

Advanced **NetSuite** Integration with Boomi

Tips, techniques and how-tos from the Integration Experts at Kitepipe

Authored by: The NetSuite Services Team at Kitepipe, featuring Phyllis Hodges and Ted McKnight

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The Why:

Why Integrate to NetSuite?

ORACLE®
NETSUITE

American cloud computing company that provides software and services to manage business finances, operations, and customer relations.

Why?

The average enterprise has 50+ approved cloud platforms – everything from e-Commerce to CRM. Everything transactional that happens in these systems needs to get posted into NetSuite.

People

You may have an HRIS system, but the spend impact – payroll and expenses, must post to NetSuite.

Revenue

As the place where revenue gets recognized, orders, and shipments must be posted to NetSuite.

Best of Breed

NetSuite has a complete set of modules, but most enterprises choose some additional applications that are optimized for a particular business function – these need integration!

The Tools:

About Boomi Integration

boomi

The leading cloud integration middleware platform, with over 8,000 customers and the only full functionality cloud platform.

Advanced NetSuite Integration

No Code

Boomi integrations are configured in a hyper-productive environment.

Runs Anywhere

Boomi runs on-premise, hybrid cloud, or in Boomi.

Master Data Hub

Boomi's data mastering module enables efficient hub and spoke integration architecture.

Kitepipe

The leading builder of high-function integrations for NetSuite.

Workflow / Dashboards

for onboarding, approvals, and change reporting.

The Solution:

Kitepipe NetSuite Integration Services

Deep Experience

To date, Kitepipe has completed 100 Boomi NetSuite integration projects, including B2B revenue, B2C e-commerce, fulfillment, CRM and much more.

NetSuite Learnings

Benefit from our experience in posting and querying NetSuite data using the many tools and approaches described in this eBook.

Proven Process

We have refined our project approach and workplans to handle complex NetSuite integration projects.

Dedicated Team

Kitepipe is a dedicated on-shore Boomi integration team that does only Boomi services work.



ORACLE®
NETSUITE

Boomi AtomSphere Platform

Data Readiness

**Data-centric
Customers**

Discover and convert high volume data to high value data

Pervasive Connectivity

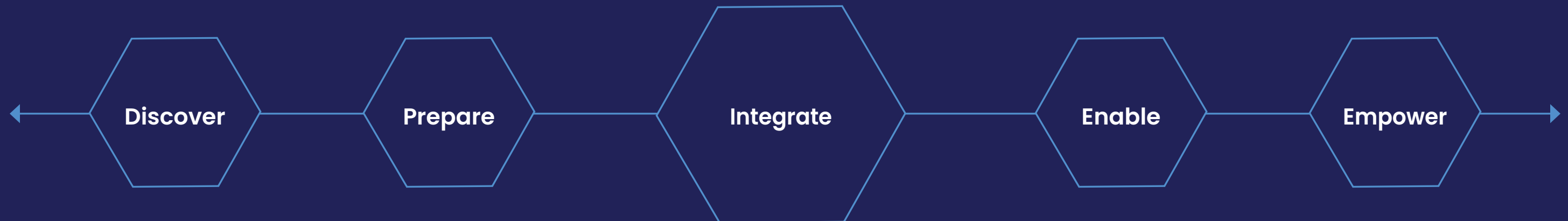
**Data & App-centric
Customers**

Unified by powerful integration at the core to delivering solutions for all customers

User Engagement

**App-centric
Customers**

Enable end-user customer experience powered by data



Boomi Service

Data Catalog & Preparation

Master Data Hub

Integration

B2B/EDI Management

API Management

Flow

Data Journey

Discover Prepare, Enable

Prepare

Integrate

Enable

Enable

Enable Empower

INTELLIGENCE / SECURITY / COMPLIANCE / GOVERNANCE / DATA PRIVACY / PERFORMANCE + SCALE

NetSuite APIs: Ins and Outs of NetSuite

There are a number of ways to get data in and out of NetSuite using Boomi.

Here is a summary:

NetSuite API

Standard NetSuite API, used by the Boomi NetSuite connector, provides both query and create/update methods, and access to all standard and custom objects and fields.

Suite Analytics

Supports SQL-like access to NetSuite data model.

Cabinet API

File repository.

Saved Search API

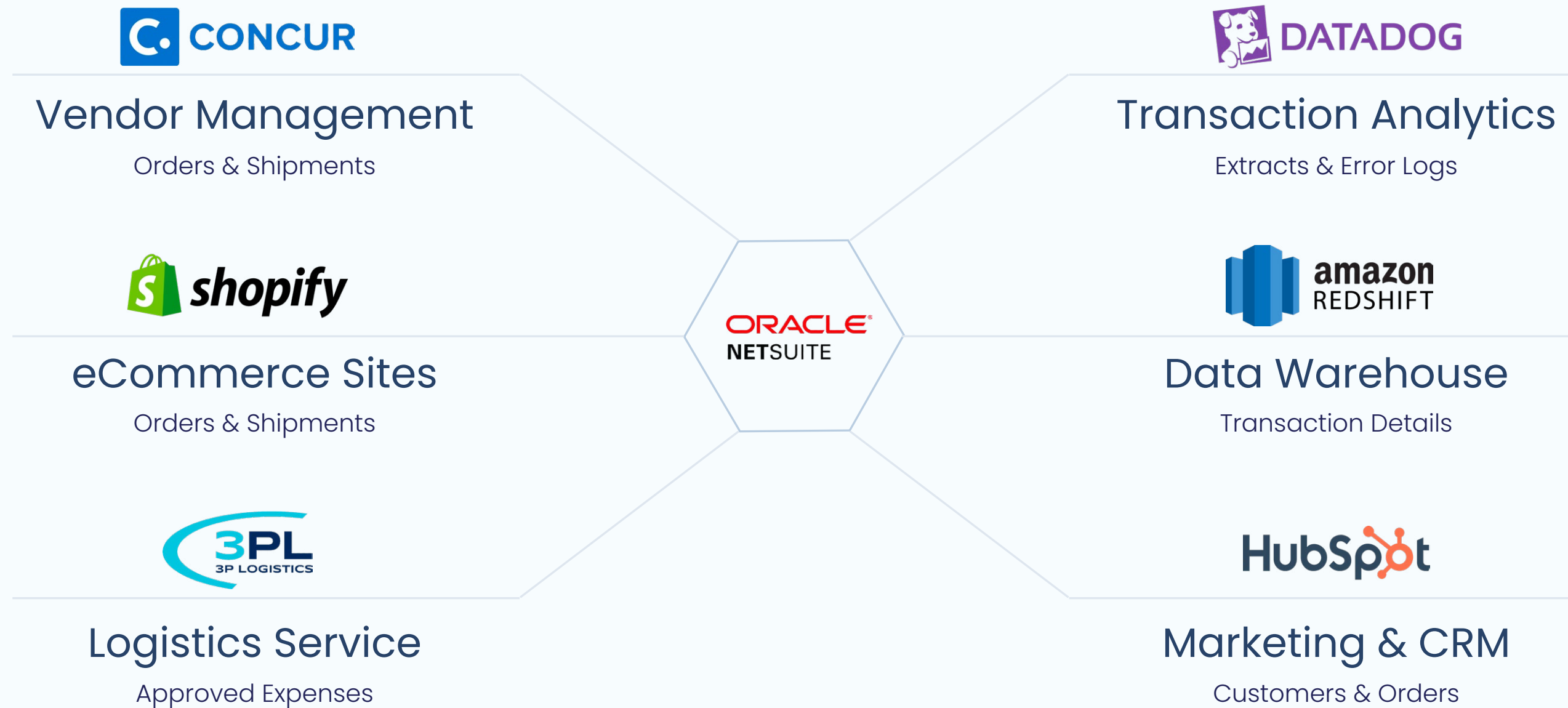
Provides access to the powerful saved search functionality in NetSuite.

Restlets

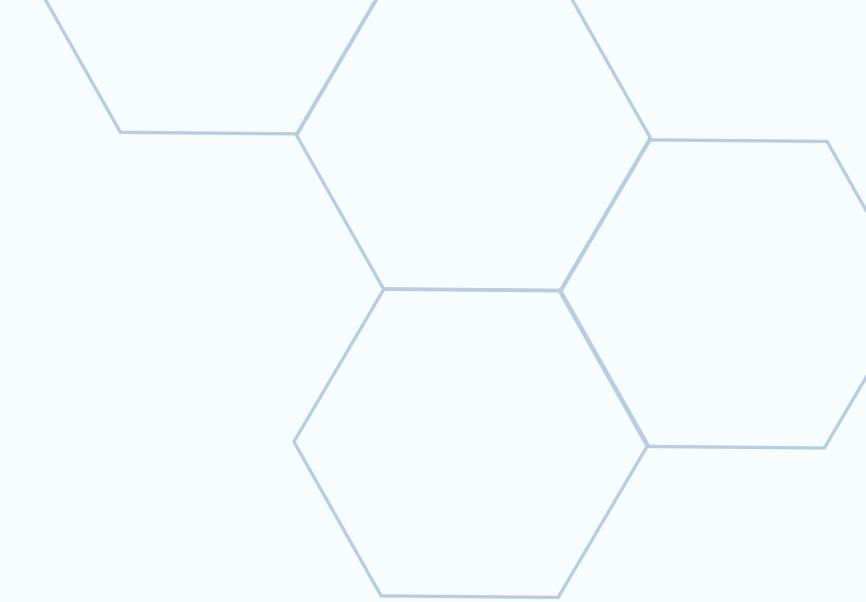
Custom APIs supported by scripting within NetSuite.

Sample Architecture: B2C Integrations for NetSuite

ERP Finance & Inventory



Simple API Integration



NetSuite Connector

The basic NetSuite connector has full functionality, and can access almost anything in your NetSuite account. Tips include:

Know the Internal IDs

NetSuite inserts or updates use internal IDs to reference related records, like item IDs – look these up in a separate query.

Oauth

Set up your connector for oauth authentication – See Appendix A for details.

Find Your Fields

NetSuite objects are huge, and connection operations present related objects as well, so narrow down your field selections. Browser find is helpful for this.

Connection Limits

The standard connector limits connections to one at a time – to run multiple processes together you will need a SuiteCommerce user from NetSuite.

Access Errors

Most API errors in NetSuite are caused by issues with the complex permissions structure – get your NetSuite Admin to ensure access to all components.

Netsuite Saved Searches

Boomi can call and run a NetSuite Saved Search report and consume the results of the report.

Saved Search Tool

Learn how to use the Saved Search reporting tool inside NetSuite or have a NetSuite developer write the Saved Search.

Saved Search API

A Saved Search is tied to a specific table in NetSuite but joined tables can be referenced to pull additional fields. These 'joins' eliminate additional connector calls in Boomi.

Use the Advanced Search option on that table's profile import and reference the Saved Search's ID when querying the data.

Try to place filtering on the NetSuite side in the Saved Search.

Saved Search Limitations

Boomi Saved Search data pulls CAN NOT reference columns that are formulas or the results of a format on a column.

Boomi Saved Search data pulls are slow for large amounts of data – pull from the file Cabinet to pull large amounts of data.

Boomi Saved Search data pulls are not a good fit for transactional data. They are best used for static data like the inventory master or customer master where joins to other tables are needed.

Advanced Techniques Suite Analytics

Suite Analytics

Boomi offers a second method of querying data from NetSuite using a Data Base connector.

Functionality

The NetSuite account must have a license for the Suite Analytics tool. There is an extra fee but this tool can be used by both the NetSuite end users and the Boomi developers so it can be cost justified.

A JDBC jar file must be downloaded from the NetSuite Web UI and installed in the Boomi account. The user role assigned to the login will need to include permissions to the objects that will be queried.

When To Use

The Suite Analytics Database connector is best for financial data queries, system notes queries, and other tables that might be difficult to access with the regular NetSuite API Boomi connector.

Advanced Techniques Restlets

Restlets

These are custom RESTful web services in the NetSuite account developed by NetSuite developers using SuiteScript. RESTlets are an alternative to the standard SuiteTalk SOAP-based APIs.

Functionality

Restlets use JSON payloads and can be used to create services optimized for specific use case such as an item inventory lookup or account balance query without the overhead of retrieving the entire record.

Restlets provide an opportunity to execute logic such as multiple lookups/complicated actions on the server side vs. making multiple round trip calls from AtomSphere.

When To Use

Use restlets whenever possible to push the transformation and posting work into NetSuite.

Restlets make Boomi integrations into true 'pipes' for payloads which greatly reduce the amount of failure inside of Boomi due to data quality.

Issues and Pitfalls

Picky About Posts

NetSuite is extremely picky about Posting payloads. This is a good thing since it prevents data corruption.

NetSuite is cryptic in its responses to errant Posts. This can make figuring out the payload's failure to post a difficult task. Often trial/error is key.

Fulfillment/Receipt Transactions

Fulfillment/Receipt transactions require a two-step process involving an Initialize call to NetSuite and then a Create call to NetSuite.

Keep Mapping Simple

Only map the fields that are needed to accomplish the post action.

Limit the Scope of Queried Fields

After importing the profile for the NetSuite table for a query action, select the minimum number of fields that are needed.

Leaving all fields selected will trigger failures later if these unused fields are removed or renamed on the NetSuite side by a NetSuite upgrade or NetSuite developer customization.

Custom Fields

Profile imports may not display custom fields added on the NetSuite side.

Work with the NetSuite developer to use the Suite Talk Soap API to solve the access problem.

Best Practices

- ✓ Success with NetSuite integration starts with a good relationship between the Boomi Architect/Developers and the NetSuite Admin/Developers.
- ✓ Evaluate the NetSuite support contract. Some issues with Boomi queries and postings to NetSuite will require support from NetSuite to solve.
- ✓ NetSuite Business Analysts can be helpful in large development projects.
- ✓ Educate the NetSuite Admin/Developers regarding Boomi.
- ✓ Suggest adding Boomi Queues or other queues to hold data for load balancing and system down occurrences.
- ✓ Evaluate the NetSuite license for concurrent connections – suggest upgrades if limits exist.
- ✓ The Boomi User Role setup in NetSuite is crucial to Boomi's success in pulling data from tables. Push for a role with a wide scope of access to all the tables. The role can be restricted later.
- ✓ Ask for frequent refreshes of the NetSuite sandboxes



To Get Started – check out Appendix A – “Newbie-2-Netsuite”

Summary

NetSuite Integration is Complex

The combination of the rich functionality in NetSuite and the customization features in NetSuite can make integration to NetSuite complex.

E-Commerce

Most sophisticated enterprises use separate best-of-breed e-commerce platforms like Shopify – rich integration with NetSuite can keep Shopify running error free and posting orders to NetSuite.

Fulfillment

3PLs, WMS, and in store pickup make for complex fulfillment scenarios that can be smoothly integrated into NetSuite.

Master Data

Master data issues (items, employees, accounts) are the cause of many integration failures – contact Kitepipe to learn more about the [Boomi Master Data Hub](#).

Next Steps

Schedule a Free Integration Discovery Session

Learn how quickly an Integration Solution from Kitepipe and Boomi can help you achieve your NetSuite growth and development goals.

884.232.2227

Boomihelp@kitepipe.com

[Kitepipe.com](http://kitepipe.com)



Advanced NetSuite Integration

About Kitepipe

Kitepipe is an Elite-Level Boomi Implementation Partner that focuses exclusively on all things Boomi. The Kitepipe delivery team is all North America based, and executes 120+ Boomi projects a year. Our focus on Boomi technology and project execution means that our customers have access to the top Boomi developers and Best Practices.

Appendix A:

Newbie-2-Netsuite

Tips, techniques and how-tos from the Integration Experts at Kitepipe

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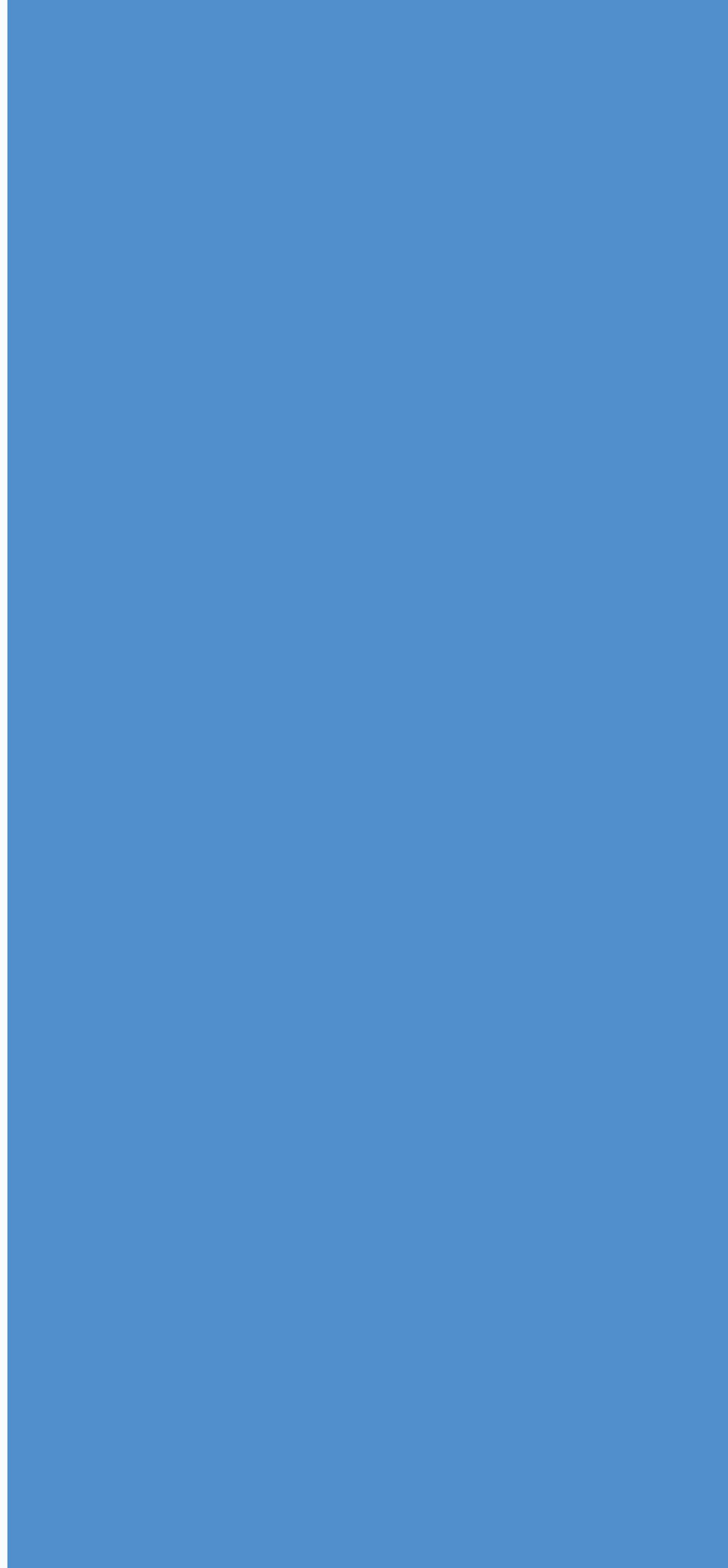
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CONTENTS

Besides an intimate relationship with the Client's NetSuite Administrator,
a Boomi Developer needs to know 5 things to start with NetSuite Appendix:

- [How to Update or Extend a Connection](#) 03
- [How to Build That Operation](#) 04
- [Wrangling Too Many Records](#) 07
- [Tune up That Query](#) 08
- [Get Access to NetSuite Web Interface](#)..... 09



How to: Update or Extend a Connection

1. To Extend, copy From other connection.

2. To update, get the values from your Netsuite admin:

- Account Number (Use of "SBI" Typical "Sandbox" Indicator)
- Consumer Key
- Consumer Secret
- Token ID
- Token Secret

NetSuite Sandbox SB1 - NetSuite ⓘ Folder Add Description

Connection

URL ⓘ	<input type="text" value="https://webservices.netsuite.com/services/NetSuitePort_2018_2"/>
User	<input type="text"/>
Password	<input type="text" value="<Encrypted>"/>
Account Number	<input type="text"/>
Consumer Key	<input type="text" value="4a9f3e011ef9600a08565011659b1f3befd5ab13162bb0abad35ec7"/>
Consumer Secret	<input type="text" value="d21ff299e1a5dd6ee30f3604fd51330d9c00d8ed57574be7be9ec0f7"/>
Token Id	<input type="text" value="a79bccbc786b3bc3ecb7e0f82b0c1c01f0a1b31bc7681cd8008089e5"/>
Token Secret	<input type="text" value="8e5a98bd8e18f2f64df3a8ec17d79f69469044f925e8a0691f0db1ca"/>
Application Id	<input type="text"/>
Version	<input type="text" value="Version 2018.2"/>
Number of Retries	<input type="text" value="5"/>
Maximum Number of Concurrent Connections ⓘ	<input type="text" value="1"/>

How to: Build That Operation

1. Select a Connector



2. Provide a Display Name

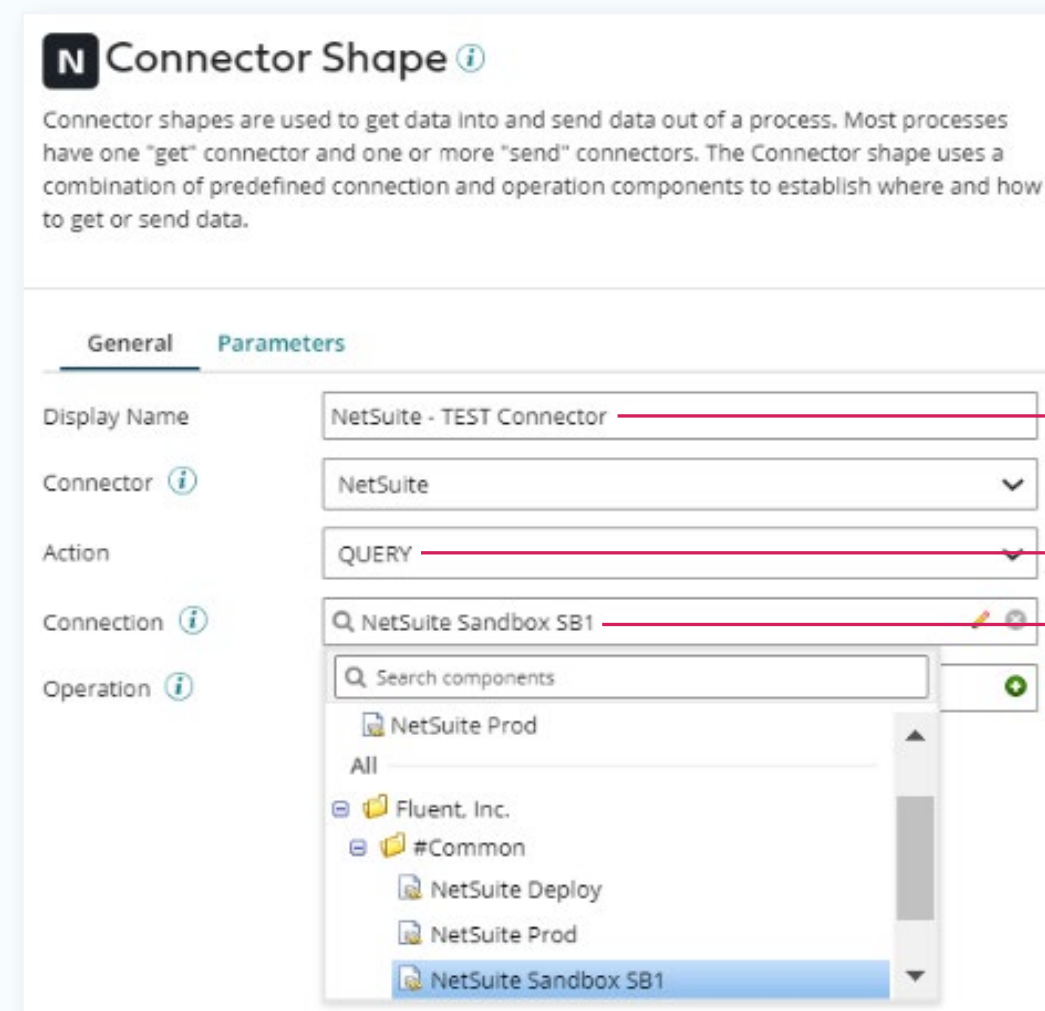
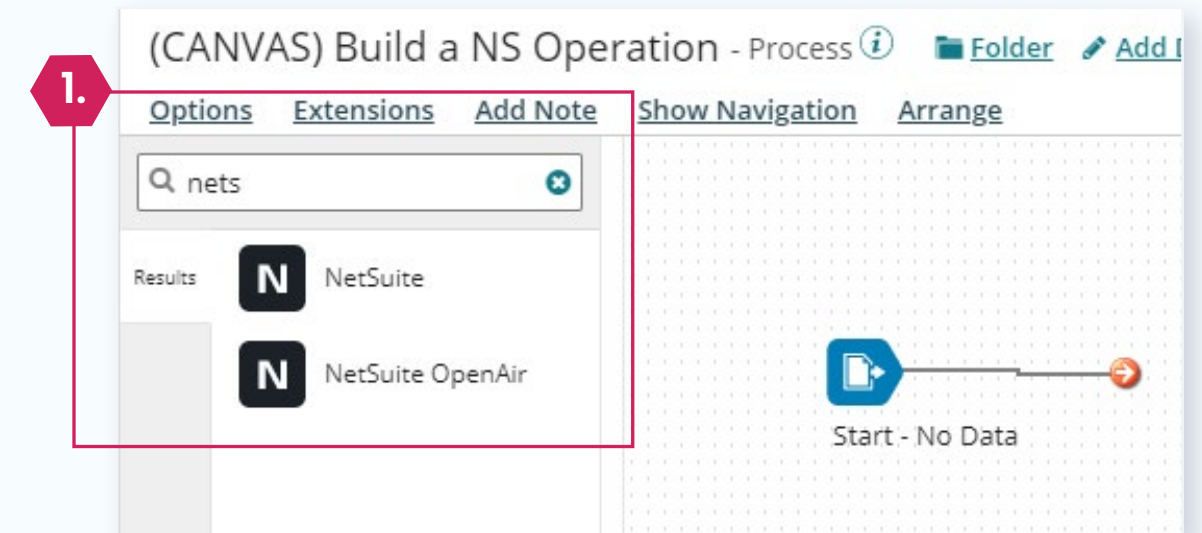
"NetSuite - TEST Connector"

3. Select the Action

"Query"

4. Select a Connection

"NetSuite Sandbox SB1"



How to: Build That Operation

Action: QUERY
Connection: NetSuite Sandbox SB1
Operation: Choose...

5. Create an Operation

a. Click the "Create" Button

New Screen

b. Provide a Display Name

"[NetSuite] QUERY SalesOrder"

c. Click the "Import"

d. Select Atom & Connection

e. Click "Next" Button

f. Select Object Type

g. Click "Next"

[NetSuite] QUERY SalesOrder NetSuite Operation

Options Archiving Tracking Caching Import

Connector Action: QUERY

Object:

d. Browse in: Cloud Atom
Atom*: Fluent_TestBoom1_1
Connection*: NetSuite Sandbox SB1

Option: Batch Results
Option: Use Advanced Search
Object Filter: *

Cancel Next **e.**

NetSuite Import Wizard

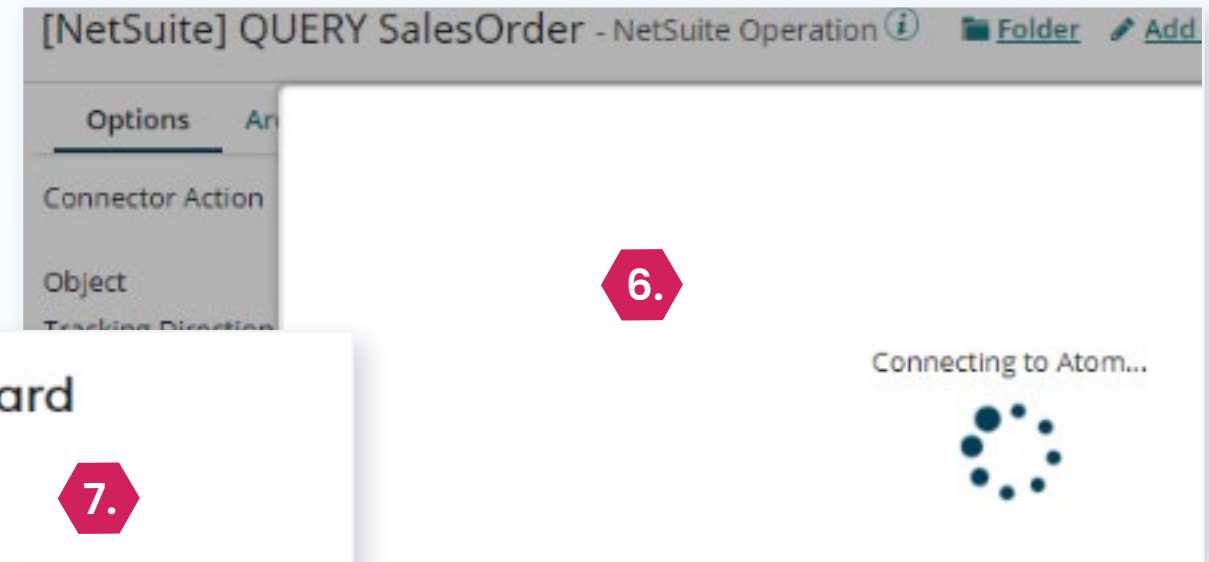
Object Type: Sales Order

Cancel Back Next **f.**

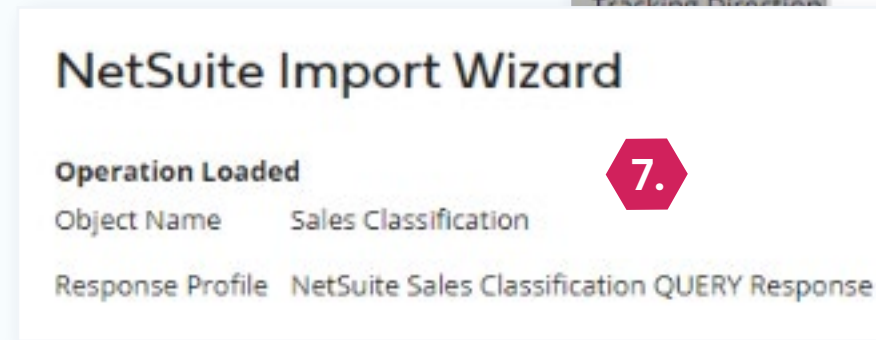
Next **g.**

How to: Build That Operation

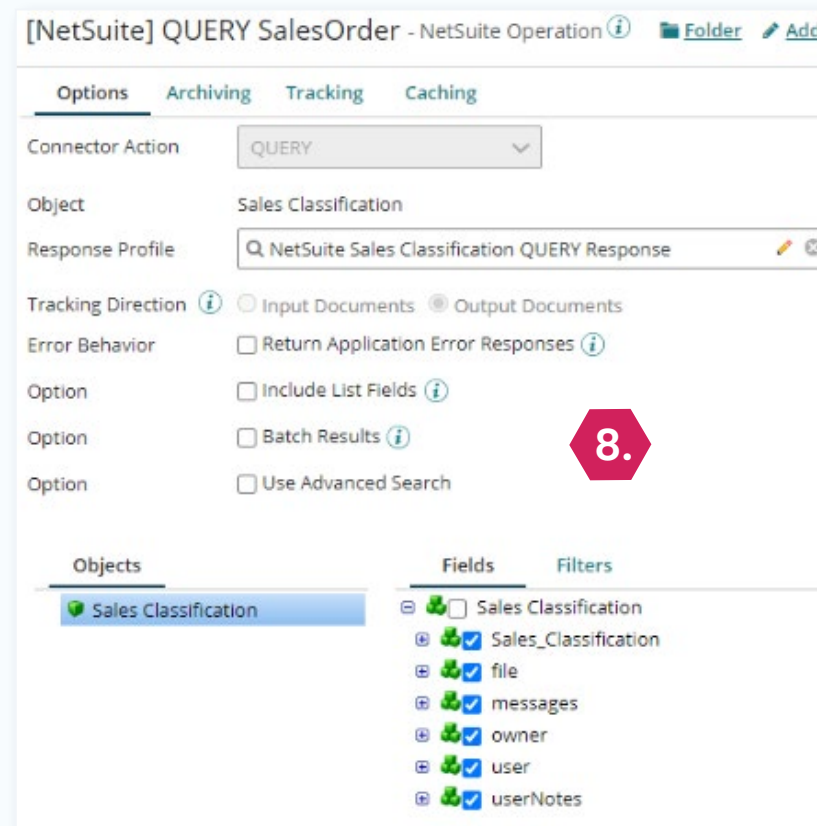
6. "Connecting to the Atom..."



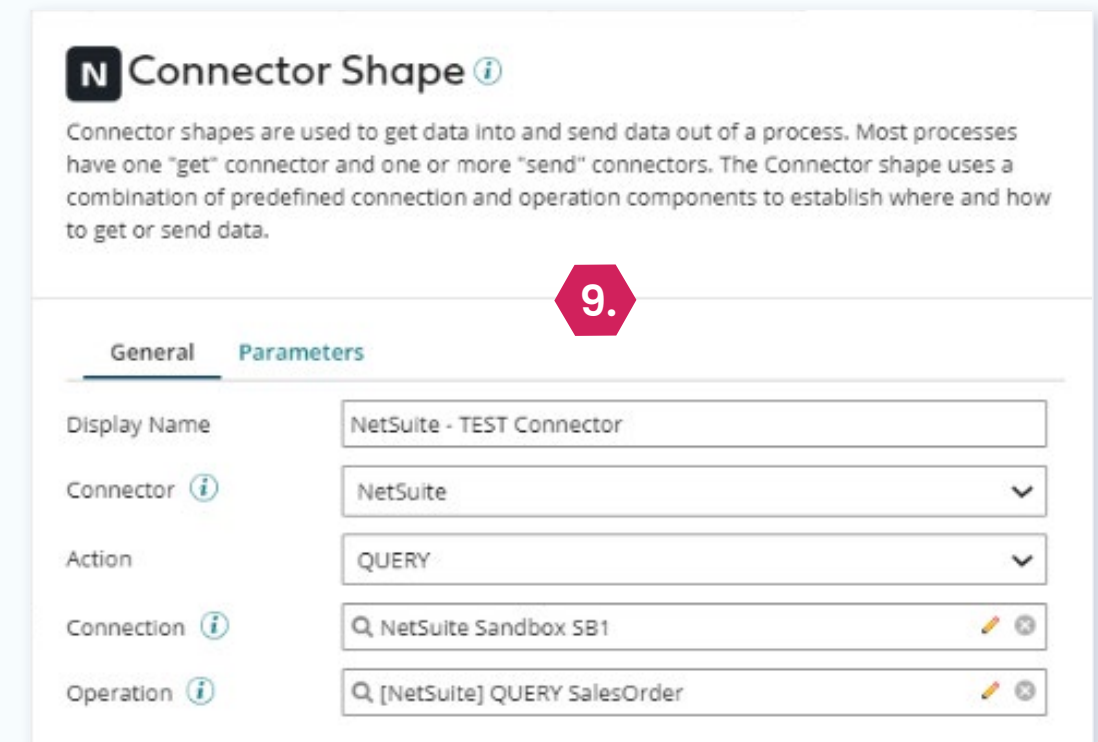
7. "Operation Loaded"



8. The Completed Operation



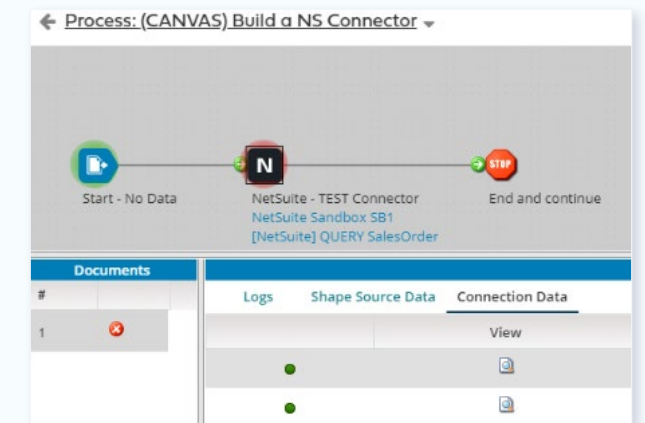
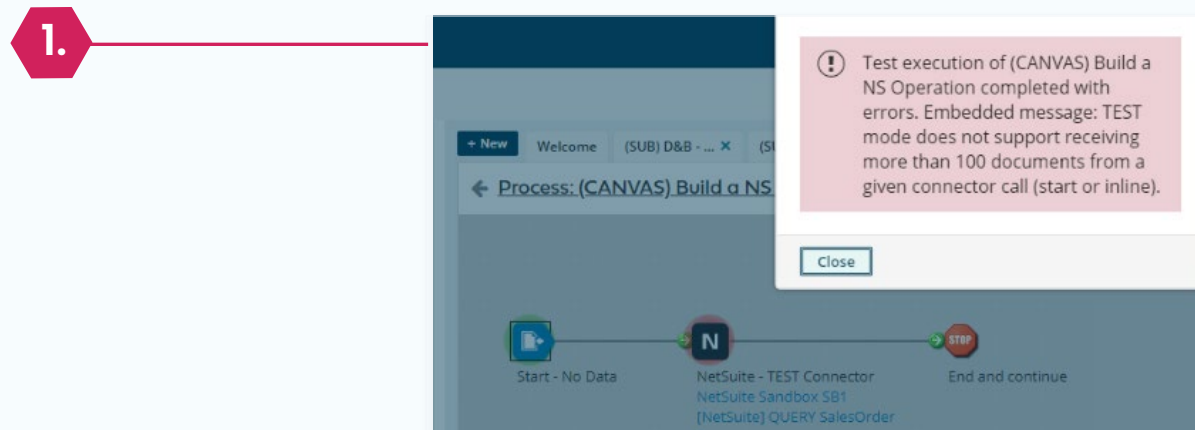
9. The Completed Connector



Wrangling Too Many Records

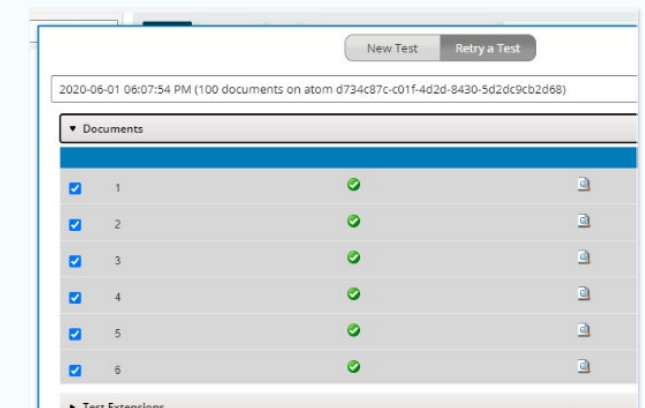
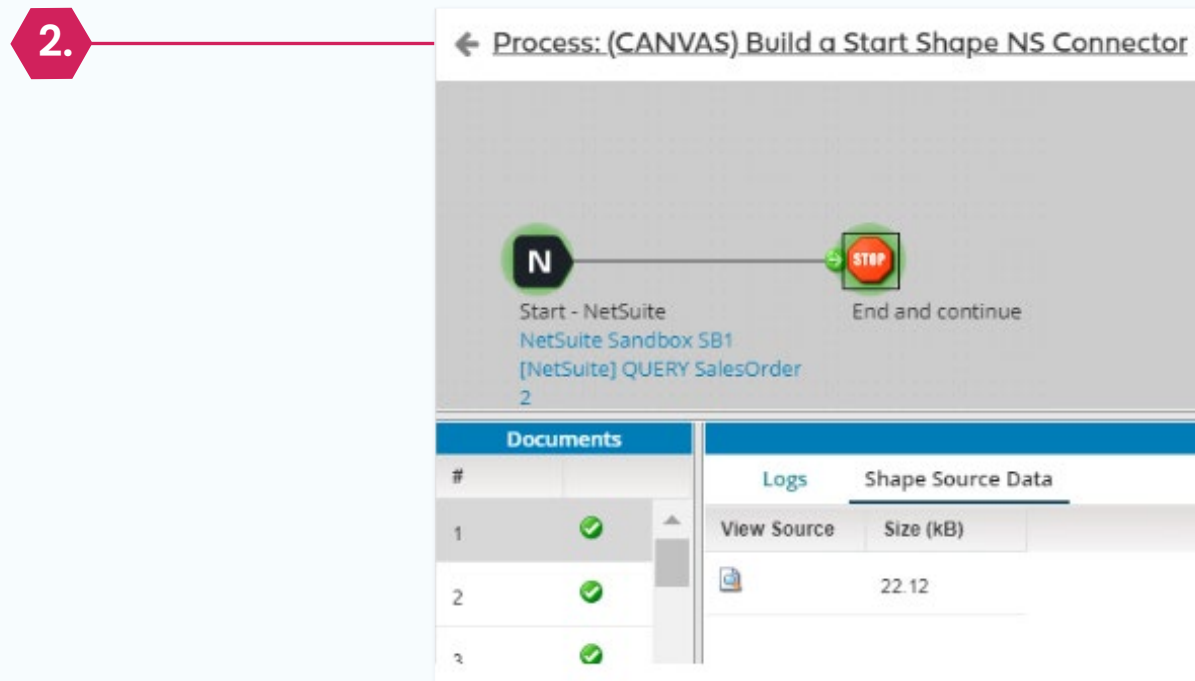
1. Test Mode – Only View First 100 Records

Pull test records out of Connection Data



2. Configure a Start Connection Shape

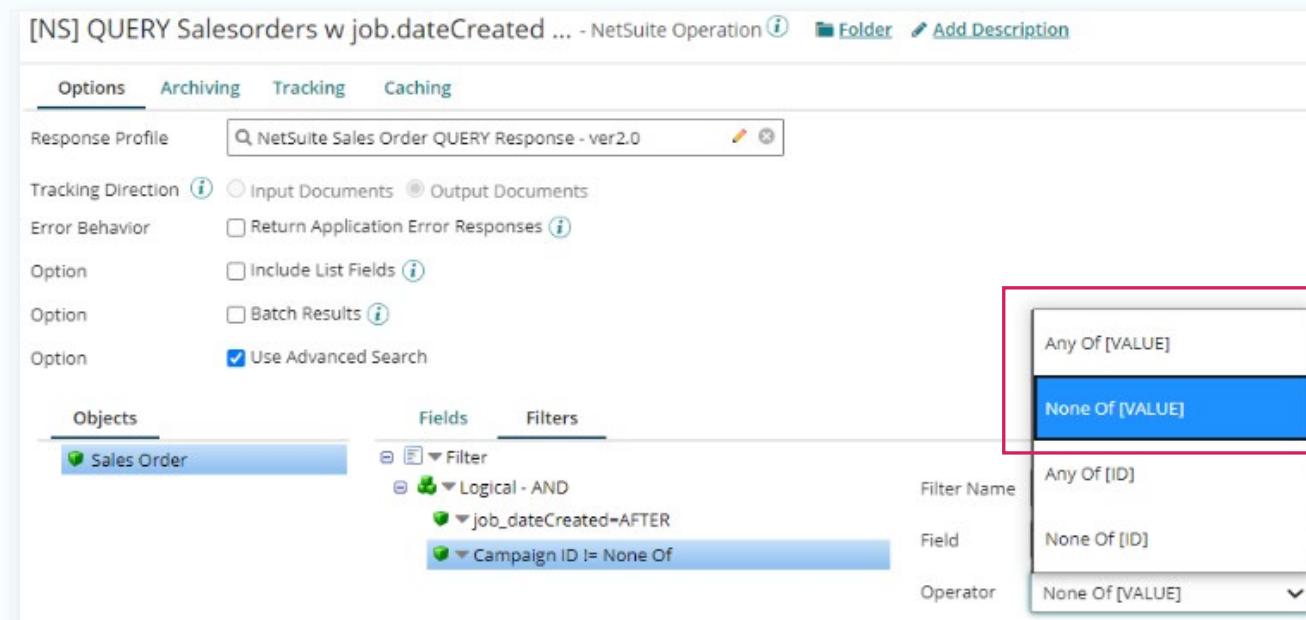
Replay selected number of records



Tune Up That Query

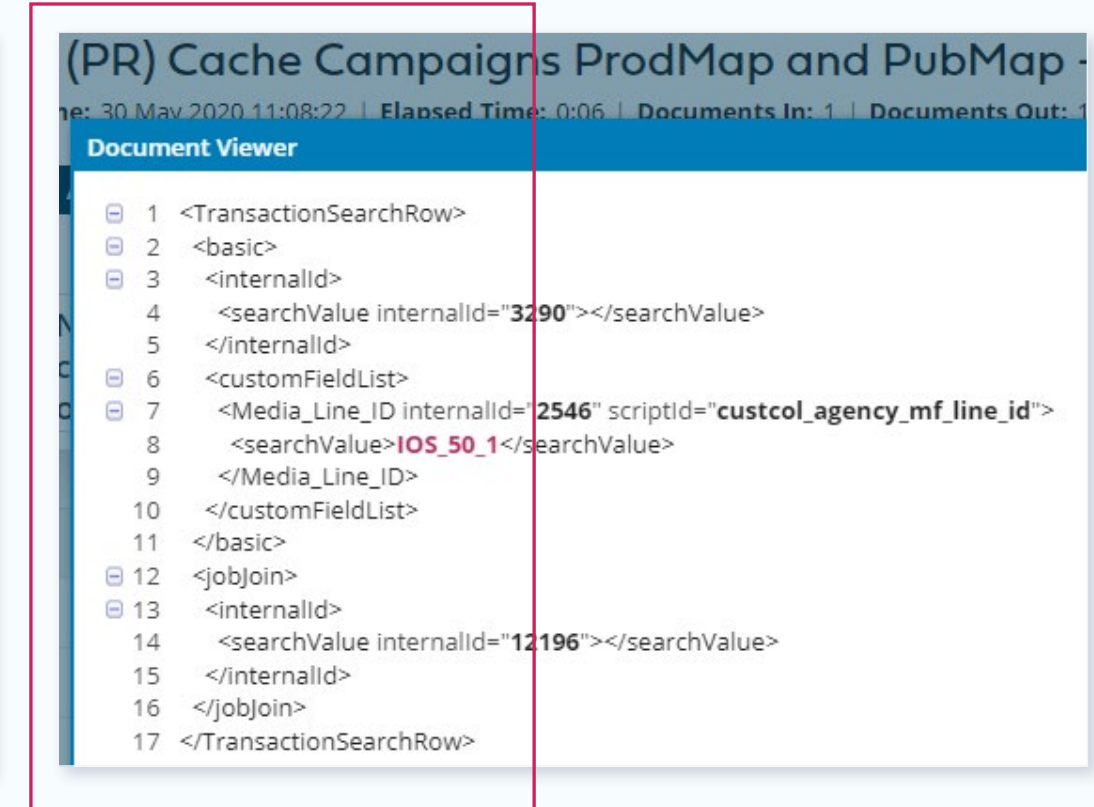
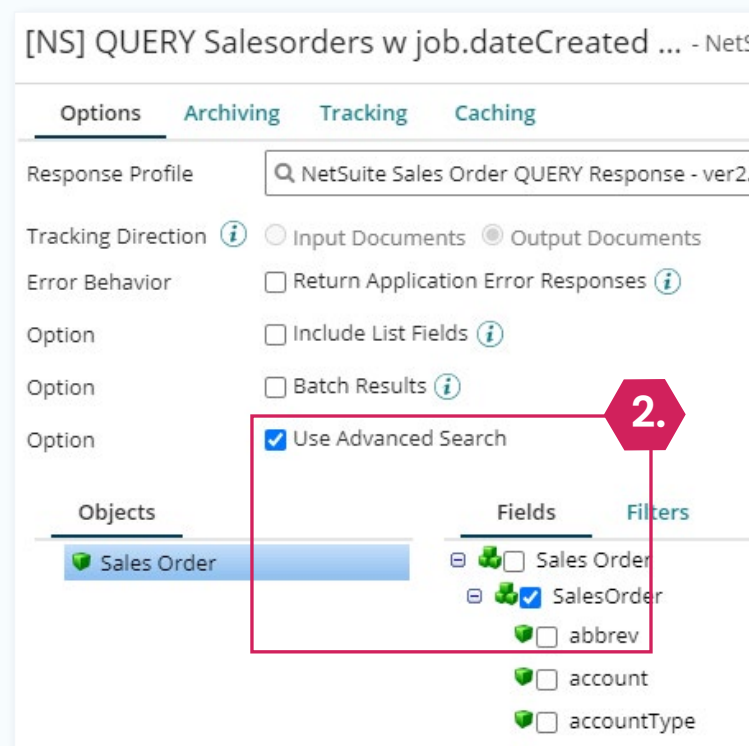
1. Configure a Parameter to Limit Returned Records Via Comma-Delimited List

- None OF (VALUE)
- All OF (VALUE)



2. Limit Returned Data Content

Use "Advance Search" to select returned data (with concerns!)



Get Access to NetSuite Web Interface

1. Individual Web Accounts

It's bad practice to share accounts or to access using a Boomi Web Service account.

2. Admin Privileges with Full Search Capabilities

3. Key Tricks

- SOAP Logs
- Record XML



Contact Us!

884.232.2227

[Kitepipe.com](https://kitepipe.com)

boomihelp@kitepipe.com