

# Concepts of Comparison

## Functional Scope

The following Predict objects and external objects can be compared:

Predict Object	External Object
File	DDM
	Adabas File
	DB2 Tables and Views
	Adabas Tables and Views
All Adabas files and databases in a network	Vista Translation Table
Database	Adabas Database
	DB2 Database
Storagespace	DB2 Storagegroup
Dataspace	DB2 Tablespace
	SQL/DS Dataspace

If comparison functions find differences between an external object and its corresponding documentation object, either the implementation or the documentation can be changed to restore consistency.

Actions to restore consistency are either performed by the Predict comparison function or have to be executed manually.

The following actions can be executed by Predict Compare functions:

- **Update** documentation objects according to external objects.
- **Reset** the Modified after generation flag for documentation objects that do not differ from corresponding external objects.  
See Resetting the Modified after generation Flag below.

The following actions must be executed manually:

- **Generate** a new external object from the documentation object.
- **Disconnect** the external object and the documentation object.
- **Purge** the external object or the documentation object.

The Save Set option helps to create a list of members which have to be processed according to changes in the documentation of an information processing system.

See Saving the Result of Comparison Functions in Sets.

## Resetting the Modified after generation Flag

The Modified after generation flag of Predict objects indicates if a Predict object has been changed after an external object was generated from it.

With Predict file objects of type A, separate Modified after generation flags are set for changes to file attributes and changes to the field list of the file.

If compare functions find that a Modified after generation flag is set for a Predict object that does not differ from the external object, the flag is reset.

Modified after generation flags are reset if the respective check options of the compare function are activated:

- When comparing Adabas files, the Modified after generation flags for file attributes and for field lists can be reset separately.  
Predict evaluates the check options File attributes and Fields.
- For all other objects types, only one Modified after generation flag is set.  
All check options must set to Y if the flag is to be reset.

## Format of Reports Created by Comparison Functions

When attributes of documentation and external objects differ, the attribute values of documentation objects are reported first and the information on external objects is indented and highlighted, together with a brief description of the difference.

```

13:40:33          ***** P R E D I C T 4.3.1 *****          2003-05-31
                   - Compare DD Objects with Adabas Files -

File ID ..... A-A                      PFnr ... 331
Database ID .. PREDICT-TEST-DB          PDBnr .. 188

File attributes
  Maxisn ..... 667
    Maxisn in database: 1289
  ISN reusage ..... Yes
    ISN reusage in database: No
  User ISN ..... Yes
    User ISN in database: No
    
```

## Calling Comparison Functions

When working online, comparison functions are called from type-specific Compare screens called with code C and an external object code in a Predict main menu or with the corresponding command. See table in the section Calling Comparison Functions with Commands.

## General Prerequisites for Comparison Functions

Predict objects and external objects to be compared must be connected. See the section Handling of External and documentation Objects in this documentation.

**Note:**

There is one exception: If Adabas Online Services are not installed, implemented Adabas files and Predict file objects of type A can be compared even if they are **not** connected.

A variety of Adabas attributes can only be compared if Adabas version 6 or above is used and Adabas Online Services are installed.

## Selecting Objects for Comparison Functions

Comparison functions can either be applied to individual objects or groups of objects which meet selection criteria. The selection criteria vary for the different object types and are described in detail with the respective object type.

### Check, List, Update and Save Options

When comparing external objects and Predict objects, Check, List, Update and Save options determine the scope of the operation:

- **Check Options**  
Determine how attributes are to be compared.  
If check options are not set, compare functions will not reset the Modified after generation flag. See Resetting the Modified after generation Flag.
- **List Options**  
Determine the scope of results of the comparison to be displayed.
- **Update Options**  
Determine which attributes of the Predict object are to be updated if differences were found.
- **Save Option**  
See Saving the Result of Comparison Functions in Sets below.

The options available depend on the object type. All options are described in detail with the respective object type in the sections below.

### Saving the Result of Comparison Functions in Sets

The IDs of members reported by comparison functions can be saved in sets for further processing. The following rules apply:

- To save the set of members, set the Save set option to Y before executing the function.
- With comparison functions, sets are saved in the library that contains the objects they describe. Hence, executing one Predict comparison function may save sets of objects in more than one library.
- The sets saved in a library can be maintained. See Operate on Sets in the section **LIST XREF for Natural** in the **Predict Reference documentation**.

### Calling Comparison Functions with Commands

Comparison functions can be used both online and in batch mode.

The following table gives an overview of objects that can be compared, the codes to be entered in any Predict main menu and the corresponding command.

<b>External Object Type</b>	<b>Code</b>	<b>Command</b>
Adabas Database	AD	COMPARE ADA-DA
Adabas File	AF	COMPARE FDT
Vista Translation Table	AT	COMPARE VISTATAB
DDM	DD	COMPARE DDM
Adabas Table/View	EQ	COMPARE ESQ
DB2 Database	D2	COMPARE DB2-DATABASE
DB2 Storagegroup	SG	COMPARE STORAGEGROUP
DB2 Table/View	T2	COMPARE TABLE
DB2 Tablespace or SQL/DBspace	TS	COMPARE DB2-TABLESPACE