

**Amlib** Library Management System

# Amlib Client 6.3 Installation Guide

# - For Oracle & SQL Server Version 6.3

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# WELCOME

Welcome to the *Amlib Client 6.3* Installation Guide.

Details on installing other optional components (such as *NetOpacs, ZServer, SIP2, OpenOPAC, OpenReports* and *DIY Self Issues*) are available in separate module specific Installation Guides.

# **OVERVIEW**

The installation of the *Amlib* client involves the following steps:

- 1. Install the Amlib Client 6.3 application
- 2. Install the database server:
  - a. MS SQL Server 2012 R2
  - b. Oracle 11g
- 3. Create and configure *Amlib* databases
- 4. Configure the Amlib database connection settings

# BEFORE YOU BEGIN THE INSTALLATION

# Read the Installation Notes First

Please carefully read the entire <u>installation guide</u> prior to commencing the actual *Amlib* installation.

This installation process is for NEW installations only. This documentation should not be used for upgrades. Follow the instructions precisely. If you have any difficulties, please call *OCLC (UK) Ltd* on 1300 260 795 immediately.

If you have any questions please log a support call on TOPdesk at <a href="https://oclc.topdesk.net/tas/public/login/form">https://oclc.topdesk.net/tas/public/login/form</a>. If you do not know your TOPdesk login please email <a href="support-anz@oclc.org">support-anz@oclc.org</a> and we will send it to you.

# Serial Numbers Required for Installation of Amlib Modules

The *Amlib Client 6.3* installation requires a serial key. If you did not receive a serial key for the modules that your library has purchased you should contact Amlib Support via TOPdesk before commencing the installation.

# AMLIB SUPPORTED OPERATING SYSTEMS & SYSTEM REQUIREMENTS

# **Database Server**

Operating System	<ul> <li>Windows Server 2003–2008, 2008 R2, 2012, 2012 R2, 2014</li> <li>Linux (and Unix)</li> </ul>
RDBMS	<ul> <li>Microsoft SQL Server 2008, 2008 R2, 2012 R2</li> <li>Oracle 10g, 11gR2</li> </ul>
Memory (RAM)	<ul> <li>Depends on operating system, volume &amp; RDBMS selected</li> <li>Minimum 2GB RAM for SQL Server but recommended 3+GB</li> <li>Minimum 2GB RAM for Oracle but recommended 3+GB</li> </ul>
Backup	Removable backup device (for example: USB External HDD)

# PC Client (for Client Server Modules including Offline)

Operating System	Windows XP, Vista, Windows 7, Windows 8, Windows 10
Memory (RAM)	<ul> <li>Minimum 2GB for Windows Vista</li> <li>Minimum 2GB for Windows 7</li> <li>Minimum 2GB for Windows 8</li> </ul>
	<ul> <li>Minimum 3GB for Windows 10</li> </ul>
Display	• SVGA (800x600) minimum
Web Browser	<ul> <li>Internet Explorer 9 and above (will also work with other JAVA enabled browsers)</li> </ul>

• Important Note: the above requirements are provided as a general guideline only

# SECTION 1: MICROSOFT SQL SERVER INSTALLATION

# Step 1: SQL Server 2012 Setup

- Download the Express (R2) version of SQL Server 2012: **SQLEXPRWT\_x86\_ENU.exe** (32-bit server) or **SQLEXPRWT\_x64\_ENU.exe** (64-bit) from the *Microsoft Download Center*:
- <a href="http://www.microsoft.com/en-us/download/details.aspx?id=29062">http://www.microsoft.com/en-us/download/details.aspx?id=29062</a>
- 1. Double-Select on the application to launch the installer:

SQL Server Installation Center	
Planning Installation Maintenance Tools Resources Options	New SQL Server stand-alone installation or add features to an existing installation           Launch a wizard to install SQL Server 2012 in a non-clustered environment or to add features to an existing SQL Server 2012 instance.           Image: SQL Server 2012 in SQL Server 2005, SQL Server 2012, Server 2008, R2           Image: SQL Server 2008, R2           SQL Server 2008, R2           Launch a wizard to upgrade SQL Server 2012, SQL Server 2012, SQL Server 2014, Server 2015, SQL Server 2014, Ser
SQL Server 2012	

2. Select the **New installation** or **add new features to an existing installation** link – the **License Terms** screen will display:

📸 SQL Server 2012 Setup	
License Terms To install SQL Server 2012, y	ou must accept the Microsoft Software License Terms.
License Terms Product Updates Install Setup Files	MICROSOFT SOFTWARE LICENSE TERMS         MICROSOFT SQL SERVER 2012 EXPRESS         These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Flease read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft         • updates,         • supplements,         • Internet-based services, and         • sunnort services         If accept the license terms.         Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components.         See the Microsoft SQL Server 2012 Privacy Statement for more information,
	< Back Next > Cancel

3. Once completed – the Feature Selection screen will display:



4. Select the **Next** button – the **Instance Configuration** screen will display:

🐮 SQL Server 2012 Setup					
Instance Configuration Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.					
Setup Support Rules Feature Selection Installation Rules	<ul> <li><u>D</u>efault instance</li> <li><u>Na</u>med instance:</li> </ul>	SQLEXPRESS			
Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Comolete	Instance ID: Instance goot directory SQL Server directory: Installed instances:	SQLEXPRESS C:\Program Files\N C:\Program Files\M	ficrosoft SQL Server\ icrosoft SQL Server\M	SSQL11.SQLEXPRESS	
	Instance Name	Instance ID	Features	Edition	Version
	SOLEXPRESS	MSSOL10 50.SOLE	SOLEngine.SOLEn	Express with Advan	10.52.4000.0
	<shared compone<="" th=""><th></th><th>SSMS</th><th></th><th>10.52.4000.0</th></shared>		SSMS		10.52.4000.0
			< <u>B</u> ack <u>N</u> ex	t > Cancel	Help

5. Type in a Named instance or leave as default: SQLEXPRESS and Select the Next button

6. The Server Configuration screen will display:

SQL Server 2012 Setup					1
Server Configuration	d collation configuration.				
Setup Support Rules Feature Selection Installation Rules	Service Accounts Collation	use a separate account for each	SQL Server serv	ice.	
Instance Configuration	Service	Account Name	Password	Startup Type	2
Disk Space Requirements	SQL Server Database Engine	NT Service\MSSQL\$SQL		Automatic	-
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCAL		Automatic	-
Installation Progress Complete					
		< Back Next	> Can	cel He	lp

7. Select the Next button – the Database Engine Configuration screen will display:

SQL Server 2012 Setup		
Database Engine Confi Specify Database Engine authe	iguration ntication security mode, administrators and data directories.	
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration         Data Directories         User Instances         FILESTREAM           Specify the authentication mode and administrators for the Database Engine.         Authentication Mode         Image: Configuration of the Database Engine.           Authentication Mode         Image: Configuration of the Database Engine.         Image: Configuration of the Database Engine.           Image: Configuration of the CQL Server authentication and Windows authentication         Image: Configuration of the CQL Server system administrator (sa) account.           Enter password:         Image: Confirm password:         Image: Confirm password:           Specify SQL Server administrators         Image: Confirm password:         Image: Confirm password:	
	Add Current User Add Remove	er administrators estricted access tabase Engine.
	< Back Next > Cancel	Help

- 8. **IMPORTANT:** Ensure that the **Mixed Mode (SQL Server authentication and Windows authentication)** radio button is selected
- 9. Enter password and Confirm password for example: Adm1n1strator/Adm1n1strator (Please ensure that you keep a record of this)
- 10. Select the **Next** button

11. The Error Reporting screen will display:



12. Select the **Next** button – the SQL server will begin installing:

🃸 SQL Server 2012 Setup		- 0	23
Installation Progress			
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Install_VSShell_Cpu32_Action : InstallFiles. Copying new files		
	Next > Cancel	Help	

13. Once completed, the following **Complete** screen will display:

🃸 SQL Server 2012 Setup			
Complete Your SQL Server 2012 installa	ion completed successfully with product upo	lates.	
Setup Support Rules	Information about the Setup operation o	r possible next steps:	
reature selection	Feature	Status	
Installation Kules	Management Tools - Basic	Succeeded	
Instance Configuration	Oatabase Engine Services	Succeeded	
Disk Space Requirements	SQL Server Replication	Succeeded	
Server Configuration	SQL Browser	Succeeded	
Database Engine Configuration	SQL Writer	Succeeded	
Error Reporting	SOL Client Connectivity	Succeeded	
Installation Configuration Rules			
Installation Progress	Details:		
Complete	Viewing Product Documentation f	or SQL Server	
	Only the components that you use to view and manage the documentation for SQL Server have been installed. By default, the Help Viewer component uses the online library. After installing SQL Server, you can use the Help Library Manager component to download documentation to your local computer. For more information, see Use <u>Microsoft Books Online for SQL Server</u> <u>chttp://go.microsoft.com/Wink/2/LinkID=2246832</u> (http://go.microsoft.com/Wink/2/LinkID= <u>2246873</u> Summary log file has been saved to the following location: <u>CAProgram Files/Microsoft SQL Server110/Setup Bootstrap\Log\20141215 110038</u> <u>Summary MASONTME 20141215 110038.tt</u>		
		Close Help	

#### 14. Select on the Close button

The installation of the SQL Server 2012 is now complete.

# Step 2: Create/Restore the Live Amlib Databases

In nearly all instances, a previously configured set of databases will be installed in the *MSSQL* environment. This will either be a set of databases provided by *OCLC (UK) Amlib* following a site conversion, or a set of databases previously backed up on another server (server migrations only).

## **Restore Live Databases**

For ease of loading, the databases to be loaded should be copied into the C:\Program Files\Microsoft SQL Server\MSSQL10\_50.SQLEXPRESS\MSSQL\Backup folder on the new server. However, this is not essential.

- 1. Launch the SQL Server Management Studio
- 2. Right-Select on the Databases and select **Restore Database...** the **Restore Database** screen will display
- 3. Type in the name of the database you want to add/restore. Start with AMCAT

🧃 Restore Database - AMCAT	
Select a page	Script - 🕞 Hel
Options	Destination for restore
	To a pointer time: Most recent possible
	Course for motion
	Source for restore
	Specify the source and location of backup sets to restore.
	◎ From database:
	From device:
	Select the backup sets to restore:
	Restore Name Component Type Server Database Position First LSN Last LS
Connection	
Server: TARDIS\SQLEXPRESS	
Connection: TARDIS\prenticj	
View connection properties	
Progress	
Ready	
-94B8-	۲

- 4. Select the **From device:** radio button
- 5. Select the ... (Select Devices) button the Specify Backup screen will display
- 6. Select the Add button the Locate Backup File screen will display

📼 Specify Backup		<b>—</b> ×
Specify the backup media and its	location for your restore operation.	
Paoloun modia:	[Fib	
Backup Ineuta.	riie 🔹	
backup jocation.		Add
		Remove
		Contents
	<u>Q</u> K Cancel	Help

7. Select the corresponding AMCAT.BAK file

# Amlib Client 6.3 Installation Guide

Uccate Backup File - TARDIS	\SQLEXPRESS
Select the file:	
Install Shield Install	lation Information
tining of the second s	E
Wicrosoft Office     Wicrosoft SDKs     Wicrosoft Silverligh     Wicrosoft Silverligh     Wicrosoft SQL Ser	nt ver
⊕ 100     ⊕ 100     ⊕ 100     ⊕ 100     ⊕ 100     ⊕ 100     90     ⊕ 100     ⊕ 1	I.SQLEXPRESS
Backu 	up MCATbak MLIBbak MLOCALbak MTATSbak
AI	MWEB.bak MCAT bak
Selected path:	C:\Program Files\Microsoft SQL Server\MSSQL
Files of type:	Backup Files(*.bak;*.tm)
File <u>n</u> ame:	AMCAT.bak
	OK Cancel

8. Select the **OK** button to return to the **Specify Backup** screen:

📼 Specify Backup		<b>×</b>
Specify the backup media and its loc	ation for your restore operation.	
Paalum madia:		
Dackup media.	riie 🔹	
Backup location:		
C:\Program Files\Microsoft SQL Serv	er\MSSQL10_50.SQLEXPRESS\MSSQL\	Add
	l	<u>R</u> emove
		Contents
<	4	
	OK Cancel	Help
		H.

9. Select the **OK** button to return to the **Restore Database** screen:

间 Restore Database - AMCAT					
Select a page	🛒 Script 🔹	🚹 Help			
Options	Destination fo	r restore			
	Select or t	ype the name of a new or e	isting database for ye	our restor	e operation.
	T <u>o</u> databa	se:	AMCAT		•
	<u>T</u> o a point	in time:	Most recent possible	в	
	Source for res	tore			
	Specify the	e source and location of bac	kup sets to restore.		
	🔘 From da	atabase:			•
	From dependence	evice:	C:\Program Files\M	icrosoft S	QL Server\MSSQL10_5
	Select the	backup sets to restore:			
	Restore	Name	Component	Туре	Server D
Connection		AMCAT-Full Database Ba	ckup Database	Full	TARDIS\SQLEXPRESS #
Server: TARDIS\SQLEXPRESS					
Connection: TARDIS\prenticj					
Wew connection properties					
Progress					
Ready					
	•				4
				_	

- 10. Tick the **Restore** box for the selected database
- 11. If you are **not overwriting** an **existing database**, go to **Step 14**. In the left side-bar, select the **Options** page

Restore Database AMCAT			
Restore Database - AMCAT			
Select a page	🔄 Script 🔻 🚺 Help		
Cotions			
	Restore options		
	Consulta the solution data		,
	Overwrite the existing data	Wase (WITH REFLACE,	) DUCATION
	Preserve the replication se	aungs (WITH REEF_RE	PEICATION)
	Prompt percent attening ca	en backup	COTRICTED LICER)
	He wict access to the rest	ored database (VVITH R	IESTRICTED_USER)
	Restore the database files as:		
	Original File Name	File Type	Restore As
	AMCAT_Data	Rows Data	C:\Program Files\Microsoft SQL
	AMCAT_Log	Log	C:\Program Files\Microsoft SQL
	Recovery state		
	<ul> <li>Leave the database ready transaction logs cannot be</li> </ul>	to use by rolling back u restored.(RESTORE W	ncommitted transactions. Additional /ITH RECOVERY)
Connection	Leave the database non-order	perational, and do not re	oll back uncommitted transactions. Additional
Server: TARDIS\SQLEXPRESS	<ul> <li>transaction logs can be re-</li> </ul>	d ophymode, Llade unor	
Connection:	<ul> <li>actions in a standby file so</li> </ul>	that recovery effects ca	an be reversed.(RESTORE WITH
TARDIS\prenticj	STANDBY)		
View connection properties	Standby file:		
Progress			
Ready	The Full-Text Upgrade I imported, rebuilt, or rese	Option server property co t.	ontrols whether full-text indexes are
			OK Cancel

- 12. Restore options:
  - Select Overwrite the existing database (WITH REPLACE)
- 13. <u>Recovery state</u>:
  - Select Leave the database ready to use by rolling back uncommitted transactions. Additional transaction logs cannot be restored (RESTORE WITH RECOVERY)

- 14. Select the OK button the database will be restored
- 15. The following message will appear when complete: **The restore of the database XXXX completed successfully.**



Repeat steps 2-15 for all the AM database

# Step 3: Setup User Security

Once all the databases have been created, you will need to set up the user security logins.

#### Clear User Schema

It may be necessary to clear the old user schema first.

- 1. Select the New Query button this will open up a new SQL Query screen
- 2. Type (or copy) in the following:

use AMCAT drop schema SYSADM drop user SYSADM

use AMLIB drop schema SYSADM drop user SYSADM

use AMLOCAL drop schema SYSADM drop user SYSADM

use AMSTATS drop schema SYSADM drop user SYSADM

use AMWEB drop schema SYSADM drop user SYSADM

⁄0	learUserSchema.sql - TARDIS\ (53)) Object Explorer Details
	use AMCAT
	drop schema SYSADM
	drop user SYSADM
	use AMLIB
	drop schema SYSADM
	drop user SYSADM
	use AMLOCAL
	drop schema SYSADM
	drop user SYSADM
	USE AMSTATS
	drop schema SYSADM
	drop user SYSADM
	use AMWEB
	drop schema SYSADM
	drop user SYSADM

- 3. Select the **! Execute** button **!** Execute
- 4. Repeat, replacing SYSADM with NETOPACS

#### Map User Schema

1. In the sidebar, expand the **Security** folder, right-Select on **Logins** folder and select **New Login...** 



2. The Login – New screen will display:

Login - New				
Select a page	P Carte of B Units			
General Server Roles Server Roles Server Roles Securables Status	Login name: O Windows authentication @ SQL Sectionativentication Password:	SYSADM		Sgarch
	Continue servord: Specify old password Old password:	•••••		
	Enforce password policy Enforce password expira Enforce password expira User must change password Managed to certificate	tion vord at next login		
	<ul> <li>Mapped to certaincare</li> <li>Mapped to asymmetric key</li> </ul>			- -
Connection	Map to Credential			▼ <u>A</u> dd
Server: TARDIS\SQLEXPRESS Connection:	Mapped Credentials	Credential	Provider	
TARDIS\prenticj				
Progress				Remove
C Ready	Default <u>d</u> atabase: Default lan <u>g</u> uage:	master <default></default>		•
			ОК	Cancel

- 3. On the <u>General</u> page (select from sidebar):
  - a. Select the SQL Server authentication radio button
  - b. Enter the following details:
    - i. Login name: SYSADM
    - ii. Password: SYSADM
    - iii. Confirm password: SYSADM
  - c. Deselect the **Enforce password policy** tick box
- 4. On the <u>User Mapping page</u> (select from sidebar):

Select a page	C Soriot - C Help		
🚰 General	The series of th		
Server Roles			
User Mapping	Users mapped to this login:		
Securables	Map Database	User	Default Schema
Status	AMCAT	SYSADM	
	AMLIB	SYSADM	
	AMLOCAL	SYSADM	
	AMSTATS	SYSADM	
	AMWEB	SYSADM	
	master		
	model		
	msdb		
	Guest account enabled for:	AMWEB	
Connection	Guest account enabled for:	AMWEB AMWEB	
Connection Server:	Guest account enabled for: Database role membership for: db_accessadmin db_accessadmin	AMWEB AMWEB	
Connection Server: TARDIS\SQLEXPRESS	Guest account enabled for: Database role membership for: db_accessadmin db_backupoperator db_dareader	AMWEB AMWEB	
Connection Server: TARDIS\SQLEXPRESS Connection:	Guest account enabled for: Database role membership for: db_backupoperator db_backupoperator db_datareader db_datawatter	AMWEB AMWEB	
Connection Server: TARDIS/SQLEXPRESS Connection: TARDIS/prenticj	Guest account enabled for: Database role membership for: db_backupoperator db_backupoperator db_datareader db_datawnter db_datawnter	AMWEB AMWEB	
Connection Server: TARDIS\SQLEXPRESS Connection: TARDIS\pereticj 32 Vew connection properties	Guest account enabled for: Database role membership for: d.b_accessadmin d.b_backupoperator d.b_datareader d.b_datamin d.b_datamin d.b_datamin	AMWEB AMWEB	
Connection Server: TARDIS-SQLEXPRESS Connection: TARDIS-'prenticj Wew.connection.properties	Guest account enabled for: Database role membership for: db_bcccessadmin db_bdaxeoder db_ddaxneof db_d	AMWEB	
Connection Server: TARDIS/SQLEXPRESS Connection: TARDIS/prentici j_New connection properties Transport	Guest accourt enabled for: Database gile menbethip for: d.b. backupoperator d.b. datamader d.b. datamin d.b. datamin d.b. det	AMWEB	
Connection Server: TARDIS/SQLEXPRESS Connection: TARDIS/sventing I dev connection properties Progress	Guest account enabled for Database (pie membership for: db. jaccessadmin db. jackuppentor db. jdatevader db. jdateviter db. jdateviter db. jdateviter db. jdateviter db. jdateviter db. jdateviter db. jdateviter db. jdenydateviter db. jecutlyadmin db. jecutlyadmin db. jecutlyadmin	AMWEB	
Connection Server: TARDISVOLEXPRESS Connection: TARDISVerenticj Wew connection properties Progress Ready	Guest account enabled for: Database role membership for: db backuppentor db ddatwader db ddatwater db ddatwater db ddatwater db ddatwater db ddatwater db denydatwater db denydatwater	AMWEB	
Connection Server: TARDIS/SQLEXPRESS Connection: TARDIS/serriticj Wew connection properties Wew connection properties Wey Connection properties	Guest account enabled for Database role membership for: d.b. accessadmin db. backupoperator db. dataveader db. dataveater db. dataviter db. dataviter db. denydataviter db. denydataviter db. secutiyadmin Q public	AMWEB AMWEB	
Connection Server: TARDIS VOLEXPRESS Correction: TARDIS/prenticj Progress Progress Ready	Guest account enabled for: Database role membership for: db_bcccessadmin db_bdkuxopenator db_ddawter db_ddawter db_ddawter db_ddawter db_ddawter db_denydatersder db_denydatersder db_geruptater	AMWEB	

- 5. In the Map column tick the AMCAT database option
- 6. Then tick the **db\_owner** option in the lower screen
- 7. Repeat steps 5 and 6 for the AMLIB, AMLOCAL, AMSTATS and AMWEB (where installed) databases
- Select the OK button to exit out of this screen Repeat steps 1 8 to add in the NETOPACS (where the NetOpacs are installed) login
- 9. When you are done, your logins will show under Security > Logins
- 10. These logins should also display under each database > Security > Users

Go to Section 3: Amlib Client Installation

# SECTION 2: ORACLE RDBMS

# Step 1: Oracle Configuration Required Before Amlib Installation

Since the installation and configuration of the *Oracle* RDBMS is a complex process *OCLC (UK)* requires that the customer have their *Oracle* Data Base Administrator (DBA) to initially setup the required *Amlib* instances (or databases), rollback, tablespaces, backup and ongoing maintenance.

They are:

#### Create Two (2) Oracle Instances: AMLIB (Live database) and TELIB (Test database)

For libraries using *Microsoft SQL Server* RDBMS *OCLC (UK)* normally recommends create five (5) separate databases for the **Live** database (**AMCAT**, **AMLIB**, **AMLOCAL**, **AMSTATS** and **AMWEB**), but many *Oracle* sites choose to create a single database (instance) only since having five (5) databases creates higher overheads in *Oracle*. This decision will depend on the customer requirements (for example: for a Mobile library for replication of the **AMLIB** tables only).

• Refer to the section "Create Amlib Live and Test Instances for Oracle" for additional information

#### Create Initial Database, Tablespace and Sufficient Rollback Space

Require for both **AMLIB** (Live) and **TELIB** (**Test**) environment. For the **TELIB** instance a tablespace of 500 Mb will be sufficient. Sizing of the **AMLIB** instance will depend on the customer volume, and available disk space on the server.

Suitable sizing may be: Customer with 100,000 bibliographic records 8 to 10 Gb AMLIB\_DB tablespace, 1 Gb rollback space. Customer with 200,000 bibliographic records 15 to 20 Gb AMLIB\_DB tablespace, 2 Gb rollback space.

 Refer to the section "Create Amlib Live and Test Instances for Oracle" for additional information

#### Install Oracle Client (SQL\*Net or Net8) on each PC

The Oracle Client (also known as SQL\*Net or Net8) needs to be installed an EACH PC workstation that will be using the Amlib Library Management System, as well as the web server running the Amlib NetOpacs software. Oracle SQL\*Net is the Oracle client "driver" for Windows Client Server applications to seamlessly connect to an Oracle database. Oracle SQL\*Net should be setup with two database "aliases" (if only using 2 Oracle instances) – these are AMLIB (which should reference the AMLIB instance on the Oracle database server) and TELIB (which should reference the TELIB instance on the Oracle database server)

If a customer does not have an *Oracle* DBA available to install, configure and maintain their *Oracle* RDBMS *Amlib* we will be able to provide details of a suitable *Oracle* DBA contractor.

Otherwise we recommend that the customer select the *Microsoft SQL Server* RDBMS.

Task required after installation and conversion to Amlib:

Setup Backup Facilities for Oracle and Database server

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Libraries should identify whether to use *Oracle* "Hot" backups (online backups for 24-hour database access) or *Oracle* "Cold" backups (where the database is shut down before being copied to tape). The type of backup used with also impact on the *Oracle* database setup (for example: allowing for archive log space for online backups).

# Step 2: Oracle Character Set

Oracle recommends Unicode AL32UTF8 as the database character set for 11g. Please advise *OCLC* (*UK*) of the *Oracle* character set configured on your server prior to the commencement of the data conversion process.

# Step 3: Create Initial Database, Tablespace and Sufficient Rollback Space

When configuring the **AMLIB** and **TELIB** instances within *Oracle* we recommend the following settings:

#### AMLIB Instance

Recommend creating a separate tablespace **AMLIB\_DB** to hold the *Amlib* tables.

Sizing of the **AMLIB\_DB** tablespace will depend on the customer volume, and available disk space on the server.

Suitable sizing may be:

- Customer with 100,000 bibliographic records 8 to 10 Gb AMLIB\_DB tablespace, 1 Gb rollback space.
- Customer with 200,000 bibliographic records 15 to 20 Gb AMLIB\_DB tablespace, 2 Gb rollback space

During the *Amlib* data load the tablespace **AMLIB\_DB** is assigned as the default tablespace for the *Amlib* tables. Your *Oracle* DBA should ensure that the tablespace of **AMLIB\_DB** and the temporary tablespace (for example: **TEMP**) should be assigned **as a default** to all users created by library system administrators within *Amlib*.

#### **TELIB** Instance

Recommend creating a separate tablespace **AMLIB\_DB** to hold test Amlib tables.

For the **TELIB** instance a size of 500 Mb will be sufficient for the **AMLIB\_DB** tablespace.

During the **TELIB** data load the tablespace **AMLIB\_DB** is assigned as the default tablespace for the **Test** *Amlib* tables.

**IMPORTANT:** However, in many cases the library wish to have the initial trial conversion loaded into the **Test** database. In this case, we would recommend creating an **AMLIB\_DB** tablespace of 3 Gb with 200 to 400 Mb Rollback space.

#### **Other Performance Suggestions**

To maximise performance OCLC (UK) also suggest:

- Locating *Oracle* database and log files across multiple hard disks as possible (not required if the server is configured for RAID 5)
- Setting the AMLIB\_DB tablespace and Rollback logs set to automatically extend in size
- At some stage in the future export the entire **AMLIB** database and recreate/reload to have *Oracle* recalculate and optimise table extents used

# Step 4: Install Oracle Client and Configure Configuration Assistant

The Oracle Client needs to be installed an EACH PC workstation that will be using the Amlib Library Management System, as well as the web server running the Amlib NetOpacs software.

After installing the *Oracle Client*, needs to be configured with the *Amlib* **Live** and **Test** databases and the address of the *Oracle* database server.

The following is a brief example for configuring the *Oracle Net Configuration Assistant Client* for *Oracle Version 11g*.

1. Select the **Oracle Configuration Assistant** icon from the *Oracle* program group – the *Net 8 Configuration Assistant* will launch:

Oracle Net Configuration Assistan	t: Welcome	23
	Welcome to the Oracle Net Configuration Assistant. This tool will take you through the common configuration steps, listed below. Choose the configuration you would like to do: Listener configuration Naming Methods configuration Local Net Service Name configuration Directory Usage Configuration	
Cancel Help	S Back Next >	

2. Select Local Net Service Name configuration and Select the Next button

Oracle Net Configuration Ass	istant: Net Service Name Configuration
	To access an Oracle database, or other service, across the network you use a net service name. The Oracle Net Configuration Assistant allows you to work with net service names resolved using local naming. Select what you want to do:
Cancel Help	) <u>G Back</u> Next »

# 3. Select Add and Select the Next button

Oracle Net Configuration Assis	stant: Net Service Name Configuration, Service Name	23
	Each Oracle database or service has a service name. An Oracle database's service name is normally its global database name. Enter the service name of the database or other service you want to access.	
	Service Name: AMLIB	
Cancel Help	(	

4. Enter a Service Name AMLIB and Select the Next button

Please Note: When setting up the Test database service name enter a service name of TELIB

Oracle Net Configuration Assis	stant: Net Service Name Configuration, Select Protocols
	To communicate with the database across a network, a network protocol is used. Select the protocol used for the database you want to access. TCP TCPS IPC NMP
Cancel Help	G Back Next >

5. Select **TCP** for communication and Select the **Next** button

Oracle Net Configuration Assis	tant: Net Service Name Config	uration, TCP/IP Protocol
	To communicate with the da database computer's host n for the computer where the d	atabase using the TCP/IP protocol, the name is required. Enter the host name database is located.
	Host name:	127.0.0.1
CA-	A TCP/IP port number is als standard port number shoul	o required. In most cases the Id be used.
	Use the standard port nur	mber of 1521
	O Use another port number	: [1521
Cancel Help	(4	Back Next >

6. Enter the TCP/IP<u>Host Name</u> address of the *Oracle* database server and Select the **Next** button

(Leave the standard port number as 1521 unless your Oracle port number is different)

Oracle Net Configuration Assis	tant: Net Service Name Configuration, Test
	You can verify that an Oracle database can be reached, using the information provided, by performing a connection test. Would you like to test that a connection can be made to the database? No, do not test @ Yes, perform a test
Cancel Help	🔇 Back Next >>

- 7. To test that the *Oracle Client* is setup correctly select **Yes, perform a test** and Select the **Next** button
- 8. If test is successful a confirmation message will be displayed: Connecting...Test successful
- 9. Select the Next button to Finish

\* Repeat the above configuration process to create a Service Name (or Alias) for the *Amlib* **Test** database EXCEPT using **TELIB** as the service name

# Step 5: Run SQL\*Plus To Assign Default Tablespace & Create Amlib Logins

Once the *Amlib* instances and tablespaces have been created in *Oracle*, you have to run an "initialisation" SQL script using the *Oracle Sql\*plus* program (or use the *Amlib* **SQLTalk.exe** utility).

The SQL script provides a number of functions:

- a. Ensures that the *Oracle Client* (*SQL\*Net / Net8*) is correctly configured and that *Amlib* will be able to communicate to the *Oracle* database
- b. Create *Amlib* System Administrator login **SYSADM** which is also the "owner" of all *Amlib* tables loaded
- c. Create *NetOpacs* login **NETOPACS** which also is the owner of any temporary *NetOpacs* created from searches
- d. Assign the tablespace AMLIB\_DB as the default tablespace to SYSADM and NETOPACS
- e. Create Initial *Amlib* Logins for libraries (libraries can then create all required staff logins/passwords using the *Amlib Supervisor* module)

The SQL script makes the following assumptions:

- That the Oracle SYSTEM dba login has a password of MANAGER
- That a tablespace called AMLIB\_DB has been created for the AMLIB and TELIB instances

You will need to alter the SQL script if the above assumptions are not applicable for your *Oracle* configuration

- SQL Script File Name: OracleCreateAmlibLogins.sql
- Location: C:\Amlib\Utility\Version 5.1 Database

The contents of the script include:

```
CONNECT AMLIB SYSTEM/MANAGER;
GRANT CONNECT TO SYSADM IDENTIFIED BY SYSADM;
GRANT DBA TO SYSADM IDENTIFIED BY SYSADM;
GRANT CONNECT TO NETOPACS IDENTIFIED BY NETOPACS;
GRANT DBA TO NETOPACS;
alter user sysadm identified by sysadm default tablespace amlib db;
alter user netopacs identified by netopacs default tablespace
amlib db;
CONNECT TELIB SYSTEM/MANAGER;
GRANT CONNECT TO SYSADM IDENTIFIED BY SYSADM;
GRANT DBA TO SYSADM IDENTIFIED BY SYSADM;
GRANT CONNECT TO NETOPACS IDENTIFIED BY NETOPACS;
GRANT DBA TO NETOPACS;
alter user sysadm identified by sysadm default tablespace amlib db;
alter user netopacs identified by netopacs default tablespace
amlib db;
```

## Step 6: Load Amlib Database into Oracle

Once you have created the *Amlib* databases in *Oracle* and installed the *Amlib Client* software, you can load the *Amlib* databases into *Oracle* using the *Amlib Upgrade* program.

# Step 7: Configure SQL.ini Settings

1. On the *Amlib* application server, navigate to your **Amlib** folder and open up the **SQL.ini** file in *Notepad*:

♥ → My Computer → OS (C:)	▶ Am	lib 🕨	▼ ∮ງ Search Amlib		× م
Organize 🔻 🎒 Open 👻 Print	Burn	New folder		····	0
÷ Favorites	-	Name	Date modified	Туре	Siz 🔺
Desktop	-	📄 snumi41.dll	4/08/2005 5:30 AM	DLL File	
Downloads	=	SPINELBL.DOC	29/06/1998 10:56	Microsoft Office	
Recent Places		😥 SQL.ini	17/10/2011 9:28 AM	Configuration sett	
_		📄 sqlbapw.dll	4/08/2005 4:24 AM	DLL File	

- 2. Under the heading [win32client.dll] ensure that the correct database connector is being used:
  - Oracle: comdll=sqlora32
- If Oracle was selected (commdll=sqlora32) was selected in the [win32client.dll] section then this section is used to determine the Oracle database alias used within the Oracle SQL\*Net (also known as Net8 Client)

Under the heading [ORAGTWY] enter in the Oracle file path(s) for the Live database(s):

- REMOTEDBNAME=AMLIB,@AMLIB
- REMOTEDBNAME=TELIB,@TELIB
- SUBSTITUTE=SYSSQL.,
- SUBSTITUTE=syssql.,
- longbuffer=900000
- MAPERROR=OFF
- fetchrow=100

The format of this keyword is remotedbname={[database name],@[SQL\*Net database alias]}.

37	
38	[ORAGTWY]
39	7
40	; This section is for Oracle Router. The REMOTEDBNAME maps the application's
41	; database name to the Oracle SQL*Net connect string. The SUBSTITUTE
42	; keyword replaces the first parameter with the second parameter. It is mainly
43	; used to replace the user id in a Catalog Command Query. This's only needed
44	; when you run Quest against Oracle v7, when you run Quest against Oracle6
45	;you must remove or comment this line out.
46	7
47	REMOTEDBNAME=AMLIB, @AMLIB
48	REMOTEDBNAME=TELIB, @TELIB
49	SUBSTITUTE=SYSSQL.,
50	SUBSTITUTE=syssql.,
51	longbuffer=900000
52	MAPERROR=OFF
53	fetchrow=100
54	L

# SECTION 3: AMLIB CLIENT INSTALLATION

# **Default Installation Folders**

To assist with email support, we highly recommend that the default installation folders suggested in the following notes are retained.

For example:

• Amlib Client software: C:\Amlib (or D:\Amlib, E:\Amlib)

# Step 1: Install the Amlib 6.3 Client

**IMPORTANT**: Please ensure that you have **full read/write** access to the **\Amlib** folder on your server (for example: **C:\Amlib**) and that you are logged in with <u>Administrative Privileges</u>.

- The Amlib Client 6.3 installer is available on the OCLC Website, <u>Downloads and Software</u> <u>Updates</u> (contact Amlib support if you require a login to this website)
- 2. Download the Amlib63Setup.exe and save it on your Amlib server
- 3. Double-Select the **Amlib63Setup.exe** to launch the installation Wizard the <u>Setup Amlib</u> <u>Client</u> screen will open displaying the **Welcome** message:



 Select the Next button – the Serial screen will display, prompting you for valid <u>Serial</u> Number:

Serial This product requires a valid Serial Number from OCLC (UK) before installation Please enter the Serial Number supplied by OCLC (UK), then click Next to continue. Serial Serial	🚽 Setup - Amlib Client
Please enter the Serial Number supplied by OCLC (UK), then dick Next to continue. Serial:	Serial This product requires a valid Serial Number from OCLC (UK) before installation can continue.
Serial:	Please enter the Serial Number supplied by OCLC (UK), then click Next to continue. Serial numbers are case-sensitive.
	Serial:
Rade Next > Carcal	••••••
Rade Next > Carcal	
Rady Next S Carcal	
Rade Next > Carcal	
Rade Next Carcal	
Rade Next Carcal	
Rade Next Carcal	
Carcal	
A Bady Next > Cancel	
	< <u>Back</u> <u>Next</u> > Cancel

- 2. Enter the Serial Key supplied by OCLC (UK) Ltd (case sensitive!)
- 3. Select the Next button the Installation Location screen will be displayed:

👸 Setup - Amlib Client	
Select the installation Location Where is the Amlib Client to be installed?	õ
Select the folder where Amlib Client will be installed. To use the o displayed click Next to continue.	default folder
To continue, click Next. If you would like to select a different folder, click	Browse.
C:\Amlib	Browse
At least 1.1 MB of free disk space is required.	
< <u>B</u> ack Next >	Cancel

4. Enter the drive/folder location where you would like to install the *Amlib Client* – we recommend that the *Amlib Client* be installed in **C:\Amlib** (or **D:\Amlib**, etc.)

5. Select the **Next** button – the **Select Components** window will display:

👸 Setup - Amlib Client	
Select Components Which components should be installed?	õ
Select the components you want to install; clear the components you do not install. Click Next when you are ready to continue.	want to
Choose Modules To Install  Amilo Staff User (Full)  Amilo Opac Only	
Current selection requires at least 192.5 MB of disk space.	
< <u>B</u> ack <u>N</u> ext >	Cancel

Choose which component should be installed:

#### a. Amlib Staff User (Full)

- Installs the Amlib Staff Client (catalogue, circulation, etc.)
- Default option

## b. Amlib Opac Only

• Only installs the Amlib Client Server OPAC module (only select this option if you are installing on a Public Access workstation)

6. The **Select Relational Database Management System** will display. Choose either Microsoft SQL Server or Oracle. In this example we will use Microsoft SQL Server.



7. The **Configure the SQL.ini file** screen will display.

(The **SQL.ini** file is a configuration file containing the pathway information which allows the *Amlib Client* (and other components such as the *NetOpacs*) to connect with the *Amlib* databases)

👸 Setup - Amlib Client	
Configure the SQL ini file Enter the details required to configure the sql.ini file	õ
Please enter the database server name	
mysqlserver	
For Microsoft SQL Server the name will be the machine network name.	
Please enter the database server IP address	
Please enter the SQL Server ODBC driver name	
SQL Server	
To accept the defaults click Next	
< <u>B</u> ack <u>N</u> ext >	Cancel

For the full version of SQL server only the server name needs to be entered. If the SQL Server is using the express version the server name will need to take the format SERVERNAME\SQLEXPRESS. This same format will be required for a named instance and take the same format SERVERNAME\INSTANCENAME.

8. The **RDBMS Login to be used with Amlib** screen will display. Most customers can accept the defaults.

This will be the RDBMS Login that *Amlib* will use as a \*HIDDEN\* Amlib Database (DBA) Login to connect the *Client* to the database An encrypted **User** and **Password** can be entered (please contact Amlib support for assistance). This will be stored within the **{windows}\amlib.ini** configuration file

RDBMS Login to be used with An Enter the Database login and pass database (hidden)	nlib word to internally connect to the Amlib
Amlib Database (DBA)	) Login
AmlibNet DBA User	%d\xb;(6Rpv./\$/SWUXB(dV]_K*}NI]R>!kQSBf.
AmlibNet DBA Password	***************************************
Notes:	
1. This will be the RDBMS Connection to the Aml	Login that Amlib will use as a *HIDDEN'* ib database(s)
<ol><li>An encrypted user and the Amlib nopasswd.e:</li></ol>	password can be entered (generated using xe utility)
3. This will be stored with	n the {windows}\amlib.ini configuration file
To accept the default	s click Next
	< Back Next > Cancel

9. The **Select Start Menu Folder** screen will display. To accept the default name (for most customers), Select the **Next** button

👸 Setup - Amlib Client	
Select Start Menu Folder Where should Setup place the program's shortcuts?	õ
Setup will create the program's shortcuts in the following Start i	Menu folder.
To continue, click Next. If you would like to select a different folder, click	Browse.
Amlib Library Management System	Browse
< Back Next >	Cancel

10. The **Select Additional Tasks** screen will display prompt if you wish to install a desktop icon for the *Amlib Client*:



(You can unselect **Install desktop icons for selected Components** if you do not wish to install the *Amlib* icons on the desktop)

- 11. Select the Next button to continue
- 12. The **Ready to Install** screen will display with a summary of the installation tasks to be performed

Setup - Amlib Client			Ξ Σ	3
Ready to Install Setup is now ready to begin installing Amlib Cli	ent on your compute	er.	Ó	
Click Install to continue with the installation, or change any settings.	r click Back if you wa	nt to review o	r	
Destination location: C:\Amlib61			*	
4				
	< Back	nstall	Cancel	

13. Select the Install button – the Installing screen will display:



14. Select Finish and the Setup wizard will close



# **SECTION 4: BACKUPS**

This is relevant to users that are running a Microsoft SQL Server.

In all versions of SQL Server there are two recovery models for databases, Simple and Full. The main difference is how many of the transactions are logged for recovery purposes. If customers are happy to be able to go as far back as their latest complete backup then Simple recovery more will suffice and the log sizes will be managed by SQL Server. If point-in-time recovery is required then Full recovery must be used, in this mode in order for the logs to be cleared they must first be backed up.

For the full version of SQL server please use this guide on maintenance plans found here: https://www.oclc.org/support/services/amlib/documentation/technical-documents.en.html

One of the functionalities that is not included with an Express version of SQL Server is the SQL Server Agent which is used in scheduling and managing maintenance plans. To overcome this issue:

1. Use the Amlib Backup Manager

The Amlib Backup Manager utility installer and guide is available from the Amlib OCLC website. <u>https://www.oclc.org/support/services/amlib/documentation/technical-documents.en.html</u>

If you require your username and password please contact the support helpdesk.

# **SECTION 4: TROUBLESHOOTING TIPS**

The first step in troubleshooting problems that you may be experiencing with *Amlib* (*Client* or *NetOpacs*) connecting to the database is to first check the following:

- Can you connect to the Amlib database using the Amlib Client on the server?
- Can you connect to the Amlib database using the Amlib Client from another workstation?

The next step is to try and isolate the problem and ensure that the problem is not due to the hardware, network or firewall.

# Step 1: Check Communication to Database Server using Microsoft Port Query

Microsoft Port Query is an easy to use tool that enables you to test whether you can connect from a Workstation (or Web Server) to the database server, and whether the RDBMS is listening for connection requests.

- 1. Launch the Microsoft Port Query program which will be located:
  - Amlib Client: c:\amlib\utility\PortQryUI\portqueryui.exe
  - NetOpacs: c:\netopacs\utility\PortQryUI\portqueryui.exe
  - ZServer: c:\zserver\utility\PortQryUI\**portqueryui.exe**

(**Please Note**: Replace **c:\amlib** or **c:\netopacs** with the actual path where the applications have been installed)

nort Query	×
File Help	
Enter destination IP or FQDN to query: tardis	
Query Type	7
C Query predefined service:	
Service to query: SQL Server	
Manually input query ports:	
Ports to query: 1433 Protocol: TCP 💌	
Enter port number and/or port ranges separated by commas. For example: 80,53,1024-1350	
Query Cancel Exit	
Query Result:	
	*
Starting portqry.exe -n tardis -e 1433 -p TCP	
Querying target system called:	
tardis	
Attempting to resolve name to IP address	
Name resolved to 10, 161, 10, 138	
ICP port 1433 (ms-sqi-s service): NOT LISTENING portqry.exe -n tardis -e 1433 -p TCP exits with return code 0x00000001.	
J	Ŧ

- 2. Enter the <u>Destination IP</u> address of database server used when installing *Amlib* (for example: tardis, 127.0.0.1, localhost, etc.)
- 3. Select the Manually input query ports option

- 4. Ports to query:
  - If using Microsoft SQL Server enter: 1433
  - If using Oracle enter 1521 (older versions of Oracle may be using 1525)
  - If using *Gupta SQLBase* enter: **2155**
- 5. <u>Protocol</u>: **TCP**
- 6. Then Select the **Query** button to start the search

#### Query Results

- 1. If the Query result is **LISTENING** (for example: **TCP port 1433 (ms-sql-s service): LISTENING**) then this indicates:
  - The Workstation (or Web Server) can communicate to the database server **OK**
  - You will need to proceed to the next level of *Amlib* troubleshooting to identify the problem you are experiencing
- 2. If the Query result is **NOT LISTENING** (for example: **TCP port 1433 (ms-sql-s service): NOT LISTENING**) then this indicates:
  - The Workstation (or Web Server) is unable to communicate to the RDBMS on the database server

You should refer this problem to your organisation's database or network administrator to follow up.

Possible reasons why it is unable to communicate to the RDBMS on the database server:

- The database server is not running
- The database server is disconnected from the network
- The workstation (or web server) is disconnected from the network
- There is a problem with the network (for example: switch is faulty, DHCP is not running, etc.) or network configuration
- The RDBMS is not running on the database server (check in Windows Services whether the RDBMS (*Microsoft SQL Server, Gupta SQLBase* or *Oracle*) is running
- The enterprise firewall is preventing connectivity via this Port
- The workstation firewall (for example: *Windows XP Service 2* firewall) is preventing connectivity via this Port
- There a problem with hardware (for example: network card in either database server, workstation or web server)

- 3. If the Query result is **FILTERED** (for example: **TCP port 1433 (ms-sql-s service): FILTERED**) then this indicates:
  - the enterprise firewall is preventing connectivity via this Port
  - the workstation/server firewall (for example: *Windows XP Service 2* firewall) is preventing connectivity via this Port

You should refer this problem to your organisation's database or network administrator to follow up.

# Step 2: Next Level of Amlib Troubleshooting

#### Message Unable to connect to database



A message **"Cannot connect to database"** is displayed if the PC is unable to connect via the WAN or if *SQLBase* is not running (or if **SQL.ini** is not correctly configured).

The following steps can be used to track down the problem:

- Review the RDBMS error message displayed on the "cannot connect" screen for example in the above example refers to Error No. 20016...SQL Server does not exist.... is a SQL Server error and should be following up with your database administrator (the error number is not an *Amlib* error number)
- 2. Can the PC connect to the database server?
  - Refer to the previous section: <u>Check Communication to Database Server using</u> <u>Microsoft Port Query</u>
- 3. If step 2) above is OK, then ensure that you DO NOT have any ODBC Data Sources with the same name as the database (for example: make sure there is NOT an ODBC data source called **AMCAT**, **AMLIB**, **AMLOCAL** or **AMSTATS**)
  - In Windows: Go to Control Panel > Administrative Tools > Data Sources (ODBC), and check within the <u>User DSN</u>, <u>System DSN</u> or <u>File DSN</u> tabs

- 4. If step 3) above is **OK**, then identify whether the **SQL.ini** is correctly configured or whether there is a connection error:
  - To test start the **\amlib\upgrade.exe** SQL interface program:
    - a) From the menu, select **File** > **Advanced Login** the <u>Advanced Login</u> prompt will display:

Advanced Login			
Please choose the connection method and the database to connect to, then press DK.			
Connection Method:			
O Windows NT authentication			
This method only works if the client is part of a Windows NT Domain, has been validated as a Windows NT User and is a DBA.			
O Database authentication			
Login name: NETOPACS			
Password:			
Connect To:			
Database: AMLIB			
OK Cancel			

- b) Enter the login of **NETOPACS**, the password (usually **NETOPACS**) and database **AMLIB** and Select the **OK** button
- c) If Upgrade is able to connect OK to the selected database and will return to the main Upgrade screen and display the username and database
- d) For *SQL Server* and *SQLBase* RDBMS repeat the above Advanced Login step for each other database (**AMCAT**, **AMLOCAL** and **AMSTATS**) to see whether the problem is due to being unable to connect to only 1 of the databases

If Upgrade is unable to connect to the selected database then take a detailed copy of the displayed error message (for example: press [**PrtScn**] on your keyboard and paste into a *Word* document) and contact *Amlib Support* for further assistance.

Login Error 🛛 🔀					
8	Cannot Connect to SQLServer An unexpected error has occured connecting to the AMCAT database.				
	Error: 20035 Reason: :4060[Microsoft][ODBC SQL Server Driver][SQL Server]Cannot open database requested in login 'AMCAT'. Login fails.				
	ОК				

It is also suggested that you take a note of the Error number and research with the RDBMS vendor the explanation and resolution for the Error number:

- For Microsoft SQL Server- go to <a href="http://support.microsoft.com">http://support.microsoft.com</a>
- For Oracle go to <a href="http://www.oracle.com/support/index.html">http://www.oracle.com/support/index.html</a>
- For *Gupta SQLBase* On the database server you can use the utility **dberror.exe** located in the **c:\SQLBase** folder to provide more information:

DBERROR	- C:\SQLBASE\ERROR	.SQL			×
(¢	Error Number 2112		Lookup	Close	$\checkmark$
02112 FIL 00	IS Out of disk space				
Reason: Ther	e is not enough disk space	to perform thi	s operation.		
Remedy: Tern	ninate program and remove	files to free u	o disk space.		

Some of the reasons that the **Upgrade.exe** is unable to connect to the selected database:

- The database does not exist within the RDBMS (for example: if an administrator had deleted the **AMLIB** database)
- The administrator had moved the Amlib databases to another server
- The database server has insufficient disk space
- The Amlib SQL.ini configuration file (located in the c:\amlib for the Amlib Client, or c:\netopacs for the NetOpacs module) is not correctly configured – see: <u>Configure</u> <u>SQL.ini Settings</u> for more information
- For libraries using *Oracle* RDBMS the *Oracle Net8* (*SQL\*Net*) Client is not correctly configured (using the *Oracle* TNSPING utility on the Workstation to test)
- For libraries using *Microsoft SQL Server* an old version of the Windows MDAC (ODBC) drivers are installed
- If step 4) above is OK, then perhaps the *Amlib* database connection settings held in \{windows}\amlib.ini are incorrect (these are different to the *DIY* DefaultUser and Login settings)

# Cannot Connect User



When the *Amlib* client is installed on a *Windows 7* machine, an **amlib.ini** file is placed in the **C:\Windows** (in older machines this may be the **C:\Winnt** folder). This file contains the *SQL Server* login details that allow the *Amlib* client to connect to the SQL databases.

C:				
<u>F</u> ile	<u>E</u> dit	<u>S</u> earch <u>V</u> iew Encoding <u>L</u> anguage Se <u>t</u> tings Macro Run Plugins <u>W</u> indow <u>?</u>	Х	
	6	; ♥ ; 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,		
🗎 a	🖶 amlib.ini			
6	6 Ę	[Special]	*	
7	7 B	DatabaseUser=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]_K*}NI]R>!kQSBf. DatabasePw=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]_K*}NI]R>!kQSBf.		

Typically the **[Special]** section of the **amlib.ini** file would contain the following information:

- DatabaseUser=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]\_K\*}NI]R>!kQSBf.
- DatabasePw=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]\_K\*}NI]R>!kQSBf.

These settings are encrypted version of the **SYSADM/SYSADM** login (the default RDBMS login used for connecting the *Amlib* client to the SQL databases) – which are configured during installation:

🔂 Setup - Amlib Client 📃 🗉 💌				
RDBMS Login to be used with Amlib Enter the Database login and password to internally connect to the Amlib database (hidden)				
Amlib Database (DBA) Login         Amlib Net DBA User         Amlib Net DBA Password				
Notes: 1. This will be the RDBMS Login that Amlib will use as a "HIDDEN'*				
Connection to the Amlib database(s) 2. An encrypted user and password can be entered (generated using the Amlib nopasswd.exe utility)				
3. This will be stored within the {windows}\ambda hib.ini configuration file				
To accept the defaults click Next				
< Back Next > Cancel				

Occasionally (due to various permissions issues), the installer is unable to write to the **amlib.ini** file and the **DatabaseUser** and **DatabasePw** settings are left blank:

- DatabaseUser=
- DatabasePw=

If this occurs, the user has several choices:

- 1. If you wish to use the default **SYSADM**/**SYSADM** login, you can copy in paste in the following settings (replacing the blank ones in the file):
  - DatabaseUser=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]\_K\*}NI]R>!kQ SBf.
  - DatabasePw=:+,VJxUaS:ye[GLwQmJdU#V,:Z%E%?%d\xb;(6Rpv./\$/SWUXB(dV]\_K\*}NI]R>!kQSB
     f.
- 2. You can type in the RDBMS login you are using (this login must also have been setup in SQL server against the individual Amlib databases
- 3. You can use the **nopassword.exe** application (**C:\Amlib\nopassword.exe**) to generate an encrypted login and copy this into the *Windows* **amlib.ini** file
  - See: Appendix B: Generate Encrypted RDBMS Password for further information

**Please Note:** The user may need to adjust the folder and/or file permissions to allow the login details to be written into the **amlib.ini** file.

Addendum: Under certain exceptional circumstances, a copy of the **amlib.ini** file may also be found in the Users Virtual Store folder:

• C:\Users\User Name\AppData\Local\VirtualStore\Windows\amlib.ini. This also may need to be adjusted.

# FREQUENTLY ASKED QUESTIONS

#### Question: How much space do I need to have on my server?

• This will vary from library to library, depending on the number of bibliographic records to be held in the database. Generally, libraries should ensure they have at least 5 Gb free space on their database server

# Question: Do I need to have a completed backup of my system before proceeding? (Server Migrations Only)

• Yes. OCLC (UK) Ltd recommends that the library verify that it has an up-to-date backup of its database (for example: from the previous night) before installing any updates. You should also make sure that your tape backup includes a backup of your Amlib client folder (for example: C:\Amlib).

## Question: Do all users need to be logged out of Amlib? (Server Migrations Only)

- Yes. All users should be completely logged out from all Amlib client modules
- Libraries using the *NetOpacs* module should ensure that this program is also shutdown

## Question: Can OCLC (UK) Ltd install Amlib for me?

• Yes. OCLC (UK) Ltd can arrange for the onsite installation for a small fee

## Question: How do I know whether Amlib is loaded from my local PC? (Server Migrations Only)

- Right-Select on the Amlib icon on your desktop and select Properties the Amlib Toolbar <u>Properties</u> window will display
- 2. The <u>Target</u> field will show you where your *Amlib* is installed:
  - a. If it has something like C:\Amlib (or D:\Amlib, E:\Amlib depending on the hard drives in your computer) then it is installed locally



b. If it starts with two back slashes (\\) and then a name or IP address, it is installed on a server

Amlib Toolbar Properties					
Security	Details	Previous Versions			
General	Shortcut	Compatibility			
Amlib Toolbar Target type: Application					
Tarret location: Amlih					
Target: \\amlibserv\Amlib\Amlibtop.exe					

3. If you are having trouble identifying where *Amlib* is installed please contact your IT Department or **Amlib Support** for assistance

# AMLIB RDBMS DATABASE STRUCTURE

# Database Structure for Microsoft SQL Server (MSSQL)

Within any one *Amlib* installation there is the facility to configure up to five (5) separate database areas, which include:

- 1. Circulation Database (LIB suffix):
- 2. Catalogue Database (CAT suffix):
- 3. Parameter Database (LOCAL suffix):
- 4. Statistics Database (STATS suffix):
- 5. Web Database (WEB suffix): Web results

*Amlib* then uses a two-character prefix to designate whether the database is a **Live**, **Test** or other (user-defined) database – for example:

Statistics

- AM (Live database prefix)
- TE (Test database prefix)

Therefore, the databases required for the Live and Test environments using MSSQL would be:

Live Environment Databases

- AMCAT
- AMLIB
- AMLOCAL
- AMSTATS
- AMWEB

Test Environment Databases

Item, borrower and circulation data

System parameters (for example: loan settings)

Catalogue and authority data

- TECAT
- TELIB
- TELOCAL
- TESTATS
- TEWEB

**Please Note:** Many existing *Amlib* customers (installed prior to *version 5.x*) have a database structure that consists of four (4) database areas (**AMCAT**, **AMLIB**, **AMLOCAL** and **AMSTATS**), with the data for the **AMWEB** database contained within the **AMCAT** database.

# Database Setup for Oracle

Most libraries where *Amlib* is running on *Oracle* choose to create only one (1) database area with the five (5) databases that normally comprise the **Live** or **Test** environment consolidated into a single "instance". This is done to reduce the administration and performance overheads by reducing the number of "instances" from 10 (5 for **Live** and 5 for **Test**) to just 2.

So the standard Live and Test database "instances" created for Oracle are:

Live Environment Instance

Test Environment Instance

• AMLIB

# APPENDICES

# Appendix A: Silent Mode Command Line Parameters

The *Amlib Client 6.3* installer features the option to install with silent mode command parameters - ideal if you wish to automatically distribute to *Amlib* staff workstations as part of a login script.

For example:

• Amlib6.3Setup.exe /VERYSILENT /SUPPRESSMSGBOXES /NOCANCEL /DIR="C:\Amlib"

(Installs the Amlib Client 6.3 silently to the C:\Amlib location on the workstation)

Details of available parameters are:

## /SILENT, /VERYSILENT

Instructs Setup to be silent or very silent. When Setup is silent the wizard and the background window are not displayed but the installation progress window is. When a setup is <u>very silent</u> this installation progress window is not displayed. Everything else is normal, so for example: error messages during installation are displayed unless disabled using **/SUPPRESSMSGBOXES** 

If a restart is necessary and the **/NORESTART** command isn't used (see below) and Setup is silent, it will display a <u>Reboot now?</u> message box. If it's very silent it will reboot without asking.

#### /SUPPRESSMSGBOXES

Instructs Setup to suppress message boxes. Only has an effect when combined with **/SILENT** and **/VERYSILENT**.

The default response in situations where there's a choice is:

- Yes in a Keep newer file? situation
- No in a <u>File exists, confirm overwrite.</u> situation
- **Abort** in <u>Abort/Retry</u> situations
- **Cancel** in <u>Retry/Cancel</u> situations
- Yes (=continue) in a <u>DiskSpaceWarning/DirExists/DirDoesntExist/NoUninstallWarning/ExitSetupMessage/Confirm</u> <u>Uninstall</u> situation
- Yes (=restart) in a <u>FinishedRestartMessage/UninstalledAndNeedsRestart</u> situation

5 message boxes are not suppressible:

- The <u>About Setup</u> message box
- The Exit Setup? message box
- The <u>FileNotInDir2</u> message box displayed when Setup requires a new disk to be inserted and the disk was not found
- Any (error) message box displayed before Setup (or Uninstall) could read the command line parameters
- Any message box displayed by [Code] support function MsgBox.

# /NOCANCEL

Prevents the user from cancelling during the installation process, by disabling the **Cancel** button and ignoring Selects on the **Close** button. Useful along with **/SILENT** or **/VERYSILENT**.

# /NORESTART

Instructs Setup not to reboot even if it's necessary.

#### /RESTARTEXITCODE=exit code

Specifies the custom exit code that Setup is to return when a restart is needed. Useful along with **/NORESTART**. Also see Setup Exit Codes.

## /DIR="X:\dirname"

Overrides the default directory name displayed on the Select Destination Location wizard page. A fully qualified pathname must be specified.

## /PASSWORD=password

Specifies the Password (Serial Key) to use.

When an invalid password is specified, this command line parameter is also ignored.

#### /GROUP="folder name"

Overrides the default folder name displayed on the Select Start Menu Folder wizard page.

#### /NOICONS

Instructs Setup to initially check the **Don't create any icons** check box on the <u>Select Start Menu</u> <u>Folder</u> wizard page.

## /COMPONENTS="comma separated list of component names"

Overrides the default components settings. Using this command line parameter causes Setup to automatically select a custom type.

(You will need to contact *Amlib Support* for a complete list of components that are available to choose from, depending on which installer is being used)

## /TASKS="comma separated list of task names"

Specifies a list of tasks that should be initially selected or deselected. To deselect a task, prefix its name with a "!" character.

Only the specified tasks (and their children) will be selected; the rest will be deselected. Use the **/MERGETASKS** parameter instead if you want to keep the default set of tasks and only select/deselect some of them.

Examples: Deselect all tasks, then select the "**desktopicon**" and "**fileassoc**" tasks:

## /TASKS="desktopicon,fileassoc"

Deselect all tasks, then select a parent task item, but exclude one of its children:

# /TASKS="parent,!parent\child"

# /MERGETASKS="comma separated list of task names"

Like the **/TASKS** parameter, except the specified tasks will be merged with the set of tasks that would have otherwise been selected by default.

If <u>UsePreviousTasks</u> is set to **yes**, the specified tasks will be selected/deselected after any previous tasks are restored.

Examples:

Keep the default set of selected tasks, but additionally select the "desktopicon" and "fileassoc" tasks:

## /MERGETASKS="desktopicon,fileassoc"

Keep the default set of selected tasks, but deselect the "desktopicon" task:

#### /MERGETASKS="!desktopicon"

## /LOG

Causes Setup to create a log file in the user's TEMP directory detailing file installation and [Run] actions taken during the installation process. This can be a helpful debugging aid. For example, if you suspect a file isn't being replaced when you believe it should be (or vice versa), the log file will tell you if the file was really skipped, and why.

The log file is created with a unique name based on the current date. (It will not overwrite or append to existing files.)

The information contained in the log file is technical in nature and therefore not intended to be understandable by end users. Nor is it designed to be machine-parseable; the format of the file is subject to change without notice.

## /LOG="filename"

Same as **/LOG**, except it allows you to specify a fixed path/filename to use for the log file. If a file with the specified name already exists it will be overwritten. If the file cannot be created, Setup will abort with an error message.

## /LOADINF="filename"

Instructs Setup to load the settings from the specified file after having checked the command line. This file can be prepared using the **/SAVEINF=** command as explained below. Don't forget to use quotes if the filename contains spaces.

## /SAVEINF="filename"

Instructs Setup to save installation settings to the specified file. Don't forget to use quotes if the filename contains spaces.

# Appendix B: Generate Encrypted RDBMS Password

The **nopasswd.exe** utility is located in the **C:\Amlib** folder after installation.

1. Double-Select on the **nopasswd.exe** application to open the <u>Encrypt/decrypt</u> screen will display:

🔑 Encrypt /decryp	t	×
Password	DODGER	
Code	@8eT5ZpQ^2c^Le-R+QK:;:<1hkD7/<=9c(w%gat3_	
Enter eithe press tab. the transla	er password or code and If the other field is blank then tion will take place.	

- Type in the <u>Password</u> (for which you would like to generate an encrypted string) for example: **DODGER**
- 3. Press the **<Tab>** key
- 4. The encrypted password will display in the <u>Code</u> box for example:

@8eT5ZpQ^2c^Le-R+QK:|:<1hkD7/<=9c(w%gat3\_9f\m+u>&;Zo[Y`>H.E6qWqZ\*o."q9

5. Copy encrypted password for use