The Role of XML in Automated System Design

- **Title:** The Role of XML in Automated System Design
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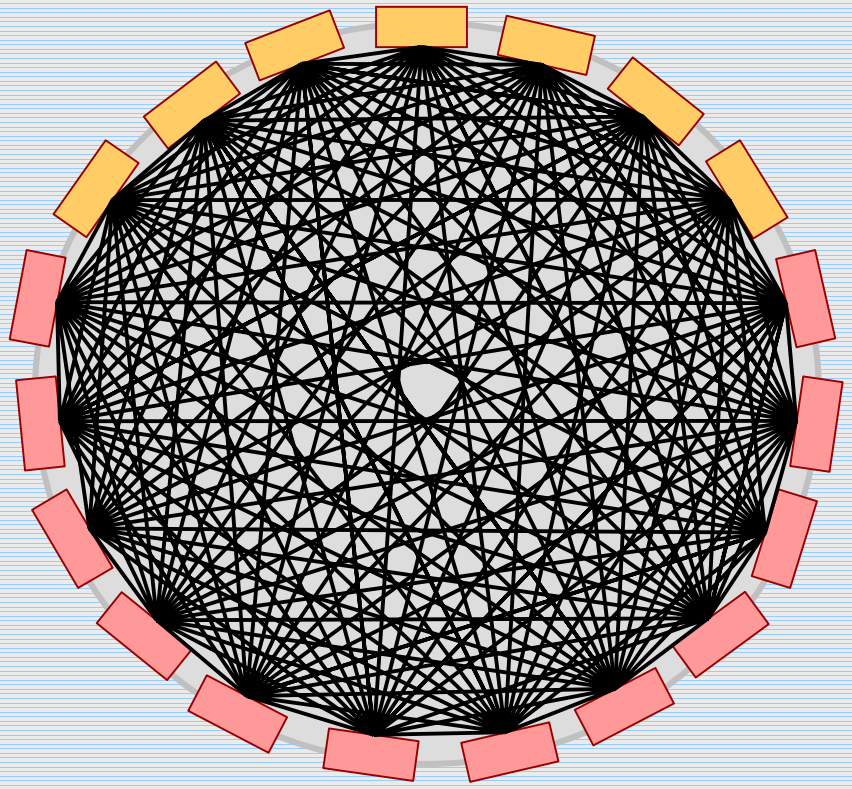
The Role of XML in Automated System Design

Presented by Ir.
J.A.J. van Leunen

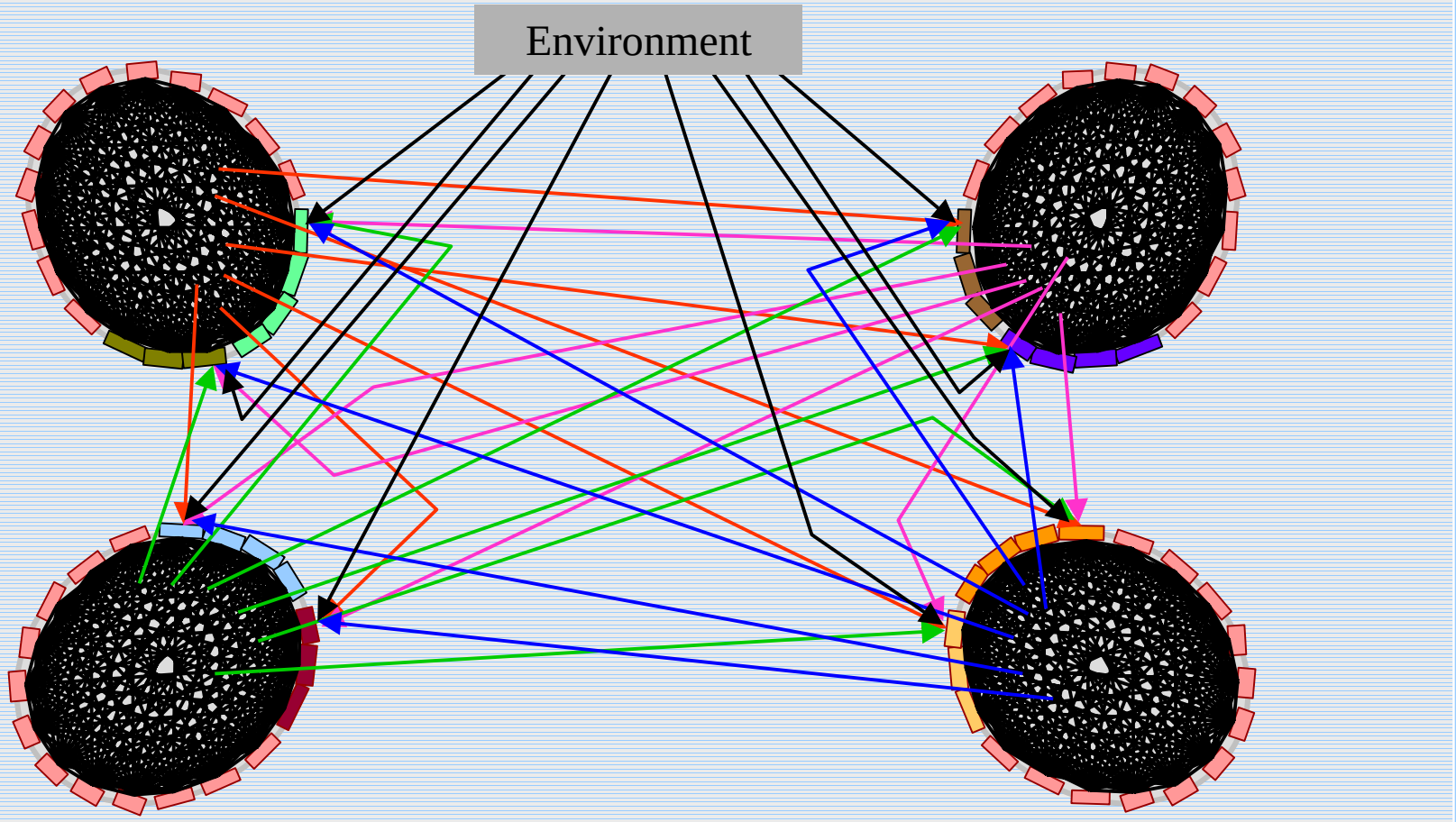
Relational Complexity in Monolithic System or Part



n(n-1)/2 potential relations

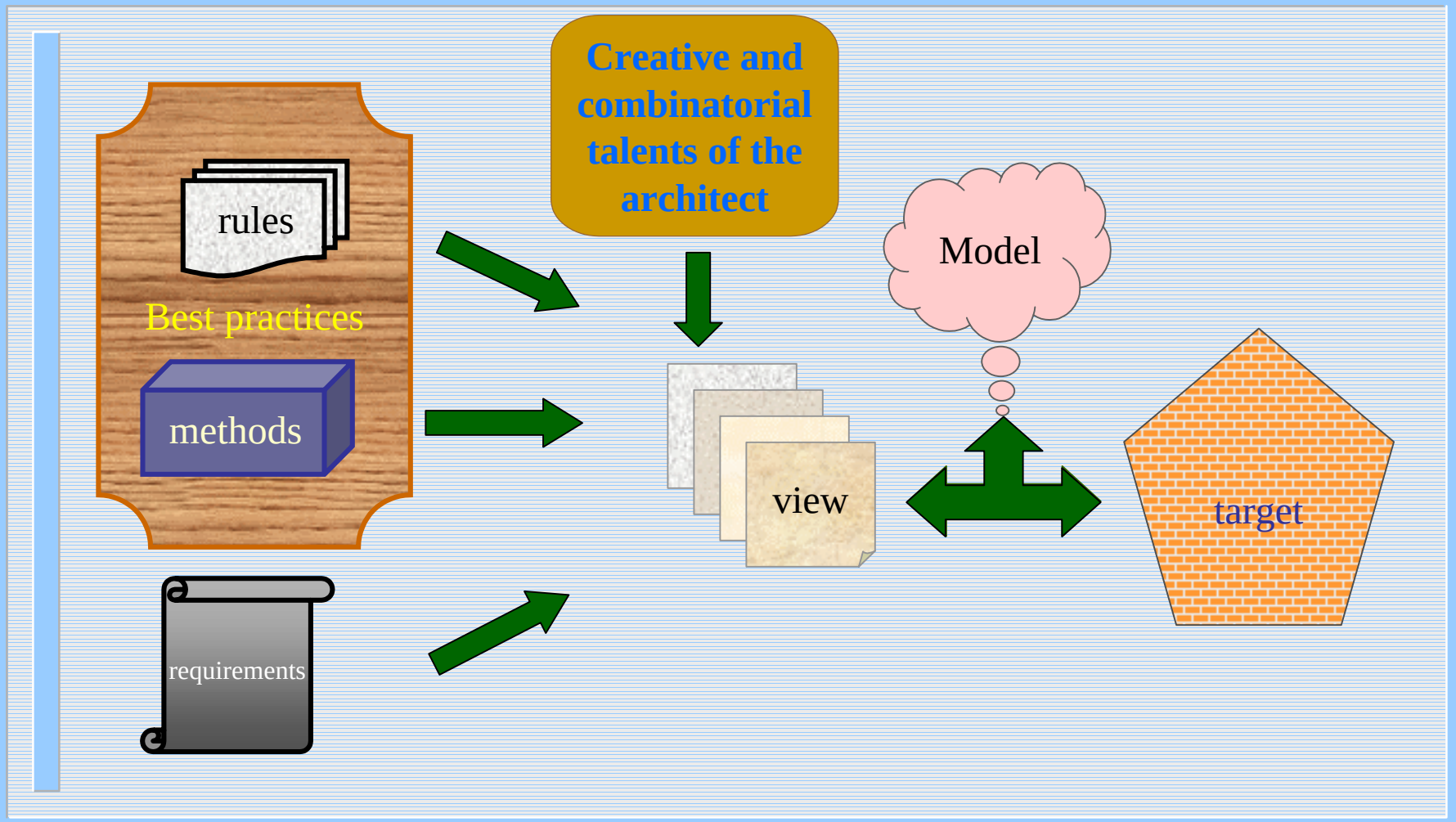
n = Nr of related items

Complexity in Component Based System

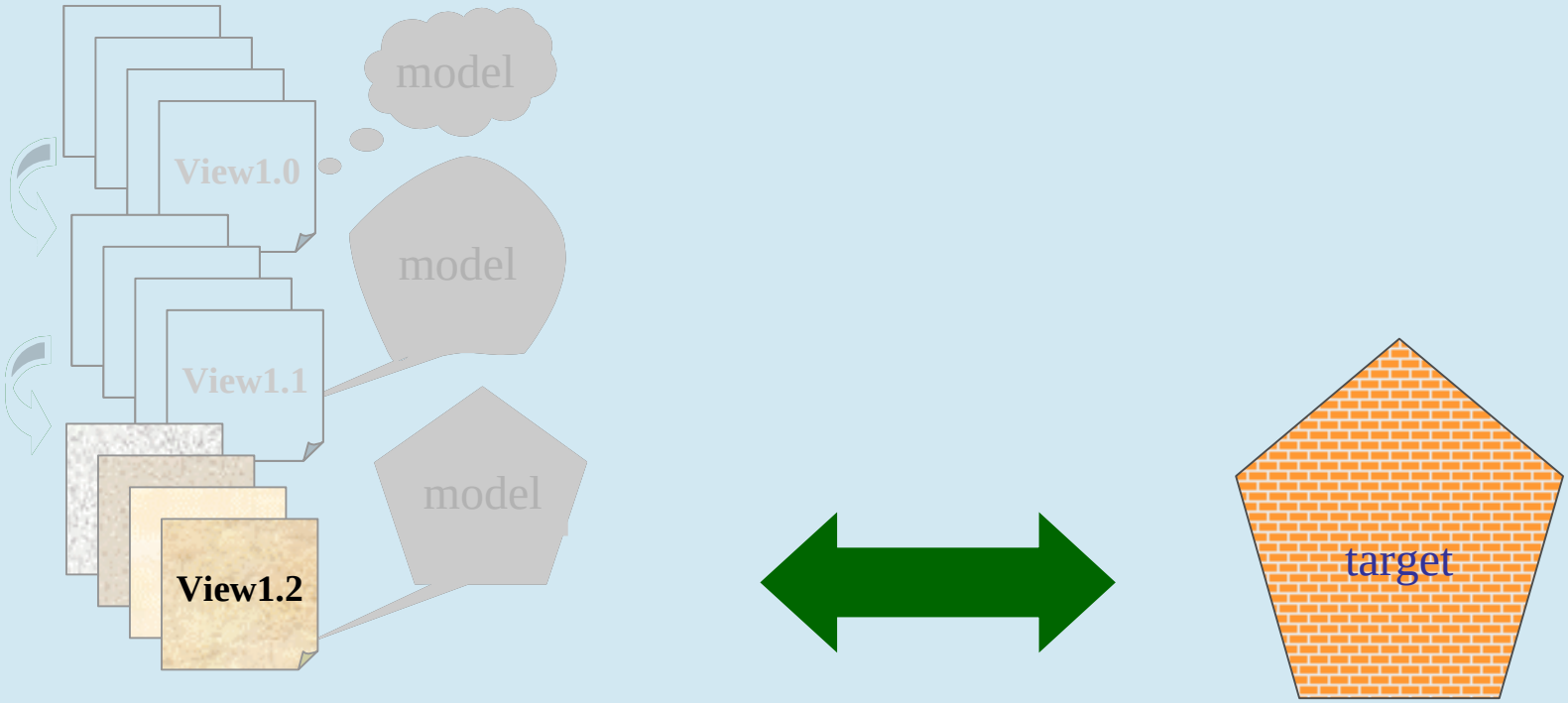


Easily two orders of magnitude better than monolithic case

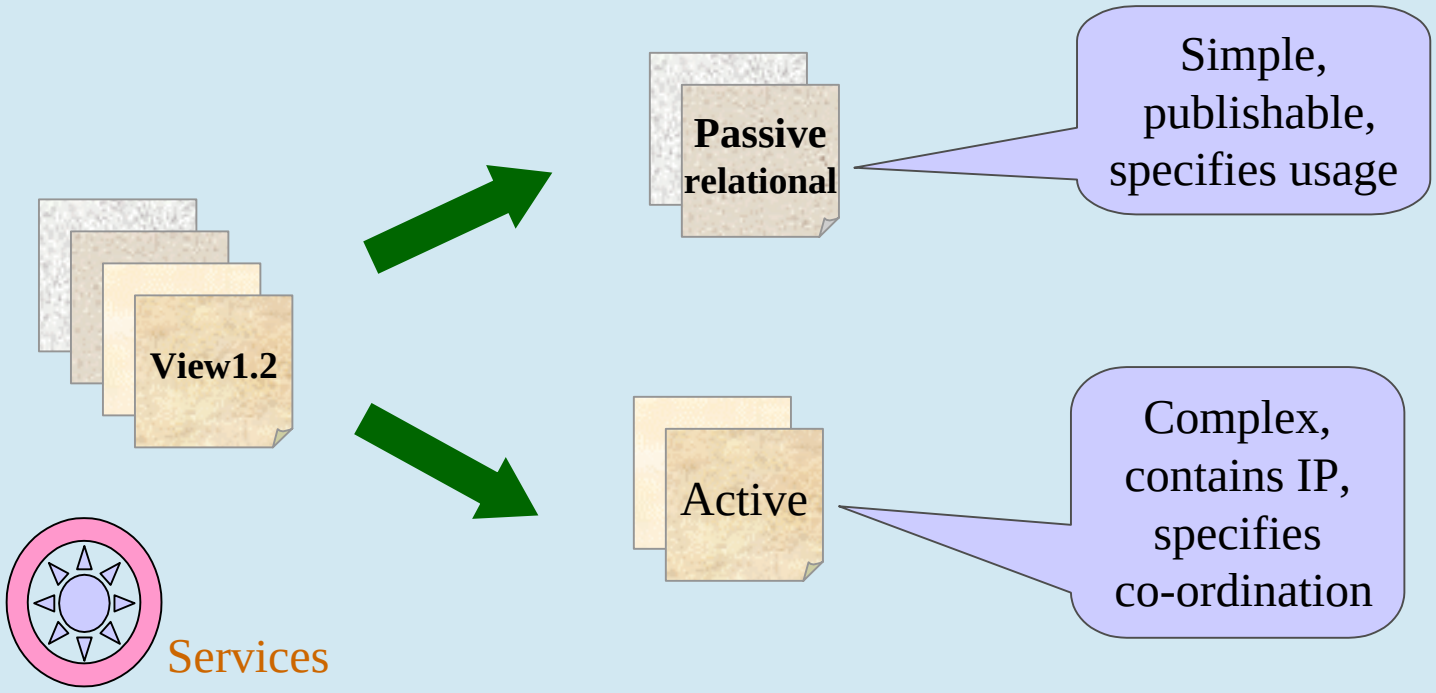
Architecture scope



Architecture dynamics



Architecture Split up



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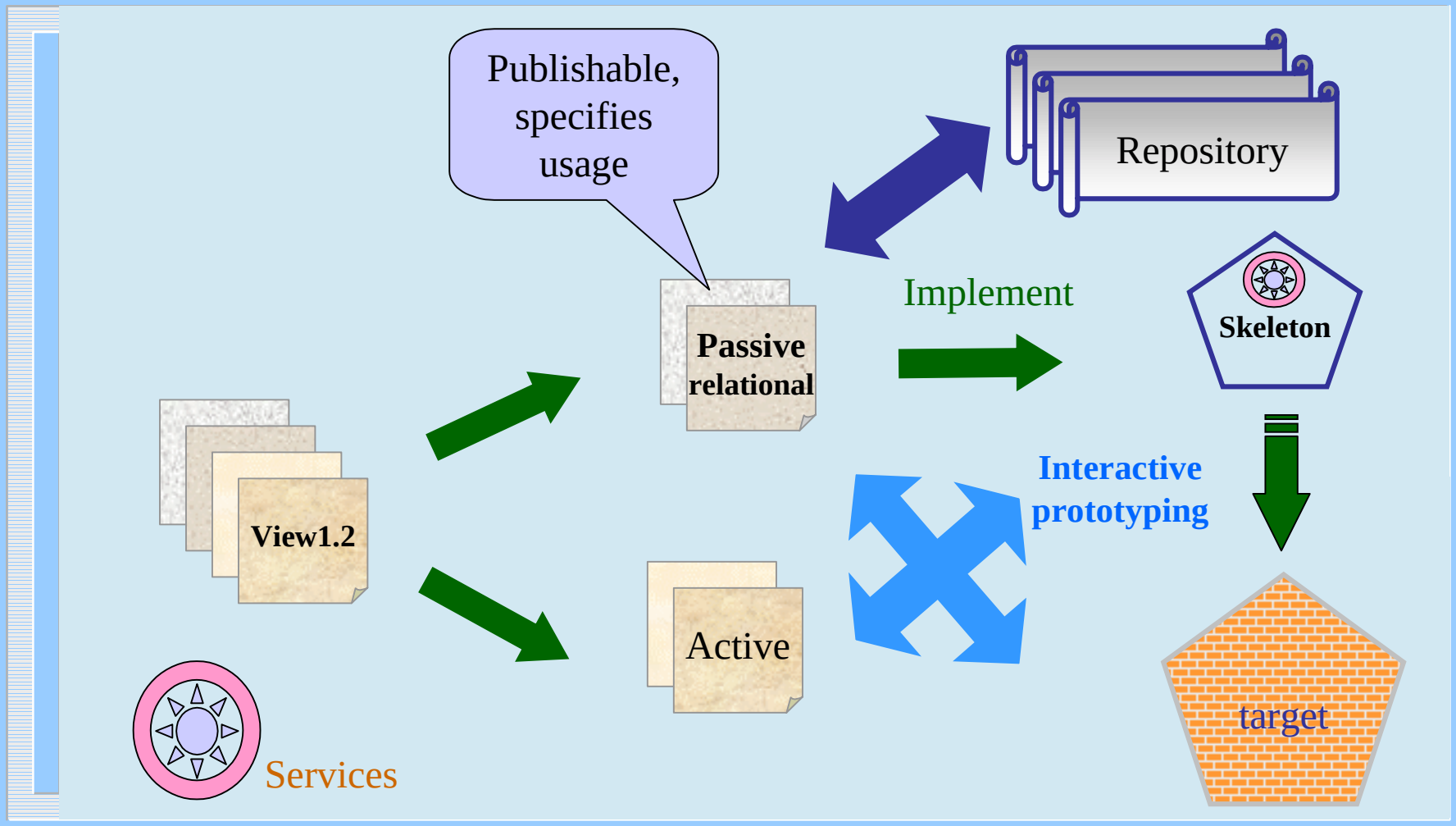
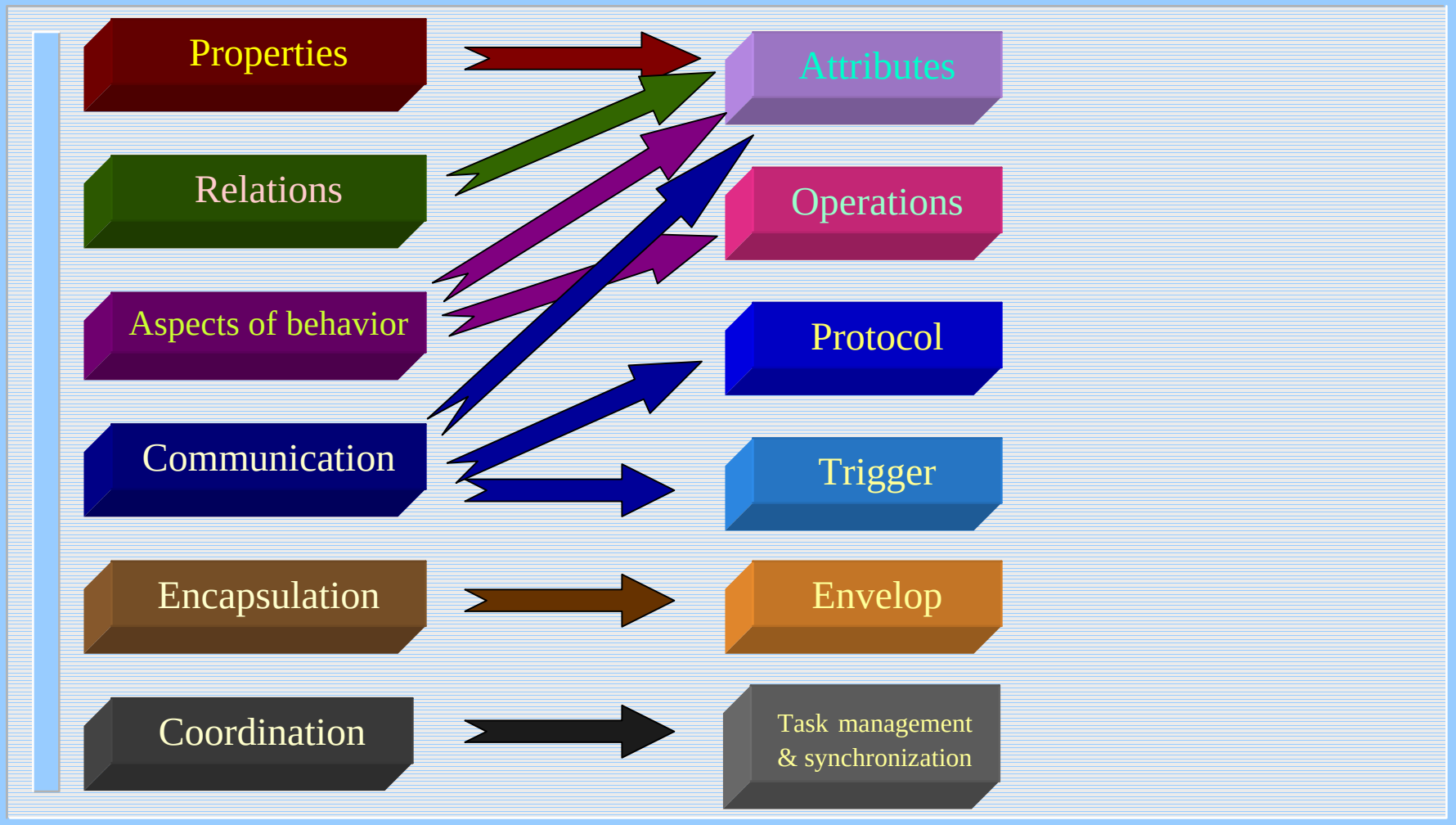
Exploiting the Division



Modeling elements



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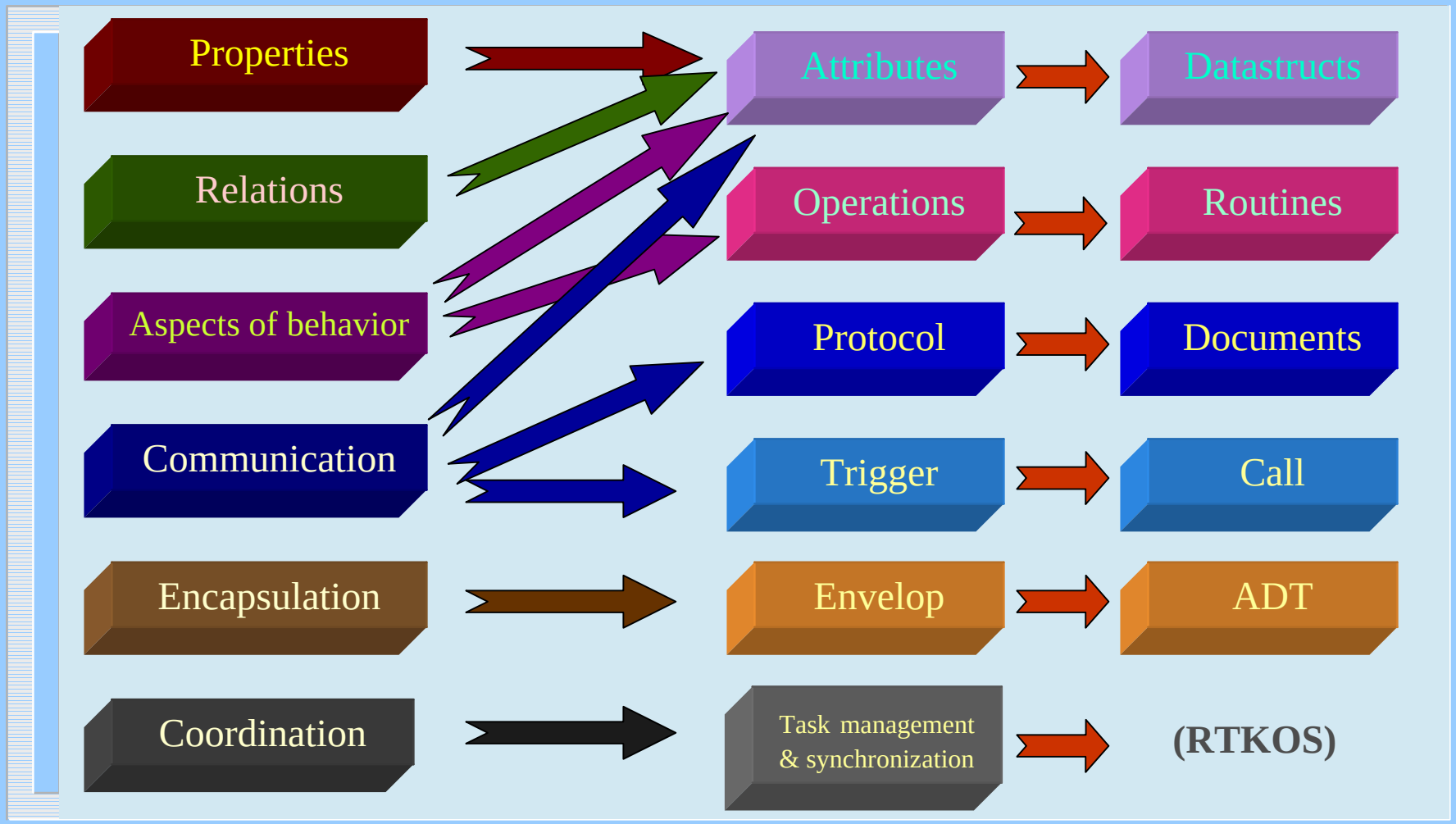
Modeling => Implementation in SW



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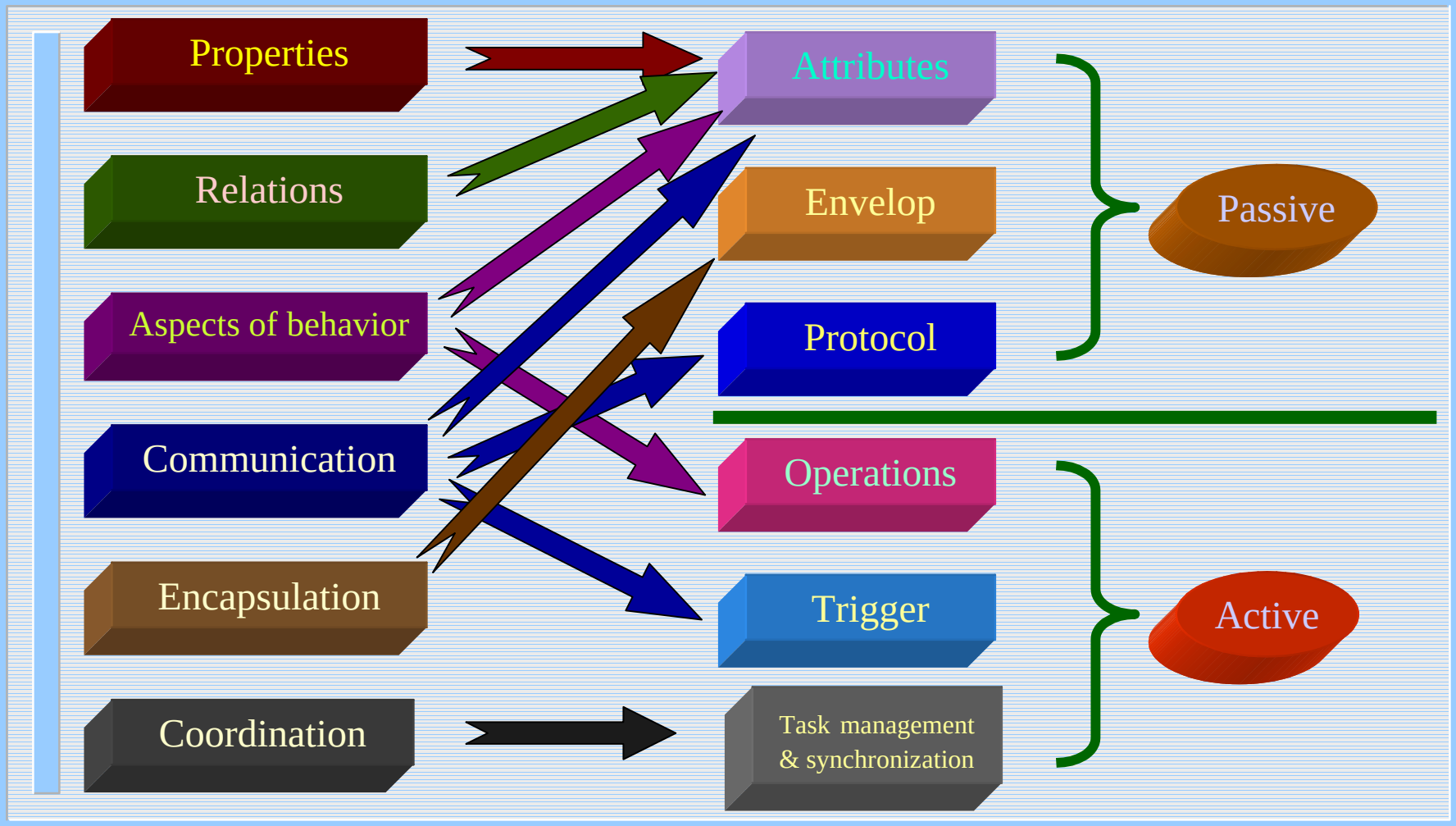
Modeling => Division



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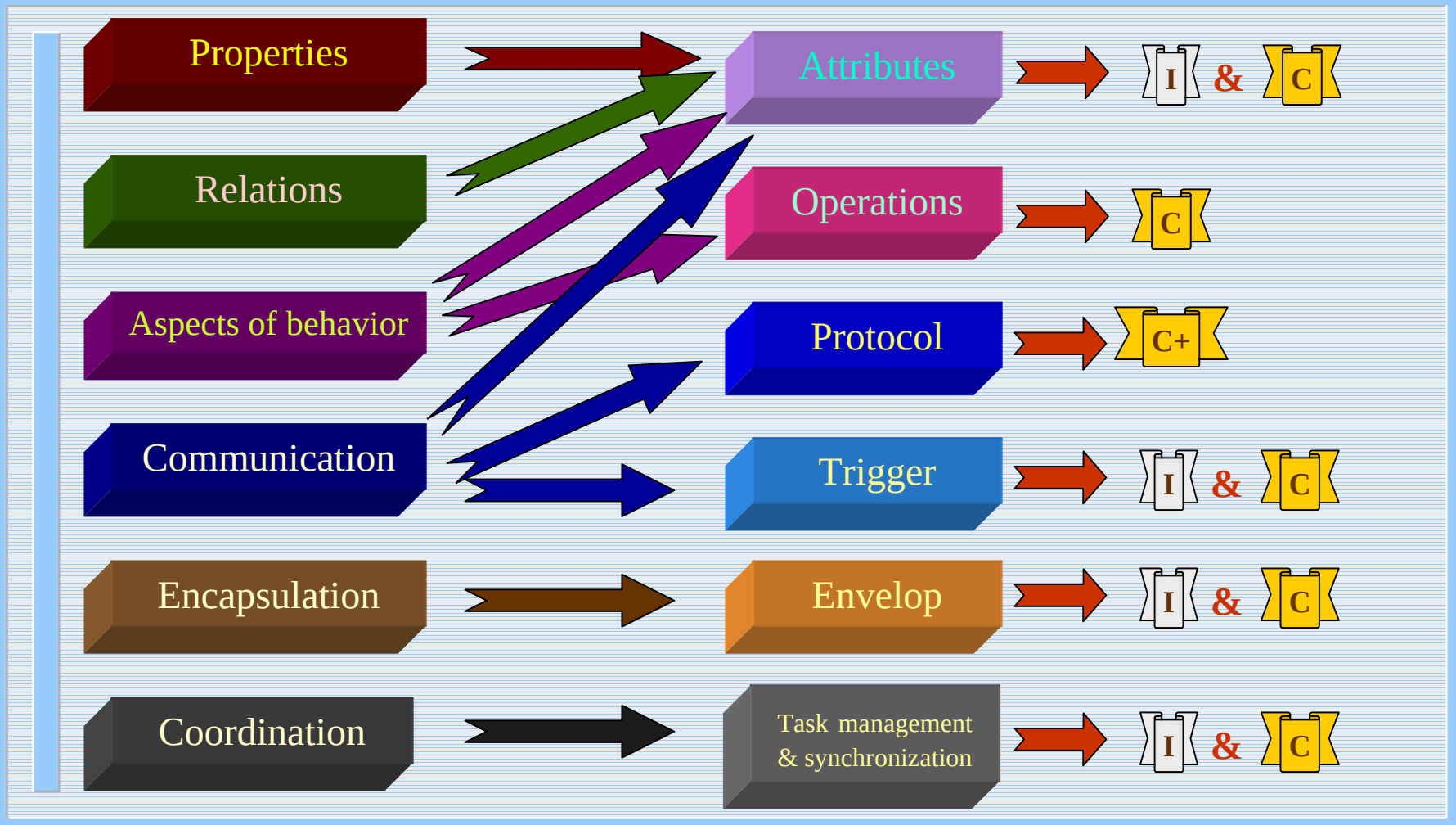
Wider scope of elements



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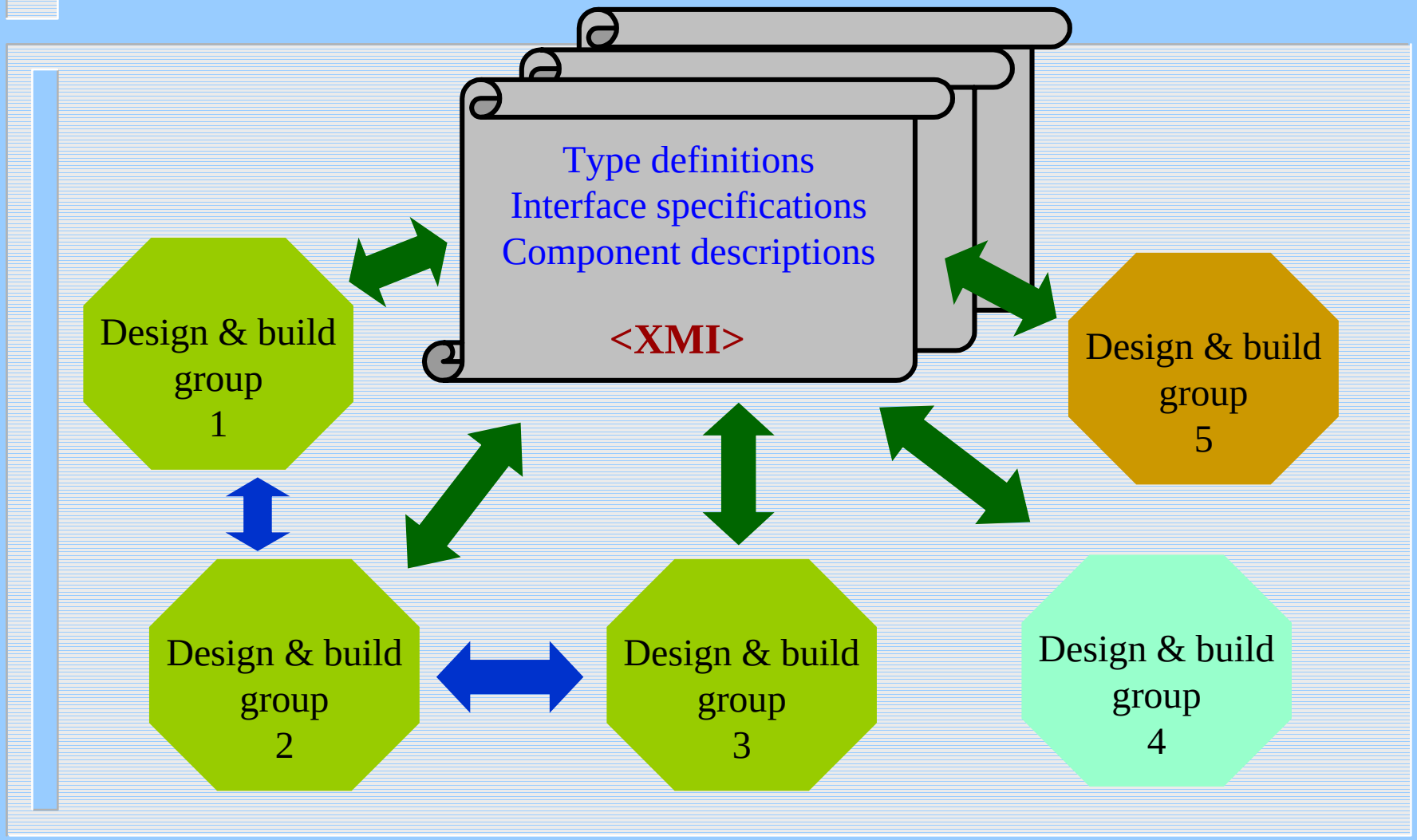
Reuse promotion

- Reuse must be promoted by publishing design elements (type definitions, interface definitions, component descriptions) on repositories.
- If this is done in machine retrievable way then an appropriate tool can construct testable skeletons of software modules from the retrieved data.
- The skeletons can be integrated with other components in a testable prototype.

Repositories

- Support archival and retrieval of XML based scripts that contain design elements.
- Represent the equivalent of module handbooks.
- The XMI standard guards exchangeability of data between disparate tools.
- Repositories are essential for creating and supporting an open market.

Reuse supporting repository