

Imperative to Dataflow Transformation

Convert an imperative program to a streaming dataflow graph executing on a distributed on-chip network.

Resource Allocation

- Constraint Resolution
- Global Merging
- Virtual to Physical Assignment
- PU Configuration

Assign each virtual unit in the previous dataflow graph to a physical unit and resolve constraint violations

Optimizations

Reduce pipeline stall and improve resource usage

P&R Guild Generation

Generate heuristics to guide placement and routing

Correctness

Performance & Resource Optimization