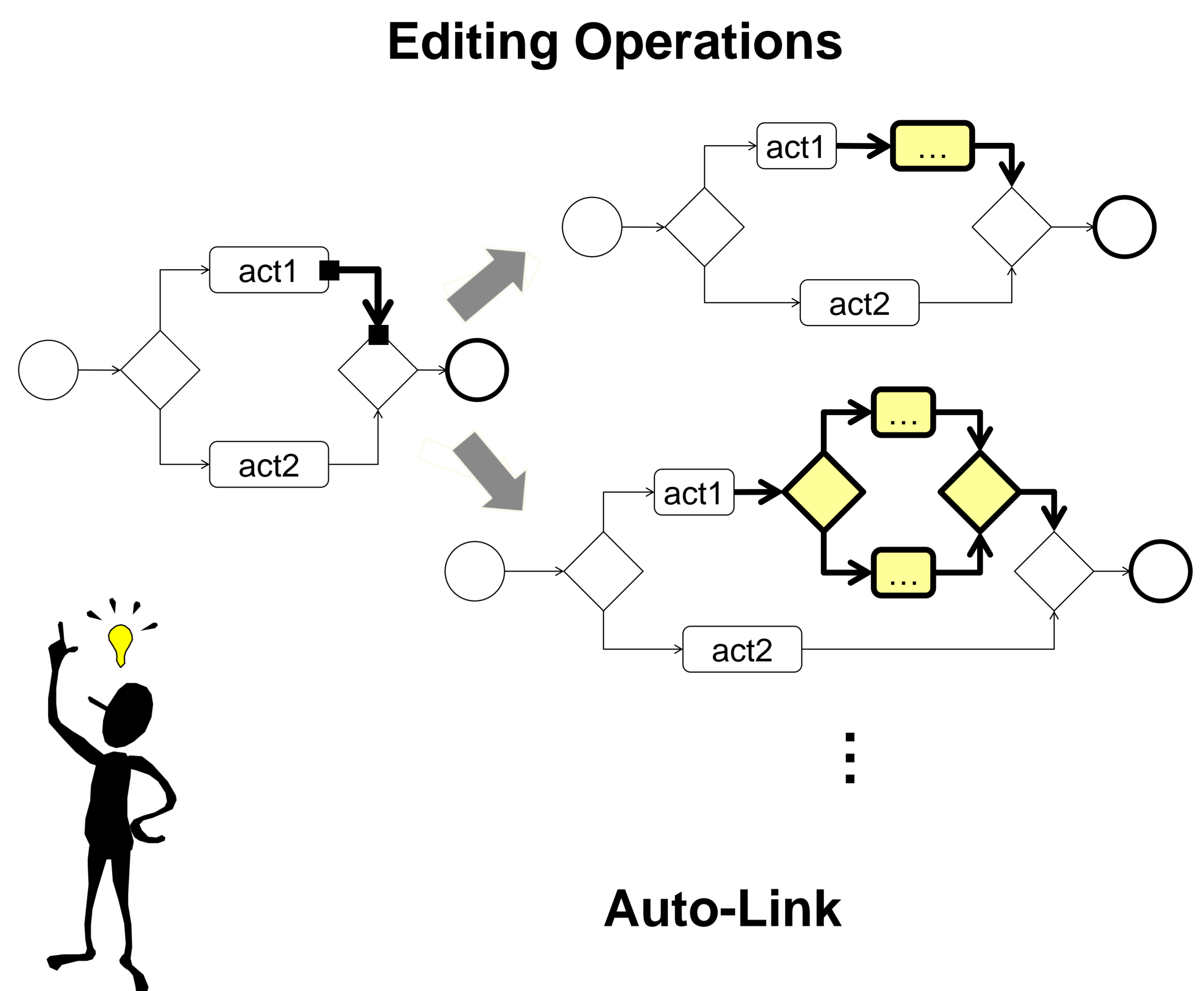
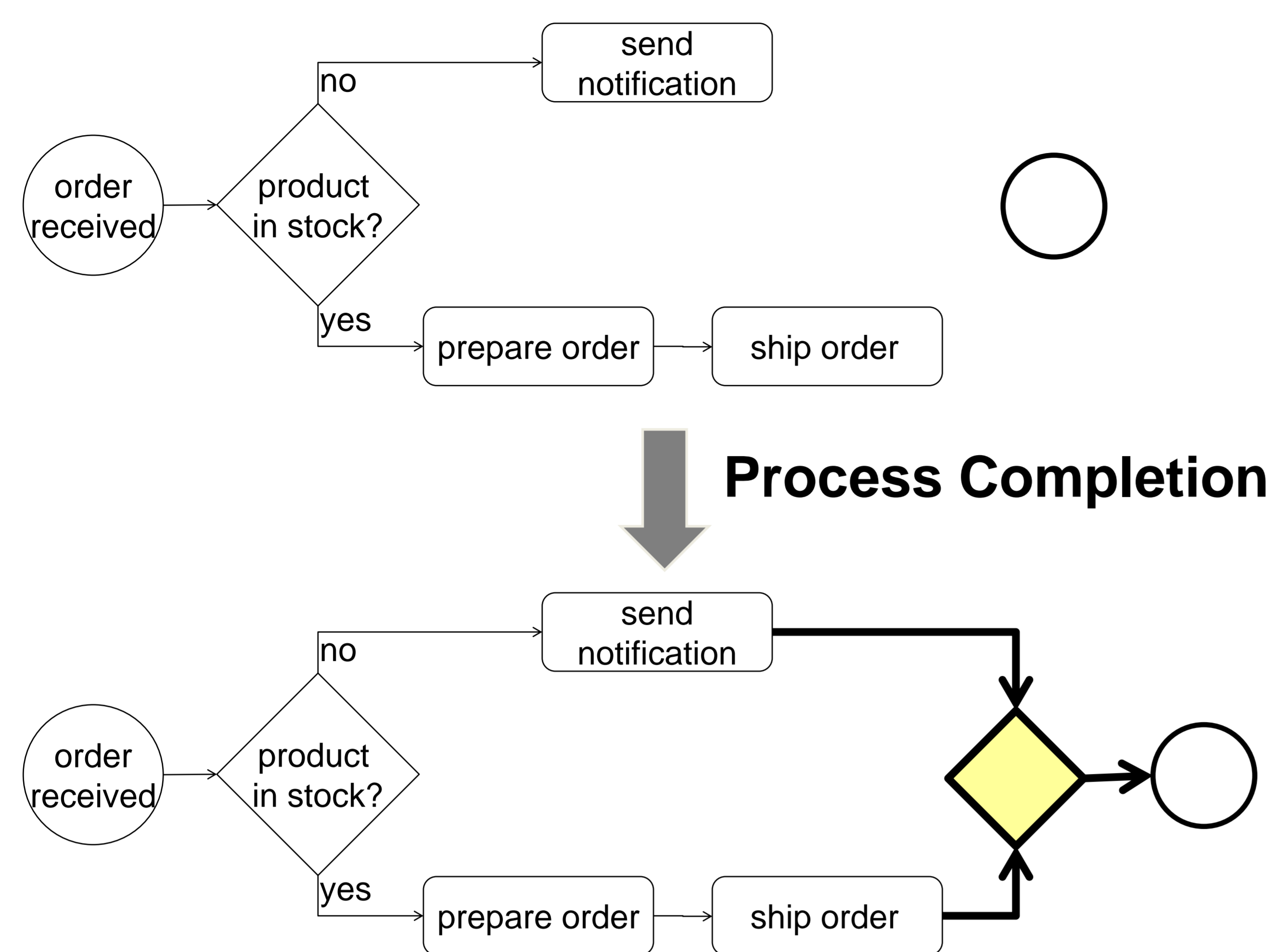
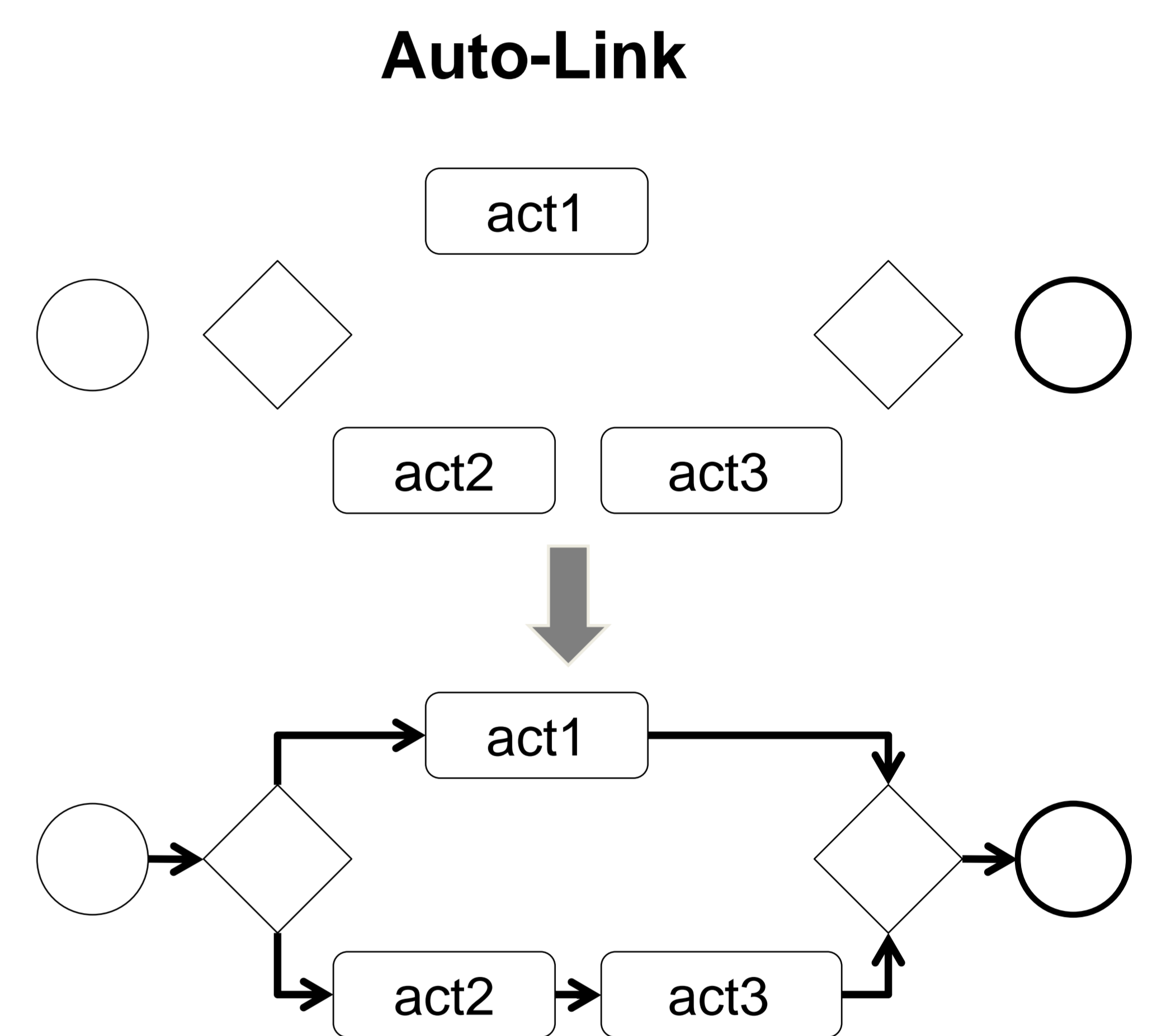
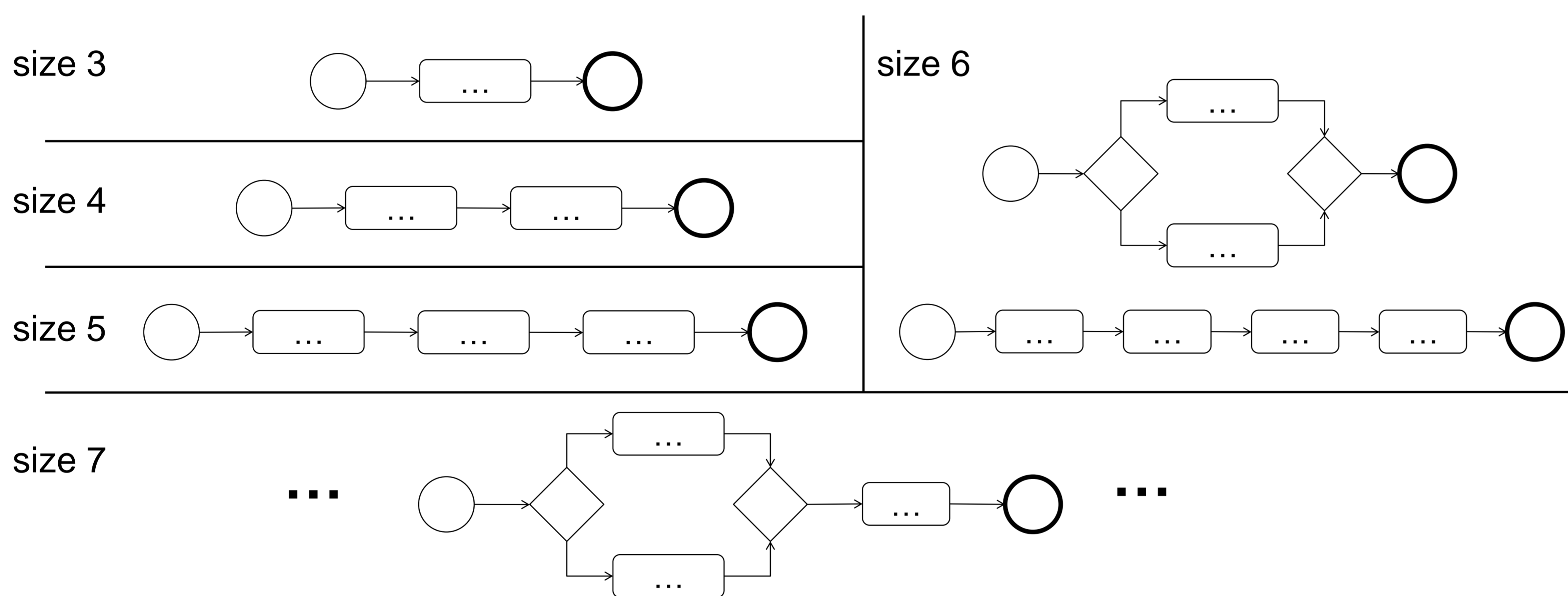


Syntax-based User Assistance



Example Generation



Assistance Features

- **Process Completion:** Given an incomplete process model, the editor can generate suggestions on how to complete it. Actually, it computes all possible completions up to a user-defined size. The user interface supports this feature by a dialog for browsing and previewing the possible completions.
- **Example Generation:** An important special case of completion is the empty diagram, completions of which can be used to completely enumerate the language. Given the number of components, all possible processes of this size can be generated. The user can browse this set to get valuable insight into the language.
- **Editing Operations:** It is possible to generate powerful correctness-preserving editing operations at runtime that consider the user's selection as a context. Thereby, several components can be introduced at once. Also a replace shortcut and an intelligent remove function have been realized.
- **Auto-Link:** The editor can automatically connect the components of a process by sequence flow. Thereby, their layout is considered and mostly preserved.

Scope of Approach

- **Generic:** The developed approach has been successfully applied to a broad range of diagram languages, e.g., Sequence Diagrams, Nassi-Shneiderman Diagrams, Alligator Eggs. Supported languages need to be mostly context-free.
- **Syntax-based:** Semantical correctness (such as the absence of deadlocks) and best practices are not considered.
- **Well-structured processes only**, i.e., no arbitrary sequence flow (then the language would not be context-free anymore).

Publications

- S. Mazanek, S. Maier, M. Minas. Auto-completion for Diagram Editors based on Graph Grammars. *VL/HCC 2008*.
- S. Mazanek, M. Minas. Generating Correctness-Preserving Editing Operations for Diagram Editors. *GT-VMT 2009*.
- S. Mazanek, M. Minas. Contraction of Unconnected Diagrams using Least Cost Parsing. *GT-VMT 2009*.
- S. Mazanek, M. Minas. Business Process Models as a Showcase for Syntax-based Assistance in Diagram Editors. *MODELS 2009*.