

Product	Name ABM for ND-500	Reg. no. 210718C	Category STPR	
Reason	New product X Change/Addition	Error Correction Different Environment		
Documen- tation	Title ABM User Manual	Reg. no. 60.203.02		
Purpose	ABM is a tool for system development and maintenance of transaction oriented applications. ABM is for users of SIBAS and COBOL or FORTRAN.			
Prerequi- sites	Computer	Type	Floating format	
	ND-500	ALL		
	Op. system	Version		
	SIN III	VSX >=I		
	Reg. no.	Product name		
	210166	SIBAS II for ND-100 >=E ver. OR		
210340	SIBAS II for ND-500 >=E ver.			
210190I	FORTRAN-500 If using FORTRAN as prog. lang.			
210044S	PERFORM When using Complete-PG			
210176I	COBOL-500 If using COBOL as program lang.			
210023K	FTN If using TPS			
Minimum mass storage resources for installation				
User	User space	Number of files		
ABM-SYSTEM	4000 pages on	56 files		
ABM-USER	600 pages on	10 files		
Minimum permanent mass storage resources				
User	User space	Number of files		
ABM-SYSTEM	4000 pages on	56 files		
Max/Min number of RT-descriptions:		Max 0	Min 0	
Max/Min number of segments:		Max 0	Min 10	
Space requirements on segment file(s) is		pages		
		Reg. no. for Source 210714C		
File Name				
		Type	Containing	
ABM-LIB01-C<rev>		NRF	DD and DB modules	
ABM-LIB02-C<rev>		NRF	COPY-INCLUDE file generation.	
ABM-LIB03-C<rev>		NRF	Screen definition part	
UE-PLIB-C<rev>		NRF	User Environment prog. library	
UELIB-P2-C<rev>		NRF	User Environment prog. library	
UELIB-D2-C<rev>		NRF	User Environment data library	
ABM-REP-HEAD-C<rev>		SYMB	Report heading.	

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File Name	Type	Containing
ABM-RED-AB-C<rev>	MODE	Mode file to redefine ABM DD.
ABM-RED-AB1-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB2-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB3-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB4-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB5-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB6-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB7-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB8-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB9-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB10-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-RED-AB11-C<rev>	SYMB	Convert from A to B (or C) ver.
ABM-FORMC-C<rev>	NRF	ABM forms.
ABM-CREATE-C<rev>	MODE	Create the ABM domain.
FABM-ENVIRON-C<rev>	FABM	Environment file.
FD-NDP-FORMS	NDPF	FOCUS forms / ABM screen part
ABM-FC-LIB-C<rev>	SYMB	ABM FOCUS library
ABM-FC-LIB-C<rev>	NRF	ABM FOCUS library
ABM-SIB-LIB-C<rev>	SYMB	ABM SIBAS library
ABM-SIB-LIB-C<rev>	NRF	ABM SIBAS library
ABM-FC-LIB-C<rev>	INCL	ABM-FC-LIB parameters
ABM-F-DIV-LIB-C	NRF	ABM library
ABM-UTIL-LIB-C<rev>	NRF	ABM Utility library
ABM-SCHEMA-C<rev>	SYMB	Internal ABM Sibas schema.
ABM-FC-PRIV-C<rev>	INCL	FOCUS parameters.
ABM-FC-CLOCK-C<rev>	SYMB	Block data FOCUS.
ABM-FC-CLOCK-C<rev>	NRF	Block data FOCUS.
ABM-500-LIB-C<rev>	MODE	Compile libraries.
ABM-INITIATE-C<rev>	MCRO	Makes an empty ABMBASE.
ABM-DC-FOCUS-C<rev>	NRF	Check focus format
ABM-DC-STORA-C<rev>	NRF	Check storage format
ABM-DC-DISPL-C<rev>	NRF	Check display format
ABM-DC-C2-C<rev>	NRF	Convert to internal format
ABM-DC-STACK-C<rev>	NRF	Internal stack
ABM-EX-COBOL-C<rev>	FABM	Form file for the cobol example
ABM-EX-FORT-C<rev>	FABM	Form file for the FORTR example
ABM-EX-COB-0-C<rev>	SYMB	Ex. COBOL main program
ABM-EX-COB-1-C<rev>	SYMB	Ex. COBOL program-1
ABM-EX-COB-2-C<rev>	SYMB	Ex. COBOL program-1
ABM-EX-COB-3-C<rev>	SYMB	Ex. COBOL program-3
ABM-EX-COB-4-C<rev>	SYMB	Ex. COBOL program-4
ABM-EX-FORT-C<rev>	SYMB	Ex. FORTRAN program
ABM-EX-500-C<rev>	MCRO	Ex. Load macro
ABMBASE-C<rev>	DATA	The ABM example
ABMOSFI-C<rev>	DATA	database files.
DDBTABLES-E06	VTM	Standard VTM tab.
UE-ERMSG-EN-C02	ERR	Error messages.
FOCUS-2CODE-G	NRF	FOCUS code, 2bank
FOCUS-2DATA-G	NRF	FOCUS data, 2bank
FOCUS-COMPIL-G	PROG	Gen.load. forms.
VTM-F	NRF	Virtual terminal manager.
FD-SLE-LED-C<REV>	NRF	Focus line editor.
SLE-E	NRF	Line editor.
NDP-LIB-E	NRF	Dialog processor

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	ABM-COBL-LIB-C<rev>NRF	ABM COBOL library	
	ABM-FORT-LIB-C<rev>NRF	ABM FORTRAN LIBRARY	
	ABM-EXCEPT-LIB-C NRF	ABM exception library	
	MON-CALL-LIB NRF	Monitor call library.	

NOTE: <rev> is to be replaced by the current revision of the DIRECTORY or FILE. Revision is found on the "ND SOFTWARE LIBRARY DISKETTE" pages.

### 1 ERRORS CORRECTED

- The subschema module will allow more than 100 realms
- The group module will allow more than 89 items within one group.
- Error when generating CHANGE-SERIAL-REALM is corrected.
- Error when modifying a SET.

### 2 MODIFICATIONS

- All the ABM programs are now executing on the ND-500.
- A complete program generator (ND-211109) is available as a part of ABM.

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### 3 INSTALLATION PROCEDURE

If you are running the F-version of SIBAS, you need revision F02.

Please read the entire installation procedure before you start the installation of ABM.

Section 3.1 and 3.2, Part I or Part II, are necessary for running the ABM system.

Section 3.4 contains descriptions of how to try out ABM using the enclosed example. (See also chapter 9 in the ABM User Manual.)

Section 3.5 contains descriptions for those who have already installed the A-version (but not the B-version).

In section 3.6 you will find a patch which is necessary to run the C version of the ABM system.

In Section 3.7 you will find some useful advice and hints.

#### 3.1 Installation of ABM files and programs

- Create the user ABM-SYSTEM and give it approximately 3000 pages.
- Create the user ABM-USER and give it approximately 600 pages.

**NOTE!** The abbreviation ABM-SYSTEM must be a unique user name within your system.

- Log in as user SYSTEM and enter the floppy disk labeled 210718C-EN-01D. Copy the installation program, with the command:

```
@COPY-FILE↵
DESTINATION FILE: "ABM-INST-210718:PROG"↵
SOURCE FILE: (210718C-EN:FL)ABM-INST-210718:PROG↵
```

and start the installation by typing:

```
@ABM-INST-210718↵
```

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- Answer the questions and insert floppies as requested by this program until the installation is complete.

It will take about 30 minutes to install ABM-C version.

- Check that the files UE-ERMSG-EN-C02:ERR (or later revision) and DDBTABLES-E06:VTM are available on user SYSTEM. If they are available on user SYSTEM, delete the corresponding files from ABM-SYSTEM user. If not, copy these files to user SYSTEM and delete them from ABM-SYSTEM.

NOTE! The two files must have unique file names within UE-ERMSG-EN-C and DDBTABLES-E respectively.

- Log in as ABM-SYSTEM and run the mode file ABM-CREAT-C:MODE.

NOTE! Depending on your system configuration, it may be necessary to edit ABM-CREAT-C:MODE for correct user name and name of the SIBAS, COBOL and FORTRAN libraries. Log in as user SYSTEM and make a standard domain of ABM with the command:

```
@ND DEFINE-STANDARD-DOMAIN ABM-C (ABM-SYS)ABM-C
```

Users who already have the A-version or B-version of ABM, please continue with section 3.5.

### 3.2 Initiation of ABM database.

Before running ABM, you must initiate and start the included database ABMBASE. There are two ways to initiate this database. The first way, described in Part I, is to generate the database from the included schema file ABM-SCHEMA-C:SYMB, which will generate a new and empty database.

The second way, described in Part II, is to use the ABMBASE as found in the example described in the ABM User Manual.

In both situations you must decide under which SINTRAN user you are going to keep your ABM database and under which users you are going to use ABM.

We recommend that you keep all ABM system software, including the ABMBASE database files, on the user ABM-SYSTEM. You can, in principle, use ABM from whatever SINTRAN user you like. We use ABM-USER in this program description.

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**Part I. Initiation of a new and empty ABM catalog.**

- 1) Log in as user ABM-SYSTEM and generate the ABM catalog (ABMBASE) by running PERFORM on the ABM-DBINIT macro found on the file ABM-INITIATE-C:MCRO.

Example:

@PERFORM (ABM-SYSTEM)ABM-INITIATE↵

Macro name (Default = xxxxxxxxxxx) : ABM-DBINIT↵

~~< Then follow the description given by this run >~~

- 2) Log in as user RT (or SYSTEM) and start ABMBASE on a free SIBAS process. BIM-log must be initiated. To be safer, run R-log as well.

**Read appendix G (Operating the ABMBASE) in the ABM User Manual.**

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### Part II. Initiation of the ABM catalog containing the example.

- 1) Log in as user RT (or SYSTEM) and start ABMBASE on a free SIBAS process. (See appendix G in the ABM User Manual.)

You can now run ABM, but continue reading this description.

### 3.3 Installation of the ABM application runtime system.

The ABM application runtime libraries, ABM-FC-LIB and ABM-SIB-LIB, are already copied to the ABM-SYSTEM user. These libraries, written in standard FORTRAN, are supplied in symbol versions. This means that you can trigger and compile the libraries according to your needs.

The dimensioning of the internal runtime buffers can be changed by updating corresponding parameters in the :INCL files for the respective libraries.

Normally the users need not be concerned with changing anything in the runtime files. You can, at least in the first test phase, use the libraries as they are.

If you have changed these internal buffers, Log in as user ABM-SYSTEM and run the mode file (ABM-SYSTEM)ABM-500-LIB-C:MODE to prepare the runtime libraries ABM-FC-LIB and ABM-SIB-LIB. A compiled version is included with the ABM system.

### 3.4 Exercise using the contained example.

The included example database is in E-format. If you are running F02 or later version of SIBAS, you have to convert this database before use.

#### Exercise for COBOL users.

When making the ABMDEMO database and the program example described in the ABM User Manual, please proceed as follows:

- 1) Log in as the SINTRAN user under which you have decided to run the ABM example, for example ABM-USER, and start ABM.

Proceed by generating the ABMDEMO schema by giving the ABM command SCHEMA. Answer Y(es) to the question 'Initiation of the database'.

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- 2) Generate the COBOL COPY elements for the COBOL-EX function by giving the ABM command COPY.
- 3) Log in as user RT (or SYSTEM) and start ABMDEMO on a free SIBAS process.
- 4) Then go back to ABM-USER and load the example program by typing:

```
@PERFORM ↵
:MCRO Filename : ABM-EX-500-C ↵
Macro name      : COBOL-EXAMPLE ↵
```

and answer the questions.

- 5) Start the example program by typing:

```
@ND ABM-EX-COBOL ↵
```

#### Exercise for FORTRAN users.

When making the ABMDEMO database and the program example described in the ABM User Manual, please proceed as follows:

- 1) Log in as the SINTRAN user under which you have decided to run the ABM example, for example ABM-USER, and start ABM. Proceed by generating the ABMDEMO schema by giving the SCHEMA command. Answer Y(es) to the question 'Initiation of the database'.
- 2) Generate the FORTRAN include files for the FORT-EX function by giving the ABM command INCLUDE-GEN.
- 3) Log in as user RT (or SYSTEM) and start ABMDEMO on a free SIBAS process.
- 4) Then go back to ABM-USER and load the example program by typing:

```
@PERFORM ↵
:MCRO Filename : ABM-EX-500-C ↵
Macro name      : FORTRAN-EXAMPLE ↵
```

and answer the questions.

- 5) Start the example program by typing @ND ABM-EX-FORT ↵

### 3.5 For users who have installed the A-version of ABM.

For users who have installed the A-version (and not the B-version of ABM), the ABM catalog has to be redefined. This is done by running the mode file ABM-RED-AB-C00:MODE, from



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the user where your ABM catalog is found.

Your ABM catalog may now be started as normal.

It is strongly recommended to do a verification on the existing ABM catalog, before you take a backup of the catalog and your form files.

All screen-forms must be converted by the command MAKE-UP-TODATE-FORM, in the SCREEN-FORM menu.

All your applications must be reloaded with the G-version of the FOCUS libraries.

### 3.6 Necessary SIBAS patch for running ABM version C.

Log in as user SIB2-500 and perform the following patch, on the main sibas domain. This patch makes it possible to remove underlying records in a SET structure with ERASE (code=3). It is not necessary for the user to have exclusive update.

Note that the patch will have different addresses depending on which version of SIBAS you have.

#### FOR SIBAS-500

All SIBAS processes must be passive.

For SIBAS-E10 :

```
@nd
look-at-prog 12'116554 sib-main
permit                %old if>< go 001514b
code noop
code noop
code noop
exit
exit
```

For SIBAS-F02:

```
@nd
look-at-prog 12'132301 sib-main
permit                %old go 002000b
code noop
code noop
code noop
exit
exit
```

#### FOR SIBAS-100.

Insert the patches before END-LOAD in the file SIB2-PROG:-MODE.

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For SIBAS-E10:  
 CHAN-LOC SIBPROG  
 3202/124001                   % old 131010

FOR SIBAS-F02:  
 CHAN-LOC SIBPF00  
 25123/124001                 % old 142065

### 3.7 Advice and hints.

#### Patching the elapsed time limit for Transaction units.

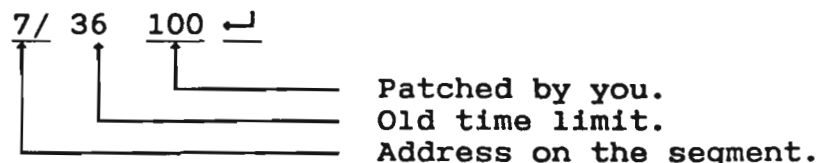
This section is only for those using SIBAS version E.

All ABM modules use transaction units SUBEG/SUEND when updating the ABM catalog (ABMBASE).

It may happen that the time limit for the transaction unit is exceeded. To avoid time limit problems you can do the following patch :

- Log in as user SYSTEM and use the SINTRAN command LIST-RT-DESCRIPTION on the SIBAS process where you have started ABM (for example SIB2A).
- For SINTRAN version earlier than K: The SIBAS process data segment is the first segment number given after "SEGMENTS:". We call it nnn.
- For K-version SINTRAN-III: The SIBAS process data segment is the second segment number given after "INITIAL SEGMENTS:". We call it nnn.
- Do the following :

@LOOK-AT SEGMENT nnn ↵



- The time limit is now set to 100 seconds (octal). This should be sufficient in most situations.

ND SOFTWARE LIBRARY DISKETTE

PAGE 1

Containing :  
 ABM for ND-500  
 (English version)

Directory Name :  
 210718C01-EN-01D

User Name : FLOPPY-USER

No	File name	Type T	Public	Friend	Own	Pages	Bytes
0	FABM-ENVIRON-C01	FABM C	RWAC	RWAC	RWACD	2	4096
1	FD-NDP-FORMS	NDPF C	RWAC	RWAC	RWACD	19	38912
2	DDBTABLES-E07	VTM I	RWAC	RWAC	RWACD	17	32414
3	ABM-REP-HEAD-C01	SYMB I	RWAC	RWAC	RWACD	4	5033
4	ABM-CREATE-C01	MODE I	RWAC	RWAC	RWACD	3	1564
5	ABM-UTIL-LIB-C01	NRF I	RWAC	RWAC	RWACD	22	41555
6	ABM-RED-AB1-C01	SYMB I	RWAC	RWAC	RWACD	3	233
7	ABM-RED-AB2-C01	SYMB I	RWAC	RWAC	RWACD	2	290
8	ABM-RED-AB3-C01	SYMB I	RWAC	RWAC	RWACD	2	297
9	ABM-RED-AB4-C01	SYMB I	RWAC	RWAC	RWACD	3	3029
10	ABM-RED-AB5-C01	SYMB I	RWAC	RWAC	RWACD	2	804
11	ABM-RED-AB6-C01	SYMB I	RWAC	RWAC	RWACD	2	361
12	ABM-RED-AB7-C01	SYMB I	RWAC	RWAC	RWACD	3	2954
13	ABM-RED-AB8-C01	SYMB I	RWAC	RWAC	RWACD	2	487
14	ABM-RED-AB9-C01	SYMB I	RWAC	RWAC	RWACD	2	422
15	ABM-RED-AB10-C01	SYMB I	RWAC	RWAC	RWACD	2	619
16	ABM-RED-AB11-C01	SYMB I	RWAC	RWAC	RWACD	3	604
17	ABM-RED-AB-C01	MODE I	RWAC	RWAC	RWACD	2	1843
18	ABM-INITIATE-C01	MCRO I	RWAC	RWAC	RWACD	2	1088
19	ABM-SCHEMA-C01	SYMB I	RWAC	RWAC	RWACD	41	65242
20	ABM-FC-LIB-C01	SYMB I	RWAC	RWAC	RWACD	26	50109
21	ABM-SIB-LIB-C01	SYMB I	RWAC	RWAC	RWACD	19	35163
22	ABM-ERR-STAT-C01	INCL I	RWAC	RWAC	RWACD	2	649
23	ABM-FC-LIB-C01	INCL I	RWAC	RWAC	RWACD	3	2096
24	ABM-FC-PRIV-C01	INCL I	RWAC	RWAC	RWACD	2	780
25	ABM-FC-BLOCK-C01	SYMB I	RWAC	RWAC	RWACD	2	502
26	ABM-500-LIB-C01	MODE I	RWAC	RWAC	RWACD	2	1381
27	FOCUS-COMPIL-G00	PROG I	RWAC	RWAC	RWACD	60	120832
28	FOCUS-CODE-G00	NRF I	RWAC	RWAC	RWACD	70	140697
29	FOCUS-DATA-G00	NRF I	RWAC	RWAC	RWACD	6	8535
30	ABM-INST-210718C	PROG I	RWAC	RWAC	RWACD	63	184392
31	FD-SLE-LED-C00	NRF I	RWAC	RWAC	RWACD	4	4649
32	ABM-LIB02-C01	NRF I	RWAC	RWAC	RWACD	192	390083

33 files using 589 pages. 610 pages reserved out of 610 pages.

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PAGE 1

Containing :  
ABM for ND-500  
(English version)

Directory Name :  
210718C01-EN-02D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	ABM-LIB01-C01	NRF	I	RWAC	RWAC	RWACD	567	1157513
1	ABM-EXCEPT-LIB-C	NRF	I	RWAC	RWAC	RWACD	11	19013
2	ABM-SIB-LIB-C01	NRF	I	RWAC	RWAC	RWACD	10	16397
3	ABM-FC-LIB-C01	NRF	I	RWAC	RWAC	RWACD	15	26897
4	ABM-FC-BLOCK-C01	NRF	I	RWAC	RWAC	RWACD	2	868
5	files using 605 pages.			610 pages reserved out of 610 pages.				

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PAGE 1

Containing :  
ABM for ND-500  
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Directory Name :  
210718C01-EN-03D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	ABM-LIB03-C01	NRF	I	RWAC	RWAC	RWACD	503	1027248
1	VTM-F	NRF	I	RWAC	RWAC	RWACD	30	57452
2	SLE-E	NRF	I	RWAC	RWAC	RWACD	17	30822

3 files using 550 pages. 610 pages reserved out of 610 pages.

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PAGE 1

Containing :  
ABM for ND-500  
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Directory Name :  
210718C01-EN-04D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	ABM-FORT-LIB-C01	NRF	I	RWAC	RWAC	RWACD	51	98832
1	ABM-COBL-LIB-C01	NRF	I	RWAC	RWAC	RWACD	118	237956
2	UE-ERMSG-EN-C02	ERR	I	RWAC	RWAC	RWACD	103	208384
3	files using 272 pages.			600 pages reserved out of 610 pages.				

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PAGE 1

Containing :  
 ABM for ND-500  
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Directory Name :  
 210718C01-EN-05D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	MON-CALL-LIB	NRF	I	RWAC	RWAC	RWACD	4	5731
1	ABM-FORMC-C01	NRF	I	RWAC	RWAC	RWACD	47	93251
2	UELIB-P5-C	NRF	I	RWAC	RWAC	RWACD	9	15028
3	UELIB-D5-C	NRF	I	RWAC	RWAC	RWACD	2	599
4	UE-PLIB-C	NRF	I	RWAC	RWAC	RWACD	27	52992
5	NDP-LIB-E	NRF	I	RWAC	RWAC	RWACD	72	125790
6	ABM-GET-LAN-C01	NRF	I	RWAC	RWAC	RWACD	2	440
7	ABM-DC-FOCUS-C01	NRF	I	RWAC	RWAC	RWACD	21	40417
8	ABM-DC-STORA-C01	NRF	I	RWAC	RWAC	RWACD	45	88341
9	ABM-DC-DISPL-C01	NRF	I	RWAC	RWAC	RWACD	19	35747
10	ABM-DC-C-2-C01	NRF	I	RWAC	RWAC	RWACD	29	56257
11	ABM-DC-STACK-C01	NRF	I	RWAC	RWAC	RWACD	2	447

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PAGE 1

Containing :  
 ABM for ND-500  
 (English version)

Directory Name :  
 210718C01-EN-06D

User Name : FLOPPY-USER

No	File name	Type T	Public	Friend	Own	Pages	Bytes
0	ABM-EX-COBOL-C01	FABM C	RWAC	RWAC	RWACD	25	51200
1	ABM-EX-FORT-C01	FABM C	RWAC	RWAC	RWACD	25	51200
2	ABM-EX-COB-0-C01	SYMB I	RWAC	RWAC	RWACD	4	4487
3	ABM-EX-COB-1-C01	SYMB I	RWAC	RWAC	RWACD	6	8518
4	ABM-EX-COB-2-C01	SYMB I	RWAC	RWAC	RWACD	5	7203
5	ABM-EX-COB-3-C01	SYMB I	RWAC	RWAC	RWACD	8	11827
6	ABM-EX-COB-4-C01	SYMB I	RWAC	RWAC	RWACD	10	14780
7	ABM-EX-FORT-C01	SYMB I	RWAC	RWAC	RWACD	13	22373
8	ABM-EX-500-C01	MCRO I	RWAC	RWAC	RWACD	5	5152
9	ABMOSFI	DATA I	RWAC	RWAC	RWACD	108	4633602
10	ABMBASE	DATA I	RWAC	RWAC	RWACD	99	1638400

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