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Integrating kas-alias into kernel build: Overcoming Challenges with Non-Invasive Modifications

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I developed kas-alias to address the issue of duplicate symbols in the kernel. This solution effectively handles duplicate symbols originating from the main kernel image binary and also provides a method for managing symbols in the modules.

However, the current implementation has a challenge that remains unresolved: it modifies an input file during the make process to insert aliases into the modules.

While this operation is minimally invasive, my goal is to integrate it into the make flow by altering the binary objects on the fly.

This approach aims to preserve the rest of the build logic specified in the kernel Makefile unchanged.

Unfortunately, the current modification violates a key principle of the make process, which is to avoid altering input files.

Implementing this intermediate file would require significant changes to the make structure, which I prefer to avoid.

In this miniconf presentation, I aim to discuss this issue and seek suggestions on alternative approaches to achieve the desired functionality without extensive modifications to the make system.

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Primary author: CARMINATI, Alessandro

Presenter: CARMINATI, Alessandro

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