

Protecting Predict Programs With Natural Security

This section covers the following topics:

- Functional Scope
- Naming Conventions for Library SYSDIC
- Protecting Programs in Library SYSDICBE
- Naming Conventions for Library SYSDICCO
- Naming Conventions for Library SYSDICMA

Functional Scope

Protecting Entire Predict Libraries

To protect an entire Predict library, for example SYSDICCO containing all conversion programs, you must create the corresponding security definitions directly in Natural Security as in earlier versions of Predict.

Protecting Individual Predict Programs

Individual Predict functions, for example administration functions, can be protected by disallowing the respective Predict system programs in Natural Security. The following sections contain tables that can be used to determine the names of Predict programs that have to be disallowed in Natural Security to restrict access to individual functions in Predict.

However, we recommend you use the new functionality provided by Predict Security for this purpose. This is easier both for the administrator and for the user. See PRD-Docu-Object in the section **Natural Security Entities** in this documentation for more information.

Naming Conventions for Library SYSDIC

Combined Program Names in SYSDIC

Many program names are built by combining a function specific prefix and an object type specific suffix.

Example: the program name ACMFI that adds, copies or modifies file objects is built from the prefix ACM (add/copy/modify) and the suffix FI (file).

Prefixes of Program Names in SYSDIC

The prefixes used for program names in SYSDIC are as follows.

Prefixes of Program Names in SYSDIC		
Name	Subsystem	Explanation and Remarks
ACM	Maintenance	Add / Copy / Modify objects
ACT	Active Retrieval Menus	
ADA	Active Retrieval	List master fields/files referenced

CAT	Maintenance	Catalog function of the editors
CNT	Active Retrieval	Count functions
COM	Comparison	Compare
COP	Maintenance	Copy/Move owner
DDA	Special functions	DDAOB calls the Special Functions menu
DDF	Defaults	DDFOB calls the Defaults menu.
DEF	Active Retrieval	List objects not documented
DIS	Administration Impl.	Disconnect External Objects
DIF	Retrieval	Difference of Files
DSP	Retrieval/Maintenance/Active Retrieval	Display functions
EDT	Maintenance	Editors
ERM	Retrieval	Execute retrieval models
EXP	Retrieval	Explode functions
FIL	File implementation	
GEN	Generation	Generation
IMP	Retrieval	Implode functions
INC	Incorporation	Incorporation
IPL	Active Retrieval	List implemented members/libraries
LNK	Maintenance	Link keywords to objects
LST	Retrieval	List functions
MNT	Maintenance	Maintenance menus
NEW	--	Predict initialization
NOT	Active Retrieval	List objects not implemented/referenced
PAL	Predict application programming interf.	
PRE	--	The preprocessor
PUL	Maintenance	Push backward
PUR	Maintenance	Purge modules
RDO	Maintenance	Re-document program
RED	Maintenance	Read objects/text into the editors
REF	Active Retrieval	List objects referenced by members
REN	Maintenance	Renumber, rename, change type
RET	Retrieval	The retrieval menus
RFF	Administration Impl.	Refresh file
SAV	Maintenance	Save description; save processing rule
SEL	Retrieval, Maintenance, Active Retrieval	Selection
SHW	Retrieval, Maintenance, Active Retrieval	Display and list functions

XRF	Retrieval	Cross reference functions
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Suffixes of Program Names in SYSDIC	
Name	Subsystem
AN	Vista table
AVB	Adabas VSAM Bridge
BAL	Programming language ASSEMBLER
CCC	Language C
COB	Programming language COBOL
DA	database
DBA	Adabas database
DB2	DB2 database
DDA	General (non-language-specific) system defaults
DDM	Data definition module
DS	Description
EL	Field
EP	Entry Point
ESQ	Adabas SQL Server
FDT	Adabas file
FI	File
FOR	Programming language FORTRAN
FUS	Reposition implementation data
KY	Keyword
IMS	IMS database (EXP) or user defined field (GEN)
INV	ADAINV
IP	Implemented Objects
LAN	Language-specific system defaults
ME	Member
NAT	Programming language Natural
NO	File number
NW	Network
OW	Owner
PA	Packagelist
PLI	Programming language PL/I
PR	Program
PRO	Profile
REC	Recovery

RL	File relation
RU	Processing rule
SAP	SAP tables
SCR	Adabas security
SEC	Natural Security
SET	Delete old sets
SG	Storagegroup
SQL	Adabas SQL
ST	Storagespace
SY	System
TAB	DB2 table / view
TS	Tablespace
UD	User-Defined Entities
US	User
USU	Super Natural user
VE	Verification
VM	Virtualmachine
WAN	ADAWAN or ADACMP
XRF	Delete XRef data

Other Program Names in SYSDIC	
Name	Subsystem
BAT*	The batch processor
CHERU*	Check Rule
CMD	The command processor
CON*	Subroutines for Pop-Ups
DELPRD	Purge (delete) Predict system data
EXIT	Called if a Predict session ends without the command FIN
H-*	Help texts (the string following H- specifies the function and object for which the help text was created)
HLPDSP	Display help texts
MAIN	The main menu program in library SYSDIC
MENU	Calls the main menu program
MOVEL	Move a field
N-*	Common subprograms
NENEL	Renumber the fields of a file
PUNCH*	Punch out generated code
RESET*	Reset the global variables and set the user profile
S-*	Common subroutines
STOP	Can be called if an appropriate PF key setting is defined
U-*	User Exits
WRITE	Write (punch out) generated code
X*	List XRef for 3GL
	(without programs starting with XRF or XXX)
XXX*	Check consistency of Predict data
WP*	Workplan functions

Examples

Protecting Predict Administration Functions

- To protect functions in the Defaults menu, disallow individual DDF* programs or DDFOB, the program that calls the Defaults main menu.
- To protect functions in the Special Functions menu, disallow individual DDA* programs or DDAOB, the program that calls the Special Functions menu.
- To protect Administration Implementation functions, disallow the respective MNTIP* programs (for example MNTIPFI for Administration Implemented File).

Protecting Functions of other types (Examples)

- To protect DDM generation, disallow the program GENDDM.
- To protect all generation functions, disallow GEN* programs.
- To protect the maintenance subsystem, disallow the MNT* programs (but not the MNTIP* programs calling

- Administration Implementation functions).
- To protect maintenance of fields and files, disallow the programs MNTTEL (maintain field objects) and MNTFI (maintain file objects).
- To protect the incorporation functions, disallow all INC* programs.

Protecting Programs in Library SYSDICBE

To protect Coordinator programs, we recommend you define access to the Natural Security objects in the table below. These objects are added automatically with the special function Maintain NSC Definitions > Add NSC Default Definitions. See also NSC External Object Type.

Natural Security Object	Predict Coordinator Function
CO-IMPORT	Import, Test, Load
CO-EXPORT	Export, Unload

You may wish to create a security definition for the following programs in library SYSDICBE:

Other Program Names in Library SYSDICBE	
Name	Explanation
BAT*	Batch Processor
CMD	The command processor
EXIT	Called if a Predict session ends without the command FIN
MENU	Calls the main menu program

Recommendation

In earlier versions of Predict, Migrate functions were usually restricted to dictionary administrators. With this version, however, it is quite possible that ordinary Predict users need the Coordinator for their daily work, for example when transferring data between Predict and Natural Engineering Workbench. Please bear this in mind when maintaining your security definitions.

Naming Conventions for Library SYSDICCO

Combined Program Names in SYSDICCO

Many program names in SYSDICCO are built by combining a function-specific prefix and an object type specific suffix.

Prefixes of Program Names in Library SYSDICCO	
Name	Explanation
CNV	Convert Predict data from V3.4 to V4.1 format
V41RP	Convert reports and modules
V23NSC	Add Natural Security XRef data

Suffixes of Program Names in Library SYSDICCO	
Name	Explanation
DA	Database
DC	Dataspace
EL	Field
FI	File
FIADA	Adabas attributes
FINET	Vista elements
META	Meta data
OB	Control program
PR	Program
SC	Storagespace
SETS	List XRef sets
SY	System
TR	Trigger

Other Program Names in Library SYSDICCO	
Name	Explanation
BAT*	The batch processor
CMD	The command processor
EXIT	Called if a Predict session ends without the command FIN
MENU	Calls the main menu program
MAIN	The main menu program in library SYSDIC
NEW*	Add new control records

Naming Conventions for Library SYSDICMA

Combined Program Names in SYSDICMA

Many program names in SYSDICMA are built by combining a function-specific prefix and an object type specific suffix.

Prefixes of Program Names in Library SYSDICMA	
Name	Explanation
ACM	Add, copy or modify functions
DSP	Display functions
MNT	Maintenance menus
PUR	Purge functions
REN	Rename functions
SEL	Select functions
XRF	Cross reference functions

Suffixes of Program Names in Library SYSDICMA	
Name	Explanation
RM	Retrieval model
UR	Association type
UT	Object type

Other Program Names in Library SYSDICMA	
Name	Explanation
BAT*	The batch processor
CMD	The command processor
EXIT	Called if a Predict session ends without the command FIN
MAIN	The main menu program in library SYSDIC
MENU	Calls the main menu program