

Predict 4.3.1 Release Notes



These Release Notes are delivered with the current Natural Documentation CD-ROM in HTML format and as PDF documents.

References contained in the Version 4.3.1 Release Notes generally refer to the corresponding Version 4.3.1 documentation.

This document covers the following topics:

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Introduction

These Release Notes inform you of the enhancements provided with Version 4.3.1 of Predict. Predict Version 4.3.1 contains all INPL updates and source changes applied to Predict Version 4.2.2 as error corrections. All known SAGSIS problems were solved.

Availability

Predict Version 4.3.1 is available on the following platforms:

- BS2000/OSD
- VM/CMS
- OS/390
- VSE/ESA

New Features in Predict 4.3

Handling of Maintenance Changed

- It is now possible to specify several modification screens from the maintenance menu, thus it is possible to enter only selected screens without modification of the object's base attributes.
- Invocation of multiple link editors is possible from the maintenance menu.
- From each modification screen, it is possible to specify the modification screens to be entered next. This also

includes a jump back to a screen already invoked.

- From each modification screen, it is possible to enter all link editors defined for the object. Now it is possible to establish all desired links between objects using the multi-level editing mechanism by entering .E from each link editor. In previous versions, it was only possible to define one association as default active. Thus it was only possible to enter the link editor of the default active association of the object type from the object modification screens. Now it is possible to specify up to 10 default active associations. The pre-selection of the link editors is controlled by the profile parameter *Add/Modify of Edit default associations*.

New API for Predict

Predict Version 4.3 contains a new Application Programming Interface (API) that offers full Read- and Update-Access to all maintainable Predict objects. This API, named USR3005N, uses XML documents to receive requests and to return the results. It uses dynamic variables to exchange the XML documents and an XML parser (delivered with Natural) to analyze the result documents.

Because Predict Version 4.3 requires Natural Version 3.1.6 for Mainframes or above, but USR3005N requires at least Natural Version 4.1 for Mainframes, the API is delivered with Service Pack 1 of Natural Version 4.1 for Mainframes. Together with the API, several example programs are delivered that show how to create requests and how to analyze the results received.

This API enables customers to easily implement maintenance functions in batch mode including mass deletion operations.

This API is already used as server for Natural Studio's Object Description client.

The API addresses attributes by their name. Thus a distinction between an attributes name and its representation text has been introduced for the attributes of user-defined object types and associations. For existing attributes, a name is created during installation. These names can be modified within the meta-data administration.

Because this new API is much more powerful and includes all functionality offered by previous APIs, the support of the existing APIs PALUD, PALUD42, PALUD33 and USR1051N will be dropped in one of the upcoming versions of Predict.

Installation

Since List XRef is no longer a sub-component, it is include in the Predict INPL. All programs of List XRef are now loaded into the library SYSLIBS. To prevent a mixture with previous versions of these programs, the older versions have to be removed from the library SYSLIB. This is done in a deletion job prior to the loading of the new programs.

Adabas Support

Restrict Online Invert

With Predict Version 4.3, it is possible to restrict the online invert actions within the Generate Adabas File function on mainframe computers. This is controlled by new options in the Adabas file generation defaults. It is possible to prohibit the execution of online invert actions (the invert function then has to be executed via batch utility) or to restrict the execution of online inverts to files that contain fewer than a given number of records. This threshold value can be specified also.

Defaults for Adabas Attributes

There is a new function in the General Defaults Menu that allows the specification of defaults for Adabas attributes. Whenever a new Adabas file is added, this set of default values is used as Adabas attributes.

Support of Adabas Version 3.2 (Windows and UNIX Systems)

It is now possible to specify the HF (high order first) option for binary fields and the definition of the PF (representation of negative numbers) option for superdescriptors containing packed source fields. A new Adabas version (U6) controls the application of these options in the Generate ADAFDU and the Generate Adabas File functions.

DB2 Support

Support of DB2 Version 7

Database, Dataspace, File and Fields have been enhanced to allow the specifications of Unicode as a CCSID option. A COMMENT ON INDEX statement can be generated for compound indexes. Extensions have been made to allow all options of identity columns. All options for the definition of functions and procedures can be documented. Views based on full-select (union view) may be defined.

DB2 Version 6 is still supported.

Multiple Joins in Views

In Predict Version 4.2, each pair of joined views required a file of Type IV to be created. With Predict Version 4.3 you can use multiple joins within a view without the prior restrictions.

Set Current SQL ID

Each generation function for DB2 objects allows the specification of an SQL ID to be used. When an SQL ID is specified that differs from the SQL ID of the current user, a SET CURRENT SQL ID statement is generated in front of the first create/alter statement. A second SET CURRENT SQL ID statement after the last create/alter statements reestablishes the user's SQL ID.

Generation and Administration of Functions and Procedures

A new generation function has been introduced that creates new functions and procedures in DB2. This function also alters existing functions and procedures to match the definition in the documentation. The administration program menu offers functions to drop functions and procedures in DB2. The above mentioned functions are already incorporated into the Predict user interface, but the real implementation will be delivered with a future service maintenance level.

See DB2 Procedures/Functions in the section **Generation of External Objects** and Programs in the section **Administration of External Objects** of the **External Objects in Predict documentation**.

Natural Support

Support of Lobs for Natural 4.1

DB2 lob and long variable character columns will be represented as dynamic or long alpha variables in Natural DDMs. The .F command of Natural's data area editor is able to incorporate dynamic variables or long alpha variables from Predict file definitions containing lob or long variable character fields.

Documentation of Natural Functions

The new Natural object Function introduced with Natural for Windows Version 6.1 and Natural for UNIX Version 6.1 can be documented as a program object with program-type F. This new Natural object is treated in a similar way to subroutines in all functions of List Xref and Active Retrieval.

Re-documentation of Data Areas

The variable definitions of data areas can now be incorporated into the extended description when the re-document program function is executed.

Enhancement of List Xref

In previous versions, the functions *Programs using Copy Codes/Data areas* and *Copy Codes/Data areas referenced by programs* showed only the objects used during compilation. When the programs and copy codes or data areas were copied or moved to another environment, the references still pointed to the original environment of compilation. The consequence is, that no copy code or data area of the new environment is used by any program.

The above mentioned functions are now enhanced, so that they not only show the used copy codes and data areas of compile time but also show the copy codes and data areas that will be used if a program is cataloged a new. Thus the copy codes and data areas of the new environment will be shown as referenced, if the programs are cataloged a new. With Natural Version 4.1 for Mainframes, the cross-reference data for the usage of copy code will include the location of the used copy code (as it has for data areas since Natural Version 3.1 for Mainframes).

A new usage of database views named "Database addressing" has been introduced. This value reflects the usage of a view in a PROCESS SQL, CALLDBPROC and a READ RESULT SET statement. In these statements, the view is only used to address a specific database driver.

A new invoking mode named "Function" has been introduced. This value reflects the invocation of a Natural object of type function, that is introduced with Natural Version 6.1 for Windows and Natural Version 6.1 for UNIX.

NDV Support

Enhancement of Application Documentation

For applications (System objects with type B = Base application), it is possible to define the development platform (Mainframe, Unix or PC) as well as a logon library and the start objects of the application (those objects that will be executed to start the application). These specifications are used by the XRef Evaluation client of Natural Studio when checking the completeness of an application.

Integration of OS/400 Generation

The Generate OS/400 file definition function is now fully integrated into Predict's user interface.

Other Change/Enhancement Requests

- All generation functions now offer an object selection.
- It is possible to restrict the retrieval results for elementary fields to descriptors only.
- Predict Coordinator: The parameter setting Create-RT = N no longer suppresses the protocol in SYSOUT.
- A warning is issued if a user view file contains fields with identical short names.
- The generate DB2 Table function now stops if one statement could not be successfully executed.
- It is now possible to create the Natural Security entry when generating DDMs in batch mode.

Predict and Other Software AG Products

On Mainframe Platforms

For detailed information on product requirements, refer to the section Product Requirements in the **Predict Installation documentation** for Mainframes.

On UNIX Platforms

For detailed information on product requirements, refer to the section Product Requirements in the **Predict Installation documentation** for UNIX.

Applying Summary Updates or Subsequent Maintenance Levels

Detailed information on how to apply summary updates or system maintenance levels can be found in the corresponding section of the installation documentation for your platform.

On Mainframe Platforms

See Applying Summary Updates or Subsequent Maintenance Levels in the **Predict Installation documentation** for Mainframes.

On UNIX Platforms

See Applying Summary Updates or Subsequent Maintenance Levels in the **Predict Installation documentation** for UNIX.

Modified Fields in the Predict System File

See the section User Programs which access the Predict System File in the section **General Information** of the **Predict Installation for Mainframes documentation** for a description of how modified fields are marked in Predict.

Documentation Changes

With Version 4.3.1 of Predict, an enhanced documentation set is provided. All known SAGSIS problems concerning the documentation were solved and included in this new documentation set.

Maintenance End of Predict Versions

Software AG's maintenance of Predict Versions is as follows:

- Maintenance of Predict Version 4.2.x for UNIX and Windows platforms will end with the end of maintenance for Natural 5.1 for that specific platform.
- Maintenance of Predict Version 4.2.x for Mainframe platforms will end on 31st July 2004.