AirLinc

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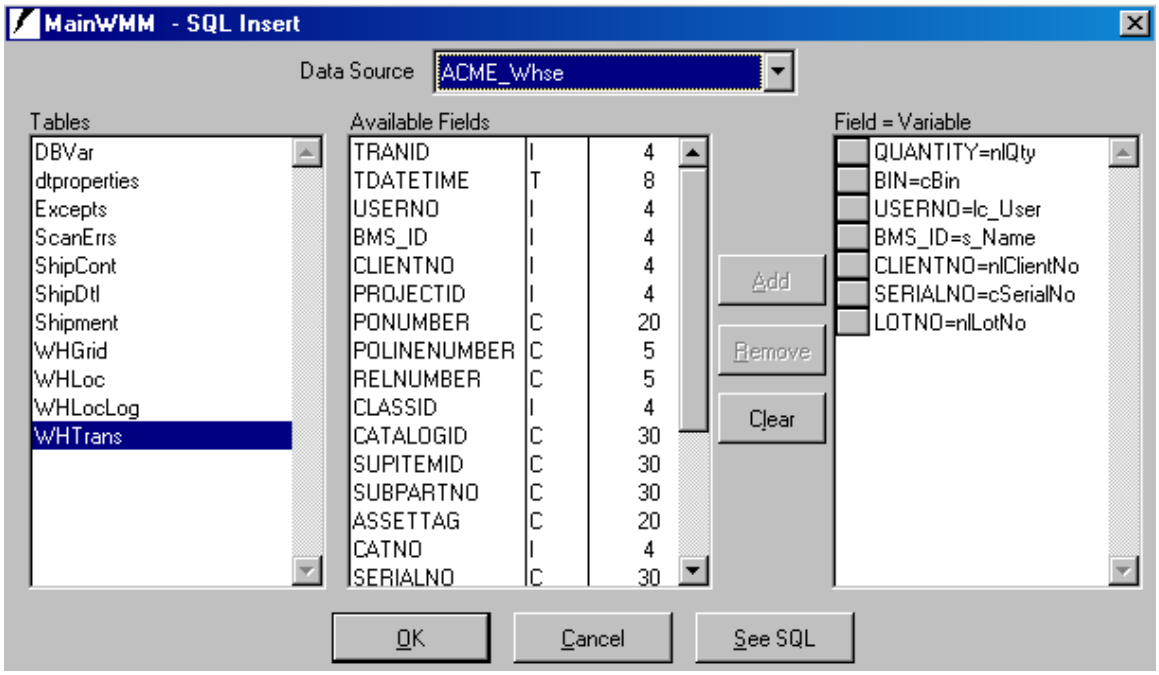
DSN Name Changes

If the local development copy of the database and the production database have different DSN names, it will cause the FIELD=VARIABLE values to be reset and lost in SQL statements.

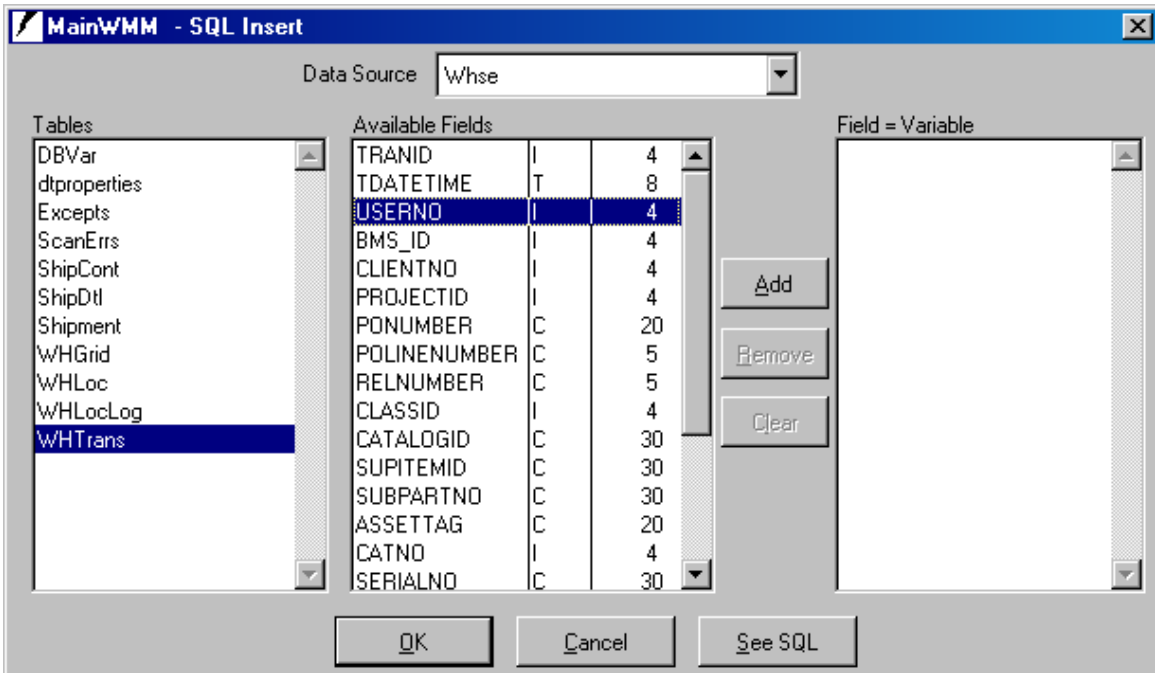
This sensitivity to changing the DSN name will be removed in the next product release. For now, please ensure that the development AND production DSN's are named the same.

This can also happen anytime the DSN name is changed. The DSN's data sources can be changed, but the name must remain the same for the project.

SQL INSERT VIEW BEFORE NAME CHANGE "Field = Variable" IS POPULATED



SQL INSERT VIEW AFTER NAME CHANGE "Field = Variable" IS BLANK


MainWMM - SQL Insert
Data Source
Whse
Tables
DBVar
dtproperties
Excepts
ScanErrs
ShipCont
ShipDtl
Shipment
WHGrid
WHLoc
WHLocLog
WHTrans
Available Fields
TRANID I 4
TDATETIME T 8
USERNO I 4
BMS_ID I 4
CLIENTNO I 4
PROJECTID I 4
PONUMBER C 20
POLINENUMBER C 5
RELNUMBER C 5
CLASSID I 4
CATALOGID C 30
SUPITEMID C 30
SUBPARTNO C 30
ASSETTAG C 20
CATNO I 4
SERIALNO C 30
Add
Remove
Clear
Field = Variable
OK
Cancel
See SQL

Simulator Beep

The AirLinc Simulator emulates writing to a printer. If the system on which AirLinc is installed does not have a printer configured, the beep will not be emulated.

To resolve this issue, define a printer to the system on which you are working.

FoxPro Temporary File Clean Up

AirLinc was developed in MS FoxPro. FoxPro, as do many databases, creates temp files on the hard drive for work files, result sets, etc. and does a good job cleaning those up on normal exits. However, if FoxPro exits abnormally, i.e. system shutdown/power off, terminal shutdown (Tap terminated) or apbase terminates abnormally, then FoxPro does not have a chance to 'cleanup' or delete these files and they will hang around. These files are created with a 'unique' name, so they do not get reused and will eventually use the available hard drive space.

Users should clean these files frequently (daily, weekly, or monthly, depending on remaining hard drive space). Concentrate on files older than today’s date that end in "tmp".

AirLinc lc_tmode

A situation is explored in which AirLinc lc_tmode does not appear to work.

Using the list of system variables in the variables.txt file in the AirLinc directory, lc_tmode was used to test whether the terminal or terminal simulator is being used. It was desired that data only be entered via a scanner for the open application, but also that it be possible to enter data for test purposes. The program returns the error message that "LC_TMODE is not found".

The resolution to this issue is to find an updated AirLincR.exe that will replace the one in the V1.1 distribution. This will fix the problem with the LC_TMODE.

Use this on an "As Needed" basis to update your other development systems and installed systems.

Variable Character Length Fields/SQL

The following is a list of items of which to maintain awareness:

*** NVARCHAR data types and Stored Procedures in SQL Server ***
NVARCHAR data types are variable character length fields in SQL Server. When predefining Stored Procedure Output Parameters, always define the variable as a null or the maximum length of the NVARCHAR.

Example:

(SQL Server stored procedure)
Create Procedure sp_tech_note(@techid int,@varout nvarchar(128) output) As
select @varout=joe from techtable where techid=@techid
go

(AirLinc Script)
SET:techid=1
SET: varout=''
SPROC:sp_tech_note DSN:whatever VARLIST: techid,@varout (The '@" should be added as a prefix to the variable and keyed in manually.)

*** Stored Procedure Names ***
Stored procedure name references in AirLinc are a maximum of 20 characters. This will be modified to 50 characters in the upcoming release.

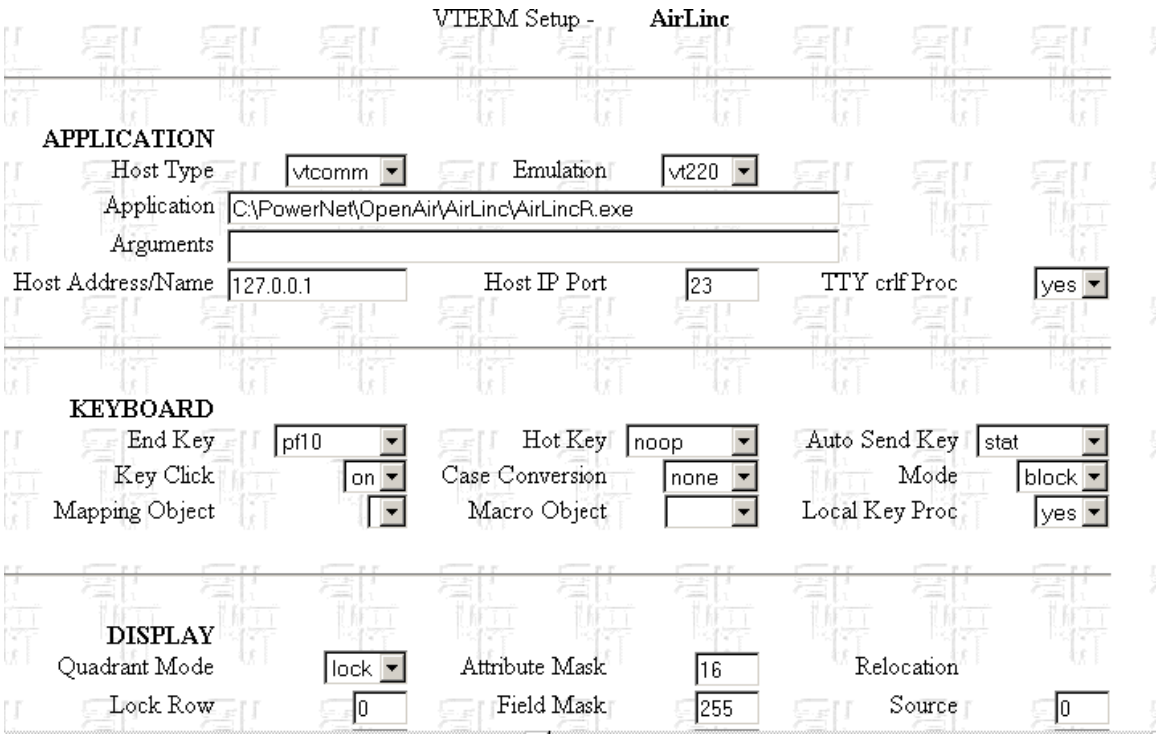
*** Single Character Variable Name and Stored Procedures ***
It is noticed that single character variable names (SET: w='JOE') cause casting errors in SQL Server when passed. Use at least two-character variable names when calling SQL Server Stored Procedures.

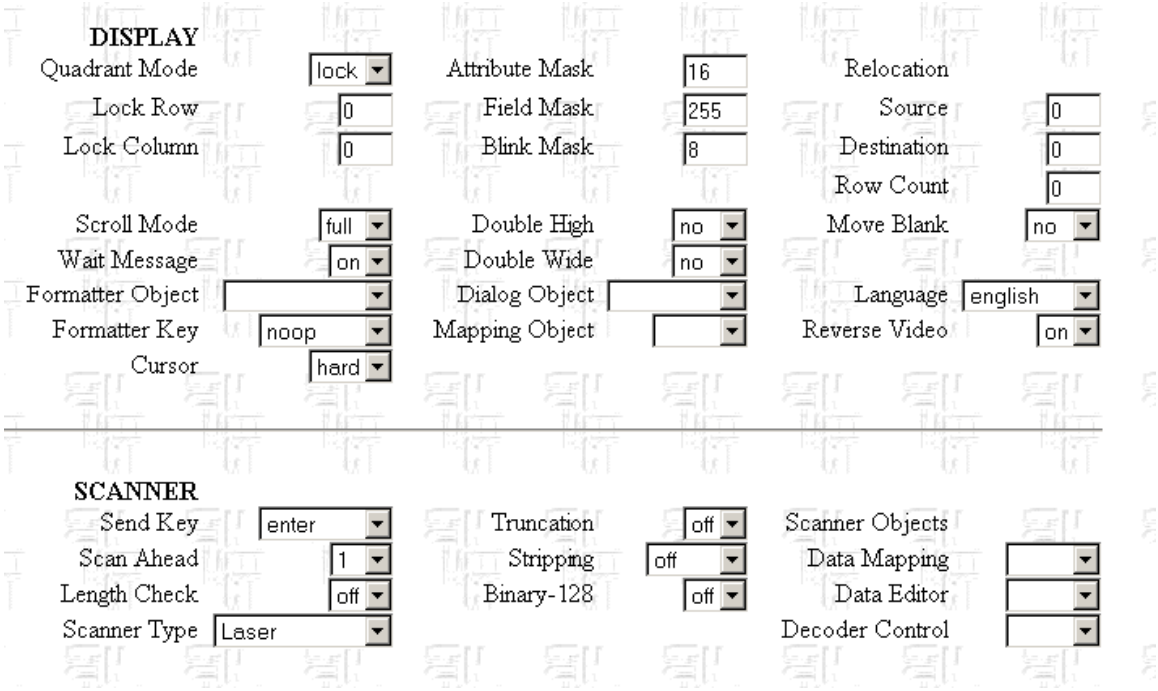
Host List Setup

When you install AirLinc After the Windows SoftNCU, it will ask to setup a host list entry for you.

If you install AirLinc first or need to setup a handler for AirLinc, the instructions below detail how this is done.

1. Create a VTERM handler titled AirLinc.
2. Setup VTERM to match the first screen shot below.
3. Exit and save.
4. Reference the second screen shot below.




DISPLAY
Quadrant Mode
lock
Lock Row
0
Lock Column
0
Scroll Mode
full
Wait Message
on
Formatter Object
Formatter Key
noop
Cursor
hard
Attribute Mask
16
Field Mask
255
Blink Mask
8
Double High
no
Double Wide
no
Dialog Object
Mapping Object
Relocation
Source
0
Destination
0
Row Count
0
Move Blank
no
Language
english
Reverse Video
on
SCANNER
Send Key
enter
Scan Ahead
1
Length Check
off
Scanner Type
Laser
Truncation
off
Stripping
off
Binary-128
off
Scanner Objects
Data Mapping
Data Editor
Decoder Control

Accepting a Return Value from a SQL Stored Procedure

The following details a situation in which it is difficult to get AirLinc to receive an integer value from a SQL Server stored procedure when the variable name is set as an output variable in the stored procedure. It works within the stored procedure via testing, however no matter what variable is fed to this parameter of the stored procedure, nothing seems to come back. It is not clear if AirLinc is capable of doing this or if the stored procedure must be structured so that it returns a record set with a response in it that can be queried.

Use the SPROC verb to create the Stored Procedure call. Double click the variables you want to include as parameters. Any OUTPUT parameters must be defined prior to the stored procedure call (with a SET command). The new output parameter must then be MANUALLY entered into the text box below the variable listing prefaced with a '@' sign. Then click the 'ADD' button to add the new output parameter to the stored procedure parameter listing.

Remember, output parameters are passed by reference, so they must be defined prior to the call and be of the same general variable type.

PDF Scanning in AirLinc

If you have a PDF-enabled terminal, scans larger than around 60 bytes will cause the AirLincR run-time module to crash with the complaint of "Not enough Memory".

Note: This message shows up on the PC and not on the RF terminal.

Add the line below to the pre-script in any input field on which you need to do PDF scanning. This will cause the variable to be sized to 1500 bytes, which is the upper limit for PDF scans.

v_test=replicate("0",1500)

Note: Replace v_test with the actual variable name.

Unable to Start AirLinc Applications Due to Low Temp Disk Space

If starting an AirLinc application fails with a Windows console message about not enough disk space, the following will detail how to resolve this problem.

Note: Please see Tech Alert A1063 in our Lotus Notes Database. This Alert documents conditions that can use all the allocated TEMP disk space, no matter how much is allocated. If this Tech Alert applies, you will need to determine the cause of the abnormal application ends first. If you do not have this condition, then procede with the next steps.

1. Log onto the system using the account under which AirLinc was installed. (We recommend that this be performed by the system administrator and not by a user with administrator rights.)

2. Right click on the "My Computer Icon" and select "Properties".

3. Click on the "Advanced" tab and then on "Environment Variables".

4. Look for the TEMP and TMP variables, and note the drives and path.

5. Research that this location has enough free disk space. If not, change both variables to point to a drive and location that does.

Note: If the OpenAir services have been modified to log into a particular user account, you may need to adjust the TEMP and TMP variables for this account also.

This is usually done to satisfy a log-in requirement for the database that AirLinc is using. (A database run over a Novel network can require special log-ins.)

You may need to develop a Windows log-in script to set the variables for a particular user. Always try the system variables first.

How Much Disk Space Will I Need?

The amount of temporary disk space that will be required is application dependant. Certain types of database operations like "Joins" tend to use disk space.

Below is a procedure you can use to estimate the required space.

1. Log out all AirLinc users from the system.
2. Delete all the files in the TMP and TEMP directories.
3. Log in 1 AirLinc user and exercise all portions of the application.
4. While the application is still running, check the number and sizes of the files in the temp directory.

This should give you a rough estimate of the per terminal disk space required.

Windows DSN Errors with AirLinc

Many times problems arise depending on how the Windows server is built, before PowerNet and AirLinc are installed.

It is suggested that you verify that the PowerNet Access Point Server and the PowerNet Remote Access Server **services** are able to logon with an account with administrative privileges on the network. (Please refer to the Windows error logs and the AirLinc logs for additional information.)

Sometimes the path to the data source cannot be located. An example is shown below.

Header DSN Error . APP_DATA_MASTER. A1 1526 A2. Connectivity error: [Microsoft][ODBC Visual Foxpro Driver]Cannot open the file L:\applicat\data*****.dbc A3:[Microsoft][ODBC Visual FoxPro Driver]Cannot open file L:\applicat\data****.dbc A4:S1000 A5:171 A6: 1 P:SII_01 SC: CHK_CARTS V:HEADER L:000/043

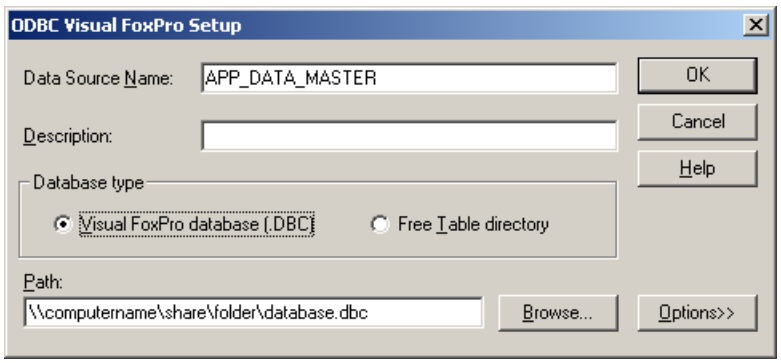
Then this error immediately follows:

Header DSN Error .APP_DATA_MASTER. - DATETIME() A1: 1466 A2:Connection handle is invalid A3: A4: A5: A6: P:SII_01 SC:CHK_CARTS V:SELECT L:022/043

It appears that drive "L" is not correctly mapped to the networked database.

The solution is to make the DSN point to the correct network share. This is done through the Windows control panel. (Start/Settings/Control Panel/Administrative Tools/Data Sources (ODBC))

On the User DSN tab, select Visual FoxPro Database and click on the Configure… button.



About This Document

This document is based on the following Technical Documents in our Notes Database that have been made obsolete: A1058, A1062, A1063, A1064, A1091, T1155, T1165, T1186, T1227, and T1242.

Please let us know about any errors in this document at: http://207.241.78.223/isoxpert/calltrak.nsf/WebTracking?OpenForm.