

# Maintenance Functions

This section contains:

- AV - Add Object
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- LO - Link Object
- ML - Modify Links
- MO - Modify Owners
- MV - Modify Values of Attributes
- N - Rename Objects
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- UO - Unlink Object

## AV - Add Object

This function adds an object with its attribute values. The following parameters are returned by PALUD42 because their values may have been converted to upper case: #OBJECT-ID, #ALPHA-VALUES, #NUM-VALUES, #SHORT-COMMENTS and #KEYWORDS.

**Note:**

If return code 1, 2 or 3 is returned in the field #OBJECT-COMPLETE, inconsistent data has been added to the dictionary. The functions MO or MD must then be called to add an owner or extended description to the object. See also Rules and Hints.

### Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Object Type
#OBJECT-ID	A64	consists of:  #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) not used
#ALPHA-VALUES (1:80)	A78	Values of alphanumeric fields
#NUM-VALUES (1:80)	P27	Values of numeric fields
#SHORT-COMMENTS (1:16)	A30	Abstract
#KEYWORDS (1:32)	A32	Keywords
#SYSDIC-USER	A250	User area

### Output Fields

Field Name	Format	Description
#OBJECT-COMPLETE	A1	Whether object has been defined completely. Valid values: <ul style="list-style-type: none"><li>● 0 - Complete</li><li>● 1 - Owner missing (force)</li><li>● 2 - Desc missing (force)</li><li>● 3 - Owner and description missing (force)</li></ul>
#OBJECT-ID	A64	consists of:  #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) not used
#ALPHA-VALUES (1:80)	A78	Values of alphanumeric fields
#NUM-VALUES (1:80)	P27	Values of numeric fields
#SHORT-COMMENTS (1:16)	A30	Abstract
#KEYWORDS (1:32)	A32	Keywords
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## D - Delete an Object

This function deletes an object, all links to child objects, and all links from parent objects to the deleted object.

**Note:**

The function D (Delete) of Version 3.4 corresponds to the function S (Scratch) of Version 3.2. The Delete functionality of Version 3.2 has not been available since Predict Version 3.3.

### Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#OBJECT-ID	A64	consists of:  #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) not used

### Output Fields

Field Name	Format	Description
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## LO - Link Object

This function adds one entry to the child list of an object. When the list is sorted, the new entry is inserted in its proper place. If an object with the given #CHILD-NAME already exists, a message is issued.

#CHILD-NAME is returned by PALUD42 because the child name (ID) may have been converted to upper case.

**Note:**

Attributes for associations cannot be maintained with this function, i.e. the values of the attributes are not checked.

### Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#CHILD-TYPE	A2	Predict Child Type
#OBJECT-ID	A64	consists of: #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) Predict Object ID of a file (only used for elementary fields)
#CHILD-NAME (1:1)	A64	consists of: Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area

### Output Fields

Field Name	Format	Description
#CHILD-NAME (1:1)	A64	consists of:  Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## ML - Modify Links

The function modifies the child list of objects. #CHILD-NAME will be returned by PALUD42 because the child names (IDs) may have been converted to upper case. The following rules apply:

- Before PALUD42 is called with the function ML for the first time, the parameter #CHILD-INFO must be set to F. This has the effect that
  - the old child records are deleted, and
  - the first child record is stored.
 We therefore recommend assigning at least one child to the parameter #CHILD-NAME before PALUD42 is called for the first time (see example below).
- After the first call of PALUD42, #CHILD-INFO must be reset (as shown in the example below).
- Up to 50 child objects can be specified in one call of ML. If there are more entries in the child list, the function must be called again.
- After the new child objects have been transferred (or while transferring the last new child objects), the parameter #CHILD-INFO must be set to L (last record). This ensures that - if there are attributes for the link and if child objects have been deleted from the list - the corresponding attribute records are purged.

**Note:**

Attributes for associations cannot be maintained with this function, i.e. the values of the attributes are not checked.

## Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#CHILD-TYPE	A2	Predict Child Type
#OBJECT-ID	A64	consists of: #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) Predict Object ID of a file (only used for elementary fields)
#CHILD-INFO	A1	F: first access to the child records L: last access to the child records
#CHILD-NAME (1:50)	A64	consists of: Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area

## Output Fields

Field Name	Format	Description
#CHILD-COUNTER	N4	Number of current child records
#CHILD-NAME (1:50)	A64	consists of: Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## Example

```

MOVE 'F' TO #CHILD-INFO /* first record
MOVE 'child1' TO #CHILD-NAME(1)
CALLNAT 'PALUD42' 'ML' #CHILD-INFO ... #CHILD-NAME(*) ....
RESET #CHILD-INFO
MOVE 'child51' TO #CHILD-NAME(1)
CALLNAT 'PALUD42' 'ML' #CHILD-INFO ... #CHILD-NAME(*) ....
MOVE 'child101' TO #CHILD-NAME(1)
MOVE 'L' TO #CHILD-INFO /* letzter Record
CALLNAT 'PALUD42' 'ML' #CHILD-INFO ... #CHILD-NAME(*) ....
/*Delete records of deleted link records
END TRANSACTION

```

## MO - Modify Owners

This function modifies owners of an object. The parameter #OWNER is returned by PALUD42 because owner names may have been converted to upper case.

If the owner list of an object is to be modified, the function HO should be called first. There are two reasons for this recommendation:

- The object is put in HOLD.
- The modify function MO always overwrites the complete owner list. If - for example - only one owner is added or changed, all other owners would be overwritten with blanks. Calling HO before modifying any owner ensures that all owners are stored in the respective fields of PALPUD42 and therefore kept when the old definition is overwritten.

### Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#OBJECT-ID	A64	consists of: #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) Predict Object ID of a file (only used for elementary fields)
#OWNER (1:99)	A32	Owner ID
#SYSDIC-USER	A250	User area

### Output Fields

Field Name	Format	Description
#OWNER (1:99)	A32	Owner ID
#OBJECT-COMPLETE	A1	Whether object has been defined completely. Valid values: • 0 Complete • 1 Owner missing (force) • 2 Description missing (force) • 3 Owner and description missing (force)
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## MV - Modify Values of Attributes

This function changes values of attributes. The following parameters are returned by PALUD42 because their values may have been converted to upper case: #OBJECT-ID, #ALPHA-VALUES, #NUM-VALUES, #SHORT-COMMENTS and #KEYWORDS.

If attribute values of an object are to be modified, the function HV should be called first. There are two reasons for this recommendation:

- The object is put in HOLD.
- The modify function MV always overwrites the complete attribute definition of an object. If only one attribute is changed, all other attributes would be overwritten with blanks. Calling the function HV before modifying any attribute values ensures that the old attribute values are stored in the respective fields of PALPUD42 and therefore kept when the old definition is overwritten

## Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#OBJECT-ID	A64	consists of:  #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) not used
#ALPHA-VALUES (1:80)	A78	Values of alphanumeric fields
#NUM-VALUES (1:80)	P27	Values of numeric fields
#SHORT-COMMENTS (1:16)	A30	Abstract
#KEYWORDS (1:32)	A32	Keywords
#SYSDIC-USER	A250	User area

## Output Fields

Field Name	Format	Description
#OWNER-YN	A1	Y if owner is specified, else N
#DESC-YN	A1	Y if owner is specified, else N
#OBJECT-COMPLETE	A1	Whether object has been defined completely. Valid values:  • 0 Complete • 1 Owner missing (force) • 2 Description missing (force) • 3 Owner and description missing (force)
#ALPHA-VALUES (1:80)	A78	Values of alphanumeric fields
#NUM-VALUES (1:80)	P27	Values of numeric fields
#SHORT-COMMENTS (1:16)	A30	Abstract
#KEYWORDS (1:32)	A32	Keywords
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## Example

```
CALLNAT 'PALUD42' 'HV' ... alpha-value
MOVE 'abc' TO alpha-value
CALLNAT 'PALUD42' 'MV' ... alpha-value
```

## N - Rename Objects

The function renames objects. The parameter #NEW-OBJECT-ID is returned by PALUD42 because the new object ID may have been converted to upper case.

### Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#OBJECT-ID	A64	consists of:  #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) not used
#NEW-OBJECT-ID	A32	New object ID for rename function

### Output Fields

Field Name	Format	Description
#NEW-OBJECT-ID	A32	New object ID for rename function
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## ST - Find Objects of Different Types with Same Name

Predict objects of different types can have the same name (ID). The function ST finds all objects of different types having the same name.

### Input Fields

Field Name	Format	Description
#OBJECT-ID	A32	Object ID

## Output Fields

Field Name	Format	Description
#NUMBER-OF-TYPES	N3	Number of objects of different types having the same ID
#OBJECT-TYPES (1:130)	A2	Object type code
#OBJECT-TITLE (1:130)	A17	Titles of objects types in upper case
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message

## UO - Unlink Object

The function removes one entry of the child list of an object. If an object with the given #CHILD-NAME is not found, a message is issued.

#CHILD-NAME is returned by PALUD42 because the child name (ID) may have been converted to upper case.

## Input Fields

Field Name	Format	Description
#OBJECT-TYPE	A2	Predict Object Type
#CHILD-TYPE	A2	Predict Child Type
#OBJECT-ID	A64	consists of: #OBJECT-NAME (A32) Predict Object ID #OBJECT-FILE-NAME (A32) Predict Object ID of a file (only used for elementary fields)
#CHILD-NAME (1:1)	A64	consists of: Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area

## Output Fields

Field Name	Format	Description
#CHILD-NAME (1:1)	A64	consists of:  Object ID of linked child (A32) Object ID of a file (A32) (only used for elementary fields)
#SYSDIC-USER	A250	User area
#RESP-CODE	I2	Predict error message number
#RESP-TEXT1	A34	Text for parameter 1 used in the error message
#RESP-TEXT2	A34	Text for parameter 2 used in the error message