# **UNION#**

UNION# returns a string containing the union of two (or more) TeLiTab sets

## **Syntax**

```
UNION#(Telitab_1$, UnfoldPar_1$, Telitab_2$, UnfoldPar_2$, Mode%)
UNION#(Mode%, Telitab_1$, Telitab_2$, ...)
```

- Telitab\_1\$ is a string expression containing/returning the first Telitab set.
- UnfoldPar\_1\$ is a name of parameter for which to unfold the first Telitab set.
- Telitab\_2\$ is a string expression containing/returning the second Telitab set. UnfoldPar\_2\$ is a name of parameter for which to unfold the second Telitab set.
- Mode% determines the way to union:
  - o Mode% = 0, Sparse union, i.e. tables are simply attached and not available values are indicated by -999999 (the standard code for P ENDING).
  - Mode% = 1, Union combining parameters of cases with one or more corresponding parameter(s) + value(s).

### Remarks

1. As shown, two syntax types are available. With the second syntax type you can union several (even more than two) TeLiTab datasets at once.

## **Examples**

## Sparse union

Spare union of Telitab\_1\$ and Telitab\_2\$:

```
Telitab_1$ contains the dataset:
```

```
"MODELS"
-4 "1" "2" "3" "4"
"MODMAT$" "wood" "foam" "wood" "plywood"
"LPP" 112.30 133.80 98.60 145.00
"B" 17.80 21.50 16.42 22.40
"T" 7.65 9.20 6.70 9.40
"PROJECTS"
"CLIENT$" "YardX"
```

To explain the data:

you have two objects, MODELS and PROJECTS presented as list values in Telitab\_1\$ containing TeLiTabs themselfs (with several parameters). LPP is part of the MODELS object (TeLiTab).

When you unfold Telitab\_1\$ dataset on parameter "LPP", you get:

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```
"PROJECTS"
"CLIENT$" "YardX"
0
-4 "1" "2" "3" "4"
"MODMAT$" "wood" "foam" "wood" "plywood"
"LPP" 112.30 133.80 98.60 145.00
"B" 17.80 21.50 16.42 22.40
"T" 7.65 9.20 6.70 9.40
You see that PROJECT still is a separate object (and presented as a list value in Telitab_1$). All other data (which was part of the MODELS object)
now is part of Telitab_1$ and thus a table in the TeLiTab.
Telitab_2$ contains the dataset:
-4 "1" "2" "3" "4"
"MODNO$" 5684 6231 6301 6537
"LPP" 112.30 162.70 133.80 118.50
"B" 17.80 27.80 21.50 16.70
"T" 7.65 11.20 9.20 6.80
and UnfolPar_2\ contains "NullString", what means that no unfolding of Telitab_2\ is performed.
To carry out the unfolding and the UNION we write:
UNION#(Telitab_1$, "LPP", Telitab_2$, "NullString", 0)
it returns:
0
6 "MODMAT$" "LPP" "B" "T" "MODNO$"
"1" "wood" 112.30 17.80 7.65 "-999999"
"2" "foam" 133.80 21.50 9.20 "-999999"
"3" "wood" 98.60 16.42 6.70 "-999999"
"4" "plywood" 145.00 22.40 9.40 "-999999" "5" "-999999" 112.30 17.80 7.65 5684
5 -99999 112.30 17.60 7.65 3684 

"6" "-999999" 162.70 27.80 11.20 6231 

"7" "-999999" 133.80 21.50 9.20 6301 

"8" "-999999" 118.50 16.70 6.80 6537
"PROJECTS"
"CLIENT$" "YardX"
"CLIENT$" "YardX"
"CLIENT$" "YardX"
"CLIENT$" "YardX"
```

Please note that the union simply contains the sum of two Telitab sets and contains the combined parameters and cases of both sets (Mode%=0). Cases 4-8 have empty object values for PROJECTS.

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### **Combined union**

UNION#(Telitab\_1\$, "LPP", Telitab\_2\$, "NullString", 1)

If the union should combine the parameter values of the cases with the same value of the overlapping parameters Mode%=1 should be used:

```
returns:

0
-6 "1" "2" "3" "4" "5" "6"
"MODMAT$" "wood" "plywood" "wood" "-999999" "foam" "-999999"
"LPP" 98.60 145.00 112.30 162.70 133.80 118.50
"B" 16.42 22.40 17.80 27.80 21.50 16.70
"T" 6.70 9.40 7.65 11.20 9.20 6.80
"MODNO$" "-9999999" "-9999999" 5684 6231 6301 6537
"PROJECTS"
{
1
"CLIENT$" "YardX"
}
}
{
1
"CLIENT$" "YardX"
}
{
1
"CLIENT$" "YardX"
}
}
{
1
"CLIENT$" "YardX"
}
}
{
1
"CLIENT$" "YardX"
```

Case 1 and 2 of the result are cases 3 and 4 from the unfolded object MODELS in Telitab\_1\$.

Case 3 is a combination of of the cases 1 of both input sets.

Case 4 corresponds with case 2 from Telitab\_2\$.

Case 5 is again a combination of respectively the cases 2 and 3.

Case 6 corresponds with Case 4 from Telitab\_2\$.

The UNION# function with Mode%=1 can be used as a database manipulation function. The union of two Telitab sets as produced by this function completes a set of data by combining data from two source sets in a single table (see also SECTION#()).

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