

ibec_psql_Analyze

Performs analysis of a PSQL object.

Syntax

```
ibec_psql_Analyze(PSQLObject : variant; Connection : variant; Options : string) : string;
```

PSQLObject	PSQL object created with ibec_psql_Parse function.
Connection	Active connection object.
Options	Analysis options. Possible options are:
Select (or just S)	Process SELECT/WITH statements.
Insert - I	Process INSERT/MERGE statements.
Update - U	Process UPDATE/MERGE statements.
Delete - D	Process DELETE statements.
Plan - P	Include plan into the result report and analyze plan for NATURAL scans.
Type - T	Analyze datatype compatibility issues.
Warning - W	Include compiler warnings into the result report.

If an empty string is passed as an option string all possible options will be applied.

The function returns a report in JSON format.

Example

Following example retrieves all procedure DDL's from a database, analyzes them and saves reports in separate files:

```
execute ibeblock
as
begin
  db = ibec_GetDefaultConnection();

  -- Directory to save analysis reports
  sDir = 'D:\Temp\Procs';
  ibec_ForceDirectories(sDir);

  for select rdb$procedure_name
    from rdb$procedures
    -- Comment the next line if your server doesn't support packages
    where rdb$package_name is null
    order by 1
    into :ProcName
  do
    begin
```

```
ProcName = ibec_Trim(ProcName);

-- Pass an empty string as an option string to get pure single CREATE
statement without SET TERM etc.
sPSQL = ibec_GetObjectScript(db, ProcName, __dboProcedure, '');

ObjPSQL = ibec_psql_Parse(sPSQL, 3, __svFB30);
try
    s = ibec_psql_Analyze(ObjPSQL, db, '');
    ibec_SaveToFile(sDir || '\ ' || ProcName || '.sp.json', s,
__stf0overwrite);
finally
    ibec_psql_Free(ObjPSQL);
end
end;
end;
```

Example of output:

```
{
  "SyntaxWarnings": [
    {
      "Message": "Empty BEGIN...END statement",
      "StartPosition": 516,
      "Length": 0
    },
    {
      "Message": "Value assigned to 'INTVAR1' never used",
      "StartPosition": 57,
      "Length": 7
    }
  ],
  "Statements": [
    {
      "Statement": "for select emp_no,\r\n
        dense_rank() over (order by salary),\r\n
        salary / count(salary) over ()\r\n
        from employee\r\n
        into :intvar1, :intvar2, :dpVar3\r\n do",
      "StartPosition": 322,
      "Length": 182,
      "Plan": "PLAN SORT (EMPLOYEE NATURAL)",
      "PlanNatural": true,
      "TypeWarnings": [
        "DENSE_RANK BIGINT -> INTVAR2 INTEGER",
        "DIVIDE NUMERIC(18,2) -> DPVAR3 INTEGER"
      ],
      "Operations": [
        {
          "Action": "SELECT",
```

```

        "AffectedObject": "EMPLOYEE"
    }
]
},
{
    "Statement": "for select emp_no,\r\n
        salary / count(salary) over (),\r\n
        NTH_VALUE(salary, 2) FROM FIRST over (order by salary)\r\n
        from employee\r\n
        into :intvar1, :intvar2, :dpVar3\r\n do",
    "StartPosition": 527,
    "Length": 204,
    "Plan": "PLAN SORT (EMPLOYEE NATURAL)",
    "PlanNatural": true,
    "TypeWarnings": [
        "DIVIDE NUMERIC(18,2) -> INTVAR2 INTEGER",
        "NTH_VALUE NUMERIC(18,2) -> DPVAR3 INTEGER"
    ],
    "Operations": [
        {
            "Action": "SELECT",
            "AffectedObject": "EMPLOYEE"
        }
    ]
},
{
    "Statement": "for select emp_no,\r\n
        dept_no,\r\n
        salary / count(salary) over (partition by dept_no ORDER by
dept_no nulls first) rank\r\n
        from employee\r\n
        order by emp_no\r\n
        into :intvar1, :intvar2, :partition\r\n do",
    "StartPosition": 753,
    "Length": 234,
    "Plan": "PLAN SORT (SORT (EMPLOYEE NATURAL))",
    "PlanNatural": true,
    "TypeWarnings": [
        "DEPT_NO CHAR(3) -> INTVAR2 INTEGER",
        "RANK NUMERIC(18,2) -> PARTITION INTEGER"
    ],
    "Operations": [
        {
            "Action": "SELECT",
            "AffectedObject": "EMPLOYEE"
        }
    ]
}
]
}

```

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