



Adabas D

Version 13

Installation under Windows

This document applies to Adabas D Version 13 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Table of Contents

Installation under Windows	1
Installation under Windows	1
Introduction	2
Introduction	2
Adabas Documentation	3
Adabas Documentation	3
Version Information	4
Installing and Setting Up Adabas D	5
Installing and Setting Up Adabas D	5
Installation Package	5
Product Version Numbers	5
First Installation	6
Step 1: Creating the Database Administrator	6
Step 2: Logging in as the Database Administrator	6
Step 3: Checking System Resources	7
Step 4: Installing the Adabas Software	8
Step 5: Reading the README Files	11
Step 6: Defining the Optional Environment Variables	11
Step 7: Setting Access Rights	11
Step 8: Installing the SERVERDB	12
Step 9: Verifying the First Installation	12
Step 10: Creating a Data Source in the ODBC Driver	13
Step 11: Demo	14
Update Installation	15
Step 1: Checking System Resources	15
Step 2: Stopping the SERVERDB And All Other Adabas Programs	15
Step 3: Saving an Existing Adabas Version	15
Step 4: Installing the Software	15
Step 5: Reading the README Files	15
Step 6: Checking the Parameters	15
Step 7: Restarting the SERVERDB	15
Step 8: Updating the System Tables	15
Step 9: Verifying the Update Installation	15
Step 10: Saving the SERVERDB	16
Supporting National Special Characters (ASCII)	17
Supporting National Special Characters (ASCII)	17
Sorting National Special Characters	17
Appendix A - Keyboard Layout	18
Appendix A - Keyboard Layout	18
Keyboard Layouts of the Adabas Tools	18
Appendix B - Character Set ISO 8859/1.2	19
Appendix B - Character Set ISO 8859/1.2	19

Installation under Windows

Introduction

Adabas Documentation

Installing and Setting Up Adabas D

Supporting National Special Characters (ASCII)

Appendix A - Keyboard Layout

Appendix B - Character Set ISO 8859/1.2

Introduction

This manual describes the platform specific installation steps of the Software AG database system Adabas D on Windows

Windows means both the server version and the workstation version.

Platform-independent steps of installation are described in the "*Control*" manual.

Adabas can be installed as several instances on a Windows system. Each instance is called a SERVERDB.

Adabas Documentation

The Adabas documentation is available in English and German. It is provided on CD-ROM in both "MS-Word 7.0 for Windows" format and "HTML" format.

The following documents are available:

- Concepts and Facilities
 - Questions and Answers
 - Tutorial
 - Getting Started
 - Installation under Unix
 - Installation under Windows
 - User Manual Unix
 - User Manual Windows
 - User Manual ODBC
 - User Manual Internet
 - Query
 - GUI Query
 - Load
 - Control
 - Domain
 - AccessPlus
 - SQL-PL
 - C/C++ Precompiler
 - Cobol Precompiler
 - Reference
 - Reference/Oracle
 - Messages and Codes
-

Version Information

Current information about the loaded Adabas version is provided in the files in the Adabas directory (%DBROOT%). These files describe the modifications made to the previous version, as well as open and fixed errors.

They are readable files in ASCII format.

Installing and Setting Up Adabas D

This section contains information for installing and setting up Adabas D, independent of the Windows platform used.

The time required for installation is a half man-day for the system administrator.

This chapter covers the following topics:

- Installation Package
 - Product Version Numbers
 - First Installation
 - Update Installation
-

Installation Package

The installation package of Adabas D is available on ISO 9660 CD-ROM. The CD-ROM contains a complete directory structure where product and platform are clearly denoted.

On a separate medium, usually a floppy disk, a licence file is provided.

Product Version Numbers

Product version numbers are represented by the notation $v n$, where v can be v for released version or b for beta-test version and n consists of the following components:

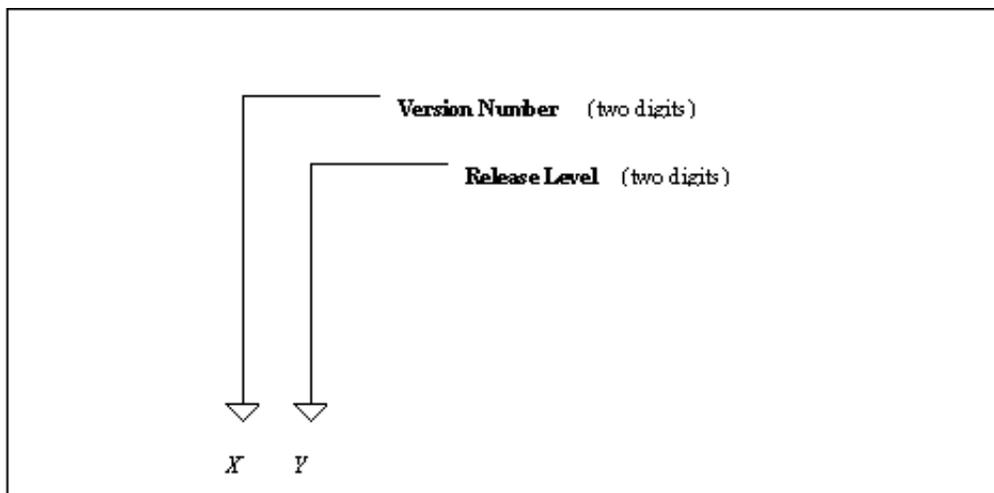


Figure 1: Product Version Numbers

First Installation

The following is a summary of the steps required to set up and install Adabas:

Step 1: Creating the database administrator .

Step 2: Logging in as the database administrator .

Step 3: Checking System Resources.

Step 4: Installing the Adabas software.

Step 5: Reading the README files.

Step 6: Defining the optional environment variables.

Step 7: Setting access rights .

Step 8: Installing the SERVERDB.

Step 9: Verifying the first installation.

Step 10: Creating a data source in the ODBC driver.

Step 11: Demo (optional).

Note:

The Adabas software provided is the same for all Windows platforms . The operating systems are distinguished at runtime.

Step 1: Creating the Database Administrator

To perform the steps described in this section, use the "User Manager" program in the "Administrative Tools" folder.

-Use the "User / New User" menu item to define the database administrator, e.g. "sag", to which all of the Software AG products installed at your site belong. The user "sag" must belong to the group of administrators. The user "sag" defines new databases. Services in Windows can only be installed by administrators.

-Define the "Adabas Operators" usergroup. This group administers existing databases without having administrator privileges. An administrator can convey owner rights to himself for each directory and each file on a computer, thus receiving full control over the Windows system. The "Adabas Operators" group should only be able to administer the database. The user "sag" can also administer the database.

-All users obtain the right to use Adabas programs by default. This right can be restricted, if necessary.

Step 2: Logging in as the Database Administrator

Log in as the database administrator, e.g. "sag".

Step 3: Checking System Resources

Disk Space

On the available hard disks, there must be sufficient space for the SERVERDB, the Adabas software, and the diagnose files:

- Adabas software ("Standart setup")	ca. 180 MB
- SERVERDB	at least 20 MB
- diagnose files	ca. 2 MB

The minimum size of the SERVERDB results from one data devspace (12 MB) and one log devspace (8 MB) when using log mode SINGLE or DEMO.

System Parameters

The Adabas kernel of a started SERVERDB needs the following system resources: message queues, shared memory segments, and semaphores.

The number and size of these system resources depend on the SERVERDB configuration (e.g., the number of users).

The configuration of the SERVERDB is described by a parameter file. The required system resources are calculated from these parameters.

Adabas Software Directory Structure Overview

The following essential files and subdirectories are created in the Adabas software directory (DBROOT) (if selected during installation):

%DBROOT%\READ*.*	Text files containing information about the current version in English or German.
%DBROOT%\AccessPl	AccessPlus files.
%DBROOT%\bin	User commands for the Adabas programs.
%DBROOT%\config	Contains the parameter files of the individual databases.
%DBROOT%\demo\eng	Demonstration programs for Load, ODBC, JDBC, and precompilers with explanations in English (analogously: "%DBROOT%\demo\deu" with explanations in German)
%DBROOT%\demo\Setup	Installation files containing the data for the demonstration programs
%DBROOT%\env	Messages and HELP files. (Note: No MS help format!)
%DBROOT%\incl	Precompiler include files.
%DBROOT%\lib	Libraries for the precompilers.
%DBROOT%\misc	Analysis tools.
%DBROOT%\pgm	Executable programs, analysis tools, precompilers.
%DBROOT%\Tcl	Files used by the TK/Tcl components
%DBROOT%\wrk	Default directory where RUNDIRECTORY will be created. The RUNDIRECTORY keeps the diagnose files.
%DBROOT%\WRK\MYDB	Rundirectory of the provided MYDB ServerDB

Step 4: Installing the Adabas Software

Setup Program

Under Windows the installation of the Adabas software is done by the database administrator, e.g. "sag". This user must belong to the group of administrators. The setup program is only available in English.

To install the software, proceed as follows:

1. Start "setup.exe".

Insert the installation CD and call "setup.exe" according to the CPU type using the File Manager.

2. "Welcome" dialog.

Click on the "Next" button to terminate the welcome dialog.

3. "Software AG Licensing Agreement" dialog.

Read the license agreement (using the scrollbar).

Click on the "Yes" button to accept it.

4. "Previous Adabas D DB Information" dialog

The installation program checks your computer and displays information about already existing Adabas D ServerDB(s), if available.

5. "Customer Information" dialog

Enter your customer information and click on the "Next" button.

6. "Setup Type" dialog.

Select "Standard Setup", "Clients Setup", "ODBC Only" or "Runtime Only" from the options.

"Standard Setup" is the default for the database server containing most common Adabas components, such as the database kernel and the Adabas clients.

"Clients Setup" contains the Adabas clients, such as Query and Domain.

"ODBC Only" contains the ODBC Driver, no clients.

"Runtime Only" contains the database kernel and control. Clients will not be installed.

7. "Custom Setup" dialog.

If you have selected "Standard Setup" or "Clients Setup", then the "Custom Setup" dialog is opened. In this dialog you can select lower level sub-components.

If you do not need one or more of the components provided (such as Demo, WebDB or the MYDB sample ServerDB), then deselect the corresponding component by selecting "This feature will not be available" in corresponding drop-down box.

To select a component, choose "This feature will be installed on local hard drive" in corresponding drop-down box.

In this dialog you can change also target location directories for selected Adabas components.

8. Specifying the location of the license file.

If you have selected to install the "Runtime" component, then installation program offers to select the license file.

Use the "Browse" button to specify the license file.

**Warning:**

If no license file (available at Software AG Darmstadt) can be found at the specified location, an Adabas D version restricted with regard to the number of users, amount of data, and number of CPUs but with full functionality can be installed. These restrictions can be removed by providing a license file at a later time.

9. "Ready to Install the Program" dialog

Click on "Install" button to start installing the software.

10. Click on "Finish" in "InstallShield Wizard Completed" dialog to finish the installation.

Manually Deactivating/Activating Remote SQL

If TCP/IP is no longer available (for example, because it was deinstalled or does not work correctly), REMOTE SQL must be deactivated in order that work with Adabas can be continued. To do this, the following steps must be performed:

1. Terminate all active SERVERDBs.

All SERVERDBs started on the computer must be shut down and stopped if this has not been done yet (Control: Shutdown / Offline). Afterwards, Control must be left (Exit).

2. Stop the Remote SQL Server (Control: Options / Remote SQL Server / Stop).
3. Terminate all running Adabas programs.
4. Copy file %DBROOT%\pgm\sqltcpn.dll to Windows System32 folder (usually: "c:\Winnt\system32") and rename it to sqltcp.dll (overwrite existing file).

Now REMOTE SQL is deactivated. You can only access local SERVERDBs.

To activate REMOTE SQL at a later point in time (e.g., for a later installation of TCP/IP), do the following:

1. Install the TCP/IP software.
2. Terminate all active SERVERDBs.

All SERVERDBs started on the computer must be shut down and stopped if this has not been done yet (Control: Shutdown / Offline).

3. Afterwards, Control must be left (Exit).
4. Terminate all running Adabas programs.
5. Copy file %DBROOT%\pgm\sqltcp1.dll to Windows System32 folder (usually: "c:\Winnt\system32") and rename it to sqltcp.dll (overwrite existing file).

6. Start the Remote SQL Server (Control: Options / Remote SQL Server / Start).

REMOTE SQL is activated now, enabling you to access either local or remote SERVERDBs.

Step 5: Reading the README Files

If README files are included, read them before proceeding.

Step 6: Defining the Optional Environment Variables

%SERVERDB%=...	SERVERDB denotes the name of the SERVERDB.
%DBCHARSET%=...	DBCHARSET must be set to IBM437_Ger in order that the Adabas tool Xload represents the German umlauts correctly.

SERVERDB (in Adabas 6.1.1: %DBNAME%) and DBCHARSET can be set for the whole system, for a specific user or session, because these variables are only relevant to applications, not to the Adabas database kernel.

Step 7: Setting Access Rights

%DBROOT%	System Full Control
	Administrators Full Control
	Adabas Operators Full Control
	Everyone Read
%DBROOT%\config	System Full Control
	Administrators Full Control
	Adabas Operators Full Control

Setting Optional Environment Variables

%DBCONFIG%	DBCONFIG denotes the directory where the current configuration files of the SERVERDBs are located (default: %DBROOT%).
%DBWORK%	<p>DBWORK denotes the directory where the work files of the SERVERDBs are located (default: "%DBROOT%).</p> <p>The subdirectory "%DBWORK%/wrk" is the default directory for the RUNDIRECTORY (containing the work directories of the SERVERDBs); the subdirectory "%DBWORK%/config" is the default directory for the BACKUPDIRECTORY (containing copies of the parameter files of the SERVERDBs).</p>

DEVSPACEs under Windows

A DEVSPACE is a Windows file that contains the data or log information of a SERVERDB.

One data DEVSPACE of a SERVERDB should only be created on a physical disk for performance reasons. If the logical disk consists of several physical DEVSPACEs, for example, as with RAID-5 systems, the number of the data DEVSPACEs should equal the number of physical disks.

For security and performance reasons, it is recommended to use the file system NTFS under Windows. The access rights on the DEVSPACEs are automatically set in such a way that only the "System", "Administrators", and "Adabas Operators" groups have full access to them. This prevents unintentional deletions by other users.

DEVSPACEs of a SERVERDB may only be installed on local hard disks.

Only for test systems (log mode DEMO), DEVSPACEs may be created as compressed files (compression done using Windows).

"Raw devices" as DEVSPACEs are not supported under Windows.

For further information about DEVSPACEs, see the "Control" manual, Section "Serverdb Structure".

Step 8: Installing the SERVERDB

The installation of a SERVERDB is done using the tool Control.

Before starting with the installation of a new SERVERDB, Section "Overview" of the "Control" manual should be read carefully. This section describes the basic concepts of an Adabas SERVERDB as there are: structure, client-server configuration, distribution, etc.

Control is started as follows:

Click on the "Control" icon in the "Adabas D Administration" folder.

Control requests all parameters required for the configuration, installs the SERVERDB, starts the SERVERDB, and installs the system tables.

A detailed description of the installation is provided in the "Control" manual, Section "Calling Control".

Information about user guidance in Control is provided in the "Control" manual, Section "Control Menu Structure and Help Texts".

Note:

Under Windows, the default path for addressing tapes is "\\.\tape<n>", where n is 0 for the first tape (i.e., "\\.\tape0").

Step 9: Verifying the First Installation

While installing the database with Control, if an error occurs, the installation is aborted and a corresponding error message is output. To be sure that the installation was successful, you can display the installation log file after the installation using the "Diagnose / Inst Protocol" menu item in Control (see the "Control" manual, Section "Diagnose / Inst Protocol"). The last line of the log file should contain the message "Load System Tables to <serverdb> on <hostname> successfully finished".

Step 10: Creating a Data Source in the ODBC Driver

To be able to work with the QueryPlus or AccessPlus tool, a data source must have been created in the ODBC Manager.

A data source is created as follows:

1. Start the ODBC administrator in the "Adabas D Administration" folder.
2. To create a new ODBC data source for Adabas, click on the Add button. A window with a list of the installed ODBC drivers appears.
3. Select the "Adabas D" entry from the "Installed ODBC Drivers" list. Click on OK. The "Adabas ODBC Setup" window appears.

In this window, the following parameters must be filled in:

Data Source Name :	A unique name for the data source. This can be the name of the Adabas database (SERVERDB) or a synonym for it, e.g., "CustomerDB".
Description :	A comment to describe the database may be entered, e.g., "Berlin Customer Database". You are free to fill in this field or not.
Serverdb :	Enter the database name (SERVERDB), e.g., "DB10".
Servernode :	Enter the node name of the database server (SERVERNODE), e.g., "dbserver1".

All parameters required must be filled in before you can click the OK button to save the settings.

The newly installed Adabas data source then appears in the "Data Sources (Driver)" list of the ODBC administrator. The name of the ODBC driver, "Adabas D", is indicated after the name of the data source, enclosed in parentheses.

Repeat Step 2 to create more data sources for Adabas databases (SERVERDBs).

After successful installation of data sources for all SERVERDBs, select Close to leave the ODBC administrator.

Notes: The ODBC administrator can be called up any time subsequent to the installation to change the settings or to configure entries for additional SERVERDBs. Double-click on the "ODBC Administrator" program icon in the Adabas program group to start the ODBC administrator.

To change options, select the corresponding Adabas data source (DataSource) and click on Setup...

To configure a new Adabas data source, e.g., for another SERVERDB, proceed as described for Step 2. To delete a data source no longer needed, select it in the list of data sources and click on Delete.

Step 11: Demo

With each Adabas version, demonstration files are distributed. A description of their installation and usage in English is contained in the "EREADME.txt" file in the "%DBROOT%\demo\eng" directory (in German in the "README.txt" file in the "%DBROOT%\demo\deu" directory).

The following users and tables are predefined in the provided 'MYDB' ServerDB. So you can work immediately with the demonstration database after rebooting.

User names and passwords in the English version of the demo:

	User name	Password
NorthWind sample:	EDEMO	EDEMO
SQLTRAVEL sample:	SQLTRAVEL00	TRAVEL00
	SQLTRAVEL10	TRAVEL10
	SQLTRAVEL20	TRAVEL20
WebDB sample:	WEBDEMO	WEBDEMO

User names and passwords in the German version of the demo:

	User name	Password
Nordwind sample:	DEMO	DEMO
SQLREISEN sample:	SQLREISEN00	REISEN00
	SQLREISEN10	REISEN10
	SQLREISEN20	REISEN20

For specific database administration and operating tasks (e.g. doing a backup), you may need to know the user names and passwords of the following special users (please read the documentation first before you start to work as one of those users):

	User name	Password
Control User	CONTROL	ADABAs
SYSDBA	ADABAS	ADABAS
User DOMAIN	DOMAIN	ADABAS

Update Installation

Step 1: Checking System Resources

Check disk space requirements as described in Section "First Installation".

Step 2: Stopping the SERVERDB And All Other Adabas Programs

Stop the SERVERDB with the Control "Shutdown / Offline" menu item (see the "Control" manual, Section "Operating / Shutdown").

Terminate all running Adabas programs.

Step 3: Saving an Existing Adabas Version

Save the existing version of Adabas (indispensable).

When doing so, think of %DBROOT%\CONFIG!

Step 4: Installing the Software

Install the software from CD-ROM using the "setup.exe".

Step 5: Reading the README Files

If README files are included, read them before proceeding.

Step 6: Checking the Parameters

Check and, if necessary, update the parameters of the embedding in the operating system with the Control "Alter Parameters" menu item (see the "Control" manual, Section "Configuration / Alter Parameters").

Step 7: Restarting the SERVERDB

Restart the SERVERDB with the Control "Restart" menu item (see the "Control" manual, Section "Operating / Restart").

Step 8: Updating the System Tables

Install the system tables with the Control "Load Systables" menu item (see the "Control" manual, Section "Configuration / Load System Tables").

Step 9: Verifying the Update Installation

Verify the installation with the Control "Diagnose / Inst Protocol" menu item; message: "Load System Tables to <serverdb> on <hostname> successfully finished" (see the "Control" manual, Section "Diagnose / Inst Protocol").

Step 10: Saving the SERVERDB

After a successful update installation, perform a complete save of the SERVERDB using the Control "Backup / Save / Data" menu item (see the "Control" manual, Section "Backup / Save / Data").

Supporting National Special Characters (ASCII)

The following procedure can be chosen if national special characters (such as the German umlauts) are to be used that are contained in the ASCII code.

All ASCII data is internally stored according to ISO 8859/1.2. The corresponding code table can be found in "Appendix B - Character Set ISO 8859/1.2".

The following is true for the input, output, and sort of national special characters:

-DBCHARSET must be set to IBM437_Ger in order that the Adabas tool Xload represents the German umlauts correctly. Other tools, such as QueryPlus and Domain, do not need this environment variable.

-In the Adabas database, characters or character strings are sorted according to the code ISO 8859/1.2; i.e., if national special characters in a sorted output are to be ordered in a way different from this code, then a language-specific table for the mapping of codes must be defined for this purpose (see Section "Sorting National Special Characters").

This chapter covers the following topics:

- Sorting National Special Characters
-

Sorting National Special Characters

As Adabas uses the ISO 8859/1.2 code for a sort of the alphanumeric characters or character strings, and as national specific characters in this code follow all the other "normal" alphanumeric characters, character strings containing the national special characters would be output at the wrong place according to the usual conventions. The word "Änderung", e.g., would be output after the word "Zeichenkette", or "Größe" after "Grund".

This effect can be resolved using a table for the mapping of codes, MAPCHAR SET (see the "Control" manual, Section "Configuration / Alter Parameters / Mapchar Set"), that ensures a correct sort. In this MAPCHAR SET, another notation can be assigned to the national special characters in such a way that these will be arranged in the desired order when being sorted (see the "Reference" manual, Section "Common Elements, <string function>"). For example, if the alternative notation "A" is assigned to the character "Ä", and the function "mapchar" is applied to the sort criterion when reading from the database, the word "Änderung" will be output before the word "Anfang".

Adabas also uses MAPCHAR SETs to support the NLS sort as known from ORACLE.

Appendix A - Keyboard Layout

This chapter covers the following topics:

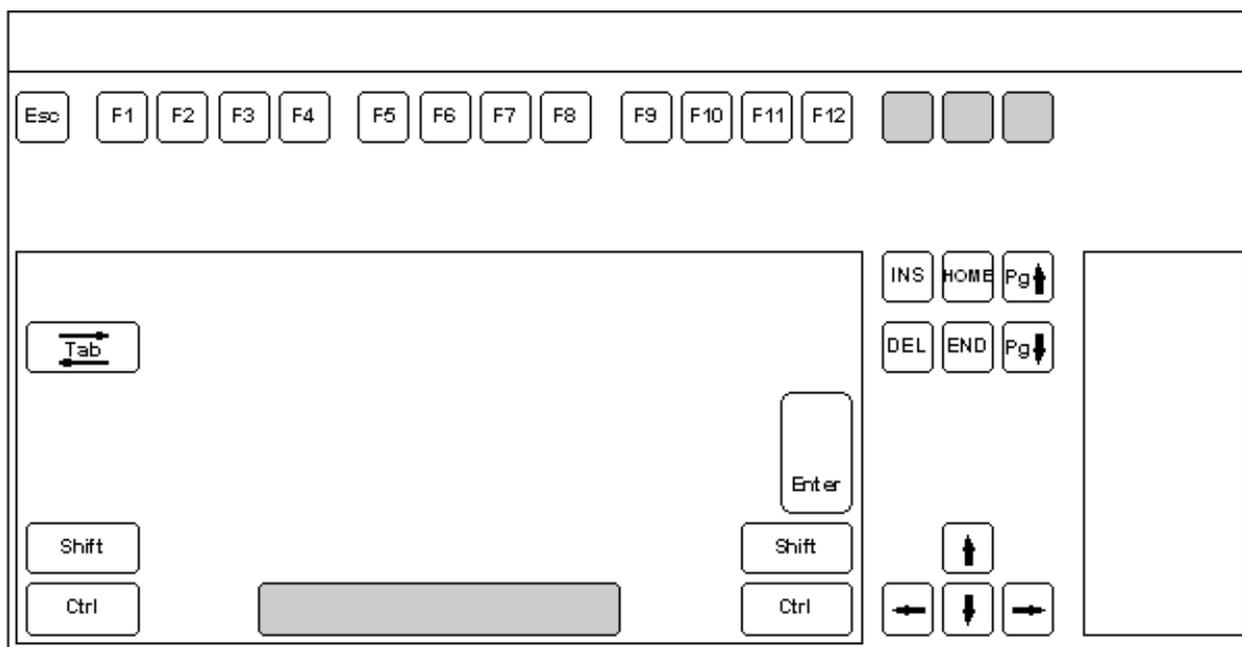
- Keyboard Layouts of the Adabas Tools

Keyboard Layouts of the Adabas Tools

To use the tools of Adabas, the user needs some special keys in addition to the standard alphanumeric keys. These keys are the function keys F1 , F2 , ... up to F12 and ENTER .

For comfortable operation, the tools support additional function keys; the most important are: INSERT CHAR, DELETE CHAR, CMD, INSERT LINE, DELETE LINE, DELETE TO EOL .

Keyboard Layout under Windows (MF2 Keyboard)



<Ctrl> <INS>:<INS-B>

<Ctrl> :<DEL-B>

<Ctrl> <HOME>:<Top>

<Ctrl> <END>:<Bottom>

Appendix B - Character Set ISO 8859/1.2

DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
0	00	NUL	32	20	SP	64	40	@	96	60	`
1	01	SOH	33	21	!	65	41	A	97	61	a
2	02	STX	34	22	"	66	42	B	98	62	b
3	03	ETX	35	23	#	67	43	C	99	63	c
4	04	EOT	36	24	\$	68	44	D	100	64	d
5	05	ENQ	37	25	%	69	45	E	101	65	e
6	06	ACK	38	26	&	70	46	F	102	66	f
7	07	BEL	39	27	'	71	47	G	103	67	g
8	08	BS	40	28	(	72	48	H	104	68	h
9	09	HT	41	29	)	73	49	I	105	69	i
10	0A	LF	42	2A	^	74	4A	J	106	6A	j
11	0B	VT	43	2B	+	75	4B	K	107	6B	k
12	0C	FF	44	2C	,	76	4C	L	108	6C	l
13	0D	CR	45	2D	-	77	4D	M	109	6D	m
14	0E	SO	46	2E	.	78	4E	N	110	6E	n
15	0F	SI	47	2F	/	79	4F	O	111	6F	o
16	10	DLE	48	30	0	80	50	P	112	70	p
17	11	DC1	49	31	1	81	51	Q	113	71	q
18	12	DC2	50	32	2	82	52	R	114	72	r
19	13	DC3	51	33	3	83	53	S	115	73	s
20	14	DC4	52	34	4	84	54	T	116	74	t
21	15	NAK	53	35	5	85	55	U	117	75	u
22	16	SYN	54	36	6	86	56	V	118	76	v
23	17	ETB	55	37	7	87	57	W	119	77	w
24	18	CAN	56	38	8	88	58	X	120	78	x
25	19	EM	57	39	9	89	59	Y	121	79	y
26	1A	SUB	58	3A	:	90	5A	Z	122	7A	z
27	1B	ESC	59	3B	;	91	5B	[	123	7B	{
28	1C	FS	60	3C	<	92	5C	\	124	7C	|
29	1D	GS	61	3D	=	93	5D	]	125	7D	}
30	1E	RS	62	3E	>	94	5E	^	126	7E	~
31	1F	US	63	3F	?	95	5F	_	127	7F	DEL

DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
128	80		160	A0	NBSP	192	C0	A	224	E0	a
129	81		161	A1	Ÿ	193	C1	Б	225	E1	б
130	82		162	A2	ÿ	194	C2	В	226	E2	в
131	83		163	A3	Ј	195	C3	Г	227	E3	г
132	84		164	A4	о	196	C4	Д	228	E4	д
133	85		165	A5	ѓ	197	C5	Е	229	E5	е
134	86		166	A6	ı	198	C6	Ж	230	E6	ж
135	87		167	A7	§	199	C7	З	231	E7	з
136	88		168	A8	È	200	C8	И	232	E8	и
137	89		169	A9	©	201	C9	Њ	233	E9	й
138	8A		170	AA	е	202	CA	К	234	EA	к
139	8B		171	AB	«	203	CB	Л	235	EB	л
140	8C		172	AC		204	CC	М	236	EC	м
141	8D		173	AD	-	205	CD	Н	237	ED	н
142	8E		174	AE	®	206	CE	О	238	EE	о
143	8F		175	AF	İ	207	CF	П	239	EF	п
144	90		176	B0	°	208	D0	Р	240	F0	р
145	91		177	B1	±	209	D1	С	241	F1	с
146	92		178	B2	І	210	D2	Т	242	F2	т
147	93		179	B3	і	211	D3	У	243	F3	у
148	94		180	B4	ı	212	D4	Ф	244	F4	ф
149	95		181	B5	µ	213	D5	Х	245	F5	х
150	96		182	B6		214	D6	Ц	246	F6	ц
151	97		183	B7	·	215	D7	Ч	247	F7	ч
152	98		184	B8	è	216	D8	Ш	248	F8	ш
153	99		185	B9	№	217	D9	Щ	249	F9	щ
154	9A		186	BA	е	218	DA	Ъ	250	FA	ъ
155	9B		187	BB	»	219	DB	Ы	251	FB	ы
156	9C		188	BC	ј	220	DC	Ь	252	FC	ь
157	9D		189	BD	Ѕ	221	DD	Э	253	FD	э
158	9E		190	BE	s	222	DE	Ю	254	FE	ю
159	9F		191	BF	ı	223	DF	Я	255	FF	я



possibly set by the operating system