

Unanticipated Integration of Development Tools using the Classification Model

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Integrating Tools

- Easy, right?
 - command-line tools, Macromedia, MMC, ...
- But...
 - Anticipated Integration!
- How to integrate tools that are NOT meant to be integrated?
 - Unanticipated Integration.

Unanticipated?

- Hard because:
 - GUI issues.
 - Conceptual models differ.
 - Hard to extend for new 'items'.
- Result: Users do the integration manually
 - Export/Import files, Copy/Paste.
 - ...

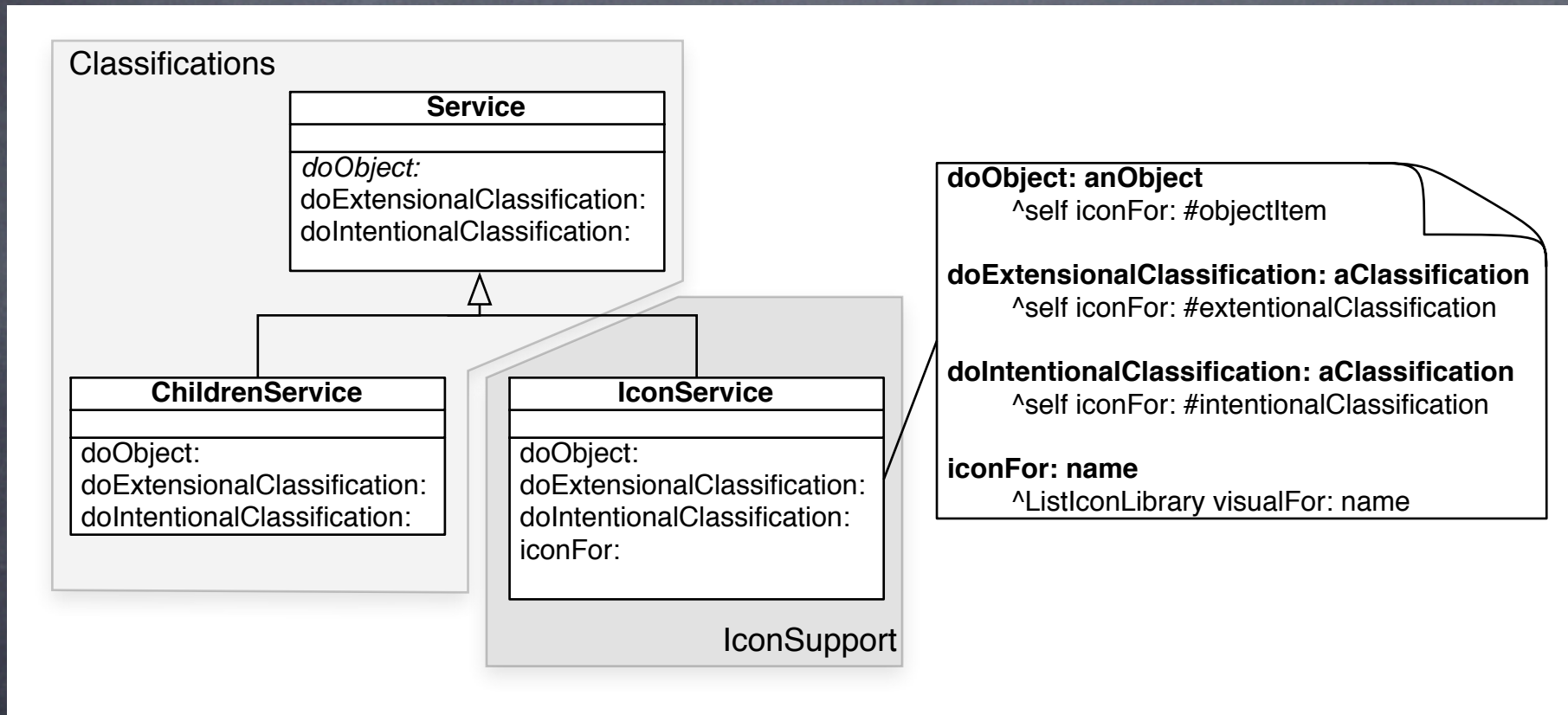
Solution

- Use output of one tool as input for another.
- Classification Model:
 - lightweight grouping model of 'items'.
 - manipulation of items by 'services'.
 - services registration mechanism.
- Implementation
 - Visitor

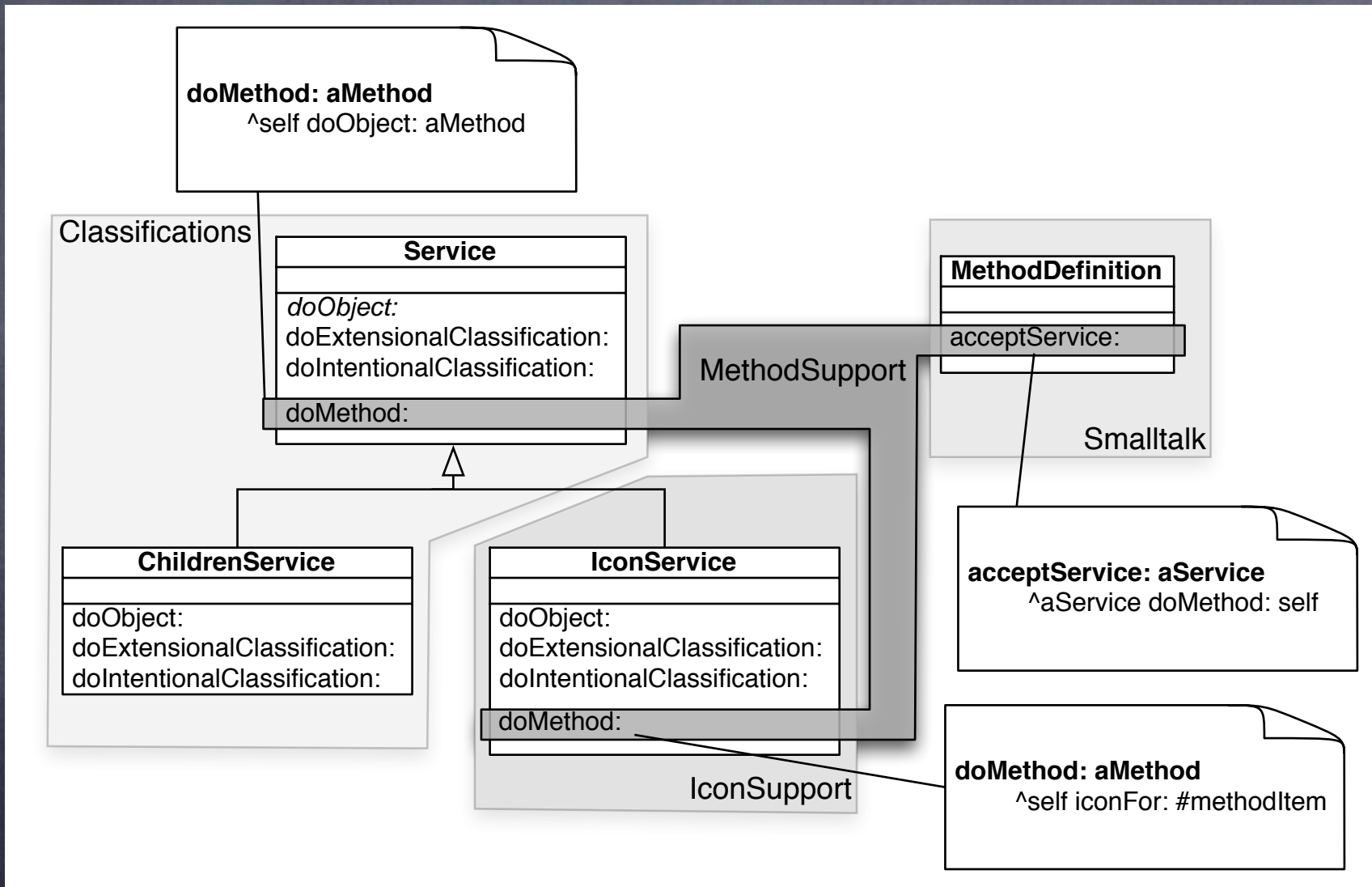
Integration

- Customizing the model
 - adding extra services.
 - support for custom items.
- Allows for unanticipated integration.
 - impose integration architecture...
 - "... from the outside".
 - original tools do not need to be changed

Adding new Services



Supporting Items



Example

- Integrate SmallBrother & Advance.
- 'UML diagrams' of 'recently used classes'.
- How?
 - AdvanceEditor service.
 - Support Methodhistory item
- Result: UML diagrams for all kinds of things

Discussion

- Squeak Port
 - Small basis by me
 - Finished, extended by Ned Konz
- Class extensions are the key!
 - Allow packaging of extensions
 - Without this: no visitor!
 - Without Visitor: complicated model.

Conclusion

- Unanticipated Tool Integration.
- Classification Model
 - separates items and actions on items
- Integrate tools by:
 - customizing the classification model
 - "from the outside"

Last but not least...

- Main client: StarBrowser
- Uses Classifications Model throughout.
- Currently integrates around 10 tool(sets).

- <http://www.iam.unibe.ch/~wuyts/StarBrowser/>
(a new URL at the ULB in the coming weeks...)

