

# MUST As A Service

Intelligent and efficient upsizing  
from Access to SQL Server

# Basic Setup – identify Access and SQL db's

SQL Server Name  SQL Server Version

Use Trusted Security  Use SQL Azure  ?

OR specify a login and password

SQL Login Name

SQL Login Password




Microsoft SQL Server 2008 R2 (SP3) - 10.50.6220.0 (X64) Mar 19 2015 12:32:14 Copyright (c) Microsoft Corporation Express

**1. Test Your Login**

---

Enter either the name of an existing SQL Server database to connect to, or the name of the database you would like to create

**2. Create The Database**

Name (a name by which you recognise this database)	Target Database Location (enter the full path, database name and file extension) eg. c:\test\test.mdb	Does your database contain data tables and application forms?	As (n) SC
▶ ACE	 C:\ACEMUST\ACE Front End.accdb	Application & Data	▼
ACE Back End	 C:\ACEMUST\ACE Back End.accdb	Data Only	▼
*		Application & Data	▼

# Analyse

Select A Database, Or Use Batch Mode To Process ALL Databases

ACE

BATCH MODE; when checked all databases are analysed.

Index Selectivity Threshold for rejecting indexes (set to 0 to accept all)

---

**Perform Analysis**

**1.3.1 Analyse Access Database Tables**

Minimum Valid Date, used to identify illegal dates in your data.

**1.3.1a Reset ; Allow Analysis to be repeated**

---

**change your analysis options for this database**

Before starting analysis you can change the database options; for example switching on/off the addition of auditing columns; options apply to each individual database.

<input type="checkbox"/> Add TimeStamps Columns	<input checked="" type="checkbox"/> Add Triggers For Unique Index Ignore Nulls <input checked="" type="checkbox"/>
<input type="checkbox"/> Add Auditing Columns	<input type="checkbox"/> Add Triggers For Table <input type="checkbox"/>
<input type="checkbox"/> Add Dummy Key To Unkeyed Tables	<input checked="" type="checkbox"/> Level Validation Rules (default is to create Checks for table rules)
<input type="checkbox"/> Create Synonyms For Schemas	<input type="checkbox"/>
<input type="checkbox"/> Add Allow Zero Length Checks	<input type="checkbox"/>

# Exclusions

System Name	Source Table Name	Exclude Table	Was Matched According To		
			Exact	Begining	Ending
ACE	lclDeliveryReport	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	lclDocuments	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	lclForecastRevenue	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	lclFutureCommitmentDates	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	lclFutureCommitmentRaw	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	lclFutureCommitmentSummarised	Exclude	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Analyse queries, code and forms

System	QueryName	Type	Excluded	View SQL	Is Already Pass Through	Nested Query Created	Create As View	Create As SP
ACE	qryAccessoriesInPlantCategory	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryChecksInPlantCategory	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryEnquiryPlantList	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryEnquiryPlantListForClosedHires	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryEnquiryPlantListValidForCommitment	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmAllocateAccessories	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmCollectionDates	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmFinanceAccessories	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmHireBrowse	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryFrmHirePlantAccessories	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmHiresCurrentlyLocked	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmHiresReadyForPrep	Select	<input type="checkbox"/>	<a href="#">View SQL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACE	qryfrmInspectAccessories	Select	<input type="checkbox"/>	<a href="#">View SOL</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Convert queries to views

Query Details

all queries    conversion errors    excluded queries    test errors

QueryId:  System

Query

SQL Server SQL   Create As A View    Excluded

```
CREATE VIEW [qryAccessoriesInPlantCategory]
AS
SELECT [tblMandatoryCategoryAccessories].[MandatoryCategoryAccessoryID],
       [tblMandatoryCategoryAccessories].[PlantCategoryID],
       [tblAccessories].[AccessoryID],
       [tblAccessories].[AccessoryName]
FROM vw_tblParameters Parameters CROSS JOIN [tblAccessories]
     RIGHT JOIN [tblMandatoryCategoryAccessories]
     ON [tblAccessories].[AccessoryID] = [tblMandatoryCategoryAccessories].[AccessoryID]
WHERE ((
([tblMandatoryCategoryAccessories].[PlantCategoryID])=Parameters.[_param_gbl_IngPlantCat
...ID]))
```

**SQL above can be directly edited, then changes saved**   [Save Changes](#)

ACCESS SQL (includes pre-processing of SQL)

```
PARAMETERS [Forms]![frmAASStart].[gbl_IngPlantCategoryID] Text ( 255 ); SELECT
tblMandatoryCategoryAccessories.[MandatoryCategoryAccessoryID],
tblMandatoryCategoryAccessories.[PlantCategoryID], tblAccessories.[AccessoryID],
tblAccessories.[AccessoryName] FROM tblAccessories RIGHT JOIN
tblMandatoryCategoryAccessories ON tblAccessories.[AccessoryID] =
tblMandatoryCategoryAccessories.[AccessoryID] WHERE
(((tblMandatoryCategoryAccessories.[PlantCategoryID])=[Forms]![frmAASStart].[gbl_IngPlantCa
tegoryID]))
```

[Copy TSQL to Clipboard](#)

? ErrorMessage

Unconverted/Errors In VBA Functions

Parameters    [View Parameters](#)

Other queries impacted    [View Data Sources](#)

Conversion Errors    Tested

Test Errors    Test Failed

[Close](#)

# Indexing

System Name	Source Table Name	Source Field Name	SQL Server Field Name	SQL Data Type	Access Data Type	Identity Column	Id
ACE Back End	tblAccessories	AccessoryID	AccessoryID	INT	dbLong	<input checked="" type="checkbox"/>	8369
ACE Back End	tblAccessories	AccessoryName	AccessoryName	VARCHAR(255)	dbText	<input type="checkbox"/>	8370
ACE Back End	tblAccessories	TS_tblAccessories	TS_tblAccessories	TIMESTAMP		<input type="checkbox"/>	8371
ACE Back End	tblAudit	AuditID	AuditID	INT	dbLong	<input checked="" type="checkbox"/>	8372
ACE Back End	tblAudit	ChangeType	ChangeType	VARCHAR(255)	dbText	<input type="checkbox"/>	8373
ACE Back End	tblAudit	AuditDate	AuditDate	DATETIME	dbDate	<input type="checkbox"/>	8374
ACE Back End	tblAudit	AuditTime	AuditTime	DATETIME	dbDate	<input type="checkbox"/>	8375
ACE Back End	tblAudit	UserName	UserName	VARCHAR(255)	dbText	<input type="checkbox"/>	8376
ACE Back End	tblAudit	Workstation	Workstation	VARCHAR(255)	dbText	<input type="checkbox"/>	8377
ACE Back End	tblAudit	RecordID	RecordID	INT	dbLong	<input type="checkbox"/>	8378
ACE Back End	tblAudit	FormID	FormID	VARCHAR(255)	dbText	<input type="checkbox"/>	8379
ACE Back End	tblAudit	FieldName	FieldName	VARCHAR(255)	dbText	<input type="checkbox"/>	8380
ACE Back End	tblAudit	OldValue	OldValue	VARCHAR(255)	dbText	<input type="checkbox"/>	8381
ACE Back End	tblAudit	NewValue	NewValue	VARCHAR(255)	dbText	<input type="checkbox"/>	8382
ACE Back End	tblAudit	TS_tblAudit	TS_tblAudit	TIMESTAMP		<input type="checkbox"/>	8383
ACE Back End	tblCustomers	CustomerID	CustomerID	INT	dbLong	<input checked="" type="checkbox"/>	8384
ACE Back End	tblCustomers	Customer_Name	Customer_Name	VARCHAR(255)	dbText	<input type="checkbox"/>	8385
ACE Back End	tblCustomers	Short_Name	Short_Name	VARCHAR(255)	dbText	<input type="checkbox"/>	8386
ACE Back End	tblCustomers	Address1	Address1	VARCHAR(255)	dbText	<input type="checkbox"/>	8387
ACE Back End	tblCustomers	Address2	Address2	VARCHAR(255)	dbText	<input type="checkbox"/>	8388
ACE Back End	tblCustomers	Address3	Address3	VARCHAR(255)	dbText	<input type="checkbox"/>	8389
ACE Back End	tblCustomers	Address4	Address4	VARCHAR(255)	dbText	<input type="checkbox"/>	8390
ACE Back End	tblCustomers	PostCode	PostCode	VARCHAR(255)	dbText	<input type="checkbox"/>	8391

Form and report record sources

**Are converted to a  
parameterised SQL View**



# Parameters for form and other queries, pushed to backend parameter table for efficient views

Parameter Name	Data Type	Pick Alternative	Default	Exclude	Screen Control	Declared Parameter	Data Type Changed	Type Found	Queries Using this	Query Migration
_param_datduedate	DATETIME	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Query Translation
_param_datMOTduedate	DATETIME	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Query Translation
_param_gbl_IngCustomerID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Query Translation
_param_gbl_IngCustomerID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Query Translation
_param_gbl_IngCustomerID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Query Translation
_param_gbl_IngCustomerID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Query Translation
_param_gbl_IngCustomerSiteID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Query Translation
_param_gbl_IngCustomerSiteID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Query Translation
_param_gbl_IngEnquiryPlantListID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Query Translation
_param_gbl_IngEnquiryPlantListID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Query Translation
_param_gbl_IngHireID	INT	▼		<input type="checkbox"/>	Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	21	Query Translation

# Migrate Schema

Specify Source Database Name Including Path

ACE



C:\ACEMUST\ACE Front End.accdb

BATCH  
(Proc  
Datab  
drop-  
a sele

**Migrate the database structure to SQL Server**

**1.4.1 Create Schemas, Tables & Synonyms In SQLServer**



# Finishing

- Relink the app to SQL
- Add in parameter table code into the front end
- Migrate data
- Generate T-SQL to build the db standalone
- Create an “upload” db to run on the day
- Consider full auditing
- Consider db security – roles, users...
- Code tweaks if the application needs it (the better the starting point...)

# Full managed import

Select A Database, Or Use Batch Mode To Process ALL Databases		BATCH MODE (Process All Databases)
<input type="text" value="ACE"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="text" value="C:\ACEMUST\ACE Front End.accdb"/>		
<b>Scripted Target Database Name</b>	<input type="text" value="ACE-MUST"/>	See Help database
<b>PRE-MIGRATION SCRIPT</b>	<input type="button" value="Build Pre-Migration Script File"/>	
<input type="text" value="C:\ACEMUST\PreMigrationScript.sql"/>		
<b>DATA IMPORT SCRIPT</b>	<input type="button" value="Build Data Import Script File"/>	User
<input type="text" value="C:\ACEMUST\DataImportScript.sql"/>		Adm
<b>PATH TO IMPORT ACCESS FROM</b>		Pass
<input type="text" value="C:\ACEMUST\"/>		
<b>POST-MIGRATION SCRIPT</b>		
Create Relationships and Check Constraints <input checked="" type="checkbox"/>	Create Indexing <input checked="" type="checkbox"/>	
<input type="text" value="C:\ACEMUST\PostMigrationScript.sql"/>		
<input type="button" value="Build Post-Migration Script File"/>		

The "Scripted Target Database Name" will not be inserted with the USE command at the top of each script file.

# MUST As A Service

Intelligent and efficient upsizing  
from Access to SQL Server