

Natural under TIAM

This section describes how to run Natural under TIAM. It covers the following topics:

- Structure of the Natural TIAM Interface
- Common Memory Pools under TIAM
- Natural Shared Nucleus

For information on the following topics, refer to:

- Installing the Natural TIAM Interface (in the Natural Installation Guide for Mainframes)
 - Parameters in Macro NAMTIAM (in the Natural Installation Guide for Mainframes)
 - Natural under BS2000/OSD (in the Natural Operations documentation for Mainframes).
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Structure of the Natural TIAM Interface

The Natural TIAM interface consists of two components:

- the non-reentrant front-end part
- the reentrant part "NATRENT" (default)

Both components are elements of the macro NAMTIAM and are generated with two separate assembly runs; see also Parameters in Macro NAMTIAM, parameter CODE (in the Natural Installation Guide for Mainframes).

The **front-end part** is generally linked with the Adabas interface module ADALNK to form the initialization routine which is run once only during the establishment of a Natural under TIAM session. During the initialization phase, based on the operand values of the corresponding parameters, various functions, for example, the establishment/connection to the Natural buffer pool, loading or linking of the Natural nucleus, establishing the physical terminal buffer, are executed. The front-end part must be loaded for each user (task).

The **reentrant part** NATRENT is linked as a modular element to the Natural nucleus and contains various entry points for TP system dependent routines (memory management, terminal communication, etc.). If a shared Natural nucleus is to be used, the generated NATRENT module must be linked to the front-end part.

The **Natural nucleus** is completely environment-independent (shared code) and must be loaded only once for all users.

Common Memory Pools under TIAM

You use macro ADDON (which assembles module BS2STUB) either to generate the local common memory pools, or to define attachment to the global common memory pools.

The programs CMPSTART and CMPEND start and stop *global* common memory pools. They are described in the section Global Common Memory Pools (in the Natural Operations documentation for Mainframes).

A Natural TIAM application needs the following common memory pools:

- **Natural load pool**
The linked reentrant part of Natural is loaded into this common memory pool.
- **Natural buffer pool**
The executable Natural programs and the Natural global data areas are loaded into this common memory pool. Those compiled Natural programs whose objects are reentrant are executed from this memory pool.
- **Natural/Adabas nucleus communication memory pool**
Natural connects to an additional common memory pool which is established by Adabas during startup.

The sum of the memory assigned to common memory pools, as well as the front-end work area, must completely fit into the virtual user address space.

If the Adabas pool exceeds the user address space, error message 148 is produced during the OP command execution. At the beginning of the session, Natural issues the error message NAT8148 and in the following session termination with the message NAT9989 (incorrect system file).

Natural Shared Nucleus

For TIAM applications, it is possible to use a common shared Natural nucleus. The rules that apply in this case are documented in the section Natural Shared Nucleus under BS2000/OSD (in the Natural Operations documentation for Mainframes)