Swapping-on-the-fly: The Problem

Possibilities to transfer the context:
1. Tune in (e.g. Filter: provide input data to both tasks; determine when tune in is finished)
2. Wait until end of data package (e.g. block-by-block encryption)
3. Restart computation (kill Task A if runtime up to now is minor; needs availability of previous input data)
4. Knowledge-based system (application engineer embeds dedicated positions with corresponding methods for transferring user context)

Swapping-on-the-fly between different Audio-Filters
- Data type float: good quality; high CPU load
  - Implemented on MicroBlaze (MB)
- Data type int: minor quality; low CPU load
  - Implemented on MB and DLX (MPS)
- Touch screen LCD for DLX
  - Controls: Frequency, Filter On / Off, and priority
  - Shows: CPU utilization

Hierarchical concept

Power-aware Scheduling in DodOrg

Adapted PETs

Local Scheduler

Results of Simulation