

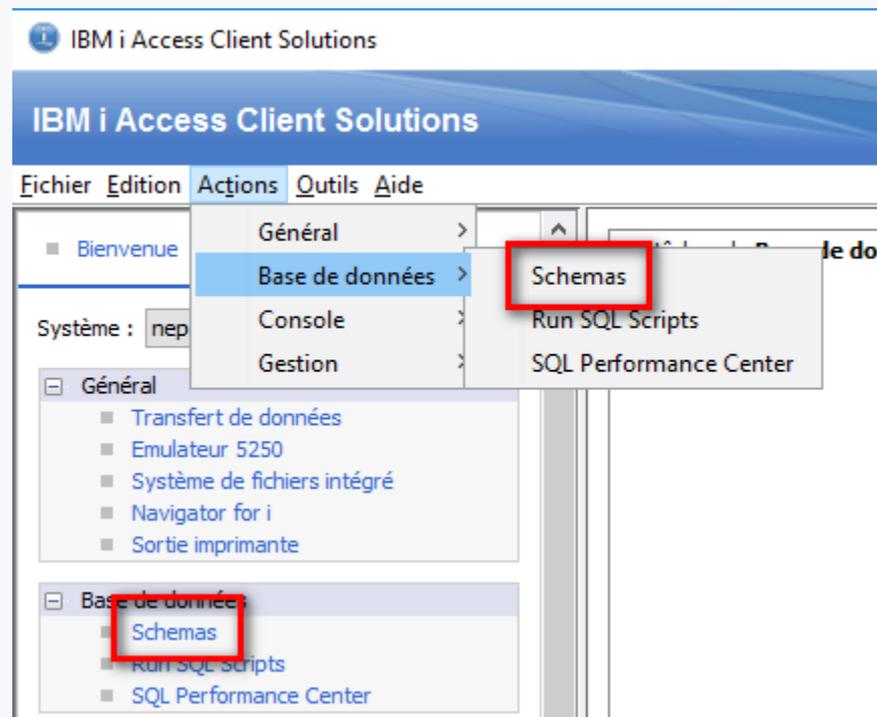
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# IBM i Access Client Solutions ACS

Schéma

# Fonctions

- Cette option est disponible depuis la V1R1M7
  - Permet d'effectuer la gestion de la base de données
    - Génération de script SQL (retro-engineering)
    - Création, suppression d'objets SQL
  - Accessible depuis



# Interface

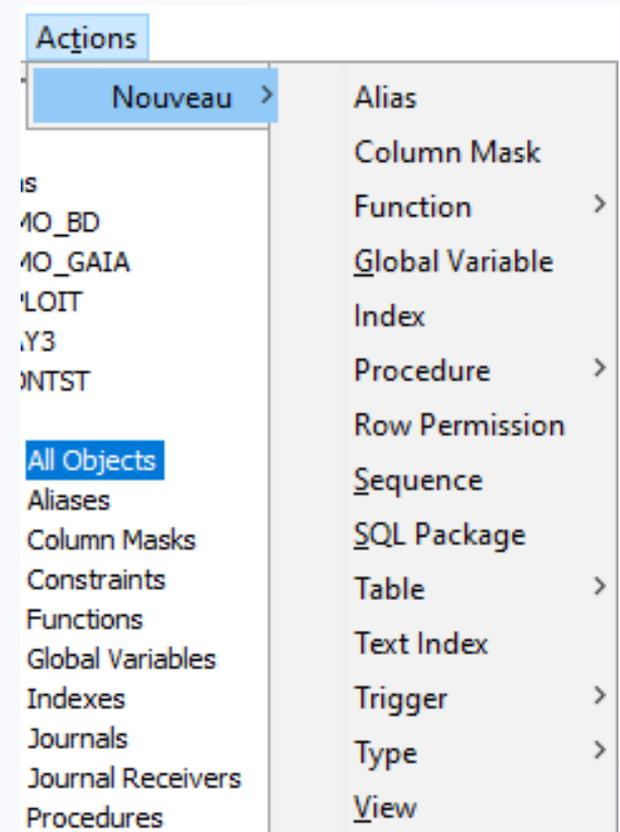
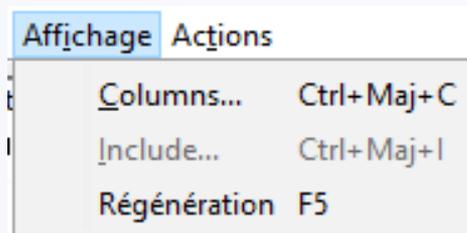
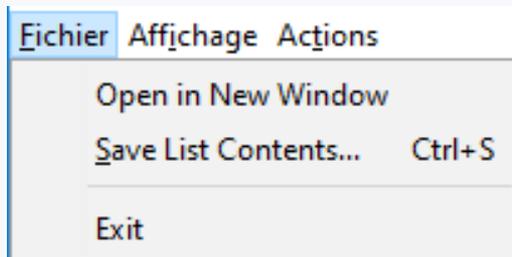
The screenshot shows the 'Schemas - neptune' application window. The left pane displays a tree view of the database structure, with 'All Objects' selected under the 'NB' schema. The right pane shows a table of objects with the following columns: Name, System Name, Type, Owner, and Text. The table lists various functions and indexes, including 'US\_DOLLARS', 'DIGI\_INT', 'DMY', 'FUNC\_US', and a series of 'QZG' indexes.

Name	System Name	Type	Owner	Text
US_DOLLARS	US_DOLLARS	Distinct Type		
**	**	Function		
DIGI_INT	DIGI_INT	Function		
DIGI_INT2	DIGI_INT2	Function		
DMY	DMYALPHA	Function		
FUNC_US	FUNC_US	Function		
FUNC1	FUNC1	Function		
FUNC2	FUNC2	Function		
FUNC2B	FUNC2B	Function		
QAUD_MQT_I1	QAUD_00001	Index	NB	
QZG0000050_QINX1	QZG0000001	Index	NB	
QZG0000050_QINX2	QZG0000002	Index	NB	
QZG0000050_QINX3	QZG0000003	Index	NB	
QZG0000050_QINX4	QZG0000004	Index	NB	
QZG0000050_QINX5	QZG0000005	Index	NB	
QZG0000050_QINX6	QZG0000006	Index	NB	
QZG0000050_QINX7	QZG0000007	Index	NB	
QZG0000051_QINX1	QZG0000008	Index	NB	
QZG0000051_QINX2	QZG0000009	Index	NB	
QZG0000051_QINX3	QZG0000010	Index	NB	
QZG0000051_QINX4	QZG0000011	Index	NB	
QZG0000051_QINX5	QZG0000012	Index	NB	
QZG0000051_QINX6	QZG0000013	Index	NB	
QZG0000051_QINX7	QZG0000014	Index	NB	
QZG0000052_QINX1	QZG0000015	Index	NB	
QZG0000052_QINX2	QZG0000016	Index	NB	
QZG0000052_QINX3	QZG0000017	Index	NB	
QZG0000052_QINX4	QZG0000018	Index	NB	

100 lignes affichées (autres données disponibles).

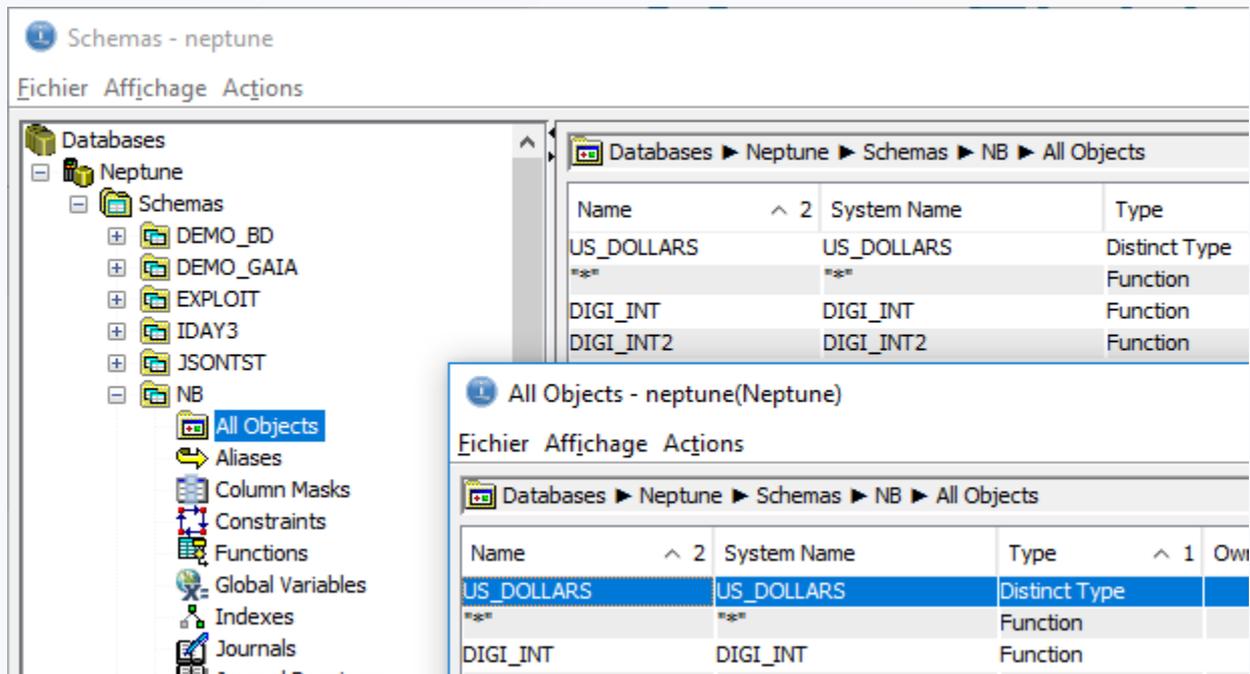
# Menus

- Les menus proposent les actions suivantes
  - Également disponibles par les menus contextuels (clic droit)



# Menu Fichier

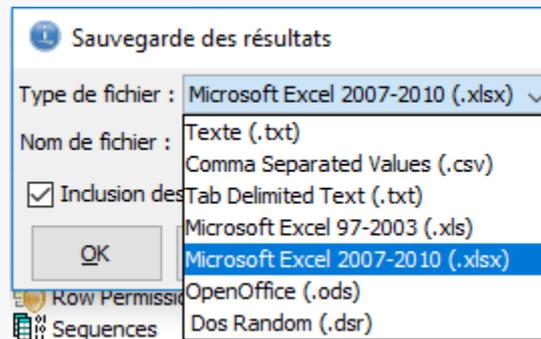
- Open in New Window
  - Permet d'ouvrir la sélection dans une nouvelle fenêtre
  - Cela permet la navigation dans la fenêtre principale tout en conservant certains éléments



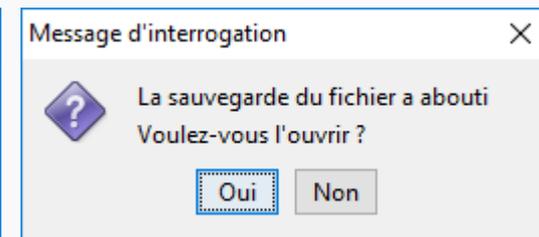
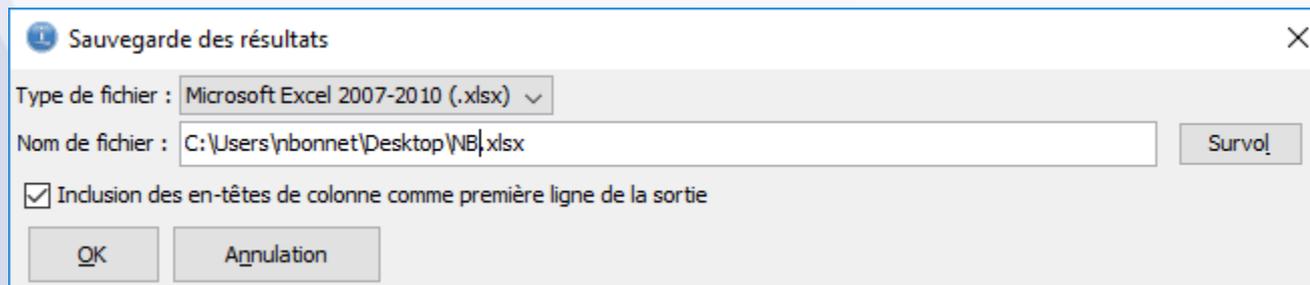
# Menu Fichier

## ➤ Save List Content

- Enregistre la liste des éléments dans la partie droite de la fenêtre dans un fichier dans un des formats suivants



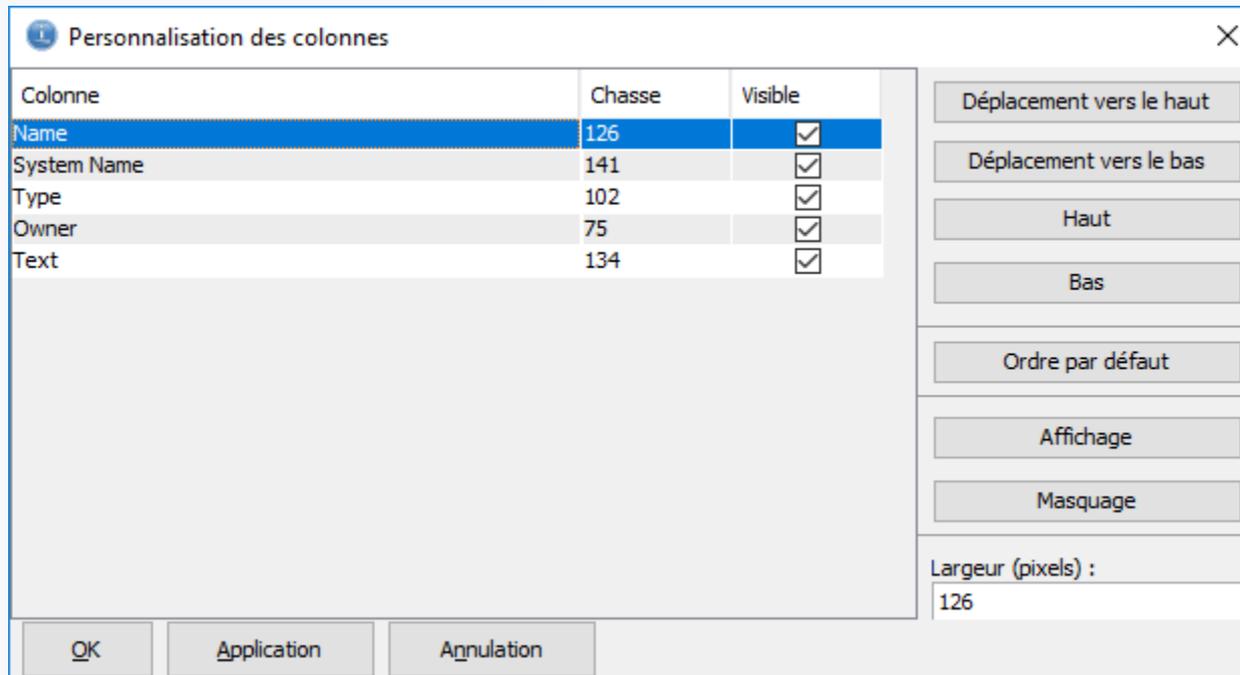
- Renseigner le nom du fichier



# Menu Affichage

## ➤ Columns

- Permet de sélectionner les informations à afficher dans le panneau de droite



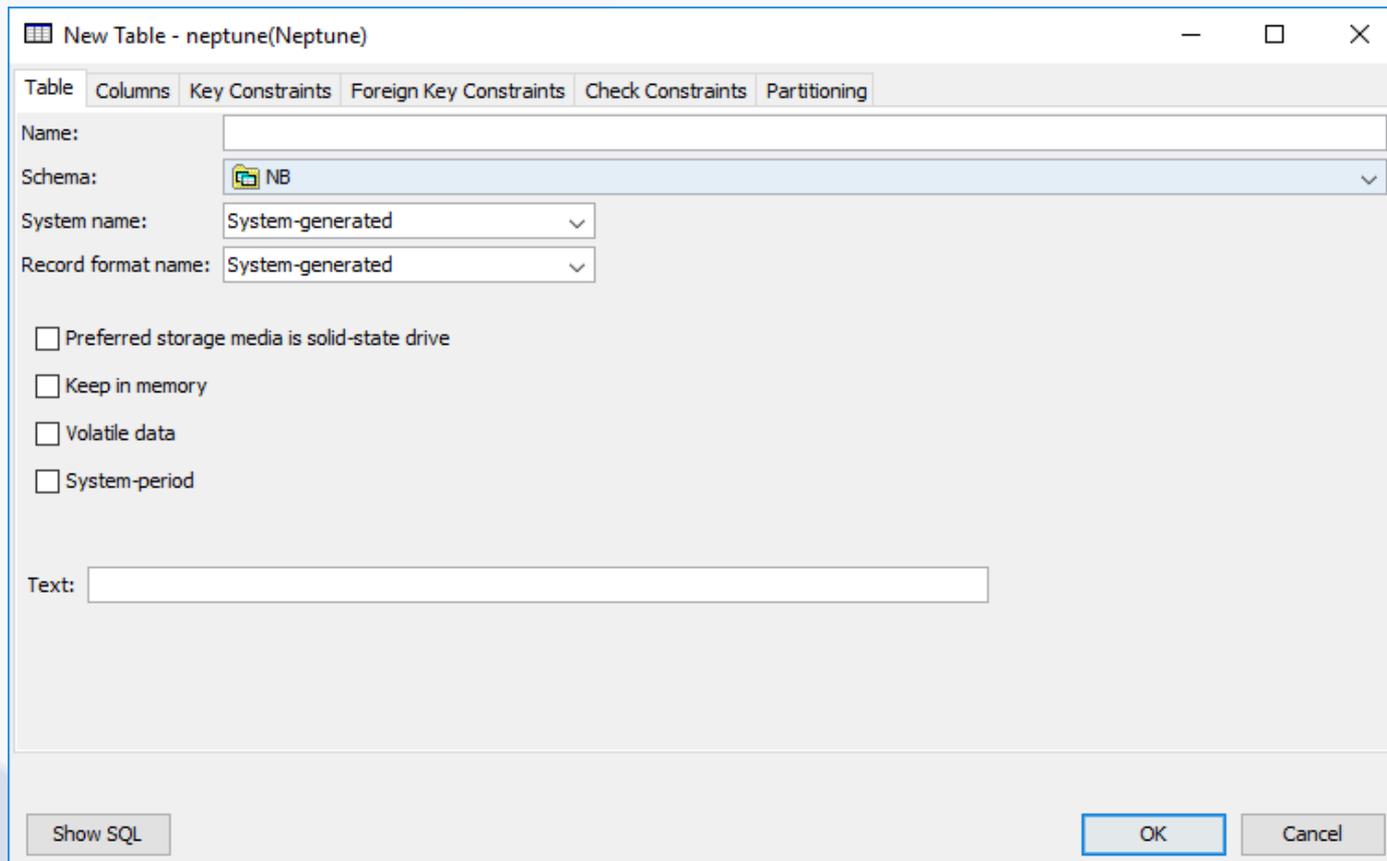
## ➤ Régénération

- Rafraichit la liste

# Menu Action

## ➤ Nouveau

- Permet d'ouvrir l'assistant de création du concept choisit  
Table, index, ...



The screenshot shows a dialog box titled "New Table - neptune(Neptune)". The dialog has several tabs: "Table", "Columns", "Key Constraints", "Foreign Key Constraints", "Check Constraints", and "Partitioning". The "Table" tab is selected. The dialog contains the following fields and options:

- Name:** An empty text input field.
- Schema:** A dropdown menu showing "NB".
- System name:** A dropdown menu showing "System-generated".
- Record format name:** A dropdown menu showing "System-generated".
- Preferred storage media is solid-state drive
- Keep in memory
- Volatile data
- System-period
- Text:** An empty text input field.

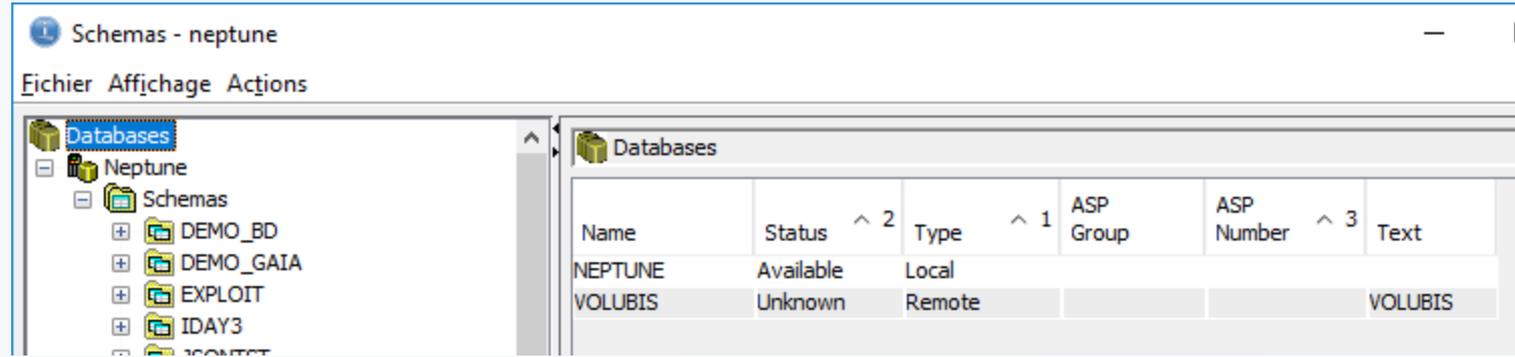
At the bottom of the dialog, there are three buttons: "Show SQL", "OK", and "Cancel".

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# Databases

# Bases de données

- Liste des bases de données connues de la machine
  - 1 BD locale
  - 0 à n BD distantes



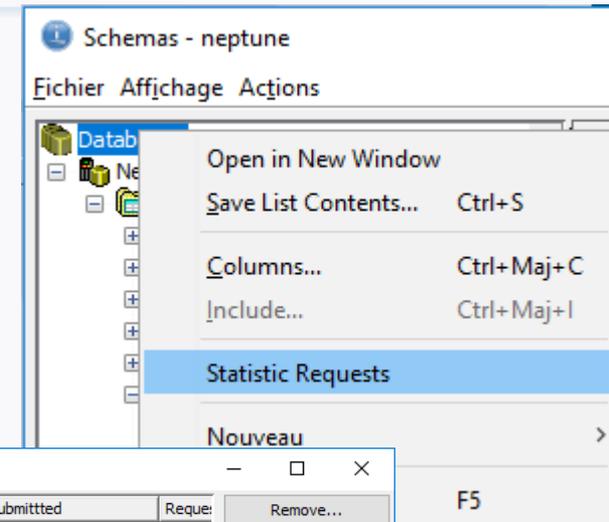
# Menu contextuel

## ➤ Statistic Requests

- Affiche la liste des données statistiques à collecter

Affichage du détail

Suppression ou collecte immédiate

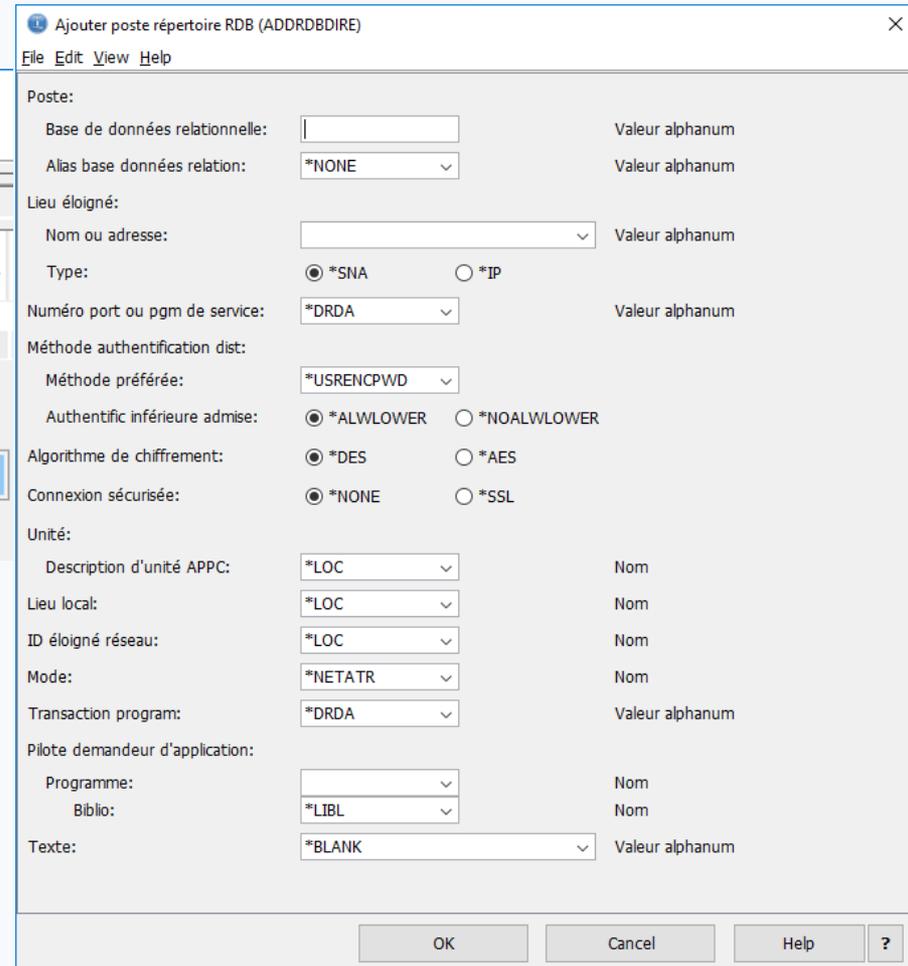
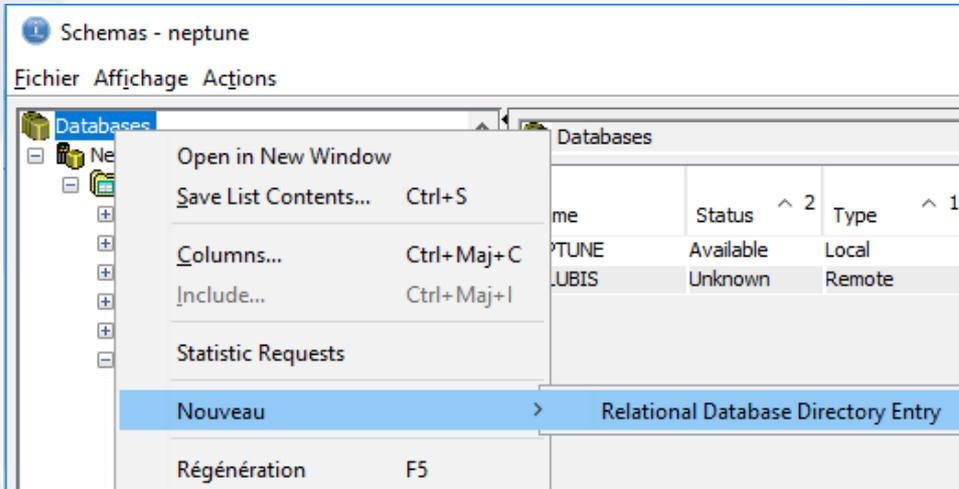


The image shows the 'Statistic Requests - neptune' window. It contains a table with the following columns: Table, Schema, Partition, Columns, Database, Status, Estimated..., Progress, Submitted, and Request. The table lists various requests, all of which are 'Active' and have an estimated time of '1 Seconds' and '0 Percent' progress. The requests are submitted on 29/03/17. At the bottom of the window, there is a 'Background collection status' section indicating that 'User-created and system-generated statistic requests running'. There are buttons for 'Change Status', 'Refresh', and 'Close'.

Table	Schema	Partition	Columns	Database	Status	Estimated...	Progress	Submitted	Request
			..		Active	1 Seconds	0 Percent	29/03/17 00:01:16	*SYS
			..		Active	1 Seconds	0 Percent	29/03/17 00:01:16	*SYS
QAPMHMCMN	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMDSK	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMPOL	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMJMI	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMSYS	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMSYST	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHMISUM	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
			..		Active	1 Seconds	0 Percent	29/03/17 00:00:36	*SYS
QAPMHMSQLP	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHDDISK	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHDPOL	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHJOBM	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHJOB	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHJOB	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHJOB	QPFRHIST	QPFRHIST	DATETIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
QAPMHCOM	QPFRHIST	QPFRHIST	UTCTIME	NEPTUNE	Active	1 Seconds	0 Percent	29/03/17 00:01:19	*SYS
			..		Active	1 Seconds	0 Percent	29/03/17 00:01:11	*SYS
			..		Active	1 Seconds	0 Percent	29/03/17 00:01:11	*SYS
			..		Active	1 Seconds	0 Percent	29/03/17 00:01:11	*SYS

# Poste de BD relationnelle

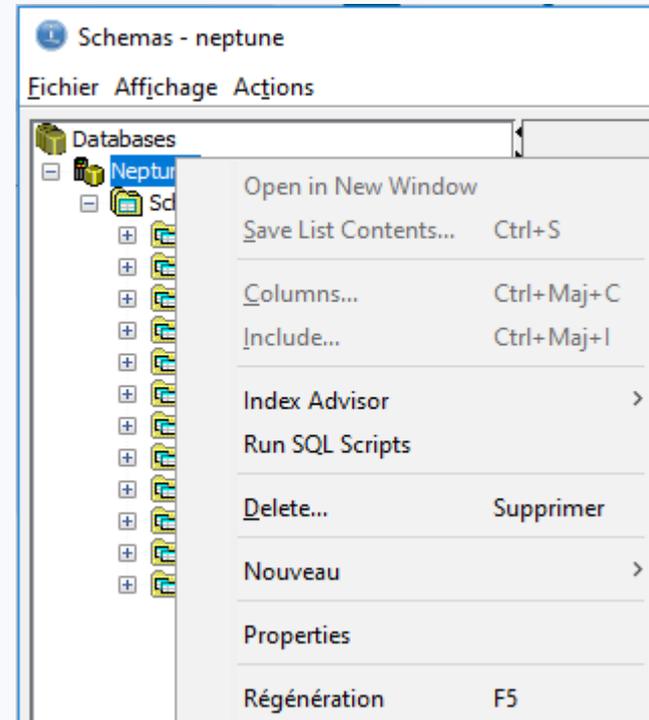
- Relational Database Directory Entry
  - Equivalent de la commande WRKRDBDIRE



# Poste de BD relationnelle

## ➤ Menu contextuel sur la BD locale

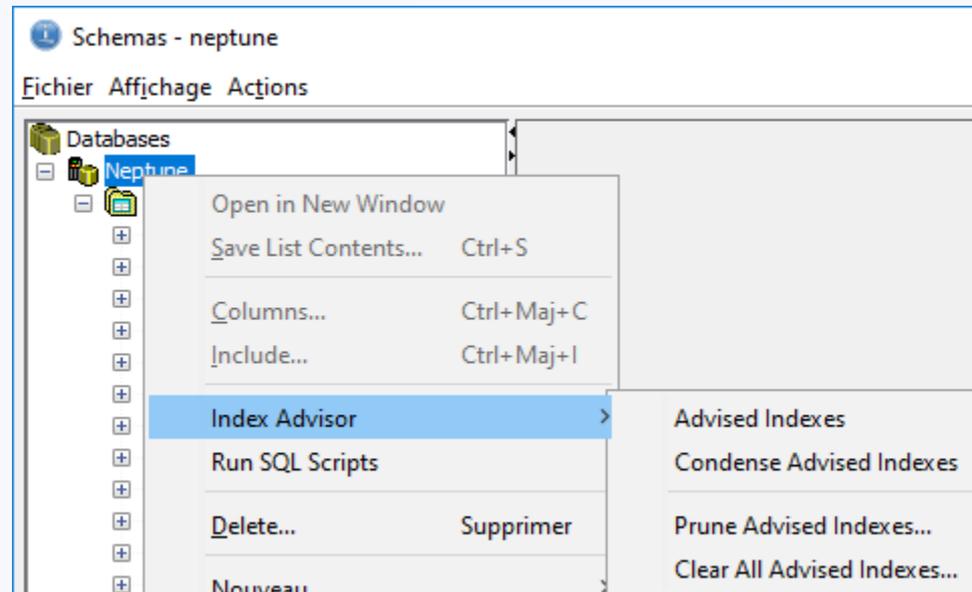
- Index Advisor  
Gestion des index recommandés
- Run SQL Scripts  
Exécution de script SQL
- Delete  
Suppression du poste de BD
- Nouveau  
Création d'un package SQL
- Properties  
Propriétés du poste de BD
- Régénération  
Rafraichit la liste



# Index Advisor

## ➤ Gestion des Index Recommandés

- Liste des Index recommandés
- Condenser les Index recommandés
- Elaguer les Index recommandés
- Vider les Index recommandés



# Index Advisor

## ➤ Affichage de la liste des Index recommandés

Advised Indexes for Neptune - neptune(Neptune)

Fichier Affichage Actions

Advised Indexes for Neptune

Table for Which Index was Advised	System Name	Schema	System Schema	Partition	Keys Advised	Leading Keys Order Independent	Advised Index Type
QINAVMNTCMD	QINAV00004	QUSRSYS	QUSRSYS	For all partitions	RECEIVER, RESULT	RECEIVER, RESULT	Binary Radix
QINAVMNRG	QINAVMNRG	QUSRSYS	QUSRSYS	For all partitions	OBSOLETE	OBSOLETE	Binary Radix
QAPMCCNTB	QAPMCCNTB	QUSRSYS	QUSRSYS	For all partitions	CCSTATUS, CCCLNFMT, CCSTRDT	CCSTATUS, CCCLNFMT	Binary Radix
QA1ANET2	QA1ANET2	QUSRBRM	QUSRBRM	For all partitions	OBJ	OBJ	Binary Radix
QAPMCCNTB	QAPMCCNTB	QUSRSYS	QUSRSYS	For all partitions	CCCLNFMT, CCSTATUS, CCSTRDT	CCCLNFMT, CCSTATUS	Binary Radix
QA1A1RMT	QA1A1RMT	QUSRBRM	QUSRBRM	For all partitions	R1MACT, R1MSYS	R1MACT	Binary Radix
QA1AZRD	QA1AZRD	QUSRBRM	QUSRBRM	For all partitions	RDNAME, RDNODEPCY		Binary Radix
QA1AZRD	QA1AZRD	QUSRBRM	QUSRBRM	For all partitions	RDNODEPCY	RDNODEPCY	Binary Radix
QA1AZRD	QA1AZRD	QUSRBRM	QUSRBRM	For all partitions	RDSYSNAME, RDNETID	RDSYSNAME, RDNETID	Binary Radix
QA1ANET2	QA1ANET2	QUSRBRM	QUSRBRM	For all partitions	OBJ, RMTSYS, RMTRNI, LIB		Binary Radix
QA1ANET2	QA1ANET2	QUSRBRM	QUSRBRM	For all partitions	RMTSYS, RMTRNI, OBJ, LIB		Binary Radix
QA1AZRS	QA1AZRS	QUSRBRM	QUSRBRM	For all partitions	RSNAME, RSNODEPCY, RSNXTTIME		Binary Radix
QA1AZRS	QA1AZRS	QUSRBRM	QUSRBRM	For all partitions	RSACTIVE, RSNXTVALID, RSNXTD...	RSACTIVE, RSNXTVALID	Binary Radix
QA1AZRS	QA1AZRS	QUSRBRM	QUSRBRM	For all partitions	RSNAME, RSSYSNAME, RSNETID, ...		Binary Radix
QA1AZRS	QA1AZRS	QUSRBRM	QUSRBRM	For all partitions	RSACTIVE, RSNXTVALID, RSNXTT...	RSACTIVE, RSNXTVALID	Binary Radix
QALWIRR	QALWIRR	QLWIRADM	QLWIRADM	For all partitions	REQUESTNAME	REQUESTNAME	Binary Radix
QINAVMNRG	QINAVMNRG	QNAVSRV	QNAVSRV	For all partitions	OBSOLETE	OBSOLETE	Binary Radix
QALWIUR	QALWIUR	QLWIRADM	QLWIRADM	For all partitions	REQUESTTYPE, SERVERSCOPE, S...	REQUESTTYPE, SERVE...	Binary Radix
QINAVMNTSVR	QINAV00006	QUSRSYS	QUSRSYS	For all partitions	SERVICE_NAME	SERVICE_NAME	Binary Radix
QALWIUR	QALWIUR	QLWIRADM	QLWIRADM	For all partitions	REQUESTTYPE, SERVERSCOPE, R...		Binary Radix
QALWIUR	QALWIUR	QLWIRADM	QLWIRADM	For all partitions	REQUESTTYPE, SERVERSCOPE, R...	REQUESTTYPE, SERVE...	Binary Radix
UOA CACHECO...	UOA C00001	OWOREPOS	OWOREPOS	For all partitions	INVALIDTIME		Binary Radix

# Index Advisor

## ➤ Menu « Actions » ou menu contextuel

- Créer l'index
- Supprimer de la liste
- Montrer l'instruction SQL  
CREATE INDEX
- Work With  
SQL Plan Cache Statements
- Table  
Actions disponibles sur la table  
sous-jacente à l'index  
recommandé

Table for Which Index was Advised	System Name	Schema	System Schema	Partition
QINAVMNTCMD	QINAV00004	QUSRSYS	QUSRSYS	For all partitions
QINAVMNT		SRSYS	QUSRSYS	For all partitions
QAPMCC		SRSYS	QUSRSYS	For all partitions
QA1ANET		SRBRM	QUSRBRM	For all partitions
QAPMCC		SRSYS	QUSRSYS	For all partitions
QA1A1RM		SRBRM	QUSRBRM	For all partitions
QA1AZR		SRBRM	QUSRBRM	For all partitions
QA1AZR		SRBRM	QUSRBRM	For all partitions
QA1AZR		SRBRM	QUSRBRM	For all partitions
QA1ANET2	QA1ANET2	Q		
QA1ANET2	QA1ANET2	Q		
QA1AZRS	QA1AZRS	Q		
QA1AZRS	QA1AZRS	Q		
QA1AZRS	QA1AZRS	Q		
QA1AZRS	QA1AZRS	Q		
QA1AZRS	QA1AZRS	Q		
QA1AZRS	QA1AZRS	Q		
QALWIRR	QALWIRR	Q		
QINAVMNTRG	QINAVMNTRG	Q		
QALWIUR	QALWIUR	Q		
QINAVMNTSVR	QINAV00006	Q		
QALWIUR	QALWIUR	Q		
QALWIUR	QALWIUR	Q		
UOA_CACHECO...	UOA_C00001	Q		
BOTSIT	BOTSIT	Q		
BOTSIT	BOTSIT	Q		
BOTSCHED	BOTSCHED	Q		
07G0000050	07G0000050	NI		

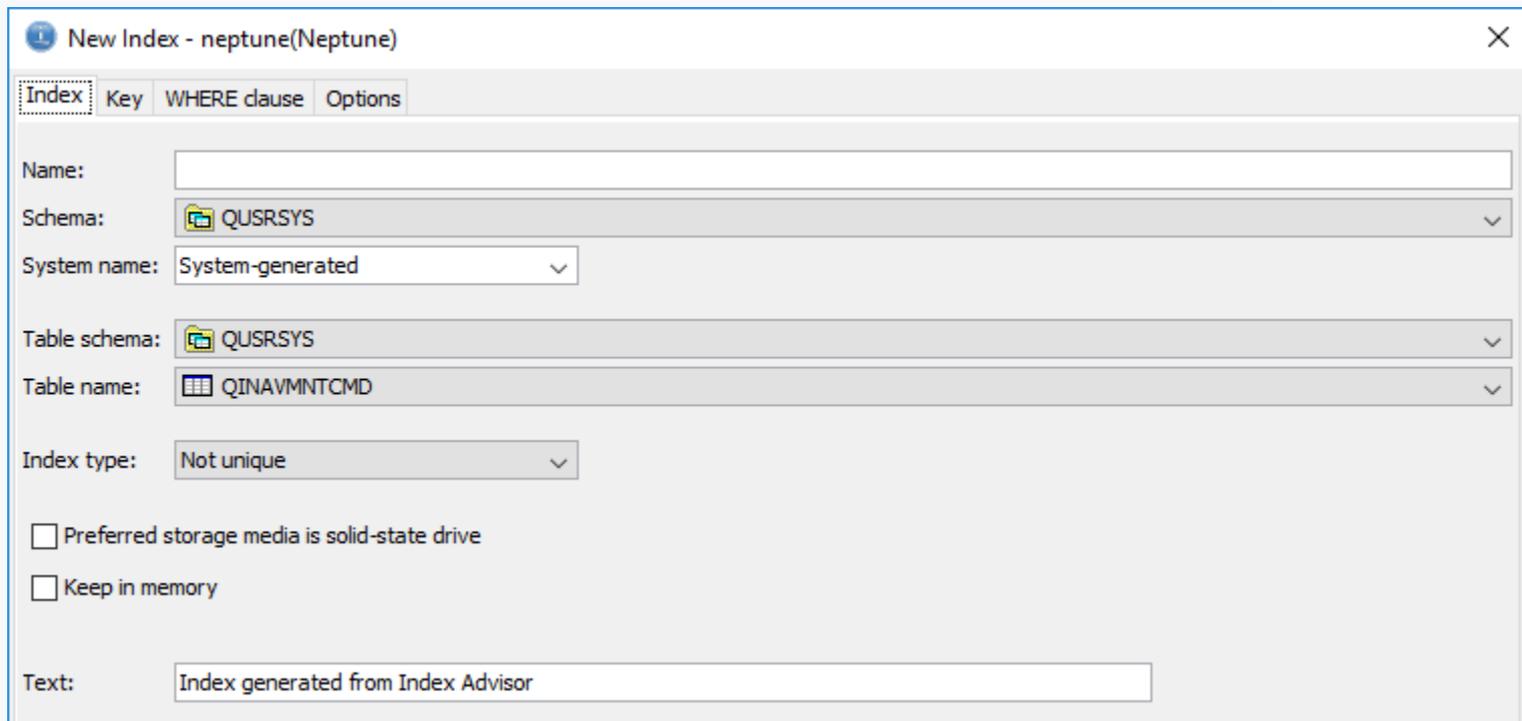
Table	Definition
QA1ANET2	Generate SQL...
QA1ANET2	Reset Usage Counts...
QA1AZRS	Statistic Data
QA1AZRS	Comments...
QA1AZRS	Index Advisor >
QA1AZRS	Work With >
QA1AZRS	Data >
QA1AZRS	Delete... Supprimer
QA1AZRS	Rename... Ctrl+Maj+R
QA1AZRS	Nouveau >
QA1AZRS	Description

100 lignes affichées (autres données d

# Index Advisor

## ➤ Créer l'index

- Ouvrir l'assistant de création des index

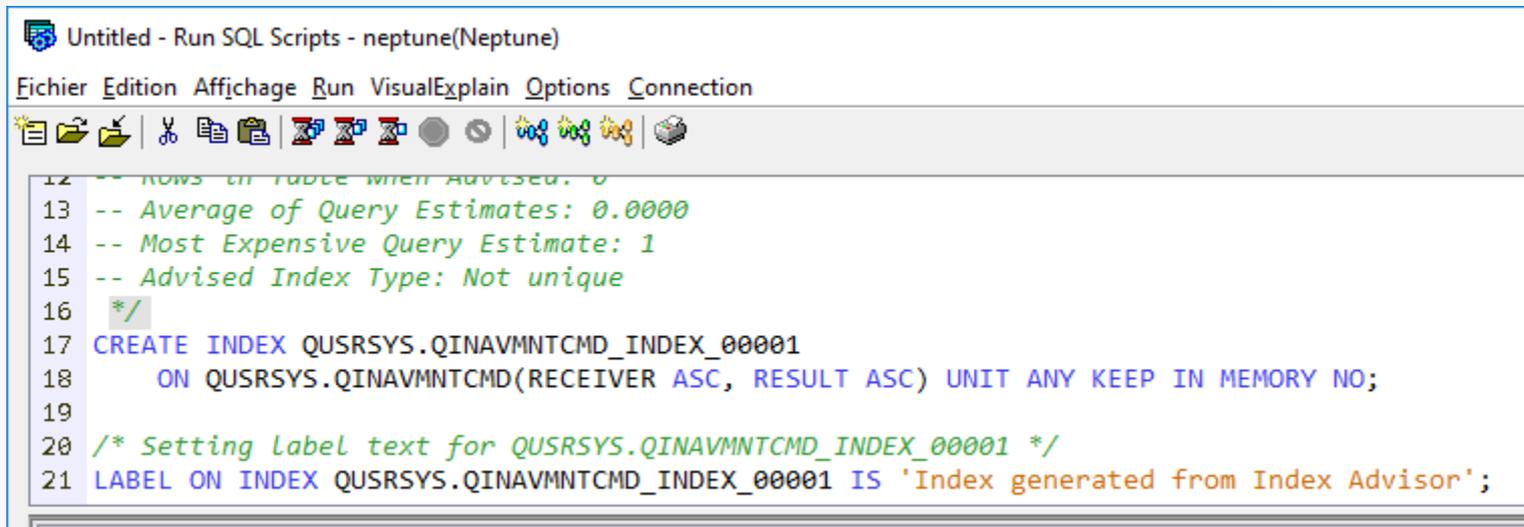


The screenshot shows the 'New Index' dialog box for a Neptune database. The dialog has a title bar 'New Index - neptune(Neptune)' and a close button. It features four tabs: 'Index', 'Key', 'WHERE clause', and 'Options'. The 'Index' tab is active. The fields are as follows:

- Name: (empty text box)
- Schema: QUSRSYS (dropdown menu)
- System name: System-generated (dropdown menu)
- Table schema: QUSRSYS (dropdown menu)
- Table name: QINAVMNTCMD (dropdown menu)
- Index type: Not unique (dropdown menu)
- Preferred storage media is solid-state drive:
- Keep in memory:
- Text: Index generated from Index Advisor (text box)

# Show SQL

- Affiche l'instruction SQL CREATE INDEX dans l'exécution de script SQL



The screenshot shows a window titled "Untitled - Run SQL Scripts - neptune(Neptune)". The window contains a menu bar with "Fichier", "Edition", "Affichage", "Run", "Visual Explain", "Options", and "Connection". Below the menu bar is a toolbar with various icons. The main area displays the following SQL script output:

```
12 -- ROWS in TABLE WHEN ADVISED: 0
13 -- Average of Query Estimates: 0.0000
14 -- Most Expensive Query Estimate: 1
15 -- Advised Index Type: Not unique
16 */
17 CREATE INDEX QUSRSYS.QINAVMNTCMD_INDEX_00001
18     ON QUSRSYS.QINAVMNTCMD(RECEIVER ASC, RESULT ASC) UNIT ANY KEEP IN MEMORY NO;
19
20 /* Setting label text for QUSRSYS.QINAVMNTCMD_INDEX_00001 */
21 LABEL ON INDEX QUSRSYS.QINAVMNTCMD_INDEX_00001 IS 'Index generated from Index Advisor';
```

- Les noms sont proposés par défaut
- Il suffit ensuite d'exécuter pour créer l'index

# Plan des instructions

- Affiche de le cache des plans SQL filtrés sur les instructions ayant recommandé l'index

SQL Plan Cache Statements - neptune(Neptune)

Filters to apply:

- Minimum runtime for the longest execution of the statement: 1 Seconds
- Statements that ran on or after this date and time: 28 mars 2017 00:30:15
- Top 'n' most frequently run statements: 25
- Top 'n' statements with the largest total accumulated runtime: 25
- Statements the following user has ever run: NB
- Statements that are currently active
- Statements for which indexes have been advised
  - Advised keys: RDSYSNAME, RDNETID
  - Leading keys order independent: RDSYSNAME, RDNETID
  - Index type: Binary Radix
  - Logical page size advised: 64 KB
  - Index partition: For all partitions
  - Sort sequence: None (Sort by hexadecimal value)
- Statements for which statistics have been advised
- Include statements initiated by the operating system
- Statements that reference the following objects:

Schema	Name
QUSRBRM	QA1AZRD

Ajouter Supprimer
- Statements that contain the following text:

Reset All Filters Show

Shown at 00:30 (1) X

Filters applied:

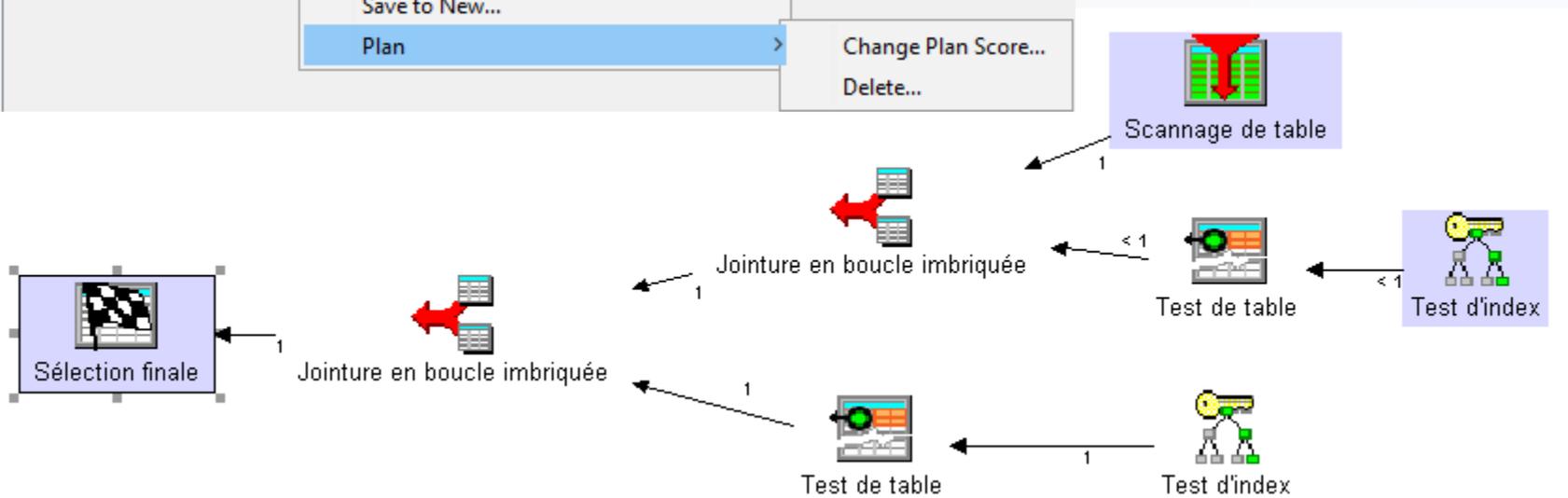
- Statements for which indexes have been advised
- Advised keys: RDSYSNAME, RDNETID
- Leading keys order independent: RDSYSNAME, RDNETID
- Index type: Binary Radix
- Logical page size advised: 64 KB
- Sort sequence: None (Sort by hexadecimal value)
- Statements that reference these objects: QUSRBRM.QA1AZRD

Last Time Run	Most Expensive Time (sec)	Total Processing Time (sec)	Total Times Run	Average Processing Time (sec)	Statement
2017-03-29 00:30:21.025285	0.0001	0.0663	1220	0.0001	SELECT RDNAME, RSSYSNAME, RSNETI
2017-03-29 00:30:21.025285	0.0201	0.0532	611	0.0001	SELECT RDNAME, RSSYSNAME, RSNETI
2017-03-29 00:30:21.025285	0.0000	0.0224	425	0.0001	SELECT RDNAME, RSSYSNAME, RSNETI
2017-03-27 14:22:49.145156	0.0001	0.0011	19	0.0001	SELECT RDNAME, RSSYSNAME, RSNETI

# Plan des instructions

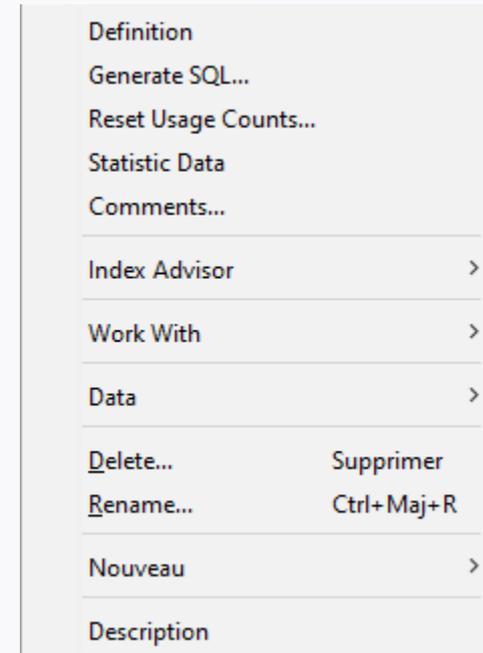
## ➤ Actions possibles sur les plans

Last Time Run	Most Expensive Time (sec)	Total Processing Time (sec)	Total Times Run	Average Processing Time (sec)	Statement
2017-03-29 00:30:21.025285	0.0001	0.0663	1220	0.0001	SELECT F
2017-03-29 00:30:21.025285	<b>Visual Explain</b>			.11	0.0001 SELECT F
2017-03-29 00:30:21.025285	Show Longest Runs			.25	0.0001 SELECT F
2017-03-27 14:22:49.145156	Show Active Jobs			.19	0.0001 SELECT F
	Show Job History				
	Show User History				
	Work with SQL Statement				
	Work with SQL Statement and Variables				
	Save to New...				
	Plan				
				Change Plan Score...	
				Delete...	



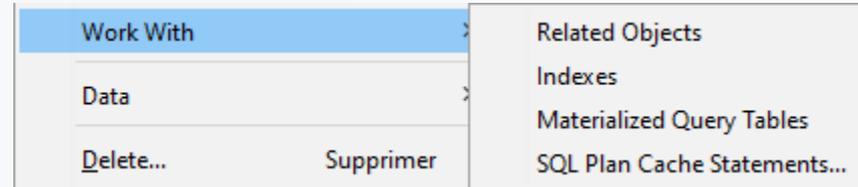
# Table

- Un ensemble d'actions est disponible sur la table sous-jacente de l'index recommandé
  - Définition  
Affiche l'assistant de création/modification de table
  - Generate SQL  
Affiche l'instruction CREATE TABLE
  - Reset Usage Counts  
Réinitialise les compteurs statistique de la table
  - Statistic Data  
Collecte de données
  - Comments  
Modification du texte de la table
  - Index Advisor  
Index recommandés pour la table



# Table

- Work With



## Related Objects

Objets liés : journal, vue, index, contraintes ...

## Indexes

Index existants sur la table

## Materialized Query Tables

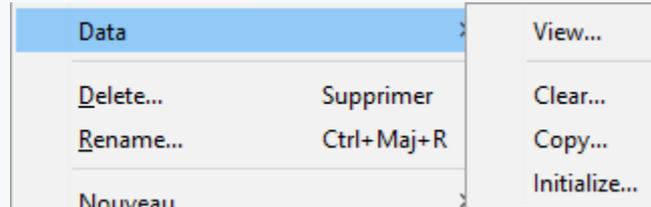
Table de requête matérialisée

## SQL Plan Cache Statements

Plans SQL en mémoire cache, utilisant la table sous-jacente à l'index recommandé

# Table

- Data



## View

Voir un extrait des données

## Clear

Vide le fichier (CLRPFM)

## Copy

Copie du fichier (CPYF)

## Initialize

Initialise le fichier (INZPFM)

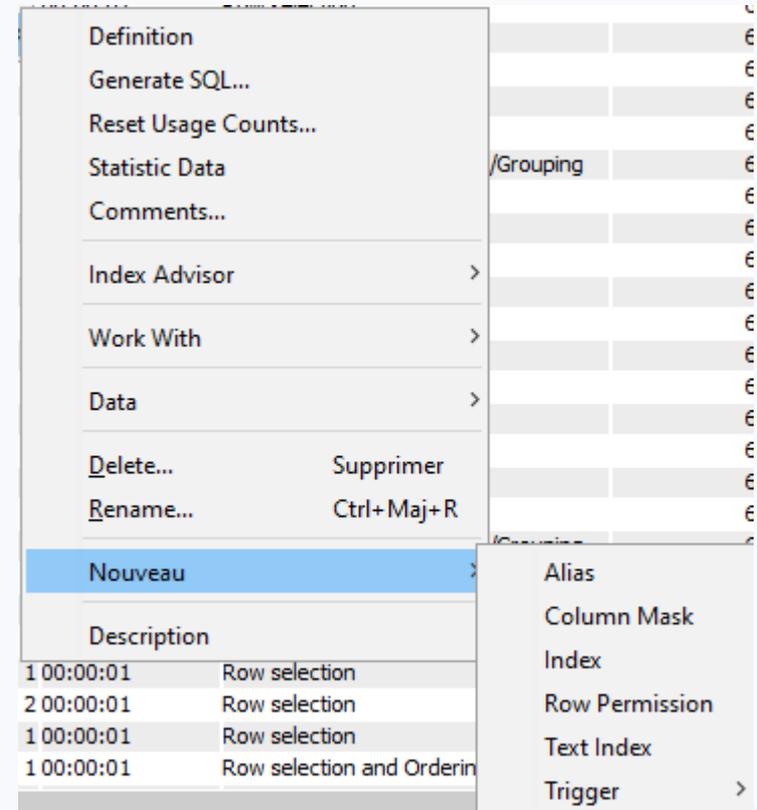
Contents of FORM01SQL.PROJECT - neptune(Neptune)

Fichier Affichage

PROJNO	PROJNAME	DEPTNO	RESPEN
AD3100	ADMIN SERVICES	D01	000010
AD3110	GENERAL ADMIN SYSTEMS	D21	000070
AD3111	PAYROLL PROGRAMMING	D21	000230
AD3112	PERSONNEL PROGRAMMING	D21	000250
AD3113	ACCOUNT PROGRAMMING	D21	000270
IF1000	QUERY SERVICES	C01	000030
IF2000	USER EDUCATION	C01	000030
MA2100	WELD LINE AUTOMATION	D01	000010

# Table

- Delete
  - Supprimer la table
- Rename
  - Renommer la table
- Nouveau
  - Alias sur la table
  - Masque de colonne sur la table
  - Index sur la table
  - Permission sur la table
  - Index text (Omnifind) sur la table
  - Trigger (SQL ou externe) sur la table
- Description
  - Affiche les attributs de l'objet



# Nouveau Package SQL

- Permet de créer un nouveau Package SQL
  - Objet de type \*SQLPKG

Créer un module SQL (CRTSQLPKG)

File Edit View Help

Programme:  Nom

Bibliothèque: \*LIBL Nom

Base de données relationnelle: NEPTUNE Nom

Utilisateur RDB: \*CURRENT Nom

Mot de passe utilisateur RDB: \*NONE Valeur alphanum

Collection par défaut: \*PGM Nom

Type d'objet:  \*PGM  \*SRVPGM

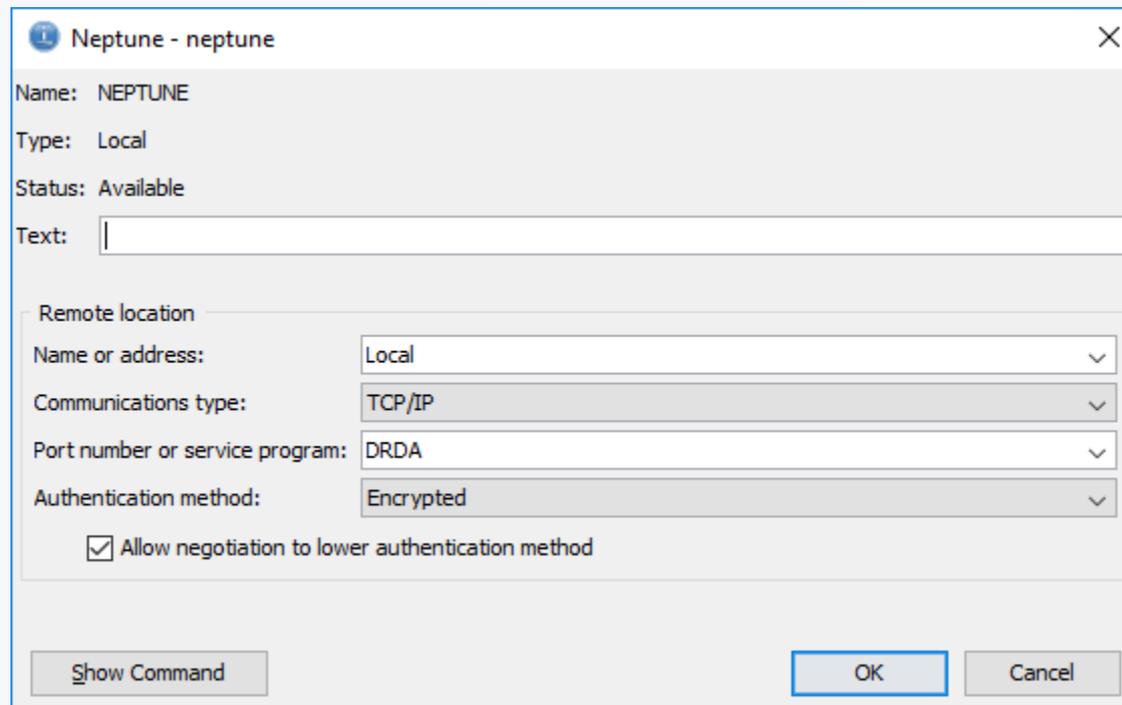
Liste des modules: \*ALL Add  
Remove  
Move up  
Move down

Texte 'descriptif': \*PGMTXT Valeur alphanum

Advanced OK Cancel Help ?

# Propriétés

- Propriétés du poste de Base de Données Relationnelle
  - Cf commande CHGRDBDIRE



The image shows a dialog box titled "Neptune - neptune" with a close button (X) in the top right corner. The dialog contains the following fields and options:

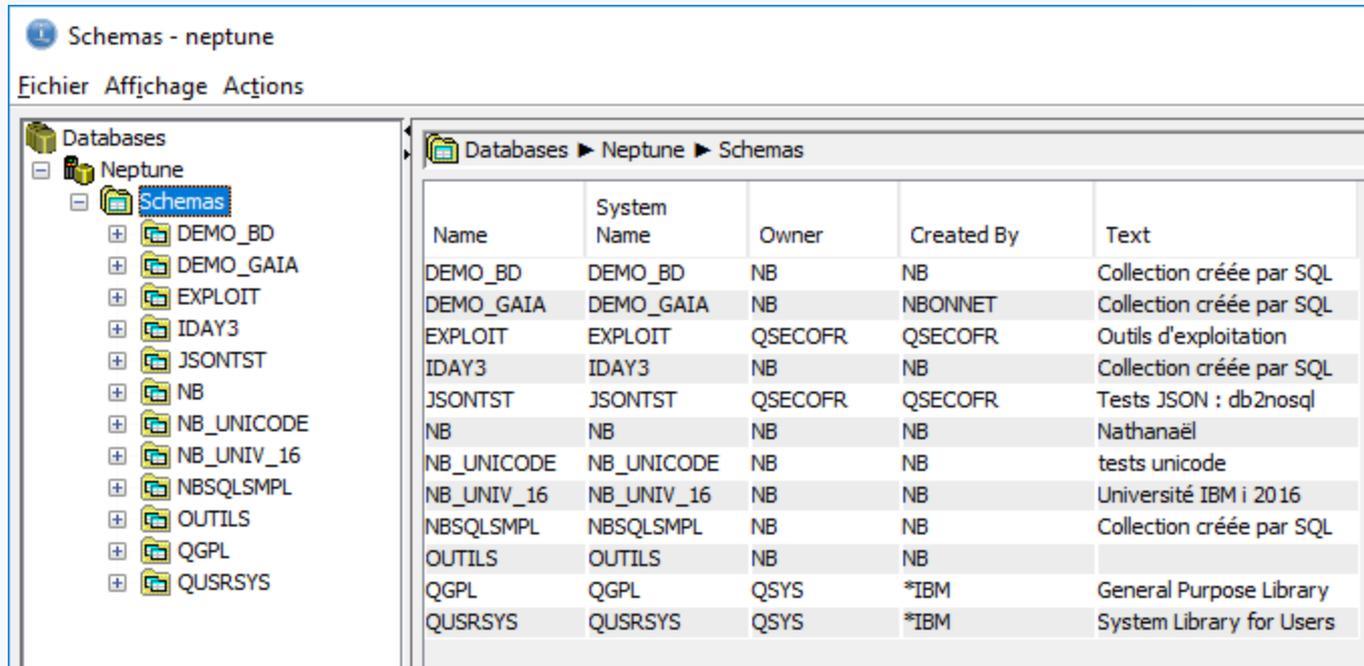
- Name: NEPTUNE
- Type: Local
- Status: Available
- Text: [Empty text box]
- Remote location section:
  - Name or address: Local (dropdown menu)
  - Communications type: TCP/IP (dropdown menu)
  - Port number or service program: DRDA (dropdown menu)
  - Authentication method: Encrypted (dropdown menu)
- Allow negotiation to lower authentication method
- Buttons: Show Command, OK, Cancel

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# Schémas

# Schémas

- Liste des schémas (bibliothèques) affichées



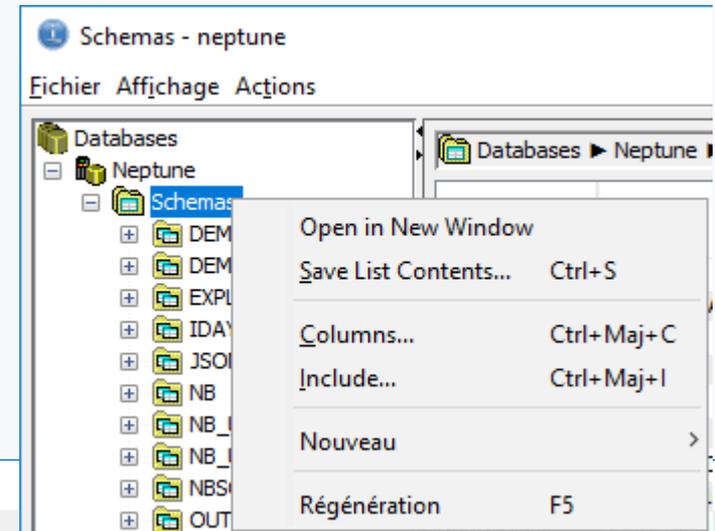
The screenshot shows a database management interface with a tree view on the left and a table of schema details on the right. The tree view shows the hierarchy: Databases > Neptune > Schemas. The table lists the following schemas:

Name	System Name	Owner	Created By	Text
DEMO_BD	DEMO_BD	NB	NB	Collection créée par SQL
DEMO_GAIA	DEMO_GAIA	NB	NBONNET	Collection créée par SQL
EXPLOIT	EXPLOIT	QSECOFR	QSECOFR	Outils d'exploitation
IDAY3	IDAY3	NB	NB	Collection créée par SQL
JSONTST	JSONTST	QSECOFR	QSECOFR	Tests JSON : db2nosql
NB	NB	NB	NB	Nathanaël
NB_UNICODE	NB_UNICODE	NB	NB	tests unicode
NB_UNIV_16	NB_UNIV_16	NB	NB	Université IBM i 2016
NBSQLSMPL	NBSQLSMPL	NB	NB	Collection créée par SQL
OUTILS	OUTILS	NB	NB	
QGPL	QGPL	QSYS	*IBM	General Purpose Library
QUSRSYS	QUSRSYS	QSYS	*IBM	System Library for Users

# Menu contextuel

## ➤ Include

- Permet de gérer les schémas affichés



Select Schemas to Display - neptune(Neptune)

Specify schemas to display

Enter schema names:

Search for schemas:

Filter

Name:

All names

Search

Schemas found: 0

Name	Text
------	------

Add -->

Selected schemas:

Name	System Name	Owner	Created By	Text
DEMO_BD	DEMO_BD	NB	NB	Collection créée par
DEMO_GAIA	DEMO_GAIA	NB	NBONNET	Collection créée par
EXPLOIT	EXPLOIT	QSECOFR	QSECOFR	Outils d'exploitation
IDAY3	IDAY3	NB	NB	Collection créée par
JSONTST	JSONTST	QSECOFR	QSECOFR	Tests JSON : db2no:
NB	NB	NB	NB	Nathanaël
NB_UNICODE	NB_UNICODE	NB	NB	tests unicode
NB_UNIV_16	NB_UNIV_16	NB	NB	Université IBM i 201
NBSQLSMP	NBSQLSMP	NB	NB	Collection créée par
OUTILS	OUTILS	NB	NB	
QGPL	QGPL	QSYS	*IBM	General Purpose Lib
QUSRSYS	QUSRSYS	QSYS	*IBM	System Library for L

Remove

OK

Cancel

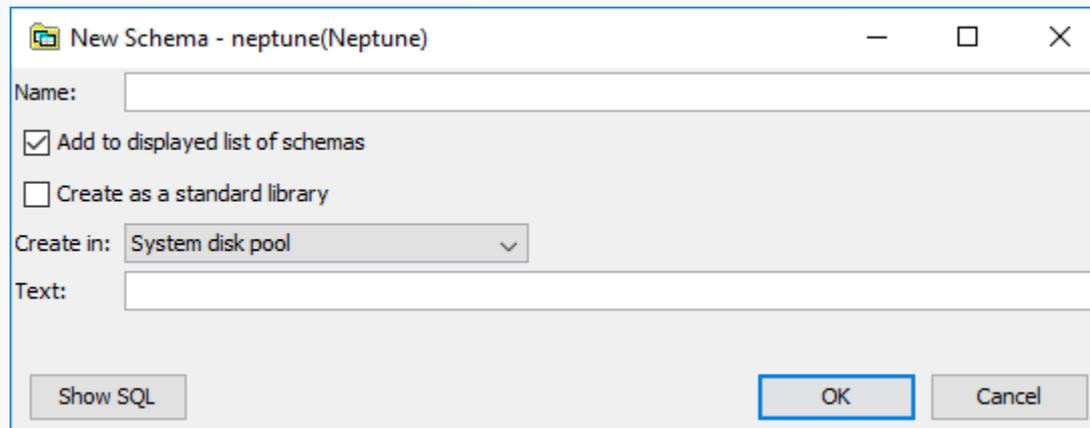
# Nouveau schéma

## ➤ Permet de créer

- Un schéma / collection SQL

Avec un journal, un récepteur, le catalogue DB2

- Une bibliothèque



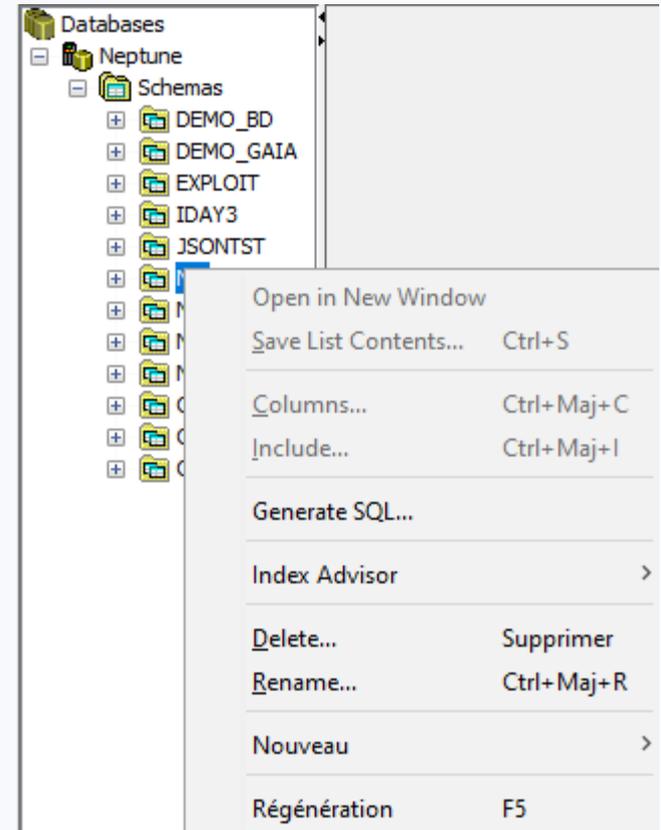
The screenshot shows a dialog box titled "New Schema - neptune(Neptune)". It contains the following fields and options:

- Name:** A text input field.
- Add to displayed list of schemas
- Create as a standard library
- Create in:** A dropdown menu currently showing "System disk pool".
- Text:** A text input field.
- Buttons: "Show SQL", "OK", and "Cancel".

# Schéma

## ➤ Menu contextuel

- **Generate SQL**  
Script SQL pour le schéma
- **Index Advisor**  
Gestion des index recommandés présents dans le schéma
- **Delete**  
Suppression du schéma
- **Rename**  
Renommer le schéma
- **Nouveau**  
Assistant de création
- **Régénération**  
Rafraichit l'affichage



# Generate SQL

- Des options de formatage sont disponibles

Output Options Format

Open in Run SQL Scripts

Write to file

File type: PC file

Location:  Browse...

Append

Output Options Format

Values used to format the SQL statements:

Naming convention: System (\*SYS)

Decimal separator: . (period)

Time

Format: hh.mm.ss (\*ISO)

Separator: . (period)

Date

Format: yyyy-mm-dd (\*ISO)

Separator: - (dash)

# Generate SQL

Output Options Format

Standards

ANSI / ISO

DB2 family

Extensions

Output

Statements formatted for readability

Informational messages

Schema qualify names for objects

System names for objects

OR REPLACE clause

DROP statements

SQL privilege statements

Labels and comments

Column CCSID values

Associated constraints and triggers ( for table objects )

Associated row and column access controls ( for table objects )

Temporal versioning ( for table objects )

Obfuscate ( for SQL function, procedure, and trigger objects )

Generate additional indexes ( for keyed physical and logical files )

Generate index instead of view ( for keyed logical files )

# Gestion des objets

- Les différents concepts SQL sont accessibles par type

The screenshot shows a database management interface with a tree view on the left and a table of objects on the right.

**Tree View (Left):**

- Databases
  - Neptune
    - Schemas
      - DEMO\_BD
      - DEMO\_GAIA
      - EXPLOIT
      - IDAY3
      - JSONTST
      - NB
        - All Objects
        - Aliases
        - Column Masks
        - Constraints
        - Functions
        - Global Variables
        - Indexes
        - Journals
        - Journal Receivers
        - Procedures
        - Row Permissions
        - Sequences
        - SQL Packages
        - Tables
        - Triggers
        - Types
        - Views
        - XML Schema Repository (XSR)
        - OmniFind Text Indexes

**Table (Right):**

Databases ▶ Neptune ▶ Schemas ▶ NB ▶ All Objects

Name	System Name	Type	Owner	Text
US_DOLLARS	US_DOLLARS	Distinct Type		
**	**	Function		
DIGI_INT	DIGI_INT	Function		
DIGI_INT2	DIGI_INT2	Function		
DMY	DMYALPHA	Function		
FUNC_US	FUNC_US	Function		
FUNC1	FUNC1	Function		
FUNC2	FUNC2	Function		
FUNC2B	FUNC2B	Function		
QAUD_MQT_I1	QAUD_00001	Index	NB	
QZG0000050_QINX1	QZG0000001	Index	NB	
QZG0000050_QINX2	QZG0000002	Index	NB	
QZG0000050_QINX3	QZG0000003	Index	NB	
QZG0000050_QINX4	QZG0000004	Index	NB	
QZG0000050_QINX5	QZG0000005	Index	NB	
QZG0000050_QINX6	QZG0000006	Index	NB	
QZG0000050_QINX7	QZG0000007	Index	NB	
QZG0000051_QINX1	QZG0000008	Index	NB	
QZG0000051_QINX2	QZG0000009	Index	NB	
QZG0000051_QINX3	QZG0000010	Index	NB	
QZG0000051_QINX4	QZG0000011	Index	NB	
QZG0000051_QINX5	QZG0000012	Index	NB	
QZG0000051_QINX6	QZG0000013	Index	NB	
QZG0000051_QINX7	QZG0000014	Index	NB	
OZG0000052_OINX1	OZG0000015	Index	NB	

# Gestion des objets

- Pour chaque type d'objet, un assistant dédié est disponible
  - Par exemple pour une table

New Table - neptune(Neptune)

Table Columns Key Constraints Foreign Key Constraints Check Constraints Partitioning

Name:

Schema: NB

System name: System-generated

Record format name: System-generated

Preferred storage media is solid-state drive

Keep in memory

Volatile data

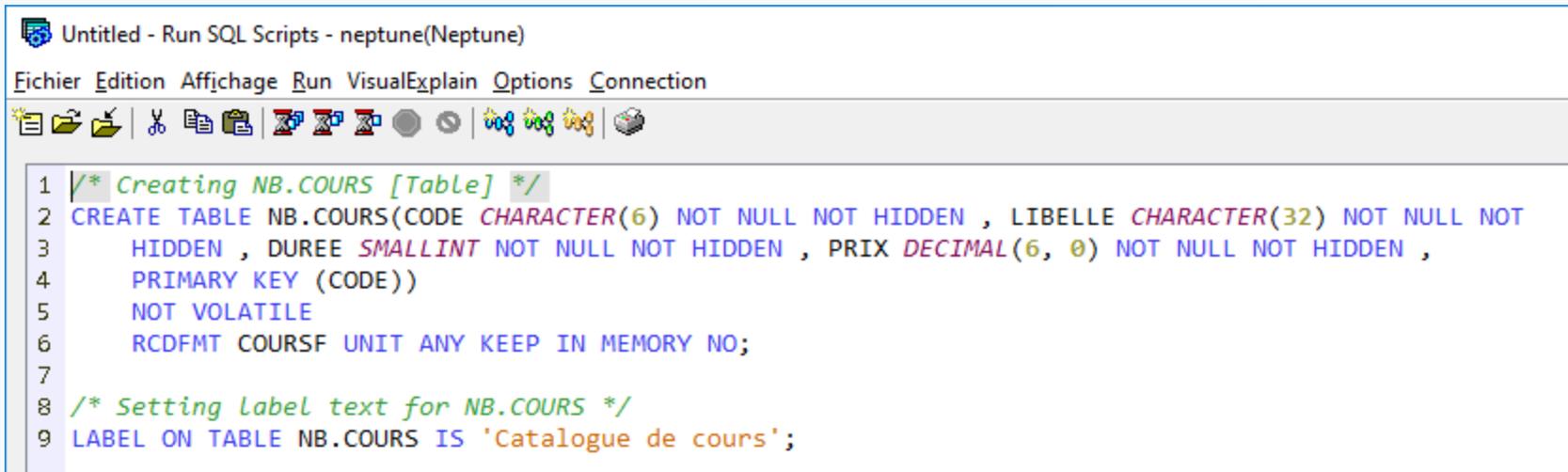
System-period

Text:

Show SQL OK Cancel

# Gestion des objets

- Le bouton « Show SQL » permet d'afficher le code SQL tel qu'exécuter par l'assistant

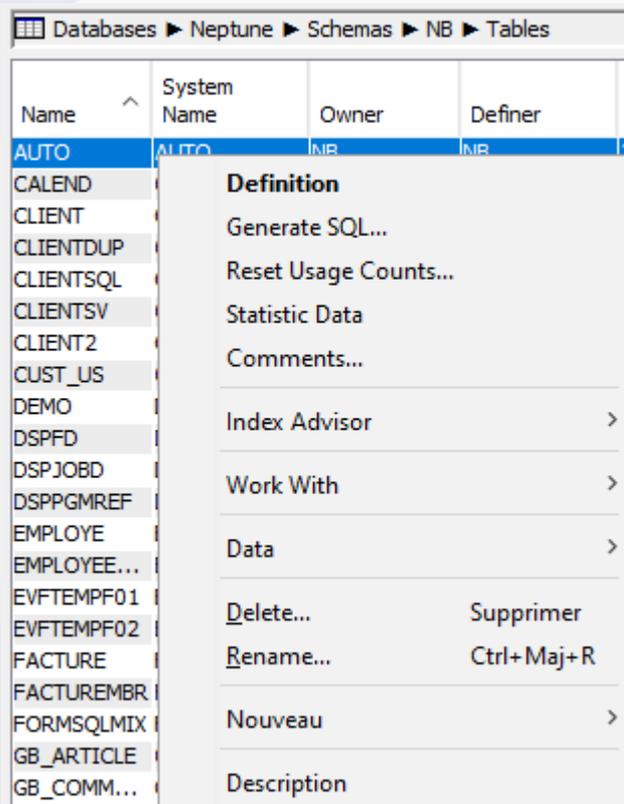


The screenshot shows the Neptune SQL editor interface. The title bar reads "Untitled - Run SQL Scripts - neptune(Neptune)". The menu bar includes "Fichier", "Edition", "Affichage", "Run", "VisualExplain", "Options", and "Connection". The toolbar contains various icons for file operations, editing, and execution. The main text area displays the following SQL script:

```
1 /* Creating NB.COURS [Table] */
2 CREATE TABLE NB.COURS(CODE CHARACTER(6) NOT NULL NOT HIDDEN , LIBELLE CHARACTER(32) NOT NULL NOT
3     HIDDEN , DUREE SMALLINT NOT NULL NOT HIDDEN , PRIX DECIMAL(6, 0) NOT NULL NOT HIDDEN ,
4     PRIMARY KEY (CODE))
5     NOT VOLATILE
6     RCD_FMT COURSF UNIT ANY KEEP IN MEMORY NO;
7
8 /* Setting Label text for NB.COURS */
9 LABEL ON TABLE NB.COURS IS 'Catalogue de cours';
```

# Gestion des objets

- Le menu contextuel sur chaque objet permet de retrouver les actions suivantes



The screenshot shows a database object browser window titled 'Databases ► Neptune ► Schemas ► NB ► Tables'. It displays a list of tables with columns for Name, System Name, Owner, and Definer. The 'AUTO' table is selected, and a context menu is open over it. The menu items are:

Name	System Name	Owner	Definer
AUTO	AUTO	INR	INR
CALEND			
CLIENT			
CLIENTDUP			
CLIENTSQL			
CLIENTSV			
CLIENT2			
CUST_US			
DEMO			
DSPFD			
DSPJOB			
DSPPGMREF			
EMPLOYE			
EMPLOYEE...			
EVFTEMPF01			
EVFTEMPF02			
FACTURE			
FACTUREMBR			
FORMSQLMIX			
GB_ARTICLE			
GB_COMM...			

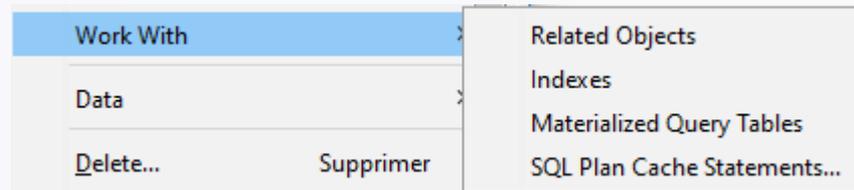
The context menu items are:

- Definition
- Generate SQL...
- Reset Usage Counts...
- Statistic Data
- Comments...
- Index Advisor >
- Work With >
- Data >
- Delete... Supprimer
- Rename... Ctrl+Maj+R
- Nouveau >
- Description



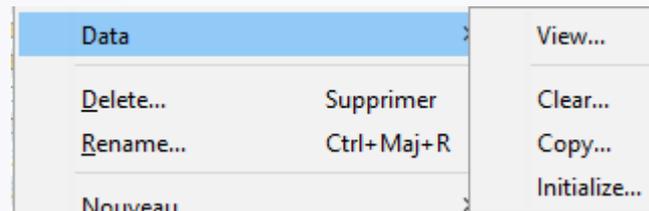
The 'Index Advisor' context menu is shown with the following items:

- Advised Indexes
- Condense Advised Indexes
- Clear All Advised Indexes...



The 'Work With' context menu is shown with the following items:

- Related Objects
- Indexes
- Materialized Query Tables
- SQL Plan Cache Statements...



The 'Data' context menu is shown with the following items:

- View...
- Clear...
- Copy...
- Initialize...