

## **DNA Test Optimizer**

GenTestObjects.dnax Extension ID: 1ef7dc4b-d1ab-4dda-a329-bd70c9e936ab © 2019 Fiserv, Inc. or its affiliates. All rights reserved. This work is confidential and its use is strictly limited. Use is permitted only in accordance with the terms of the agreement under which it was furnished. Any other use, duplication, or dissemination without the prior written consent of Fiserv, Inc. or its affiliates is strictly prohibited. The information contained herein is subject to change without notice. Except as specified by the agreement under which the materials are furnished, Fiserv, Inc. and its affiliates do not accept any liabilities with respect to the information contained herein and is not responsible for any direct, indirect, special, consequential or exemplary damages resulting from the use of this information. No warranties, either express or implied, are granted or extended by this document.

#### http://www.fiserv.com

Fiserv is a registered trademark of Fiserv, Inc.

Other brands and their products are trademarks or registered trademarks of their respective holders and should be noted as such.

### Overview:

The DNA Test Optimizer (Generate Test Objects) application allows the Financial Institution to retrieve test data quickly and dynamically for pre-defined conditions based on Account, Person, and Organization criteria, and utilize this test data when validating new releases and system updates and incumbent functionality. This allows the User to easily find test data to use instead of having to track down test data from outside query tools or reports, and to not have to use the same testing data sets every time.

### Key Benefits:

The DNA Test Optimizer application allows the Financial Institution to streamline the retrieval and overall process of their test data needed for release and system regression testing.

Benefits include:

- Queries are User-defined, and are performed within DNA instead of using an outside query tool.
- Set up of pre-defined SQL Statements to retrieve test numbers for Persons, Organizations, Deposit Accounts or Loan Accounts based on specific conditions that can be run at any time.
- Storage of SQL queries in clear text format.
- Dynamic query functionality in that a query will retrieve current real-time data for that database e.g. searching for a loan account in a certain product that is past due by more than x days.
- Ability to create an evolving library of standard SQL Statements to retrieve test numbers based on specific conditions.
- Portability that allows an export file of the SQL Statements to be imported into another database, essentially allowing the library to be copied if desired.
- On-screen choice of the maximum number of records to retrieve.
- Catalog and filtering ability to organize SQL Statements into groups for easier onscreen access.

### **Processing:**

The DNA Test Optimizer application is designed to allow Financial Institutions to retrieve test data quickly based on pre-defined SQL Statements. The DNA Test Optimizer application includes the Generate Test Objects and the Generate Test Objects – SQL Test screens. The Financial Institution would add the SQL Statements on the Generate Test Objects – SQL Test Screen and then the User can run the SQL Statements on the Generate Test Objects screen to get the test data.

The existing 'SQL – SQL Maintenance' authorization item must be assigned and have appropriate permissions established in order to access and utilize the Generate Test Objects – SQL Test and Generate Test Objects screens.

This application is designed to run SQL Statements that return Person numbers, Organization numbers, Deposit Account numbers or Loan Account numbers. The SQL Statements used for this application will be maintained on the Generate Test Objects – SQL Test screen which is accessed via Services > System > Printing Operations > Generate Test Objects – SQL Test > Create/Edit SQL Statement.

Note: If the SQL Statement is written to return a number in the first column and a name or description in the second column, it can be utilized with this application.

To create a new SQL Statement to be used to retrieve the test data on the Generate Test Objects screen, the following would occur:

1. Navigate to Services > System > Printing Operations > Generate Test Objects – SQL Test to access the Generate Test Objects – SQL Test screen.

Sen	Tickler C Table N	faintenance 🖸		
rices	Generate Test Ol	ojects - SQL Test		
7	SQL Statement Detail	s		
IVOIT	Create SQL Edit SQL	Export Import Refresh		
S.	Number	Name	Description	Category
Hep	1	TAAS 100001	Active Savings Accounts 200 balance No Restrictions	Deposit Account
	2	TAAS 100002	List of Checking Accounts	Other
	3	TAAS 1001	Persons Without Restrictions	Other
	4	TAAS 1058	Cash Count Option Value & Denominations	Other
	5	TAAS 1002	Active Savings Account Without Restriction	Other
	6	TAAS 1062	Active MTG Accts Note Bal > 0 and IntMethCd = SMP & LIAA	Other
	7	TAAS 1063	Valid Active CNS Term Fixed Rate Products	Other
	8	TAAS 1064	Create New Loan Account Workflow Linked Screens	Other
	9	TAAS 1067	Valid Active CNS Deposit Collateral Products	Other
	10	TAAS 1069	Valid Active TD with Note Bal > 2500 TRF Pers and no Deposi	Other
	11	TAAS 1021	Active CNS Accts with Note Bal > 0 no Escrow Bal	Other
	12	TAAS 1003	Active Savings Account with 200 balance and without restrict	Other
	13	TAAS 1004	Active Checking Account Without Restriction	Other
	14	TAAS 1005	Active General Ledger Account With Title	Other
	15	TAAS 1006	Approved Passbook SAV Acct Without Restriction	Other
	16	TAAS 1007	Active Dep Acct Without Restriction and Title	Other
	17	TAAS 1008	Active Dep Acct with Single Owner	Other
	18	TAAS 1009	Active Dep Acct with Joint OR Owner	Other
	19	TAAS 1010	Dormant Deposit Account Without Restriction	Other
	20	TAAS 1011	Active Deposit Account Without Restriction	Other
	21	TAAS 1012	Active MTG Accts Unapplied Balance Greater Than Zero	Other
	22	TAAS 1013	Active MTG Accts Escrow Balance Greater Than Zero	Other
	23	TAAS 1014	Approved Saving Acct Without Passbook and Restriction	Other
	24	TAAS 1015	Active Dep Acct with Without Passbook and Parent Txn	Other
	25	TAAS 1016	Active MTG Accts with Note Balance Greater Than Zero	Other
	26	TAAS 1017	Active CK Account with 1000 bal and without restriction	Other
	27	TAAS 1018	Active Savings Account with 1000 balance without restrict	Other
↑ P	RODUCTION [Last login:	6/25/2019 4:10:53 AM on DNACREATOR]		

Serv	Tickler Print Groups Table Maintenance G		
ices	Create SQL Statement		
Fav	Create SQL Statement		
orites Help	SQL Number SQL Name » Description » Category » Select Category>	Comments	
	»		Expand View

2. Click the "Create SQL" sub menu to bring up the Create SQL Statement screen.

- 3. Enter the following information:
  - a. SQL Name: This is a user defined value. This name will show up in a dropdown list under the Category when using the application, so it is recommended to define a naming convention that makes it easy for the User to find and use their desired statement. Example: TAAS 1001 or SQL 200
  - b. Description: This is a user defined value. Example: Active Savings Accounts with User Field Value
  - c. Category: This is a system defined value. Select from the dropdown list values and assign a Category that best fits the SQL Statement's area or test group.
  - d. Comments: This is a user defined value. This will contain a more defined description of what the SQL Statement will return in the Search Results.
  - e. Copy/Paste a SQL Statement or add a SQL Statement in the large box. The SQL Statements must return only an Object Number and Object Name as those are the only two values to display on the Generate Test Objects screen. An example would be a SQL Statement that returns a Person Number in Column 1, and the Person Name in Column 2.

Sen	Tickler Print Groups Table Maintenance	
rices	Create SQL Statement	
Fav	Create SQL Statement	
orites Help	SQL Number SQL Name » Person Home Phone Description » Persons With Home Phone Numbers No Restrictions Category » Person select distinct p.persnbr,(p.lastname    , '    p. firstname) "Entity Name" from pers p	Comments Query to find persons with no warning flags and a home phone number
	Ieff outer join persevrn pw on p.persnbr=pw.persnbr leff outer join persempl pe on p.persnbr=pe.persnbr leff outer join (select persnbr;phonenbr from persphone where phoneusecd='PER') pp on where p.valdyn='Y' and p.datebirth is not null and p.datedeath is null and pp.persnbr is null and pe.persnbr is null and pp.persnbr is not null order by 1	pp.persnbr=p.persnbr
	Cancel	Close C Clear C Review     Process

4. Click Process. DNA will assign the SQL Number.

Note: The SQL Statements are stored in the SQLTEST EXTN table. Only SQL statements that are maintained on the Generate Test Objects – SQL Test screen and added to the SQLTEST EXTN table are available on the Generate Test Objects screen to retrieve test data.

Important: the SQL Statements are limited to overall character sizes of 2000 characters.

Once the SQL Statements have been created on the Generate Test Objects – SQL Test screen, the User can then access the Generate Test Objects screen and retrieve their test data numbers to begin their testing. The User would follow the steps below to retrieve their test data.

1. The User would access the Generate Test Objects screen via Services > Batch > View > Generate Test Objects.

Servi	Tickler C Batch Processing Maintenance C
ces	Generate Test Objects
Fav	
orites	Search Criteria
Help	Search Criteria
	SQL Category » <select category="">   Number of Records to Display » 50</select>
	SQL Name » SQL Description
	SQL Comment
	Query Clear
	Search Desults
	Search Results Test Object Number Test Object Number
	Search Results Test Object Number Test Object Name
	Search Results Test Object Number Test Object Name
	Search Results Test Object Number Test Object Name
	Search Results Test Object Number Test Object Number
	Search Results Test Object Number Test Object Name
	Search Results Test Object Number Test Object Number
	Search Results          Test Object Number       Test Object Name
	Search Results          Test Object Number       Test Object Name
	Search Results          Test Object Number       Test Object Name
	Search Results Test Object Number Test Object Name
	Search Results          Test Object Number       Test Object Name

2. The User would then select from the SQL Category, which would then present a dropdown list of SQL Name queries to be selected from via the SQL Name field. The User may also elect to use the system default of a maximum of 50 records to display, or change this number per application allowances (see Screen Appearance for more

details on allowed values and recommendations).

Serv	Tickler C Batch Processing Maintenance C							
ices	Generate Test Objects							
Fav								
orite	Soarch Critoria							
- E	Search Chiena							
e l	Search Criteria							
	SQL Category » <select category=""></select>	Number of Records to Display » 50						
	SQL Name » Deposit Account	SQL Description						
	SQL Comment Loan Account GL Account							
	Person	V						
	Channels							
	Other	Query Clear						
	Search Results	Test Object Name						
	Test object number	iest object name						

3. When the desired SQL Name is selected, the User would then click the Query button to return the test data for the SQL Name entered. The SQL Description and SQL Comments (if applicable) will also display on the screen.

Search Criter	ia				
Searc	h Criteria Category » Deposit Account	Number of Records to Display » 50			
:	SQL Name » TAAS 100001	SQL Description Active Savings Accounts 200 balance No Restriction			
Query					
Search Resul	ts	Test Object Name			
210262772	lest Object number	Test Object Name			
510302112		Styer, Quincy			
350361246		Schrader, Qmar			
350361246					
350361246 350550566 700003114		Termini, Maxwell			
350361246 350550566 700003114 700004675		Termini, Maxwell Shook, Matt			
350361246 350550566 700003114 700004675 700017412		Termini, Maxwell Shook, Matt Schrawder, Sal			
350361246 350550566 700003114 700004675 700017412 700029946		Termini, Maxwell       Shook, Matt       Schrawder, Sal       Brinkman, Jennifer			

Note: If the SQL Statement that was written does not return a value when the User enters the SQL Name and clicks the Query button, the screen will display the SQL Description, SQL Comments (if applicable) and will show no data in the Search Results grid.

If the Financial Institution utilizes multiple databases for testing and/or wants to add the same SQL Statements from their test database to their production database, they can utilize the Export and Import functions of this application.

To export the SQL Statements from one database and import to another, the User would follow the steps below:

1. Navigate to Services > System > Printing Operations > Generate Test Objects – SQL Test to access the Generate Test Objects – SQL Test screen.

Serv	Tickler C Table N	laintenance 🛛						
ices	Generate Test Ob	ojects - SQL Test						
7	SQL Statement Details							
Vorti	Create SQL Edit SQL	Export Import Refresh						
80	Number	Name	Description	Category				
틀	1	TAAS 100001	Active Savings Accounts 200 balance No Restrictions	Deposit Account				
	2	TAAS 100002	List of Checking Accounts	Other				
	3	TAAS 1001	Persons Without Restrictions	Other				
	4	TAAS 1058	Cash Count Option Value & Denominations	Other				
	5	TAAS 1002	Active Savings Account Without Restriction	Other				
	6	TAAS 1062	Active MTG Accts Note Bal > 0 and IntMethCd = SMP & LIAA	Other				
	7	TAAS 1063	Valid Active CNS Term Fixed Rate Products	Other				
	8	TAAS 1064	Create New Loan Account Workflow Linked Screens	Other				
	9	TAAS 1067	Valid Active CNS Deposit Collateral Products	Other				
	10	TAAS 1069	Valid Active TD with Note Bal > 2500 TRF Pers and no Deposi	Other				
	11	TAAS 1021	Active CNS Accts with Note Bal > 0 no Escrow Bal	Other				
	12	TAAS 1003	Active Savings Account with 200 balance and without restrict	Other				
	13	TAAS 1004	Active Checking Account Without Restriction	Other				
	14	TAAS 1005	Active General Ledger Account With Title	Other				
	15	TAAS 1006	Approved Passbook SAV Acct Without Restriction	Other				
	16	TAAS 1007	Active Dep Acct Without Restriction and Title	Other				
	17	TAAS 1008	Active Dep Acct with Single Owner	Other				
	18	TAAS 1009	Active Dep Acct with Joint OR Owner	Other				
	19	TAAS 1010	Dormant Deposit Account Without Restriction	Other				
	20	TAAS 1011	Active Deposit Account Without Restriction	Other				
	21	TAAS 1012	Active MTG Accts Unapplied Balance Greater Than Zero	Other				
	22	TAAS 1013	Active MTG Accts Escrow Balance Greater Than Zero	Other				
	23	TAAS 1014	Approved Saving Acct Without Passbook and Restriction	Other				
	24	TAAS 1015	Active Dep Acct with Without Passbook and Parent Txn	Other				
	25	TAAS 1016	Active MTG Accts with Note Balance Greater Than Zero	Other				
	26	TAAS 1017	Active CKAccount with 1000 bal and without restriction	Other				
	27	TAAS 1018	Active Savings Account with 1000 balance without restrict	Other				

2. Select the Export menu item to display the Generate Test Objects – SQL Export screen.

Generate Test Objects	- SQL Export		
Export File			
			- 1
	File Path »	Browse	- 1
			- 1
			- 1
Class		Dur	
Close		Proce	ess

3. Click the Browse button to navigate to the location where the export file will be saved and to name the file. Note: File Name for this example is SQL Statements Export.

C•	EORE - Anyw	nere Financial (TEST SYS	TEM)								
In	stitution	Business Tables System T	ables GL Prir	iting Operations	Product and	Pricing Manag	e My Forms	System	Logout		
	fiser	V.									
Sel	Tickler 0	Table Maintenance									
vices	Generat	e Test Objects - SQL	Export								
Fat	Export Fil	e									
vorites Help			File Path »				B	rowse			
		💽 Export File							×		
	Close	Compute	r 🝷 Local Disk (C:) 👻	GTO Testing		👻 🛃 Sea	rch GTO Testing			Process	
		Organize 🔻 New folder						8⊞ ▼ (	0		
		Avorites     Desktop     Downloads     Downloads     Control Faces     Downloads     Recent Faces     Downloads     Nusic     Download     Nusic     Videos     Videos     Videos	Name ^		No items match	Date modified	Туре	Si	ze		
		🚰 Local Disk (C:)	1								
		Local Disk (G+)	Chataman to Dunant								
		File name:   SQL	Statements Export						픰		
		Save as type: [Text	nes (*.txt)								
		Hide Folders					Save	Cancel			

4. Click the Save button to save the file name and location and return the values to the File Path field.

Generate Test Objects - SQL Export		
Export File		
File Path	» C:\GTO Testing\SQL Statements Export.bd	Browse
Close		Process

5. Click the Process button to create the export file. The success message is displayed.

Generate Test Objects - SQL Export	
Export File	
File Path	»C:\GTO Testing\SQL Statements Export.bd Browse
Close	Process
	3 SQL Statements are exported

6. Click the OK button on the "X SQL Statements are exported" message, where 'X' represents the number of SQL Statements that will be exported.

7. Verify the SQL Statements Export file was created in the designated file path.

			100					
Computer + Local Disk (	Search GIO resarg							
Organize \star 🧾 Open 🔹 Print New	w folder				💷 🔹 🗔 🔞			
🔆 Favorites	Name +	Date modified	Type	Size				
E Desktop	Export Test File, txt	2/3/2019 9:51 AM	Text Document	4 KB				
Downloads	Import File from Scratch.txt	2/4/2019 11:05 AM	Text Document	1 KB				
Recent Places	Message Test File.txt	2/3/2019 2:36 PM	Text Document	8 KB				
Sa Libraries	SQL Statements Export. bxt	2/5/2019 9:19 AM	Text Document	4.KB				
Documents	Test Case 3.40.txt	2/4/2019 12:59 PM	Text Document	4 KB				
Music	Testing.txt	2/4/2019 1:43 PM	Text Document	4 KB				
New Library								
Pictures								
Videos Videos								
Computer								
Local Disk (C:)								
👝 Local Disk (G:)								

8. Access the database that the SQL Statements are to be imported and navigate to the Generate Test Objects – SQL Test screen.

Generate Test Objects - SQL Test								
SQL Stateme	ent Details							
Create SQL	Edit SQL	Export	Import	Refresh				
			Number		Name		Description	
								- 1
								- 1
								I
Close								Delete

9. Select the Import menu to display the Generate Test Objects – SQL Import screen.

Generate Test Objects - SQL Import					
Import File					
File Path »		Browse			
Close		Process			

10. Click the Browse button to locate the previously exported file is located.

Generate Te	st Objects - SQL Impo	rt					
Import File						h	
	File I	Path »		Browse			
	💽 Import File						×
Close	Computer	· ▼ Local Disk (C:) ▼ GTO Testing			👻 🚺 Sear	ch GTO Testing	2
	Organize 🔻 New folder					) 📰 🔻 🔟 (	0
	<b>Favorites</b>	Name ^	Date modified	Туре	Size		
	Tesktop	Export Test File.txt	2/3/2019 9:51 AM	Text Document	4 KB		
	Downloads	Import File from Scratch.txt	2/4/2019 11:05 AM	Text Document	1 KB		
	🕍 Recent Places	Issue 35 - First Export.txt	2/21/2019 3:51 PM	Text Document	6 KB		
	🚍 Libraries	Message Test File.txt	2/3/2019 2:36 PM	Text Document	8 KB		
	Documents	Semicolon Export Import Test.txt	2/5/2019 2:49 PM	Text Document	2 KB		
	J Music	SQL Statements Export.txt	2/5/2019 9:19 AM	Text Document	4 KB		
	📄 New Library	Test Case 3.40.txt	2/4/2019 12:59 PM	Text Document	4 KB		
	Pictures	Test File for UM.txt	2/7/2019 10:18 AM	Text Document	3 KB		
	Videos	Testing.txt	2/4/2019 1:43 PM	Text Document	4 KB		
	Computer						
	🚢 Local Disk (C:)						
	👝 Local Disk (G:)						
	🙀 Network						
	File n	ame: SOL Statements Export tyt			▼ Text	files (*.txt)	ㅋ
		[					- 1
						Open Cancel	

Note: Only an export file generated on the Generate Test Objects – SQL Test screen can be used for the Import process.

11. Click the Open button to save the file name and location to the File Path field on the Generate Test Objects – SQL Import screen.

Generate Test Objects - SQL Import		
Import File		
File Path	» C:\GTO Testing\SQL Statements Export.txt	Browse
Close		Process

12. Click the Process button. The success message is displayed.

Generate Test Objects - SQL Import	
Import File	
File Path	» C:\GTO Testing\SQL Statements Export.bd Browse
Close	3 SQL Statements are added Process
	OK

13. Click OK to the "3 SQL Statements are added" message and return to the screen.

14. Click the close button to close the Generate Test Objects – SQL Import screen and return to the Generate Test Objects – SQL Test screen.

Generate Test Objects - SQL Test								
SQL Stateme	ent Details	•						
Create SQL	Edit SQL	Export	Import	Refresh				
			Number		Name		Description	
Close								Delete

15. Select the Refresh menu to refresh the screen and display the SQL Statements that were added.

### Application Messages:

If the User attempts to change the default value of 50 to a number greater than 1000 in the 'Number of Records to Display' on the 'Generate Test Objects' screen, the following message will be displayed "The value entered must be between 1 and 1000."



If the User enters a SQL Name that does not have an exact match to a SQL Statement in the SQLTEST EXTN table, the following message will be displayed "Search criteria did not return an exact match. Please adjust your search criteria and try again."

(į)	Search criteria did not return an exact match. Please adjust your search criteria and try again.
	ок

If the User enters a SQL Name and the SQL Statement for that SQL Name does not return a valid number and name combination in the results, the following message will be displayed "The SQL Statement must return an Object Number and Object Name. Please update the SQL Statement."



Note: The SQL Statement must return a Number in the first column and a Name or Description in the second column, such as a Person Number & Person Name or Account Number and Account Owner Name.

If the User selects a record and clicks the Delete button on the Generate Test Objects – SQL Test screen, the following message is displayed "Hit OK to confirm deletion of SQL Statement, CANCEL to exit."

<b>i</b>	Hit OK to confirm deletion of SQL Statement, CANCEL to exit								
	ОК	Cancel							

Note: If the User selects OK, the SQL Statement is deleted and removed from the SQLTEST EXTN table. If the User selects Cancel, the action is canceled, and they are returned to the Generate Test Objects – SQL Test screen.

When creating an export file on the Generate Test Object – SQL Export screen, once the Process button is selected and the file is exported successfully, the following message is displayed "<Number> SQL Statements are exported." The <Number> dynamically displays the actual number of SQL Statements exported from the SQLTEST EXTN table.

<b>(</b>	3 SQL Statements are exported
	ОК

When importing a file on the Generate Test Object – SQL Import screen with SQL Statements that already exist, once the Process button is selected and the file is imported successfully, the following message is displayed "<Number> SQL Statements are updated". The <Number> dynamically displays the actual number of SQL Statements updated from the import file.



When importing a file on the Generate Test Object – SQL Import screen that contains both existing and new SQL Statements, once the Process button is selected and the file is imported successfully, the following message is displayed "<Number> SQL Statements is added <Number> SQL Statements are updated." The <Number> represents the actual number of SQL Statements updated/added from the import file.

<b>(</b>	1 SQL Statement is added 2 SQL Statements are updated	
	ок	

When importing a file on the Generate Test Object – SQL Import screen with new SQL Statements, once the Process button is selected and the file is imported successfully, the following message is displayed "<Number> SQL Statements are added." The <Number> dynamically displays the actual number of SQL Statements updated from the import file.

(i)	3 SQL Statements are added
	ок

When attempting to query the test results on the Generate Test Objects screen for a SQL Statement that was created is invalid and/or incorrectly written, when the Query button is selected, an Oracle exception message is displayed.



When attempting to Import a file that was not generated from the Export function within the Generate Test Objects application, the following message is displayed "Incorrect File Importing".



# Parameters:

N/A

## Variables:

N/A

### Tables:

The **SQLTEST** EXTN table stores the SQL Statements for the Generate Test Objects application in text format.

Note: When adding a new SQL Statement, the SQLNBR is assigned by adding 1 to the maximum number in the table.

Field Name	Field Description	Primary	Nullable	Data Type	Length	Default
		Key YN	YN			
SQLNBR	SQL Number	Yes	No	NUMBER	22,0	
SQLNAME	SQL Name	No	No	VARCHAR2	255	
SQLDESC	SQL Description	No	Yes	VARCHAR2	255	
SQLCOMME NT	SQL Comment	No	Yes	VARCHAR2	255	
SQLTEXT	SQL Statement	No	No	VARCHAR2	2000	
SQLCATEGO RY	SQL Category	No	No	VARCHAR2	255	
DATELASTM AINT	Date Last Maintained	No	Yes	DATE		SYSDATE

### Scheduling and re-run

N/A

### **Reports:**

N/A File Layouts: The Generate Test Objects application creates an export file of the SQL Statements stored in the SQLTEST EXTN table. This export file is then used to import the SQL Statements into another database. The export/import function can only be used within the Generate Test Objects application and the files cannot be manually created.

The SQL Statement information is stored as "text" in the SQLTEST EXTN table.

When the export file is created, the fields are separated by the "`" symbol. If the SQL Statement was created with multiple lines, each line is separated by ">>>" to represent the carriage return when the file is extracted.

		_
Į	Erst He for Utstst - Rotepad	ſ
Į	File Edit Format View Help	l.
	TAAS 1001 Persons without estrictions List of all valid and active non- employee person numbers and names who have non warring flag select distinct p.persobr.(p. lastname []', '] [] p.firstname) "Entity name" from pers ps>left outer join TAAS 1005 Cast ve Savings Account without estriction' select distinct a.acctmbr.mv[lol.orgname.pl.lastname []', '] [] p.firstname) "Entity name" from pers ps>left outer join TAAS 1005 Cast ve Savings Account without estriction' select distinct a.acctmbr.mv[lol.orgname.pl.lastname []', '] [] p.firstname) "Entity name" from pers ps>left outer join TAAS 1000 Cast ve Savings Account without estriction 'select distinct a.acctmbr.mv[lol.orgname.pl.lastname []', '] [] p.firstname) "Entity name" provide the demonstration of the inter demonstratin of the inter demonstr	
- 6		-

### Field Listings:

Field	Format	Description
SQLNAME	Text	SQL Name
SQLDESC	Text	SQL Description
SQLCOMMENT	Text	SQL Comments
SQLCATEGORY	Text	SQL Category
SQLTEXT	Text	SQL Statement

### Screens:

### Navigation:

Services > Batch > View > Generate Test Objects

### Screen Appearance (Generate Test Objects):

Search Criteria								
Search	Criteria _							
SQL C	ategory	» <select category=""></select>		•		Number of Records to Displ	ay »	50
so	QL Name	»		-	SQL Description			
SQL C	Comment							<b>A</b>
								-
						Que	ry Cl	ear
Search Results								
Search Results	5							
Search Results	\$	Test Object Number				Test Object Name		
Search Results	\$	Test Object Number				Test Object Name		
Search Results	5	Test Object Number				Test Object Name		
Search Results	S	Test Object Number				Test Object Name		
Search Results	5	Test Object Number				Test Object Name		
Search Results	5	Test Object Number				Test Object Name		
Search Results	S	Test Object Number				Test Object Name		
Search Results	5	Test Object Number				Test Object Name		
Search Results	5	Test Object Number				Test Object Name		

### Field Listing:

Field	ald Description			
Search Criteria				
SQL Category	System Defined, Dropdown List of Values. The current valid values are:			
Deposit Account				
Loan Account				
	GL Account			
	Person			
	Organization			
	Channels			
	Other			
SQL Name	The SQL Name of the SQL Statement.			
Number of	Enabled and displays an initial value of 50. This value controls the maximum			
Records to Display	number of Search Results to be displayed.			
	I ne User may change this number on the screen and must use a minimum value			
	of 1, with a maximum value of 1000.			
	Notes it is not recommended to change this value from 50 unless a slightly higher.			
	Note: It is not recommended to change this value from 50 unless a slightly higher			
	nerformance			

Field	Description				
SQL Description	Disabled Field. Display the SQL Description based on the SQL Name entered				
	when the Query button is selected.				
SQL Comments	Disabled Field. Display the SQL Comments based on the SQL Name entered				
	when the Query button is selected.				
	If the OOL Operation to the OOL Otesta mentionly stad is null then display blank				
Query shuttons	If the SQL Comments for the SQL Statement selected is null, then display blank.				
	screen will display the SOL Description SOL Comments (if applicable) and the				
	Search Results.				
	If the User has entered a SQL Name that does not have a match in the SQLTEST				
	EXTN table, then the following message is displayed "Search criteria did not				
	return an exact match. Please adjust your search criteria and try again."				
	If the SQL Statement assigned to the SQL Name entered is not a valid SQL				
	Statement for this application, the following message is displayed "The SQL				
	Statement must return an Object Number and Object Name. Please update the				
	SQL Statement. "				
	Note: Valid SQL Statements for this application must return a Number in the first				
	solume and a Name or Description in the second column				
Clear <button></button>	If the Clear button is selected, all search criteria is cleared, and the User will				
remain on the Search Criteria section of the Generate Test Objects scre					
Toot Object	Search Results				
Number	Displays up to $\wedge$ records based on the SQL mane entered in the Search Oriena, where X is the value from the Number of Records to Display field (defined as Y				
Number	for the example below). Default value is 50. The maximum number of records				
	allowed to display is 1000.				
	If there are less than X records found, only those numbers will display. If there				
	are more than X records found, only the first Y number of records will display				
Tast Ohia at Nama	based on the SQL Statement selected.				
Test Object Name	Display the Name or Description based on the SQL Name entered in the Search				
	Based on the SQL Results, the following would be applicable:				
	For Person Number, display the Person Name				
	<ul> <li>For Organization, display the Organization Name</li> </ul>				
	For Deposit Account Number, display the Tax Reported For Owner Name				
	For Loan Account Number, display the Tax Reported For Owner Name				
	• For user defined SQL's, display a number in the Test Object Number and				
	display a name and/or description in the Test Object Name. Example:				
	I est Object Number is 1 and the Description is Check – Existing Customer				
Close <button></button>	If the Close button is selected, the screen is closed.				

### Navigation:

Services > System > Printing Operations > Generate Test Objects - SQL Test

### Screen Appearance (Generate Test Objects - SQL Test):

Ser	Tickler C Table M	faintenance							
vices	Generate Test Objects - SQL Test								
7	SQL Statement Details								
IVOIT	Create SQL Edit SQL	Create SQL Edit SQL Export Import Refresh							
8	Number	Name	Description	Category 🔺					
특	1	TAAS 100001	Active Savings Accounts 200 balance No Restrictions	Deposit Account					
	2	TAAS 100002	List of Checking Accounts	Other					
	3	TAAS 1001	Persons Without Restrictions	Other					
	4	TAAS 1058	Cash Count Option Value & Denominations	Other					
	5	TAAS 1002	Active Savings Account Without Restriction	Other					
	6	TAAS 1062	Active MTG Accts Note Bal > 0 and IntMethCd = SMP & LIAA	Other					
	7	TAAS 1063	Valid Active CNS Term Fixed Rate Products	Other					
	8	TAAS 1064	Create New Loan Account Workflow Linked Screens	Other					
	9	TAAS 1067	Valid Active CNS Deposit Collateral Products	Other					
	10	TAAS 1069	Valid Active TD with Note Bal > 2500 TRF Pers and no Deposi	Other					
	11	TAAS 1021	Active CNS Accts with Note Bal > 0 no Escrow Bal	Other					
	12	TAAS 1003	Active Savings Account with 200 balance and without restrict	Other					
	13	TAAS 1004	Active Checking Account Without Restriction	Other					
	14	TAAS 1005	Active General Ledger Account With Title	Other					
	15	TAAS 1006	Approved Passbook SAV Acct Without Restriction	Other					
	16	TAAS 1007	Active Dep Acct Without Restriction and Title	Other					
	17	TAAS 1008	Active Dep Acct with Single Owner	Other					
	18	TAAS 1009	Active Dep Acct with Joint OR Owner	Other					
	19	TAAS 1010	Dormant Deposit Account Without Restriction	Other					
	20	TAAS 1011	Active Deposit Account Without Restriction	Other					
	21	TAAS 1012	Active MTG Accts Unapplied Balance Greater Than Zero	Other					
	22	TAAS 1013	Active MTG Accts Escrow Balance Greater Than Zero	Other					
	23	TAAS 1014	Approved Saving Acct Without Passbook and Restriction	Other					
	24	TAAS 1015	Active Dep Acct with Without Passbook and Parent Txn	Other					
	25	TAAS 1016	Active MTG Accts with Note Balance Greater Than Zero	Other					
	26	TAAS 1017	Active CK Account with 1000 bal and without restriction	Other					
	27	TAAS 1018	Active Savings Account with 1000 balance without restrict	Other					

### Field Listing:

Field	Description			
Create SQL <sub< td=""><td>The Create SQL sub menu is used to access the Create SQL Statement screen</td></sub<>	The Create SQL sub menu is used to access the Create SQL Statement screen			
menu>	to add a new SQL Statement to the system and insert the information into the			
	SQLTEST EXTN table.			
Edit SQL <sub< td=""><td>The Edit SQL sub menu is used to access the Edit SQL Statement screen to edit</td></sub<>	The Edit SQL sub menu is used to access the Edit SQL Statement screen to edit			
menu>	a SQL Statement, update the system and insert the updated information into the			
	SQLTEST EXTN table.			
Export <sub< td=""><td>When selected, the Generate Test Objects – SQL Export screen is displayed to</td></sub<>	When selected, the Generate Test Objects – SQL Export screen is displayed to			
menu>	allow the Financial Institution the ability to create an export file of the SQL			
	Statements in the SQLTEST EXTN table to then import into another database.			

Field	Description				
Import <sub< td=""><td>When selected, the Generate Test Objects – SQL Import screen is displayed to</td></sub<>	When selected, the Generate Test Objects – SQL Import screen is displayed to				
menu>	allow the Financial Institution the ability to import the SQL Statements into the				
	SQLTEST EXTN table from an export file that was created from the Generate				
	Test Objects application in another database.				
Refresh <sub< td=""><td>When selected, the Generate Test Objects – SQL Test screen is refreshed, and</td></sub<>	When selected, the Generate Test Objects – SQL Test screen is refreshed, and				
menu>	all SQL Statements display on the screen that are in the SQLTEST EXTN table.				
Number	Displays the system assigned number for the SQL Statement.				
Name	Displays the SQL Name of the SQL Statement.				
Description	Displays the SQL Description of the SQL Statement.				
Category	Displays the Category of the SQL Statement.				
Close <button></button>	If the Close button is selected, the Generate Test Objects – SQL Test screen is				
	closed.				
Delete <button></button>	If selected, the SQL Statement that is highlighted in the grid is deleted from the				
	SQLTEST EXTN table and removed from the display on the screen.				
	Once selected, the User is prompted with a confirmation message to allow to complete the action or cancel and return to the screen.				

### Navigation:

Services > System > Printing Operations > Generate Test Objects – SQL Test > Create/Edit SQL Statement

Screen Appearance (Create/Edit SQL Statement):

Service	Tickler Create SOL Stat	oups I Table Maintenance I
* 	Create SQL Statemen	
avorites Help	SQL Number SQL Name Description Category	Comments >>
	»	
		Expand View
	Close	Close Clear C Review Process

### Field Listing:

Field	Description			
SQL Number	Disabled Field. System assigned number.			
SQL Name         User Defined. The name of the SQL Statement.				
Description User Defined. The short description of the SQL Statement.				
Category	System Defined, Dropdown List of Values. The current valid values are:			
	Deposit Account			
	Loan Account			
	GL Account			
	Person			
	Organization			
	Channels			
	Other			
Comments	User Defined. Allows the User to enter a more detailed description of what the SQL Statement represents.			
SQL <box></box>	This large white box is where the User will enter the SQL Statement.			
Expand View	Selecting the Expand View button makes the box larger to see the whole area			
<button></button>	without using a scroll bar.			
Close <button></button>	When selected, the screen is closed.			
Close <radio< td=""><td>When selected and the Process buttons are selected, the SQL's are</td></radio<>	When selected and the Process buttons are selected, the SQL's are			
button>	added/updated, and the screen will close.			

Field	Description
Review <radio button&gt;</radio 	When selected and the Process button is selected, the SQL's are added/updated, and the screen will remain open.
Process <button></button>	Once the Process button is selected, the SQL information is added/updated to the SQLTEST EXTN table.

### Navigation:

Services > Batch > View > Generate Test Objects – SQL Test > Export

### Screen Appearance (Generate Test Objects – SQL Export):

Generate Test Objects - SQL Export				
Export File				
File Path	»	Browse		
Close		Process		

#### Field Listing:

Field	Description
File Path	Disabled. Once the file is selected, the file name and location display in the File
	Path field.
Browse <button></button>	When selected, allows the User to browse to the location where the export file will
	be saved and name the file.
Close <button></button>	When selected, the screen is closed.
Process <button></button>	When selected, the export file is created and saved to the location in the File Path
	field. A message is displayed stating the number of SQL Statements are
	exported.

#### Navigation:

Services > Batch > View > Generate Test Objects – SQL Test > Import

### Screen Appearance (Generate Test Objects – SQL Import):

Generate Test Objects - SQL Import				
Import File				
File Path	»	Browse		
Close		Process		

### Field Listing:

Field	Description
File Path	Disabled. Once the file is selected, the file name and location display in the File Path field
Browse <button></button>	When selected, allows the User to browse to the location where the export file has been saved and displays the file name and location in the File Path field.
Close <button></button>	When selected, the screen is closed.
Process <button></button>	When selected, the import file is imported, and the SQL Statements added or updated in the SQLTEST EXTN table. A message is displayed stating the number of SQL Statements are added/updated. If the SQL Statement already exists, the SQL Statement is updated. If the SQL Statement does not exist, it is added. If there is a combination of existing and new SQL Statements, the message lists the number that are added and the number that are updated.

#### Additional Requirements:

- DNA 4.4.1 or higher.
- In order to export/import the SQL Statements to/from multiple databases, the DNA Test Optimizer application must be installed and authorized in all databases.
- Only the export files generated from the Generate Test Objects SQL Test screen can be used to import the SQL Statements into a database.
- If upgrading from the V1.0.0.0 version, existing SQL Statements will be assigned a Category of 'Other' as part of the upgrade process. These SQL Statements may be edited to assign a preferred category from the available list.

#### **Configuration Checklist:**

	Test	Production
Item	Environment	Environment
Ensure the User has been assigned access to the Batch and		
System Modules as appropriate.		
Ensure the "SQL – SQL Maintenance" authorization item has		
been assigned and appropriate permissions granted.		

ltem	Test Environment	Production Environment
Ensure the SQL Statements have been created on the Generate Test Object – SQL Test screen.		

### **Revisions:**

Date	App Version #	Change
08/2019	1.0.0.1	Application updated. Enhancements include the ability to assign categories to help filter the SQL queries for User selection, screen- level functionality to choose the maximum number of records returned, and the ability to copy a record from the returned records grid to then be pasted on another DNA screen (using the CTRL+C and CTRL+V Windows functionality) to help facilitate testing ease.
02/2019	1.0.0.0	Application Created