# Program Optimisations via Hylomorphisms for Extraction of Executable Code

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# Why Hylomorphisms in Rocq

# Folds as Initial Algebras

# Hylomorphisms

# Folds/Unfolds as Hylomorphisms

# Challenges for Encoding Hylos in Rocq

# Roadmap

# Containers

# Containers: Example

# Container Mechanisation for Clean Extraction

# (Co)algebras & (co)fixpoints

# Recursive Coalgebras

# Recursive Hylomorphisms

# Hylomorphism Fusion

# Example: Quicksort Extraction

# Example: Dynamorphisms

# Summary & Future Work