# MARS 1.3 System Analysis Code Coupling with CONTEMPT4/MOD5/PCCS Containment Analysis Code using Dynamic Link Library

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## Abstract

*The two independent codes, MARS 1.3 and CONTEMPT4/MOD5/PCCS, have been coupled using the method of dynamic-link-library (DLL) technique. Overall configuration of the code system is designed so that MARS will be a main driver program which use CONTEMPT as associated routines. Using Digital Visual Fortran compiler, DLL was generated from the CONTEMPT source code with the interfacing routine names and arguments. Coupling of MARS with CONTEMPT was realized by calling the DLL routines at the appropriate step in the MARS code. Verification of coupling was carried out for LBLOCA transient of a typical plant design. It was found that the DLL technique is much more convenient than the UNIX process control techniques and effective for Window operating system. Since DLL can be used by more than one application and an application program can use many DLLs simultaneously, this technique would enable the existing codes to use more broadly with linking others.*