Contribution ID: **78** Type: **Poster**

Finding unused memory allocations with FOM-tools

Thursday, 13 October 2016 16:30 (15 minutes)

Memory has become a critical parameter for many HEP applications and as a consequence some experiments had already to move from single- to multicore jobs. However in the case of LHC experiment software, benchmark studies have shown that many applications are able to run with a much lower memory footprint than what is actually allocated. In certain cases even half of the allocated memory being swapped out does not result in any runtime penalty. As a consequence many allocated objects are kept much longer in memory than needed and remain therefore unused. In order to identify and quantify such unused (obsolete) memory, FOM-tools has been developed. The paper presents the functionalities of the tool and shows concrete examples on how FOM-tools helped to remove unused memory allocations in HEP software.

Primary Keyword (Mandatory)

Software development process and tools

Tertiary Keyword (Optional)

Secondary Keyword (Optional)

Primary authors: RAUSCHMAYR, Nathalie (CERN); KAMA, Sami (Southern Methodist University (US))

Presenter: RAUSCHMAYR, Nathalie (CERN)

Session Classification: Posters B / Break

Track Classification: Track 5: Software Development