



examples/pequel_tables.pql

by *Pequel*

sample@youraddress.com

Pequel Tables Example Script

2.3

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Pequel Tables Example Script

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SCRIPT NAME

examples/pequel_tables.pql

DESCRIPTION

This script demonstrates the use of pequel tables. This script contains a 'load table pequel' section. The tables specified in this section will have their data loaded by executing the pequel script specified. The field names for the table columns are as per the script output format. The output format for a script can be displayed with the '-list output_format' option on the command line. It is important that any Pequel script used in the 'load table pequel' to load a table must have an input_file option specification.

1. PROCESS DETAILS

Input records are read from standard input. The input record contains **8** fields. Fields are delimited by the '|' character.

Output records are written to standard output. The output record contains **5** fields. Fields are delimited by the '|' character.

1.1 PRODUCT_CODE

Output Field

Description

Set to input field **PRODUCT_CODE**

1.2 PRODUCT_SALES_TOTAL

Output Field

Description

Set to input field **SALESBYPROD**

Derived Input Field Evaluation

```
=> %TSALESBYPROD( PRODUCT_CODE )->SALES_TOTAL
```

1.3 LOCATION

Output Field

Description

Set to input field **LOCATION**

1.4 LOCATION_SALES_TOTAL

Output Field

Description

Set to input field **SALESBYLOC**

Derived Input Field Evaluation

```
=> %TSALESBYLOC( LOCATION )->SALES_TOTAL
```

1.5 COMMENT

Output Field

Description

Set to input field **COMMENT**

Derived Input Field Evaluation

```
=> %TSALESBYLOC(LOCATION)->TOP_PRODUCT eq PRODUCT_CODE  
? '**Best Seller'  
: ''
```

2. CONFIGURATION SETTINGS

2.1 *pequeldoc*

generate pod / pdf pequel script Reference Guide.: pdf

2.2 *detail*

Include Pequel Generated Program chapter in Pequeldoc: 1

2.3 *prefix*

directory pathname prefix.: examples

2.4 *script_name*

script filename: examples/pequel_tables.pql

2.5 *header*

write header record to output.: 1

2.6 *optimize*

optimize generated code.: 1

2.7 *doc_title*

document title.: Pequel Tables Example Script

2.8 *doc_email*

document email entry.: sample@youraddress.com

2.9 *doc_version*

document version for pequel script.: 2.3

3. TABLES

3.1 TSALESBYLOC

Table Type: *external*

Data Source Filename: *examples/sales_ttl_by_loc.pql*

Key Field Number: *1*

3.1.1 SALES_TOTAL = 2

3.1.2 TOP_PRODUCT = 3

3.2 TSALESBYPROD

Table Type: *external*

Data Source Filename: *examples/sales_ttl_by_prod.pql*

Key Field Number: *1*

3.2.1 SALES_TOTAL = 2

4. TABLE INFORMATION SUMMARY

4.1 Table List Sorted By Table Name

TSALESBYLOC — *1 (external)*

TSALESBYPROD — *2 (external)*

5. EXAMPLES/PEQUEL_TABLES.PQL

options

```
pequeldoc(pdf)
detail(1)
prefix(examples)
script_name(examples/pequel_tables.pql)
header(1)
optimize(1)
doc_title(Pequel Tables Example Script)
doc_email(sample@youraddress.com)
doc_version(2.3)
```

description

This script demonstrates the use of pequel tables. This script contains a 'load table pequel' section. The tables specified in this section will have their data loaded by executing the pequel script specified. The field names for the table columns are as per the script output format. The output format for a script can be displayed with the '-list output_format' option on the command line. It is important that any Pequel script used in the 'load table pequel' to load a table must have an input_file option specification.

load table

```
TSALESBYLOC /* Table Name */ \
  examples/sales_ttl_by_loc.pql /* Data Source Filename */ \
  1 /* Key Column Number */ \
  \
  SALES_TOTAL = 2 \
  TOP_PRODUCT = 3

TSALESBYPROD /* Table Name */ \
  examples/sales_ttl_by_prod.pql /* Data Source Filename */ \
  1 /* Key Column Number */ \
  \
  SALES_TOTAL = 2
```

input section

```
PRODUCT_CODE
COST_PRICE
DESCRIPTION
SALES_CODE
SALES_PRICE
SALES_QTY
SALES_DATE
LOCATION
SALESBYLOC => %TSALESBYLOC(LOCATION)->SALES_TOTAL

SALESBYPROD => %TSALESBYPROD(PRODUCT_CODE)->SALES_TOTAL

COMMENT => %TSALESBYLOC(LOCATION)->TOP_PRODUCT eq PRODUCT_CODE
? '**Best Seller'
: ''
```

output section

```
string    PRODUCT_CODE      PRODUCT_CODE
decimal  PRODUCT_SALES_TOTAL  SALESBYPROD
string    LOCATION         LOCATION
decimal  LOCATION_SALES_TOTAL  SALESBYLOC
string    COMMENT          COMMENT
```

6. PEQUEL GENERATED PROGRAM

```

# vim: syntax=perl ts=4 sw=4
#-----
#Generated By: pequel Version 2.3-3, Build: Monday October  3 23:16:49 BST 2005
#           : https://sourceforge.net/projects/pequel/
#Script Name : examples/pequel_tables.pql
#Created On  : Tue Oct  4 10:34:56 2005
#For         :
#-----
#Options:
#pequeldoc(pdf) generate pod / pdf pequel script Reference Guide.
#detail(1) Include Pequel Generated Program chapter in Pequeldoc
#prefix(examples) directory pathname prefix.
#script_name(examples/pequel_tables.pql) script filename
#header(1) write header record to output.
#optimize(1) optimize generated code.
#doc_title(Pequel Tables Example Script) document title.
#doc_email(sample@youraddress.com) document email entry.
#doc_version(2.3) document version for pequel script.
#-----
use strict;
local $\\="\\n"; local $,="|";
print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Init";
use constant VERBOSE => int 10000;
use constant LAST_ICELL => int 10;
my @I_VAL;
my @O_VAL;
foreach my $f (1..5) { $O_VAL[$f] = undef; }
my $_TABLE_TSALESBYLOC = &LoadTableTSALESBYLOC; # ref to %$TSALESBYLOC hash
my $_TABLE_TSALESBYPROD = &LoadTableTSALESBYPROD; # ref to %$TSALESBYPROD hash
use constant _I_PRODUCT_CODE      => int 0;
use constant _I_COST_PRICE        => int 1;
use constant _I_DESCRIPTION        => int 2;
use constant _I_SALES_CODE        => int 3;
use constant _I_SALES_PRICE        => int 4;
use constant _I_SALES_QTY         => int 5;
use constant _I_SALES_DATE        => int 6;
use constant _I_LOCATION          => int 7;
use constant _I_SALESBYLOC        => int 8;
use constant _I_SALESBYPROD       => int 9;
use constant _I_COMMENT           => int 10;
use constant _O_PRODUCT_CODE      => int 1;
use constant _O_PRODUCT_SALES_TOTAL => int 2;
use constant _O_LOCATION          => int 3;
use constant _O_LOCATION_SALES_TOTAL => int 4;
use constant _O_COMMENT           => int 5;
use constant _T_TSALESBYLOC_FLD_SALES_TOTAL => int 0;
use constant _T_TSALESBYLOC_FLD_TOP_PRODUCT => int 1;
use constant _T_TSALESBYPROD_FLD_SALES_TOTAL => int 0;
use constant _I_TSALESBYLOC_LOCATION_FLD_KEY => int 11;
use constant _I_TSALESBYLOC_LOCATION_FLD_SALES_TOTAL => int 12;
use constant _I_TSALESBYLOC_LOCATION_FLD_TOP_PRODUCT => int 13;
use constant _I_TSALESBYPROD_PRODUCT_CODE_FLD_KEY => int 14;
use constant _I_TSALESBYPROD_PRODUCT_CODE_FLD_SALES_TOTAL => int 15;
&PrintHeader();
print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Start";
use Benchmark;
my $benchmark_start = new Benchmark;
while (<STDIN>)
{
    print STDERR '[examples/pequel_tables.pql ' . localtime() . "] $. records." if ($. % VERBOSE == 0);
    chomp;
    @I_VAL = split("[|]", $_);
    $O_VAL[_O_PRODUCT_CODE] = $I_VAL[_I_PRODUCT_CODE];
    $I_VAL[_I_SALESBYPROD] = $_TABLE_TSALESBYPROD{qq{$I_VAL[_I_PRODUCT_CODE]}};
    $O_VAL[_O_PRODUCT_SALES_TOTAL] = $I_VAL[_I_SALESBYPROD];
    $O_VAL[_O_LOCATION] = $I_VAL[_I_LOCATION];
    $I_VAL[_I_SALESBYLOC] = ${$_TABLE_TSALESBYLOC{qq{$I_VAL[_I_LOCATION]}}}[_T_TSALESBYLOC_FLD_SALES_TOTAL];
    $O_VAL[_O_LOCATION_SALES_TOTAL] = $I_VAL[_I_SALESBYLOC];
    $I_VAL[_I_COMMENT] = ${$_TABLE_TSALESBYLOC{qq{$I_VAL[_I_LOCATION]}}}[_T_TSALESBYLOC_FLD_TOP_PRODUCT] eq $
I_VAL[_I_PRODUCT_CODE] ? '**Best Seller' : '';
    $O_VAL[_O_COMMENT] = $I_VAL[_I_COMMENT];
    print
        $O_VAL[_O_PRODUCT_CODE],
        $O_VAL[_O_PRODUCT_SALES_TOTAL],
        $O_VAL[_O_LOCATION],
        $O_VAL[_O_LOCATION_SALES_TOTAL],
        $O_VAL[_O_COMMENT]
    ;
}

```

```

print STDERR '[examples/pequel_tables.pql ' . localtime() . "] $. records.";
my $benchmark_end = new Benchmark;
my $benchmark_timediff = timediff($benchmark_start, $benchmark_end);
print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Code statistics: @{{timestr($benchmark_timediff
)}}";
#-----
#+++++ Table TSALESBYLOC --> Type :Pequel::Type::Table::External::Pequel +++++
sub LoadTableTSALESBYLOC
{
    my %_TABLE_TSALESBYLOC;
    print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Loading table TSALESBYLOC from examples/sal
es_ttl_by_loc.pql...";
    my $pid = open(TSALESBYLOC, '-|'); # Fork
    my $count=0;
    if ($pid) # Parent
    {
        while (<TSALESBYLOC>)
        {
            chomp;
            my (@flds) = split("[|]", $_, -1);
            $_TABLE_TSALESBYLOC{$_flds[0]} = [ @flds[ 1,2 ]];
            print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Table TSALESBYLOC $. records..." if
 ($. % 100000 == 0);
        }

        $count=$_;
        close(TSALESBYLOC);
    }

    else # Child
    {
        &p_LoadTableTSALESBYLOC::LoadTableTSALESBYLOC;
        exit(0);
    }

    print STDERR '[examples/pequel_tables.pql ' . localtime() . "] Table TSALESBYLOC loaded $count records.";
    close(TSALESBYLOC);
    return \%_TABLE_TSALESBYLOC;
}

{
    package p_LoadTableTSALESBYLOC;
    sub LoadTableTSALESBYLOC
    {
        # vim: syntax=perl ts=4 sw=4
        #-----
        # Generated By: pequel Version 2.3-3, Build: Monday October 3 23:16:49 BST 2005
        # : https://sourceforge.net/projects/pequel/
        # Script Name : examples/sales_ttl_by_loc.pql
        # Created On : Tue Oct 4 10:34:53 2005
        # For :
        #-----
        # Options:
        # input_file(sample.data) input data filename
        # header(1) write header record to output.
        # optimize(1) optimize generated code.
        # hash(1) Generate in memory. Input data can be unsorted.
        # doc_title(Pequel Table Example Script) document title.
        # doc_email(sample@youraddress.com) document email entry.
        # doc_version(2.3) document version for pequel script.
        #-----
        use strict;
        local $\<="\

```

```

use constant _I_TTOPPRODBYLOC_LOCATION_FLD_PRODUCT_CODE => int 11;
open(DATA, q{examples/sample.data}) || die "Cannot open examples/sample.data: $!";
&PrintHeader();
print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] Start";
use Benchmark;
my $benchmark_start = new Benchmark;
while (<DATA>)
{
    print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] $. records." if ($. % VERBOSE ==
0);
    chomp;
    @I_VAL = split("[|]", $_);
    $key = ( $I_VAL[_I_LOCATION] );
    $_O_VAL{$key}{_O_LOCATION} = $I_VAL[_I_LOCATION];
    $I_VAL[_I_SALES_TOTAL] = $I_VAL[_I_SALES_QTY] * $I_VAL[_I_SALES_PRICE];
    $_O_VAL{$key}{_O_SALES_TOTAL} += $I_VAL[_I_SALES_TOTAL] unless ($I_VAL[_I_SALES_TOTAL] eq '');
    $I_VAL[_I_TOP_PRODUCT] = $$_TABLE_TTOPPRODBYLOC{qq{$I_VAL[_I_LOCATION]}};
    $_O_VAL{$key}{_O_TOP_PRODUCT} = $I_VAL[_I_TOP_PRODUCT];
}

foreach $key (sort keys %O_VAL)
{
    print
        $_O_VAL{$key}{_O_LOCATION},
        $_O_VAL{$key}{_O_SALES_TOTAL},
        $_O_VAL{$key}{_O_TOP_PRODUCT}
    ;
}

print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] $. records.";
my $benchmark_end = new Benchmark;
my $benchmark_timediff = timediff($benchmark_start, $benchmark_end);
print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] Code statistics: @{{timestr($benchma
rk_timediff)}}";
#-----
#   ++++++ Table TTOPPRODBYLOC --> Type :Pequel::Type::Table::External::Pequel ++++++
sub LoadTableTTOPPRODBYLOC
{
    my $_TABLE_TTOPPRODBYLOC;
    print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] Loading table TTOPPRODBYLOC from
examples/top_prod_by_loc.pql...";
    my $pid = open(TTOPPRODBYLOC, '-|'); # Fork
    my $count=0;
    if ($pid) # Parent
    {
        while (<TTOPPRODBYLOC>)
        {
            chomp;
            my (@flds) = split("[|]", $_, -1);
            $_TABLE_TTOPPRODBYLOC{flds[0]} = flds[ 1 ];
            print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] Table TTOPPRODBYLOC $. r
ecords..." if ($. % 100000 == 0);
        }

        $count=$.;
        close(TTOPPRODBYLOC);
    }

    else # Child
    {
        &p_LoadTableTTOPPRODBYLOC::LoadTableTTOPPRODBYLOC;
        exit(0);
    }

    print STDERR '[examples/sales_ttl_by_loc.pql ' . localtime() . "] Table TTOPPRODBYLOC loaded $count
records.";
    close(TTOPPRODBYLOC);
    return \$_TABLE_TTOPPRODBYLOC;
}

{
    package p_LoadTableTTOPPRODBYLOC;
    sub LoadTableTTOPPRODBYLOC
    {
        #
        vim: syntax=perl ts=4 sw=4
        #-----
        #   Generated By: pequel Version 2.3-3, Build: Monday October  3 23:16:49 BST 2005
        #                   : https://sourceforge.net/projects/pequel/
        #   Script Name  : examples/top_prod_by_loc.pql
        #   Created On   : Tue Oct  4 10:34:52 2005
        #   For          :
        #-----
        #   Options:
        #       input_file(sample.data) input data filename
        #       header(1) write header record to output.
    }
}

```



```

        'SALES_TOTAL',
        'TOP_PRODUCT'
    ;
    }
}

}

##### Table TSALESBYPROD --> Type :Pequel::Type::Table::External::Pequel #####
sub LoadTableTSALESBYPROD
{
    my $_TABLE_TSALESBYPROD;
    print STDERR "[examples/pequel_tables.pql ' . localtime() . "] Loading table TSALESBYPROD from examples/sa
les_ttl_by_prod.pql...";
    my $pid = open(TSALESBYPROD, '-|'); # Fork
    my $count=0;
    if ($pid) # Parent
    {
        while (<TSALESBYPROD>)
        {
            chomp;
            my (@flds) = split("[|]", $_, -1);
            $_TABLE_TSALESBYPROD{$flds[0]} = $flds[ 1 ];
            print STDERR "[examples/pequel_tables.pql ' . localtime() . "] Table TSALESBYPROD $. records..." i
f ($. % 100000 == 0);
        }

        $count=$.;
        close(TSALESBYPROD);
    }

    else # Child
    {
        &p_LoadTableTSALESBYPROD::LoadTableTSALESBYPROD;
        exit(0);
    }

    print STDERR "[examples/pequel_tables.pql ' . localtime() . "] Table TSALESBYPROD loaded $count records.";
    close(TSALESBYPROD);
    return \$_TABLE_TSALESBYPROD;
}

{
    package p_LoadTableTSALESBYPROD;
    sub LoadTableTSALESBYPROD
    {
        # vim: syntax=perl ts=4 sw=4
        #+-----+
        # Generated By: pequel Version 2.3-3, Build: Monday October 3 23:16:49 BST 2005
        #               : https://sourceforge.net/projects/pequel/
        # Script Name : examples/sales_ttl_by_prod.pql
        # Created On  : Tue Oct 4 10:34:55 2005
        # For         :
        #+-----+
        # Options:
        #   input_file(sample.data) input data filename
        #   header(1) write header record to output.
        #   optimize(1) optimize generated code.
        #   doc_title(Pequel Table Example Script) document title.
        #   doc_email(sample@youraddress.com) document email entry.
        #   doc_version(2.3) document version for pequel script.
        #+-----+
        use strict;
        local $\="\n"; local $,="|";
        print STDERR "[examples/sales_ttl_by_prod.pql ' . localtime() . "] Init";
        use constant VERBOSE => int 10000;
        use constant LAST_ICELL => int 8;
        my @I_VAL;
        my @O_VAL;
        my $key__I_PRODUCT_CODE;
        my $previous_key__I_PRODUCT_CODE = undef;
        foreach my $f (1..2) { $O_VAL[$f] = undef; }
        use constant __I_PRODUCT_CODE => int 0;
        use constant __I_COST_PRICE => int 1;
        use constant __I_DESCRIPTION => int 2;
        use constant __I_SALES_CODE => int 3;
        use constant __I_SALES_PRICE => int 4;
        use constant __I_SALES_QTY => int 5;
        use constant __I_SALES_DATE => int 6;
        use constant __I_LOCATION => int 7;
        use constant __I_SALES_TOTAL => int 8;
        use constant __O_PRODUCT_CODE => int 1;
        use constant __O_SALES_TOTAL => int 2;
        open(DATA, q{examples/sample.data}) || die "Cannot open examples/sample.data: $!";
    }
}

```

```

&PrintHeader();
print STDERR '[examples/sales_ttl_by_prod.pql ' . localtime() . "] Start";
use Benchmark;
my $benchmark_start = new Benchmark;
while (<DATA>)
{
    print STDERR '[examples/sales_ttl_by_prod.pql ' . localtime() . "] $. records." if ($. % VERBOSE =
= 0);
    chomp;
    @I_VAL = split("[|]", $_);
    $key__I_PRODUCT_CODE = $I_VAL[_I_PRODUCT_CODE];
    if (!defined($previous_key__I_PRODUCT_CODE))
    {
        $previous_key__I_PRODUCT_CODE = $key__I_PRODUCT_CODE;
    }

    elsif ($previous_key__I_PRODUCT_CODE ne $key__I_PRODUCT_CODE)
    {
        print
            $_VAL[_O_PRODUCT_CODE],
            $_VAL[_O_SALES_TOTAL]
        ;
        $previous_key__I_PRODUCT_CODE = $key__I_PRODUCT_CODE;
        @O_VAL = undef;
    }

    $_VAL[_O_PRODUCT_CODE] = $I_VAL[_I_PRODUCT_CODE];
    $_VAL[_I_SALES_TOTAL] = $I_VAL[_I_SALES_QTY] * $I_VAL[_I_SALES_PRICE];
    $_VAL[_O_SALES_TOTAL] += $I_VAL[_I_SALES_TOTAL] unless ($I_VAL[_I_SALES_TOTAL] eq '');
}

print
    $_VAL[_O_PRODUCT_CODE],
    $_VAL[_O_SALES_TOTAL]
;
print STDERR '[examples/sales_ttl_by_prod.pql ' . localtime() . "] $. records.";
my $benchmark_end = new Benchmark;
my $benchmark_timediff = timediff($benchmark_start, $benchmark_end);
print STDERR '[examples/sales_ttl_by_prod.pql ' . localtime() . "] Code statistics: @{{timestr($benchm
ark_timediff)}}";
#-----
sub PrintHeader
{
    local $\="\n";
    local $,="|";
    print
        'PRODUCT_CODE',
        'SALES_TOTAL'
    ;
}

}

sub PrintHeader
{
    local $\="\n";
    local $,="|";
    print
        'PRODUCT_CODE',
        'PRODUCT_SALES_TOTAL',
        'LOCATION',
        'LOCATION_SALES_TOTAL',
        'COMMENT'
    ;
}

```

7. ABOUT PEQUEL

This document was generated by Pequel.

<https://sourceforge.net/projects/pequel/>

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