

# Introduction

This documentation describes the installation and operation of the Adabas Bridge for DL/I (ADL) Interfaces for DL/I and Adabas applications. It will be needed in the phase following the conversion of DL/I databases into ADL files.

The general installation of the ADL load and source libraries, the ADL Directory file and ADL Natural utilities are described in the *ADL Installation* documentation. This documentation also explains how to customize ADL to your site by means of specifying parameters for the ADL parameter module.

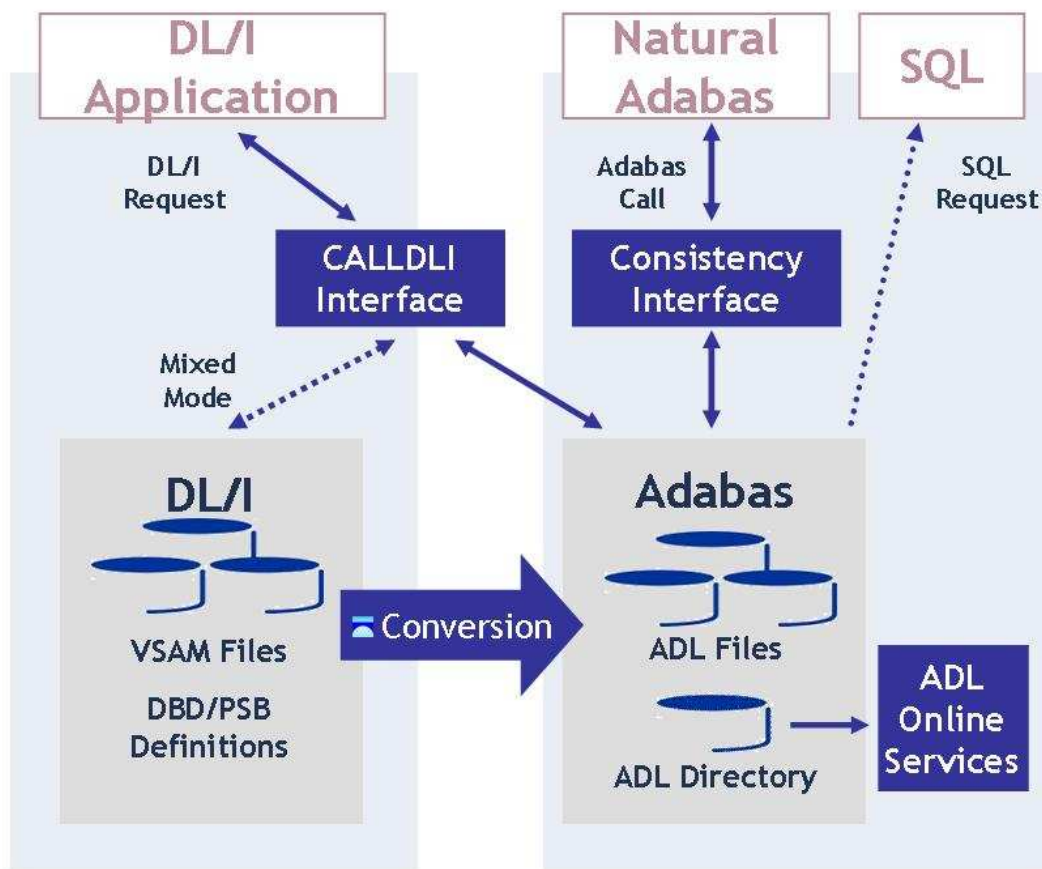
The Adabas Bridge for DL/I consists of essentially six major functional units, namely

- ADL Data Base Conversion Utility
- ADL Directory file
- ADL Online Services
- CALLDLI Interface
- Consistency Interface
- ADL Installation Verification Package

The ADL Data Base Conversion Utility allows you to convert your DL/I DBD and PSB descriptions into Adabas file descriptions and to convert data stored in DL/I data bases into data stored in Adabas files automatically. Whenever we talk about Adabas files which are based on the conversion of DL/I data bases we use the term "ADL file" to point out the special properties of these files. The information about the original DL/I structures and how they are translated into Adabas definitions is kept in the ADL Directory file. The contents of this file can be displayed with the ADL Online Services, which additionally allow you to maintain the ADL interfaces under CICS.

The other two functional units of ADL are the CALLDLI Interface and the Consistency Interface. The CALLDLI Interface allows DL/I applications to access ADL files in the same way as original DL/I data bases. The Consistency Interface provides access to ADL files from Natural programs or with Adabas direct calls. This interface preserves the hierarchical structure of the data, which is of importance for ongoing DL/I applications.

The ADL Installation Verification Package provides a DL/I application environment including an example database. The ADL Installation is verified and the conversion of the example database is practiced. Several DAZZLER test streams, Cobol and Assembler program are included as well as Natural applications for testing the ADL Consistency. Terms and concepts of DL/I and Adabas are introduced and it is shown how ADL maps one to the other. The ADL Installation Verification Package is described in details in the section *ADL Installation Verification Package* in the *ADL Installation* documentation.



**Figure 1: Functional units of ADL and their interrelation**

Figure 1 shows the individual functional units of ADL and their interrelation with DL/I, SQL and Natural applications.

This documentation provides you with the information necessary to operate both the CALLDLI Interface and the Consistency Interface once ADL has been installed and the DL/I databases have been converted.

This documentation is intended primarily for the system programmer responsible for the operation of Natural/Adabas and/or DL/I applications in batch and online systems. The section *Using ADL Files with Natural/Adabas* is of particular interest for application programmers. Similarly, the sections *Managing ADL Files*, *ADL Online Services* and *Recovery and Restart Procedures* will be of interest to DBAs.

The first sections of this documentation cover the installation and operation of the ADL Interfaces for batch, CICS and IMS/TP.

The section *ADL Online Services* describes how to examine the contents of the ADL Directory file and maintain the ADL Interfaces for CICS.

The section *Precompiler for "EXEC DLI" Commands* describes how to use the ADL-supplied precompiler for "EXEC DLI" commands. Although this precompiler is not a direct part of the ADL Interfaces, it might be required in case DL/I and thus the High Level Programming Interface (HLPI) is not available.

The section *Using ADL Files with Natural/Adabas* describes the way in which ADL files can be accessed by Natural/Adabas applications.

The section *Converting "Natural for DL/I" Programs* describes what must be considered when converting an NDL program to a "normal" Natural/Adabas program.

The section *SQL Access to the Migrated Files* describes how SQL applications can access the migrated data with the Adabas SQL Gateway.

The section *Debugging Aids - ADL Trace Facility* covers the ADL Interfaces trace facility, which was designed to debug your applications as well as to track down problems related to the ADL Interfaces themselves.

A program to test DL/I calls in batch, DAZZLER, is described in the section *CALLDLI Test Program - DAZZLER*.

The management of converted DL/I databases is described in the section *Managing ADL Files*. As seen from an Adabas DBA point of view, there are a few things to be considered when managing ADL files with Adabas utilities. Also, this section explains how and in which way the DL/I structure or the Adabas file layout may be altered.

The tuning of ADL is described in the section *Performance Considerations*.

Obviously the conversion from DL/I to Adabas affects the restart and recovery scenarios. The section *Recovery and Restart Procedures* explains these changes.

Most of the information contained in this documentation refers to both operating systems z/OS and z/VSE. Information which applies only to a single operating system is clearly marked as such.

In order to install and operate the ADL Interfaces, a certain degree of knowledge of both data base systems, Adabas and DL/I, is required as well as a familiarity with the operating systems and TP monitors. This manual makes frequent usage of terms, synonyms, abbreviations and facts related to these systems. For clarity a glossary is provided with the *ADL Messages and Codes* documentation.

This chapter covers the following topics:

- Operational Environments
- Other Documentation You May Need
- Documentation Related to non-SAG Products

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## Operational Environments

The Adabas Bridge for DL/I operates in both online and batch environments. The online environments currently supported are CICS Versions 3.2 and above. Programming languages which use the standard DL/I call interface, e.g. COBOL, Assembler, and PL/I, are supported in both online and batch.

Operating system environments currently supported are: z/VSE and z/OS. The JCL/JCS examples given in this documentation are tailored for z/VSE and z/OS.

## Batch Operation

Once all DL/I data bases accessed by a particular application program have been converted, the only other thing you need to do to operate the Adabas Bridge for DL/I in batch environments is to remove the JCL statements for the DL/I data bases and add input cards with ADARUN parameters. These are needed since the application has become an Adabas application program. The way in which the PSB name and application program names are specified, does not change. See the section *Batch Installation and Operation* for further details.

## Online Operation (CICS)

Once all DL/I data bases have been converted, you may remove all JCL statements and FCT and ACT entries relating to them, as these are no longer required. Instead, you must generate a table of all the PSBs needed by the CICS application programs. Under z/OS CICS the ADL requires the installation of an SVC to operate properly. See the section *CICS Installation and Operation* for further details.

## IMS/TP

Once all DL/I data bases have been converted, you may remove any JCL statements relating to them, as these are no longer required. See the section *IMS/TP Installation and Operation* for further details.

## Other Documentation You May Need

The following Software AG publications may be useful when installing and operating the ADL Interface:

- *Adabas Utilities* documentation
- *Adabas Operations* documentation
- *Adabas Messages and Codes*
- *Adabas DBA Reference* documentation

For a complete list of Software AG documentation, refer to Software AG's Empower web site. If you do not have an Empower user ID and password yet, you will find instructions for registering on this site (free for customers with maintenance contracts).

## Documentation Related to non-SAG Products

The documentation mentioned below might be of interest and helpful for the installation and operation of the ADL interfaces.

### For z/OS users:

- IMS/VS Application Programming
- IMS/VS Application Programming for CICS/VS Users
- IMS/VS Utilities Reference documentation

- CICS TS Installation Guide
- CICS TS Operations and Utilities Guide
- CICS TS Resource Definition Guide

**For z/VSE users:**

- DL/I DOS/VS Guide for New Users
- DL/I DOS/VS Application Programming: CALL and RQDLI Interface
- DL/I DOS/VS Application Programming: High Level Programming Interface
- DL/I DOS/VS Utilities and Guide for the System Programmer
- DL/I DOS/VS Resource Definition and Utilities
- CICS TS Installation Guide
- CICS TS Operations and Utilities Guide
- CICS Resource Definition Guide