TIPS & TRICKS

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Not a Scripter

SuiteQL

It is not an add-on module. Your company already has access to it ☺

In the Beginning …
there was SQL?

- A query language first defined in 1974 at IBM (called SEQUEL). In 1979 it was implemented by Oracle Corporation and changed to SQL (Structured Query Language).

- Was a defacto standard, but is the basis for many official standards – ANSI, ISO, FIPS, X/OPEN.

```
SELECT column1, column2, ...
FROM table_name
WHERE condition;
```

- SQL provides:
  - Common data manipulation language
  - Implemented by every major database company
  - Complete data access without a procedural language
  - Ability to query across database and other software products
  - Ability to embed within a variety of programming languages

What is SuiteQL?

- NetSuite's version of SQL
- Usually used by those writing SuiteScript
- It is a query language based on the SQL-92 revision of the SQL database query language.
- It provides advanced query capabilities you can use to access your NetSuite records and data.
- It supports querying the **Analytics Data Source**.
- It is currently available using SuiteAnalytics Connect, the N/query module in SuiteScript (since 2019.2), and SuiteTalk REST web services API (since 2020.1).

Note: SuiteQL supports the syntax for both SQL-92 and Oracle SQL. However, you cannot use both syntaxes in the same query.

```
SELECT
        Customer.EntityID AS ID,
        Customer.CompanyName AS Name,
        Customer.CreditLimit,
        Customer.OnCreditHold,
        BUILTIN.DF( Customer.Terms ) AS PaymentTerms,
        BUILTIN.DF( Customer.SalesRep ) AS SalesRep
FROM
        Customer
WHERE
        ( Customer.IsInactive = 'F' )
ORDER BY
        Customer.EntityID
```

```
SELECT
        Transaction.ID,
        Transaction.TranDisplayName,
        Transaction.TranDate,
        BUILTIN.DF( Transaction.Status ) AS OrderStatus
        /*
        Customer.LastName,
        Customer.FirstName,
        Customer.Email
        */
FROM
        Transaction
        -- INNER JOIN Entity AS Customer ON
                -- ( Customer.ID = Transaction.Entity )
WHERE
        ( Transaction .Type = 'SalesOrd' )
        AND ( RowNum <= 10 )
```
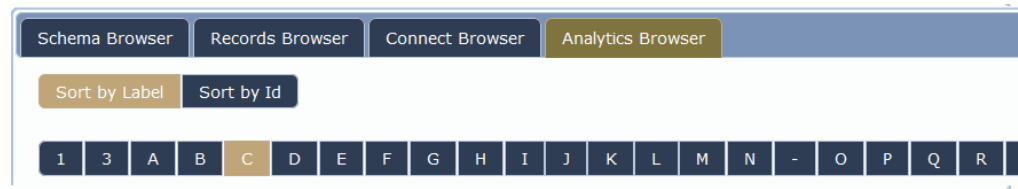
Demonstration

What is the Analytics Data Source?

The Suite Analytics Data Dictionary (AKA the Records Browser)

https://system.netsuite.com/help/helpcenter/en_US/srbrowser/Browser2020_1/analytics/record/account.html

A data dictionary is a repository of metadata or data about data.

- Display name,
- Internal ID
- Type (e.g. integer, text, checkbox),
- Available to display in the UI (Suite Analytics) and via SuiteScript/SuiteQL
- Joined record types
  - Key joining on
  - Target record
  - Available to display in the UI (Suite Analytics) and via SuiteScript/SuiteQL

Schema Browser	Records Browser	Connect Browser	Analytics Browser

Sort by Label	Sort by Id

1	3	A	B	C	D	E	F	G	H	I	J	K	L	M	N	-	O	P	Q	R

Customer

customer

Fields

Label	ID	Type	UI Workbook	SuiteScript / SuiteTalk REST Web Services
3rd Party Billing Account Number	thirdpartyacct	text	Yes	Yes
3rd Party Billing Carrier	thirdpartycarrier	select	Yes	Yes
3rd Party Billing Country	thirdpartycountry	select	Yes	Yes
3rd Party Billing Zip	thirdpartyzipcode	text	Yes	Yes
Account	accountnumber	text	Yes	Yes
Address Book	addressbook	sublist	Yes	Yes
Alcohol Recipient Type	alcoholrecipienttype	select	Yes	Yes
Alt. Email	altemail	email	Yes	Yes
Alt. Phone	altphone	phone	Yes	Yes
Assigned Web Site	assignedwebsite	select	Yes	Yes
Balance	balancesearch	currency	Yes	Yes
Billing Rate Card	billingratecard	select	Yes	Yes
Billing Schedule	billingschedule	select	Yes	Yes
Billing Transaction Form	billingtransactionform	select	Yes	Yes

What EXPERT Scripters are Saying

Tim Dietrich – Custom Software Developer

"I've been using NetSuite's SuiteTalk REST Web Services, and its support for executing SuiteQL queries in particular. This has quickly become my preferred technique for integration projects that involve retrieving data from NetSuite, especially when the data needs to be retrieved as quickly as possible, or when the integration involves retrieving data from multiple related tables.

Eric Grubaugh (Stoic Software):

"With the release of the Analytics Workbook, NetSuite also released SuiteQL, a NetSuite Query Language. With this, you can write your queries directly as SQL statements instead of using all the dropdowns and drag-and-drop UI. We can leverage this same query language in SuiteScript by using the N/query.runSuiteQL() method. Unfortunately, the method is not documented as of this writing."

Mike Kachline (Vertafore):

"SuiteQL offers developers a familiar and powerful mechanism for producing reports which are both concise and complex. With SuiteQL you can create your own datasets and then join them together. Since SuiteQL is still new to Netsuite, it currently comes with the downside of only being usable from the context of within a SuiteScript. Once Netsuite provides the ability to produce Analytics Datasets using SuiteQL, the game will change forever in our ability to produce reports out of Netsuite. It is way, way more powerful than anything we see in the GUI today"

Why Bring it Up for Non-Scripters?

If you know SQL (or want to play with it) you too can run SQL from within your environment without having to use the SuiteAnalytics GUI, the SuiteAnalytics Connect or SuiteScript (N/querymodule or SuiteTalk REST Web Services).

Thanks to **Tim Dietrich** who posted a downloadable Suitelet Script last month in his blog that can be run SQL directly from within your NetSuite environment.

To Install and run Tim's Suitelet

1. Go to https://timdietrich.me/blog/netsuite-suiteql-query-tool-suitelet/ and download the zipped file to your computer

2. Unzip the file

3. In NS **Customization > Scripting > Scripts > New** which takes you through the following 3 steps

   3a. Upload script file

   3b. Create script record

   3c. Deploy script

4. Run by entering the name in the Title from Step 3b in your NetSuite search window

3a. Upload the Script File

Customization > Scripting > Scripts > New

Upload Script File

Reset	Cancel	**Create Script Record**

* SCRIPT FILE `sql-query-tool.v20200806.suitelet.js`

sql-query-tool.v20200806.suitelet.js
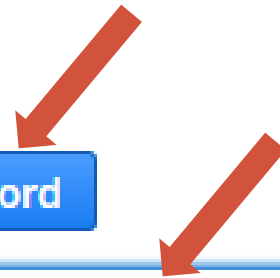
3b. Script Page (auto transition)
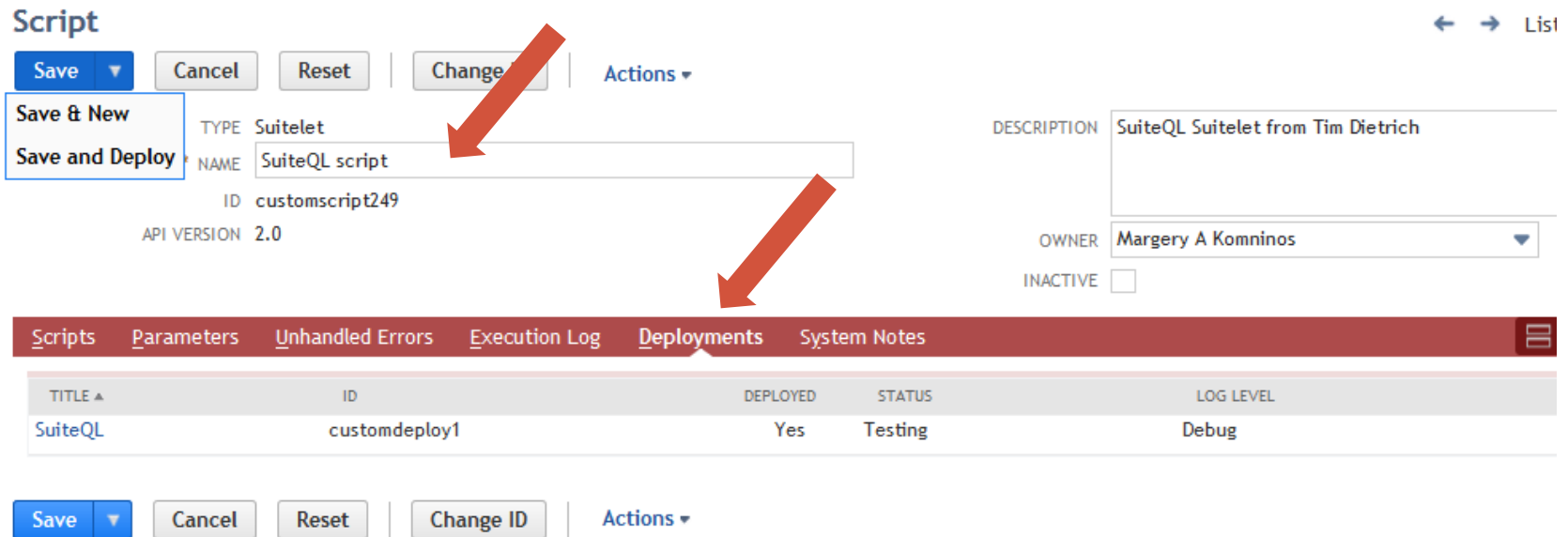
3c. Script Deployment (auto transition)

3c. Script Deployment

Run

SuiteQL Query Tool

Run Query

* QUERY

Helpful Resources

- Tim Deitrich Blog: https://timdietrich.me/blog/
- Suitelet : https://timdietrich.me/blog/netsuite-suiteql-query-tool/
- SuiteAnswers 87349 : SuiteQL
- SuiteAnswers 87352: Using SuiteQL
- SuiteAnswers 87350: SuiteQL Syntax and Examples
- SuiteAnswers 87442: Finding Record Type and Field Names
- Analytics Browser: https://system.netsuite.com/help/helpcenter/en_US/srbrowser/Browser2020_1/analytics/record/account.html
- Eric Grubaugh's "Basic Querying in SuiteScript" ebook on SuiteScript 2.0's N/query module. You can find that here: https://stoic.software/cookbooks/basic-query/
- NetSuite's SuiteAnalytics Workbook PDF, which includes helpful information on SuiteQL, including syntax and example queries.
- To learn SQL: https://www.codecademy.com/learn/learn-sql
- To learn SQL: https://www.w3schools.com/sql/