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System Architect Configuration Guide & Test Plan

Installation and Maintenance of the System Architect Tool and License Manager

Change History

This document is a working draft. It is intended that as certain environmental factors change such as the use of the VDC server for all FSA System Architect users, the directory paths indicated may also be subject to change.

The document is also subject to further editing as a result of use and best practices identified according to the specific usage requirements of FSA System Architect administrators.

August 7th, 2002	1st draft. Includes steps to install License Manager, System Architect and offers guidance on distribution of additional custom files necessary for System Architect to satisfy the architecting requirements of FSA.

Popkin Software Contact Information and Resources

Please see Popkin's contact page on the Web at www.popkin.com/customers/

Here you will find the address and phone numbers for Popkin Software as well as links for Technical Support and the Popkin Software Customer Service Center, providing architecture references and System Architect Whitepapers.

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1. Overview

This document is intended for the use of System Architect and Network Administrators within the Office of FSA. Its purpose is to provide a standard, consistent approach to installation and configuration of the System Architect tool and to highlight potential approaches for onward maintenance of both the System Architect application and its repositories.

Options for installation are addressed and a standard approach for configuration of each client, once installed, is also covered. This latter point is important, as there is potential for each user's preferences to impact on other users' views of the shared models.

Typically, the multi-user version of System Architect is installed by a Systems Administrator on each user's local drive and is used to create/edit encyclopedias on a network drive. Installation to each user's local drive may be performed by one of the following methods:

Launch the installation program from each user's CD drive.
Copy the contents of the Installation CD to a network directory and run the install from there.

The multi-user version used at the FSA enables multiple users to work on a repository (encyclopedia) at the same time – to enable this, one copy of License Manager must also be installed and be running at all times to distribute licenses for the multi-user version.

2. SA License Manager

When running in a networked environment System Architect requires that one copy of the License Manager module be installed in addition to the main application.

License Manager is a Windows application that distributes licenses to System Architect users. During installation of License Manager, an **SAMULTI.DAT** file is created in a network directory that serves as the COMMON PATH. The samulti.dat file contains the number of license slots specified by License Manager's Product Key, which is typed in during installation. System Architect queries the license file and runs if a license slot is available.

When a user logs into System Architect, a license is "checked out" of samulti.dat, and License Manager reduces the number of available licenses by one. When a user logs out of System Architect, License Manager reclaims that license and makes it available to other users. It also provides other administrative options, such as querying active users and setting how many minutes of inactivity to allow before a user is "timed out" of a license.

A Network Administrator must install one copy of License Manager to a Windows machine (client or server) connected to the network that will enable License Manager to run at all times. License Manager must run to provide licenses to System Architect users running on client machines.

Although it is optional which gets installed first, it makes logical sense for License Manager to be installed before any copies of System Architect are installed. System Architect, once installed, will not run unless License manager has been installed and is running.

2.1 Installation Requirements

Although License Manager can be installed on any computer connected to the network, it is generally recommended that you use a dedicated workstation. A low-end PC can work well as the License Manager Server. License Manager is a small application. Installed, it only uses

about 1.2 MB, and it can run on any machine that can run Windows 95/98/NT/2000/XP. A client's active workstation is not recommended because if the client shuts down his or her machine, licenses will no longer be available, and other clients will have to exit System Architect.

Other requirements include:

- Minimum 486sx processor with 16 MB of RAM.
- 5 MB of local disk space to run License Manager.
- Windows NT / Windows 95/98/2000.

Network Administrators often ask whether the network traffic produced by License Manager will slow the network down. Since License Manager updates the SAMULTI.DAT file in the network common path only a few times a minute, and System Architect only polls SAMULTI.DAT based on significant events in the application, the network traffic produced by the License Manager service is minimal.

License Manager makes the following networks requirements:

- A common path to which SA clients have full access.
- 2 MB of available disk space in the common path.
- SA clients can map to the common path using a drive letter.

For any computer to operate as the License Manager Server it must be able to run License Manager. As of this writing, the only operating system that can function as a Workstation and a Server at the same time is Windows NT. License Manager can be run as a service when you log into Windows NT as a Workstation. Some System Architect customers run License Manager as a service under Windows NT. Doing so requires getting the Windows NT Resource kit. The kit contains a file named SRVANY.WRI, which provides instructions on setting up an application as a Windows NT service.

Popkin Software Technical Support does not support the use of License Manager as a service. This setup is not fully tested, and it may produce problems that Technical Support cannot help you with. However, after reading SERVANY.WRI, a qualified Windows NT Administrator should be able to configure License Manager as a service. If you use this configuration, the command line in the Parameters key of License Manager should contain an auto entry for the Audit ID. An example of the command line is the following:

```
C:\LICENCSE MANAGER\NETMANAGER.EXE -AUDIT JOEK
```

Note: It is strongly recommended that you run License Manager as a desktop application *before* trying to run it as a service.

2.2 Installation

From local CD on fixed client PC / Server: Insert CD into CD tray and from the Windows desktop expand the CD drive. Click on the LM folder to expose **setup.exe**.

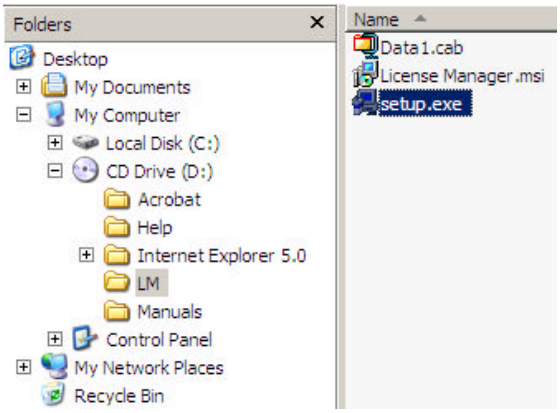

Figure 1 Accessing Licence Manager setup.exe from a CD

From a network directory: Use Windows Explorer to navigate to <network directory path should needs added here if FSA saves the install CD to the network>.

In both cases double-click setup.exe. The Windows InstallShield Wizard will launch.
Click **Next >**, then enter the values shown here. click **Next >** when all fields are complete.

Name:	SANetAdmin
Organization:	FSA
Product Code:	BCKSD7MZ2U7Y8RD7QCHL26LKJMSBER
Install this application for:	Anyone who uses this computer (all users)

Click **Next >** when all fields are complete.

Click the radio button for "I accept the terms in the license agreement and click **Next >**.

You are asked to confirm the installation path for the License Manager application. Typically this might be:

`C:\Program Files\Popkin Software\License Manager\`

You may accept the default path or browse to the location where you want the application files installed. When you are happy with the location that License Manager will be installed to, click **Next >**.

Accept the default selection of a **Complete** install and click **Next >** and **Next>** again to accept the install settings and proceed with installation.

During the installation process you are asked to specify the **Common Path**. This must be a network directory and is used to house the license administrator file, SAMULTI.DAT. An network Common Path should take the form **D:\Popkin\SaCommon88** where `D:\` is the network drive and 88 is the current version of System Architect in use at FSA.

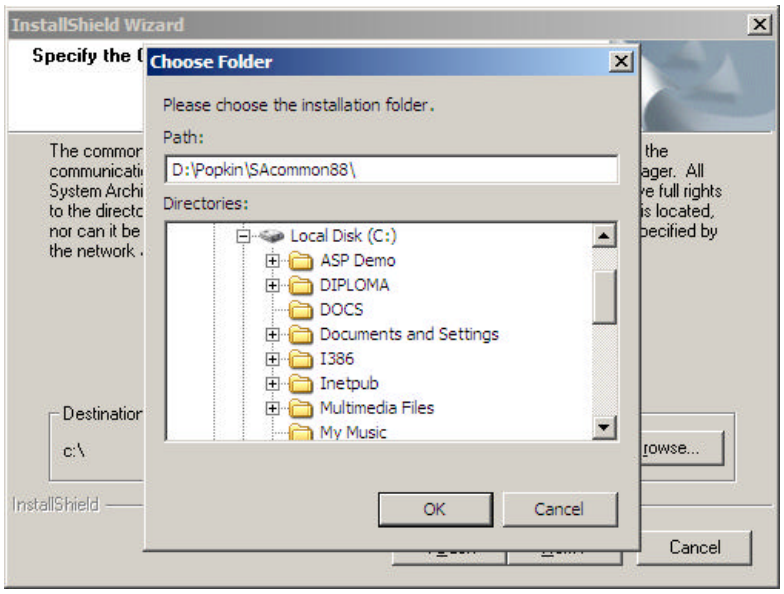

Figure 2 Select a location for the Common Path

All System Architect users will use the Common Path for license information and they MUST have full rights to this directory. The Common Path cannot be a path where the main System Architect application is installed to, and it cannot be the path of any System Architect encyclopedia.

Click **Next >** to complete the installation.

2.3 Running License Manager

License Manager must be running at all times to enable users to launch System Architect. License Manager is launched on the Start menu by selecting Program Files, License Manager, License Manager.

Options under the **Multi-User** menu are:

- **Monitor Sign on/off –** displays user Audit IDs, the license slot number they signed in to, and the date and time they signed in or out.
- **Set Timeout and Max Users –** enables you to set the number of minutes to allow of inactivity before License Manager repossess a license to make available to other users. You can also adjust the number of licenses you make available; you cannot increase the number of licenses beyond those that you purchased.
- **Query Active Users –** displays user Audit IDs and the license slot they are using.
- **Time Check –** provides the date and time of the server where License Manager is running.

Under the Tools menu is Session Options (sa2001.ini), which starts the INI File Editor. The INI File is a configuration file that stores such information as the Common Path.

2.3.1 License Manager Error Messages

This section describes how to resolve some of the more frequent errors encountered by License Manager when it tries to run or is running.

"No common path supplied"
This error occurs when a client's SA2001.INI does not contain the correct value for the M**ultiUserKeyblockCommonPath**. To resolve this problem, edit the SA2001.INI on the client, and add the path to the directory where SAMULTI.DAT resides.

"No access to common path"
This error may appear when:

- The **MultiUserKeyblockCommonPath** value in SA2001.INI is incorrect.
- The **MultiUserKeyblockCommonPath** value in SA2001.INI is specified with an invalid notation.
- User does not have full read and write privileges to the common path, which are required.

Refer to "Installing License Manager" section.

"Sysnet not in common path"
The license file, SAMULTI.DAT is not present in the directory being pointed to by the SA client. This may occur because the folder where License Manager is placing SAMULTI.DAT and the folder where the SA client is looking for SAMULTI.DAT are not the same. Make sure System Architect looks for SAMULTI.DAT where License Manager is placing it, or vice versa.

This message may also appear when License Manager is not updating SAMULTI.DAT. Make sure License Manager is running.

"Can't read multi-user common file hdr"
This message results from a read failure or check-sum error on the SAMULTI.DAT file. It may be caused by network incompatibility or file corruption. Delete SAMULTI.DAT and restart License Manager.

"Can't open the multi-user common file"
This message is displayed when the common path exists and SAMULTI.DAT is present, but the SA client could not open it. This is usually a network problem and should be reported to the Network Administrator.

"Can't read multi-user common file slot"
This error is displayed when a SA client cannot read a license slot from SAMULTI.DAT. Check that all the requirements to access a license are met, and try again.

"Maximum users already working"
License Manager has already dispensed all licenses to other users. Wait for a license to become available.

"Multi-user slot timed out and was given away"
A SA client exceeded the allowable time of inactivity, so License Manager took back that license and made it available to other users. License Manager displays this message until another instance of System Architect is started.

"Sysnet not active"

This message is displayed when the common path exists and SAMULTI.DAT is present, but its internal time stamp is older than 30 minutes. This occurs when the Time Zone (TZ) settings on the License Manager server and the SA client are not the same.

When used, these settings are specified in a workstation's AUTOEXEC.BAT file. They are important to System Architect only in that they affect the program's ability to properly read SAMULTI.DAT. For example, the error message appears if the License Manager server has a "SET TZ=EST5" statement, but the SA client receiving the error does not. It can also be that the client has a SET TZ= statement with a different value. If both workstations are in the same time zone, and they have a SET TZ= statement, the values must be the same; or they should both *not* have the statement at all.

The following information is provided to help you or your Network Administrator troubleshoot this problem. The Time Zone is written as `SET TZ=xxxtttyyy` where "xxx" is the time zone code, "ttt" is the time difference, in hours, between Greenwich and local time, and "yyy" is a placeholder telling DISPATCH.EXE that daylight savings time is in effect (U.S. only).

Time zones west of Greenwich are positive and time zones east can be negative. For example, to set the TZ value to Pacific Standard Time, you would insert the following line to AUTOEXEC.BAT. `SET TZ=PST8` To set Sydney, Australia time, enter either `SET TZ = AST-10`, or `SET TZ=AST14.`
If you are getting this error message, and you want to test whether it is being caused by the time zone settings, proceed as follows:

1. Note the current time.

2. From the System Architect License Manager client machine, get to a DOS prompt and type DIR>F:\SYSARCH\SACOMMON\TEST.TXT and press Enter (substitute F:\SYSARCH\SACOMMON with your common path directory and drive).

3. Note the date and time stamp on the TEST.TXT file created in the step above.

4. Go to the MUK Server client and repeat step 2. The date and time of TEST.TXT should also be the current date and time. If either of the date and times produced by the steps above is incorrect, then that is the likely cause of the problem. In addition to the time zone, the problem might also be caused by one of the workstations (the License Manager server or an SA client) simply having an incorrect time. You can set computer's time using the Regional Settings in the Windows control panel

"Multi-user Serial Number Problem"
This message displays when the registration code is incorrect, or was not entered during the installation of System Architect. To fix this problem, start System Architect. From the main program menu, click Tools, and select Session Options (SA2001.INI). In the INI file Editor, scroll down, select the Registration Code option, and enter the code in the field provided.
Note: a "0" in the Registration Code is the number zero.

2.3.2 Frequently asked questions about License Manager

Does License Manager need to run on all computers running System Architect?
No. Only one computer needs to run License Manager – and it should be able to have License Manager running at all times that System Architect is being used. License Manager distributes the licenses. License Manager must run whether it is providing licenses by administering the SAMULTI.DAT file or providing licenses through the physical Multi-User Keyblock.

Does License Manager work only with the Network version of System Architect?
License Manager is only required with the Network version of System Architect. The single-user (Merge) version of System Architect does not share licenses and so does not need License Manager in any way.

Can a Network Server be used as the License Manager Server?
Only Windows NT Advanced Server 3.51 or greater may be used as a License Manager server. For details, please see the section *Installation Requirements* above.

What is the maximum number of users that a single License Manager Server can accommodate?
The number of users that can log on to a server is limited to the number of licenses you have purchased.

What happens if the License Manager Server fails?
If License Manager is shut down while SA clients are running, there is a 10-minute grace period when nothing will happen. This gives the License Manager Administrator time to restart License Manager. After the first 10 minutes expire and License Manager has not been restarted, SA users are notified that they are working within a 20- minute grace period. The grace period will be cancelled and work can continue as normal if License Manager is restarted within this 20-minute grace period. However, if the 20-minute grace period expires and License Manager is still not running, SA clients can save their work but do nothing else.

The License Manager window displays a "Timed out" message for a license slot. Does this waste the license?
This message appears when a SA client exceeded the allowable time of inactivity. It means that License Manager has repossessed that license, and it is making it available to anyone who needs it— including the user who “timed out”. License Manager dispenses all other available slots before it dispenses the “timed-out” slot. Once the slot is taken, the message will be cleared from the License Manager window. You can clear this message by restarting License Manager.

3. System Architect

The multi-user version of System Architect provides the ability for many users to edit an encyclopedia at the same time. Users can work concurrently on a single encyclopedia. Each encyclopedia has an additional file named NETWORK.LCK, which places *Read*, *Write*, and *Update* locks on encyclopedia records. This lets multiple users open a single encyclopedia at the same time.

When System Architect is run from a client machine it first checks that a slot is available by querying the `samulti.dat` file on the network. If a slot is available then System Architect continues to execute, if not the attempt to run System Architect will fail. Therefore, with a 2 seat concurrent license the following is possible:

Two System Architect users active: When a third user attempts to execute System Architect the `samulti.dat` file will return all slots as in use and the run will fail.

Zero or one System Architect users active: When another user executes System Architect the `samulti.dat` file will return slot(s) available and allow the launch of SA to complete.

System Architect is installed on each user's client machine. The user must have network access to the Common Path, the common location of the `samulti.dat` file that manages System Architect user slots. A prompt to enter the Common Path is given during installation.

3.1 Installation Requirements

This section contains operating system and hardware requirements for System Architect. You must have administrative privileges on the system to install System Architect.

Microsoft Windows 3.x is not supported. System Architect employs some of the newest features of the Microsoft Windows operating systems. It is therefore recommended that you run it on Windows 98/ME/NT/2000/XP only with the latest upgrades and service packs provided by Microsoft.

You must have Microsoft Internet Explorer 4.01 (SP1) or higher if running on NT 4.

The hardware requirements are as follows:

Pentium-class PC, 400 Mhz or higher, 128 MB of RAM (64 MB minimum), Super VGA monitor (with the screen resolution set to at least 800 x 600, small fonts setting).

Disk space: 200 MB during installation and 130MB after the install is complete.

3.2 Installation

From local CD on client PC / Server: Insert CD into CD tray. The InstallShield Wizard will run automatically.

From a network directory: Use Windows Explorer to navigate to the directory where the System Architect install files are located and double-click **`setup.exe`**. The InstallShield Wizard will launch.

Click **Next >**, then enter the values shown below in the **Customer Information** screen:

Name:	< Enter the user's name >
Organization:	FSA
Product Code:	7TLW8KN57A6T1BGQACHL26LKJMSBER
Install this application for:	Anyone who uses this computer (all users)

When all fields are complete click **Next >**.

Click the radio button for "I accept the terms in the license agreement and click **Next >**.

You are asked to confirm the installation path for the System Architect application, which defaults to:

`C:\Program Files\Popkin Software\System Architect\`

Accept the default path and click **Next >**. Elect to perform a **Complete** install and click **Next >**.

The **Select Program Folder** dialog lists all the program folders in your Windows Start menu. Setup will create program icons in a new folder, named **Popkin Software**. You can accept the default folder name or type in a different name. Click Next to continue.

Select "None" when prompted to select a default Framework – *the distribution of the default FSA Framework will be discussed later in this document.*

Click **Next>** to accept the install settings and proceed with installation.

During the installation process you are asked to specify the **Common Path**. This is a network directory that MUST EXACTLY MATCH the Common Path specified during the install of the License Manager software. The Common Path should take the form **D:\Popkin\SaCommon88** where `D:\` is the network drive and 88 is the current version of System Architect in use at FSA.

When the install is complete click **Finish**. You will be notified that you need to restart your computer before you can use System Architect. Click **Yes** to perform the restart.

3.3 Other Installation Files

In addition to the main System Architect application each user will also need a number of files, customized for the FSA, to be copied to their local machine.

These files are:

- Usrprops.txt
- Saframework.xml
- DOEd Framework (folder)
- Usrmtrx.xml
- AutoExec.sty

Each of these files is stored on the network at:

X:\BTA\BTA\Enterprise Architecture\SAConfig88\CustomizedFiles\

A back-up of the `saframework.xml`, `usrmatrix.xml and AutoExec.sty` files, installed by default, is be maintained at:

`X:\BTA\BTA\Enterprise Architecture\SAConfig88\DefaultFiles\`

For each client install of System Architect the above files must be copied to the following locations, *before* System Architect is run for the first time:

Usrprops.txt	C:\Program Files\Popkin Software\System Architect\
SAFramework.xml	C:\Program Files\Popkin Software\System Architect\Framework\
DOEd	C:\Program Files\Popkin Software\System Architect\Framework\
Usrmatrx.xml	C:\Program Files\Popkin Software\System Architect\
AutoExec.sty	C:\Program Files\Popkin Software\System Architect\

Click **Yes to all** if prompted to overwrite any existing files.

3.4 Running System Architect

This section details the standard configuration of System Architect on each users client machine and addresses Audit ID, Property Configuration and Preferences.

3.4.1 Audit ID

If this is a fresh installation of System Architect then the **Audit ID** dialog will be displayed, otherwise the last Audit ID will be shown on the Status Bar.

An ID of between 1 and 7 characters must be entered before the **OK** button becomes active.

System Architect will attach the Audit ID to every item within the encyclopedia, identifying the last user to make a change.

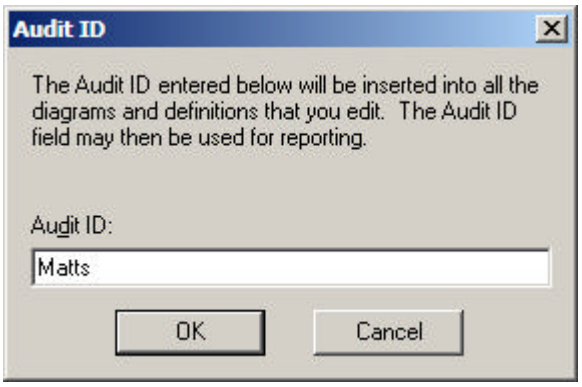

Figure 3 Audit ID dialog

By default this is not a security feature, but may be used to restrict access to items within an encyclopedia that are 'checked out' to a particular Audit ID.

A standard format for all users Audit ID should be decided upon and recorded here.

3.4.2 Selecting Diagrams and Property Sets

A Property Configuration dialog is provided that controls the diagrams and property sets that are made available within an encyclopedia.

To change the list of available diagrams, select **Tools**, then **Customize Method Support**, and then select the **Encyclopedia Configuration...** option.

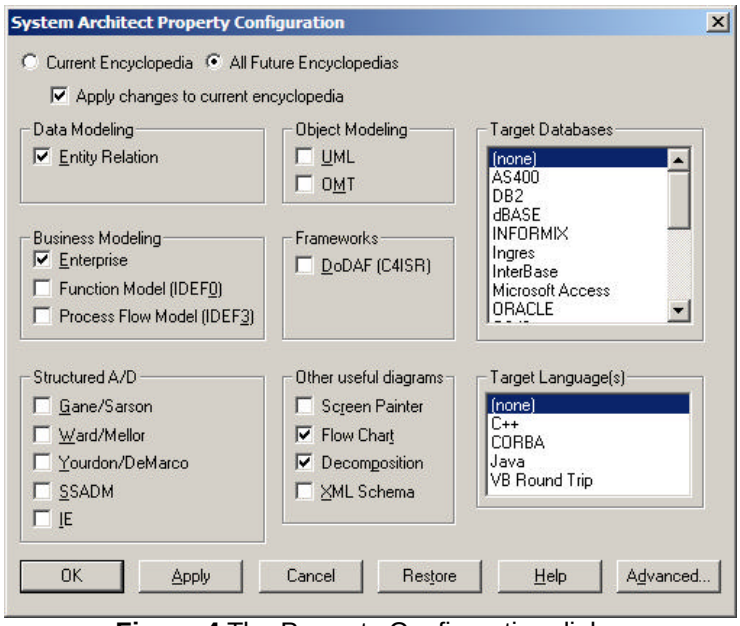

Figure 4 The Property Configuration dialog

Users should be advised that the property set for any new architecture encyclopedia should be specified as shown above.

Once the property set is defined for an encyclopedia it must not be altered without specific authorization from a project lead. Changes made to an active working encyclopedia may restrict users access to diagrams and definitions.

Changes made to the current encyclopedia will not be implemented until it has been reopened.

There are a number of automatic features, and a few control settings, which affect the way in which System Architect reacts during the creation and modification of diagrams.

3.4.3 Preferences

There are a number of automatic features, and a few control settings, which affect the way in which System Architect reacts during the creation and modification of diagrams.

Selecting **Tools** then the **Preferences...** option from the menu, will display the Preferences dialog.

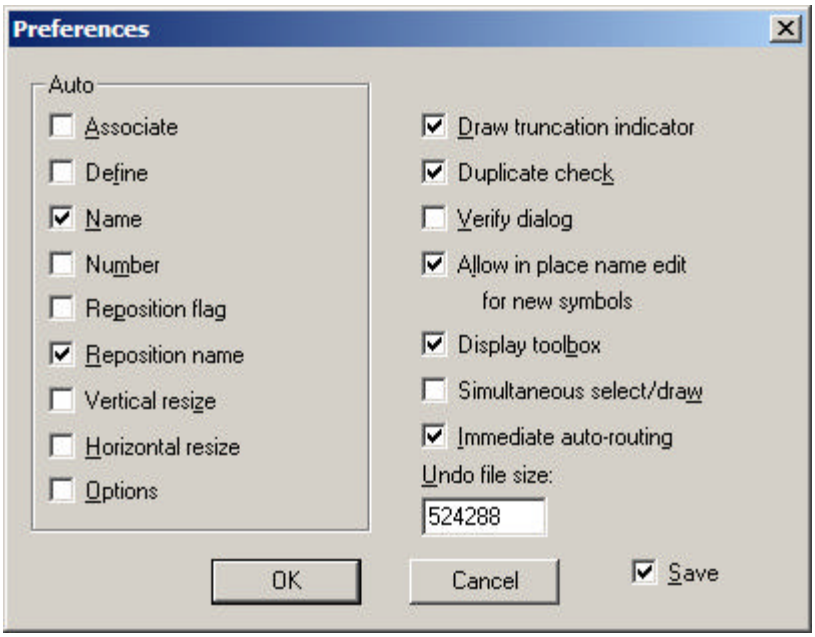

Figure 5 The Preferences dialog

For each installation of System Architect the user's Preferences should be set as shown above.

3.4.5 Encyclopedia Management

For information on managing System Architect encyclopedias please see the whitepaper entitled "Repository Management with SA2001", embedded here, and available on the Popkin website.

Repository Management

3.5 System Architect Files

System Architect

SAProps.cfg – This file is copied to the newly created encyclopedia folder. It contains a description of the properties supported by System Architect.

UsrProps.txt – This file is also copied when creating a new encyclopedia. It may be used to modify or enhance the SAProps.cfg file.

SADeclar.cfg – This file is also copied to the newly created encyclopedia. It defines the default support for diagrams and property sets.

AutoExec.csv – Stores a list of Trigger Templates that are automatically added to an encyclopedia when it is created. **OOTypes.csv** and **Packages.csv** will also be used to automatically add definitions to the encyclopedia.

Encyclopedia Folder

Entity.dbf – The main database file, storing some standard details of Diagrams, Symbols and Definitions. It is a fixed length record file.

Entity.dbt – A variable length record file that stores the majority of the property details.

Relatn.dbf – A database file that stores pairs of relationships, linking two of the items stored in the Entity.dbf file.

Entityi.ndx & Entityt.ndx – Index files for Entity.dbf.

Relatni.ndx – Index file for Relatn.dbf.

D0000001.dgx (& **.wmf**) – Diagrams are defined in a sequential set of .dgx files. An accompanying .wmf is used for previewing the diagram.

P0000001.wmf (.bmp) – Picture objects placed on diagrams are stored in a sequential set of files.

SAProps.bin – A binary file created from the SAProps.cfg and UsrProps.txt files. If deleted it will be recreated the next time the encyclopedia is opened.

Network.lck – Used by the network version of System Architect to temporarily lock the encyclopedia.

WINNT

SA2001.ini – System Architect stores a number of settings in this file. Some settings may be required for System Architect to operate correctly. Some are default settings that are saved whilst using System Architect.

SA.tb – A file that stores the current ToolBar settings. If this file is deleted it will return the toolbars to their default settings. System Architect will create the file should it not exist.

4 Upgrading System Architect

Popkin Software offers various upgrades to System Architect that can be obtained by contacting your sales representative or through the Popkin website (www.popkin.com).

You should uninstall previous versions of System Architect before installing a new release. Uninstalling previous versions first will conserve disk space.

If the number of licenses has not changed and the new version of SA is within the same Lot Number (versions 8.5 thru 8.8 are all Lot 27) then the same Product Key can be used for your upgrade. If you have purchased additional licenses, or the Lot Number has incremented, then you should contact your sales representative for a new Product Key, if one has not already been sent to you.

Important Note for Downloaded Upgrades: If you are installing an upgrade (or patch) to System Architect that you have downloaded from www.popkin.com you should **not uninstall** the previous version of SA – the download upgrade specifically looks for a previous version of System Architect, and will not install if one is not on your machine.

To install an upgrade to System Architect, simply follow the same installation procedures provided earlier in this guide. The System Architect Installation CD enables you to modify the original components of System Architect that you installed, repair components that are not working, or remove the program entirely.

To perform any of the above tasks, do the following:

1. Insert the Installation CD into your CD-ROM drive.
2. Run the **setup.exe** executable from the CD.
3. Select **Install System Architect** on the initial installation screen to launch the InstallShield Wizard.
4. On the next screen of the wizard, select **Modify**, **Repair**, or **Remove,** as appropriate.
5. System Architect can also be removed using standard Windows techniques to remove a program (by selecting **Add/Remove Programs** in the **Settings, Control Panel**).

Appendix A. System Architect Test Script

Note : this Test Plan is subject to revision as and when the FSA framework structure becomes defined within System Architect.

A Test Script should be executed for each significantly new release of System Architect that FSA installs. The results should be documented and any deviations forwarded in the first instance to the lead System Architect administrator within the FSA.

A re-test should be performed and if the deviation remains so please consult www.popkin.com/customers/technical_support.htm for Popkin Software Technical Support contact information and answers to frequently Asked Questions.

Summary	Action	Data Entered/Selected	Expected Results
Open Browser.	**Click on Browser on the toolbar.**		**The browse box appears on the left hand side of the screen.**
Add new diagram to SA.	**Right click Diagrams and choose New. In the dialog box, select the diagram you would like to work with. Type in the name of the diagram and click OK.**	**Type in a description of the diagram.**	**A blank diagram is created.**
Manipulate diagram	**Once the diagram has been added to the repository, click on the appropriate symbol from the toolbar. Click on the diagram. The symbol now appears on the diagram. Continue this process until all necessary symbols are on the diagram.**	**Type in a description of each symbol on the diagram (these symbols are automatically added to the Definitions list in SA).**	**A diagram is created.**
Manipulate diagram	**Once the diagram has been added to the repository, choose the appropriate definition from the Definitions list and drag it to the diagram. The symbol now appears. This approach works when the necessary definitions have already been populated. For example, if you are working with an Organizational Chart in SA, and all of the definitions of the organizational entities have been entered into the tool, just click on the appropriate org. entity and drag it to the Org diagram. The symbol for that org entity now appears. Continue this process until all necessary symbols/definitions are on the diagram.**		**A diagram is created.**
Add new definition to SA.	**Right click Definitions and choose New. In the dialog box, select the definition you would like to work with. Type in the name of the definition and click OK.**	**Type in a description of the definition.**	**A definition is created. The user should populate the fields in the definition object as necessary.**

Summary	Action	Data Entered/Selected	Expected Results
Create a matrix in SA.	On the toolbar, Select Tools, Process Modeling Matrices, then select the type of matrix you would like to create. A "Specify Filter" screen will then appear. Click Next. Choose which items in the rows and in the columns you would like to appear in the matrix. Click Finish.	To indicate a relationship between items in the matrix, click in the appropriate cell. An X will appear. Click on the X to remove a cross-reference. When done documenting the relationships, click X to upload the matrix contents to the SA database.	A matrix between two definitions/objects is created. The user should establish the appropriate relationships between the objects in the matrix.
View Diagram	In the SA browser window, click the + to expand all diagrams. Click + again to expand the diagrams under the type of diagram you want. Double click on the specific diagram you would like to view.		View specific diagram.
Create report from SA.	*Open Word report template. Click List SA Diagram from the toolbar. Choose the type of report you want. Click OK.	If further formatting is needed, format the report to desired specifications.	A report is created.
Print diagram from SA.	Open the diagram you would like to print. Go to File on the menu bar and choose Print. Choose the properties that you need and click OK.		A Print-out of the diagram is generated.