

17-708 SOFTWARE PRODUCT LINES: CONCEPTS AND IMPLEMENTATION

TRADEOFFS

**CHRISTIAN KAESTNER
CARNEGIE MELLON UNIVERSITY
INSTITUTE FOR SOFTWARE RESEARCH**

PROJECT

Explore a topic in depth

Case study, experiment, ...

Build a tool, compare two tools, gather data...

Connect course to your research / interests

Suggest a topic next week

Summarize results in a report (paper draft)

READING

ASSIGNMENT NOV 2

Apel, S., Batory, D., Kästner, C., & Saake, G. (2013). Feature-Oriented Software Product Lines. Berlin: Springer.

Chapter 3, 6.1

Apel, Sven, Christian Kastner, and Christian Lengauer.
"Language-independent and automated software composition:
The FeatureHouse experience." Software Engineering, IEEE
Transactions on 39, no. 1 (2013): 63-79.

Sect 1-3

LEARNING GOALS

Reason about tradeoffs among implementation approaches

Identify important dimensions of differences

DIMENSIONS AND QUALITIES

Binding time

Language vs tool driven

Annotation vs composition vs generation

Planning effort

Feature traceability

Separation of concerns

Information hiding

Granularity

Uniformity

...