Abstract—While advances in processor architecture continue
to increase hardware parallelism, parallel software creation is
hard. There is an increasing need for tools and methodologies
to narrow the entry gap for non-experts in parallel software
development as well as to streamline the work for experts. This
paper presents the methodology and algorithms for the creation
of parallel software written in Scilab source code for multicore
embedded processors in the context of the “Architecture ori-
tented paraLlelization for high performance embedded Multicore
systems using scilAb” (ALMA) EU FP7 project. The ALMA
parallelization approach in a nutshell attempts to manage the
complexity of the task by alternating focus between very localized
and holistic view program optimization strategies.