

Installation / Update Guide

© 2023 DBA Software Inc.

Installation / Update Guide

© 2023 DBA Software Inc.

Table of Contents

ı	UV	/erview	3
	1	Technical Support	6
	2	Administrator Responsibilities	7
	3	Build Naming Convention	8
	4	Product Updates	9
	5	Startup Wizard	11
	6	System Documentation	12
2	Sy	stem Requirements	14
3	Remote Access		18
	1	Shop Floor Access	19
	2	Hosting	21
4	New System Installation		22
	1	File Download	23
	2	Server Installation	24
	3	License Key Installation	27
	4	Client Workstations Installation	29
5	5 Backup Manager		32
	1	Backup Procedures	36
	2	Last Backup Panel	40
	3	Manual Backup	43
	4	Schedule Backup	46
	5	Restore from Backup	52
	6	Backup and Restore	55
	7	Backup Manager - History	58
	8	Recognizing Data Corruption	60
6	Pr	oduct Update Installation	63
	1	File Download	65

	2 Update Installation Instructions	66
7	License Key Installation	69
8	Training Company Installation	71
	1 File Download	73
	2 Server Installation	74
	3 Client Workstations Installation	78
	4 Refresh Database Utility	80
9 Server Migration		

1 Overview

Welcome to the *DBA Manufacturing Installation Update Guide*. This is your comprehensive guide to all issues related to installing, updating, and maintaining your DBA system. The guide is comprised of the following sections:

This first section covers general installation-related topics, including technical support, administrator responsibilities, build naming convention, product updates, the *Startup Wizard*, and system documentation.

1.1 Technical Support

If you have not already done so, make sure your company has purchased a support subscription, which enables you to submit support tickets and access support center resources.

How to Order

An initial support subscription is included with new system purchase. If you do not currently have a support subscription, it can be ordered online from the *Pricing* page on our website or you can order by phone by calling 1-800-995-1959 or 805-461-3501.

Link:

Pricing Page

Accessing the online support center

Access to the online support center is provided within the software itself. Go to the *Help* menu and click the *Online Support Center* option. You can also access the support center through the *Support* page on our website.

Link:

Support Page

Apply all product updates in a timely manner

In order to receive optimal support, always apply product updates in a timely manner. We only provide programming fixes to the current product build and not to past versions.. Our support and software maintenance model is based on the premise that <u>all</u> customers are on the current build.

1.2 Administrator Responsibilities

One person at your company should be designated as the system administrator and given the following responsibilities:

Apply all product updates in a timely manner

In order to receive optimal support and benefit from hot fixes and software enhancements and new features, always apply product updates in a timely manner. We only provide programming fixes to the current product build and not to past versions.. Our support and software maintenance model is based on the premise that <u>all</u> customers are on the current build.

Use the Backup Manager to schedule daily database backups

Use the *Schedule Backups* process within the *Backup Manager* to schedule automatic daily backups of your registered databases, which is your Main Company, your System database, and any other registered companies you may have licensed.

Incorporate database backup files in your daily general backup

You will continue to make a general daily backup of all the critical data folders on your server, not just for DBA but for other applications as well. The general daily backup should incorporate the (drive letter)\ProgramData\DBABackup folder, which contains your database backup files.

Optimize your database on a quarterly basis

To keep your database lean and efficient, run the *Backup and Restore* process within the *Backup Manager* utility on a quarterly basis.

Manage users and security

Users must be added and inactivated as needed and given menu security permissions.

Do not allow database updating or editing

The system administrator must not allow any user or third party to update or edit the Firebird database. Not only is this expressly prohibited by the DBA software license agreement, but tampering or alteration of database tables and records can cause data corruption, interference with programming processes, support issues, and result in system malfunction or failure. "Read-only" access to the database via any ODBC reporting tool is allowed. You may also freely extract data using data views or data export, but any updating must only be done by the DBA software program.

1.3 Build Naming Convention

The build number identifies each product version

Each new version of the product is identified with a build number. A typical build number looks like this:

394.0.1

Build Number Segments

The build number consists of three digital segments:

Segment 1 = Build Number

The first segment identifies the 3-digit build number. Each build is a major release with significant new product features. A build typically requires administrator tasks and includes new educational materials.

Segment 2 = Service Pack Number

The middle segment identifies a single digit service pack number. A service pack is a minor release with product improvements. Service packs typically do not require administrator tasks.

Segment 3 = Hotfix Number

The final segment identifies a single digit hotfix number. A "hotfix" release consists of one of more high priority bug fixes.

1.4 Product Updates

Always update!

Many well known software products such as Microsoft Windows, Microsoft Office, and QuickBooks are sold in versions. Service packs for older versions remain available for several years and there is no obligation to upgrade to the current version. Many people commonly perceive that all software is maintained this way.

This is not the case with DBA. DBA is a highly specialized application with only one version, which is always the current build. Service packs and hotfixes are only available in the current build.

Updating is required to stay current with Windows OS changes

It is not a viable option to remain on an old product build, even if you are satisfied with a particular feature set. We continually make internal fixes and adjustments to remain compatible with Windows OS changes. Older versions will not be fully compatible with workstation client installation, server migration, network security, operating system versions, firewalls, etc.

All customers are intended to be on the same build

Our support and software maintenance model is based on all customers being on the current build. When you stay on an older build, you not only don't benefit from new product features, but you also remain vulnerable to any problems that were fixed in later builds.

It's also easier for your users to adapt to each build incrementally than it is to skip several builds and then have to "catch up" with a large set of changes.

In conclusion -- <u>always update</u>. It protects your system from problems, helps us provide better support, and makes it easier for your users to keep up with changes.

How updates are distributed

The latest program version can always be found in the <u>What's New</u> area in the online support center.

When a new update is released, we typically provide notification to customers that have resolved programming issues in our support ticket system. We often follow this up with a newsletter announcement. After the early adopter phase has concluded, we set a notification to Admin users at launch of DBA that a new update is available.

You can optionally preview updates using the Training Company

Before going live with a new update, you have the option of previewing and experimenting with the update on your own company data by installing the Training Company option.

Training Company Installation

Product Update Documentation

Release Notes

From wherever you download a product update or service pack, whether it is from within the software or from the online support center, the download file is always accompanied by a release notes document in PDF format.

NOTE: Always review the release notes prior to updating because they may include system administrator instructions.

Resolved Programming Issues

A list of resolved programming issues is made available with each product updates and service pack in the What's Newarea of the Support Center.

1.5 Startup Wizard

When you start using DBA for the first time, you will be interacting with the *Startup Wizard*, which guides you through the implementation process.

Startup Wizard

The *Startup Wizard* guides you through a set of sequential setup and rehearsal tasks leading up to system startup day. If you have a question within a given task, you can submit a support ticket and we will help you. By the time you get to startup day, your system will be properly set up and users fully rehearsed for live operations.

Automatically launches on system login

The *Startup Wizard* automatically launches whenever users log into DBA and continues to do so up through system activation.

System activation occurs on system startup day.

Processing screens are not available for live use during *Startup Wizard* implementation. This prevents experimental transactions from interfering with system startup and it assures that the system is fully set up and all users are trained and ready for full deployment on day one. Full deployment on a startup day is the implementation methodology used by all enterprise systems because partial, rolling, or parallel startups do not work and have a high failure rate.

Experimental transactions can be made in the Training Company

During *Startup Wizard* implementation, you can freely use the *Training Company* option to source a copy of your database to make experimental transactions without affecting the integrity of your live system.

1.6 System Documentation

Extensive documentation is provided to help you learn and use the system.

Help and Web Formats

All documentation is available in a Help file format within the program, which is accessed via the *Help* menu. Screen help can be accessed by pressing F1 within any screen. The entire documentation set is also available in a web-based format, which can be accessed from the *Support* page on our website.

PDF Formats (Selected guides)

Most guides are available in PDF format except for the *Startup Guide*, *Training Guide*, and *Screen Help*, which are intended for online linking and viewing.

Embedded Training Videos

Training videos are embedded throughout the *Training Guide* and can be accessed from links throughout the *Startup Guide* and *Screen Help*.

System Documentation

All system documentation can be accessed from the *DBA Help (F1)* option on the *Help* menu.

Screen Help (F1)

You can access screen help from the *DBA Help* menu or you can press F1 from any screen to open its associated help topic.

Manufacturing Efficiency Guide

This guide explains the seven essential processes that maximize your systemic efficiency.

Workflow Guides

Workflow guides provide the conceptual framework for each of the nine phases that comprise the "Total Control" process workflow.

Training Guide

The *Training Guide* covers user training tasks, which are listed in their recommended order of completion.

Startup Guide

The *Startup Guide* documents all the implementation tasks that are performed when using the *Startup Wizard*.

Technical Guides

Technical guides include this guide as well as the Data Import guide.

Conversion Guides

Conversion guides help you convert from using legacy financial modules to financial transfer and converting from DBA Classic to DBA Manufacturing.

2 System Requirements

Before you install the software, carefully review our system requirements to make sure vour hardware and network meet our minimum standards.

Firebird™ SQL Database

The DBA system includes the Firebird™ relational SQL database. Firebird only works properly under these conditions:

- The Firebird database must be installed on the same file server as the DBA software.
- Only use DBA with the version of Firebird supplied with the system (Firebird 3.0.4)

Internet Access

Your company must be equipped with high speed internet access to use the DBA system. Our software registration keys, product updates, documentation, training videos, and online support are all delivered over the Internet.

Power Protection System (UPS)

An abrupt power loss or crash from unclean power is the most common cause of data corruption. Your file server requires clean and continuous power to function properly. Factories are especially subject to power fluctuations. It is imperative that you protect your server with a power protection system that includes surge suppression, power conditioning, and battery backup.

Database Backups

Your data is your most valuable asset and must be protected from day one. Accordingly, you must devise a database backup strategy and have the storage devices and backup plan in place.

Link:



Backup Manager

Network Type

DBA can be installed on most any Windows-based client/server or peer-to-peer network.

Network Server

 Operating System: Windows Server 2022, Windows Server 2019, Windows Server 2016, Windows Server 2012/2012 R2, Windows 2008/2008 R2.

Essentials, Small Business Server, Standard, and Datacenter editions supported on all versions listed.

- RAM: as required by the operating system
- Free Disk Space: At least 2 Gigabytes (GB)
- Solid State Drive (SSD) recommended for optimal performance
- Microsoft .NET Framework 4.5.2 or greater
- Wired Ethernet Connection

Hosting (Cloud)

DBA can be installed on a hosted server. Workstation access is provided via Microsoft Remote Desktop Services (RDS - formerly Terminal Services). Microsoft RDS CALs (client access licenses) are required.

Link:



Hosting

Client Workstations

Client workstations access DBA through your local area network. A DBA Manufacturing Client gets installed on each client workstation to provide start menu access, desktop icons, a database engine, and online help.

- Operating System: Windows 11 Pro, Windows 10 Pro, Windows 8 Pro, Windows 7 (Pro or Ultimate)
- RAM: as required by the operating system
- Microsoft .NET Framework 4.5.2 or greater
- Wired Ethernet Connection

WARNING: Do not use wireless connections

Do not use wireless connections because client workstation will experience disconnections, access violation errors, and potential data corruption.

NOTE: If you wish to furnish a PC with a wireless connection, it must be set up as a remote desktop workstation (see next).

Link:



Shop Floor Access

Remote Desktop Workstations

Remote desktop workstations access DBA remotely by accessing the server's desktop (using Microsoft Remote Desktop Services) or a client workstation's desktop (using Microsoft Remote Desktop Connection).

- Operating System: Windows 11 Pro, Windows 10 Pro, Windows 8 Pro, Windows 7 (Pro or Ultimate)
- RAM: as required by the operating system
- Use Microsoft Remote Desktop Connection (RDC) for remote access to a wired client workstation's desktop.
- Use Microsoft Remote Desktop Services (RDS formerly Terminal Services) for remote access to the server's desktop. A Microsoft RDS CAL (client access license) is required.

NOTE: RDS is not available with Microsoft Small Business Server.

Link:

Shop Floor Access

Tablets, Mobile Devices, and Notebooks

Mobile devices are useful for shop floor processes such as stock counts, material issues, job labor updating, and job receipts.

- The device can access DBA via Microsoft Remote Desktop App (Android, iOS, and Windows).
- Use Microsoft Remote Desktop Connection (RDC) for remote access to a wired client workstation's desktop.
- Use Microsoft Remote Desktop Services (RDS formerly Terminal Services) for remote access to the server's desktop. A Microsoft RDS CAL (client access license) is required.

NOTE: RDS is not available with Microsoft Small Business Server.

SERVER SETUP: Provide users with access to the server desktop. Do not publish DBA as an App.

Link:



Shop Floor Access

Printers

 All reports and forms print in graphical format on any Windows-compatible laser or ink jet printer.

• The standard labels supplied with the system are designed to print on a continuous roll label printer with 4 inch wide labels. The default label sizes are 4 x 2 and 4 x 4.

3 Remote Access

Our recommended method of remote access is Microsoft Remote Desktop. Remote desktop workstations access DBA remotely by accessing the server's desktop (using Microsoft Remote Desktop Services) or a client workstation's desktop (using Microsoft Remote Desktop Connection).

Remote Desktop Options

- 1. RDS connections to the server desktop require additional licenses from Microsoft (contact a certified Microsoft reseller for more details)
- The Remote Desktop Connection option where you access a wired DBA workstation is included in the license of most all Microsoft Pro operating systems at no additional charge.

Tip: The remote desktop connection option is a very economical solution for remote access, wireless access and mobile device use in a shop floor. You can have a wired PC in an office or on a rack and this PC can be accessed from any device via MS remote desktop app.

Wireless Access to DBA

DBA workstations must be on a wired connection to the network. Wireless connections cause network disruption to DBA and cause errors. To access DBA from any wireless device you can access the wired PC via remote desktop connection. This is the only reliable way to utilize wireless connections to DBA.

Tablets, Notebooks, and Mobile Devices

You can use either the Remote Desktop options noted above to access DBA via the Microsoft Remote Desktop App. You can then access either the DBA server desktop or a wired DBA workstation desktop from any device (Android or IOS).

3.1 Shop Floor Access

One of the most effective ways to boost your manufacturing efficiency is to make transactions in real time out on the shop floor.

Shop Floor Processes

The following processes should be performed out on the shop floor

- Issuing material to jobs
- Updating job labor
- Receiving finished job items
- Receiving POs
- Shipping customer orders
- Conducting stock counts

Device Options

There are three types of devices that can be used for shop floor access.

Tablets, Mobile Devices, and Notebooks

These are ideally suited for mobile applications such as stock counts, job issues, job labor updating, and job receipts.

- The device can access DBA via Microsoft Remote Desktop App (Android, iOS, and Windows).
- Use *Microsoft Remote Desktop Connection* (RDC) for remote access to a client workstation's desktop.
- Use Microsoft Remote Desktop Services (RDS formerly Terminal Services) for remote access to the server's desktop. A Microsoft RDS CAL (client access license) is required.

NOTE: RDS is not available with Microsoft *Small Business Server*.

SERVER SETUP: Provide users with access to the server desktop. Do not publish DBA as an App.

Remote Desktop Workstations

These are wireless workstation PCs well suited for work center updating, PO receiving, and shipping.

• Use *Microsoft Remote Desktop Connection* (RDC) for remote access to a client workstation's desktop.

• Use *Microsoft Remote Desktop Services* (RDS - formerly *Terminal Services*) for remote access to the server's desktop. A Microsoft RDS CAL (client access license) is required.

NOTE: RDS is not available with Microsoft Small Business Server.

Client Workstations

These are PC workstations wired to the local area network. These are also well suited for work center updating, PO receiving, and shipping.

- Use a network card with 10/100 Mbps or greater
- A wired Ethernet connection recommended

3.2 Hosting

DBA can be installed on-premises on your own server or it can be installed on a remote server hosted by a data center (Cloud installation).

Connections are made via Microsoft RDS

Remote desktop workstations, tablets, and notebooks connect to the hosted server via Microsoft *Remote Desktop Services* (RDS - formerly *Terminal Services*). Microsoft RDS CALs (client access licenses) are required.

NOTE: RDS is not available with Microsoft Server 2016/2012 *Essentials* or Microsoft Server 2008 *Small Business Server*.

SERVER SETUP: Provide users with access to the server desktop. Do not publish DBA as an App.

Your accounting system can be on a different platform

Your accounting system is independent from DBA and does not need to be on the same server platform, so it can be hosted or on-premises as you wish. For example, your accounting system may be hosted or is an online application, yet you may prefer to install DBA on your local server, which you can freely do so.

4 New System Installation

New system installation instructions apply to new system purchase as well as the free demo system and involves the following steps:

Download the installation file

Download the installation file to your default downloads location.

Install the software on the server or primary workstation

Install the *DBA Manufacturing* software and *Firebird* database on your file server or primary workstation on a peer-to-peer network.

Install your license key

If you purchased a new system, install your license key in the *Main Company*.

Install your wired workstations

Each workstation that is wired to the server requires a client software installation.

Use the Backup Manager to schedule daily backups

Use the *Schedule Backup* process within the *Backup Manager* utility to schedule automatic daily backups of your registered databases.

4.1 File Download

Installation File Name

The software installation file, which is used for new system installation and for product updates, is named as follows:

DBAManufacturing_xxx.x.xxx.exe

The "xxx.x.xxx" portion of the name represents the full build number, which consists of three segments -- the build number, the service pack number, and the hotfix number.

New System Download Link

When you purchase a new system, you are sent an Email containing your License Key and a download link to the installation file.

Free Demo System Download Link

The free demo system installation file is downloaded from the Download page on our website.

Link:

Download Page

4.2 Server Installation

Installation instructions are the same whether you are installing DBA manufacturing on a single-user PC or on a network file server or peer-to-peer workstation.

Before you install DBA on a network:

If you are not familiar with computer networks, we strongly advise that you arrange to have the DBA system installed by a qualified technician. Please take these steps before you begin installing DBA on a network.

 Verify that your network file server or main peer-to-peer workstation meets our Network Server requirements.

Link:



System Requirements

If you are a contract installer and need support

If you are a contract installer and happen to need support during the installation process, please do not call our main office if you need help.

To receive support, please submit a support ticket through your client's support account. Explain the problem in detail and whenever possible provide screenshots of your issue. We actively monitor the ticket gueue throughout business hours. You can sign in to the support center on the Support page on our website.

Link:

Support Page

Installation Instructions

Double click on the DBAManufacturing xxx.x.xx.exe installation file to launch the installation wizard

Welcome to the DBA Manufacturing Installation Wizard

This screen indicates that the installation wizard will install DBA Manufacturing on your computer and identifies the product build number.

Do not use for client workstation installation

Do not use this wizard for connecting client workstations to the server. See the Workstations Installation section for workstation installation instructions.

Link:



Workstations Installation

Click Next to continue.

License Agreement

The next screen displays the *DBA Software License and Maintenance Agreement*. Review and select the first option in the lower panel to accept the terms of the license agreement.

Click *Next* to continue.

Installation Type

This next screen displays three installation type options:

Standard Installation - Letter Paper Size

Select this option to install the *DBA Manufacturing* software and *Firebird* database to their default locations and to specify the *Letter* paper size, which is the standard USA paper size for reports and forms.

Standard Installation - A4 Paper Size

Select this option to install the *DBA Manufacturing* software and *Firebird* database to their default locations and to specify the *A4* paper size, which is the standard international paper size for reports and reports and forms.

Custom Installation

Select this option to specify an alternate location for the *DBA Manufactuting* software and/or the *Firebird* database.

If you selected a *Standard Installation* option, the *Review Settings* panel displays the default *DBA Path*, default *Firebird Path*, and the selected *Paper Size*.

Click *Install* to begin standard installation.

Custom Installation Screens

If you selected the *Custom Installation* option, the following screens will be displayed:

DBA Installation Path

In this screen you can specify an alternate location for installation of the *DBA Manufacturing* software.

Paper Size

In this screen you can specify the desired paper size. Select *Letter* for the standard USA paper size for reports and forms. Specify *A4* for the standard international paper size for reports and forms.

Firebird Installation Path

In this screen you can specify an alternate location for installation of the *Firebird* database.

NOTE: The *Firebird* database must be installed on the <u>same file server</u> as the *DBA Manufacturing* software.

Installation Review

This screen displays the *Review Settings* panel, which enables you to review your custom installation settings for the *DBA Path*, *Firebird Path*, and *Paper Size*.

Click *Back* to go back and change any of your custom settings, if needed or click *Install* to continue.

Progress

This screen displays for several minutes as you observe various sets of files being installed and settings established. The screen closes when processing is completed.

NOTE: Ignore the *Borland Database Engine Installation* prompt, which only displays for a moment. The program automatically confirms installation and closes the screen.

Installation Completed

This final screen displays when installation has been successfully completed for the indicated build number.

Launching the System

DBA includes a Sample Company and Main Company.

Sample Company

The Sample Company is can be accessed by free demo system users and licensed customers. It includes sample data for meaningful screens and reports and for setup reference and user training.

To launch the Sample Company, click the DBA Sample Company icon on your desktop or navigate to Start – Programs – DBA Manufacturing – DBA Sample Company.

Main Company

The *Main Company* is for licensed customers only and is used for system for system implementation and live use. It cannot be accessed until you install a license key.

To launch the *Main Company*, click the *DBA Main Company* icon on your desktop or navigate to *Start – Programs – DBA Manufacturing – DBA Main Company*.

4.3 License Key Installation

A license key activates the system and enables active users to be set up for the number of licensed users purchased.

License keys were sent by Email

When you purchased the system, you were Emailed license keys for the *Main Company* and *Sample Company*. Please have that Email on hand for license key installation.

License Key Information

The license key is comprised of your *Company Name* and a *Serial Number*. They are displayed as follows in the Email:

Company Name: ABC Manufacturing Co.

Serial Number: MTFcMCEhMCEhMjlvMDEvMDchlTAhlTAhlTlhlUEhlQ==

The Company Name is the name you furnished to us and is the name that will display on screens and reports. If prefer different wording for the name, contact support@dbasoftware.com and we will Email you a revised license key.

WARNING: Do not attempt to change the *Company Name* yourself because it will no longer match the *Serial Number*.

License Key Installation – Main Company

When you launch the *Main Company*, you are presented with this message:

The Main Company is only for use when you purchase the product. If you are on the free version, please use the Sample Company for evaluation. If you have purchased the product, click the button below to install your License Key.

Click the *Install License Key* button. You are then presented with this screen:



Do the following:

Copy the *Company Name* from the Email and paste it into the first field on this screen.

Copy the *Serial Number* from the Email and paste it into the second field on this screen.

Click Continue to close the screen.

License Key Installation – Sample Company

You are also provided a second license key, which expands the *Sample Company* into a multi-user system. They are displayed as follows in the Email:

Company Name: DBA Sample Company

Serial Number: MTZcNSEhMCEhMzEvMTlvMzAhlTAhlTAhlTUhlUEhlQ==

Do not attempt to change the *Company Name* yourself because it will no longer match the *Serial Number*.

In the Sample Company, go to Admin – Upgrade License and do the following:

Copy the *Company Name* from the Email and paste it into the first field on this screen.

Copy the *Serial Number* from the Email and paste it into the second field on this screen.

Click Continue to close the screen.

4.4 Client Workstations Installation

Client workstations access DBA through your local local area network. A *DBA Manufacturing Client* gets installed on each client workstation to provide start menu access, desktop icons, a database engine, and online help.

WARNING: Do not use wireless connections

Do not use wireless connections because client workstation will experience server disconnections, access violation errors, and potential data corruption.

NOTE: If you wish to furnish a PC with a wireless connection, it must be set up as a remote desktop workstation (see System Requirements).

No limit to number of physical workstations

Your license does not limit the physical number of workstations that can access the DBA system. It limits the number of named users that can log onto the system. Named users can log onto DBA from any workstation.

Installation Instructions

Perform this installation process on each client workstation.

Share your DBA Manufacturing folder on the server

Share your *DBAManufacturing* folder on the server, which is normally located at *(drive letter)\Program Files* (x86)\DBA *Manufacturing*. Make sure you allow full access to this shared folder under security for all the wired workstation PC's that are to have access to DBA.

Double click the installation file

Navigate to the *Client* sub-folder on the server, which is normally located at *(drive letter)* \Program Files (x86)\DBA Manufacturing\Client and double click on \textbf{DBA ClientInstall.exe}, which launches the client installation wizard.

Welcome to the DBA Manufacturing Client Installation Wizard

This first screen indicates that the wizard will install the *DBA Manufacturing Client* on your computer.

License Agreement

The next screen displays the *DBA Software License and Maintenance Agreement*. Select the first option in the lower panel to accept the terms of the license agreement.

Installation Type

This screen indicates that a standard installation type will be made to the default *DBA Path*, *Database Host*, and *Database Path*. A custom installation type is not provided.

Progress

On this screen you observe various files being extracted and installed in a local folder. The screen closes when processing is completed.

NOTE: Ignore the *Borland Database Engine Installation* prompt, which only displays for a moment. The program automatically confirms installation and closes the screen.

Install Complete

This final screen indicates that installation is successfully completed.

Desktop shortcuts were installed on the workstation for *DBA Sample Company* and *DBA Main Company* access.

Verify System Access

Launch the *DBA Sample Company* or *DBA Main Company* to verify that the workstation can access the system.

Help File Installation

The first time you launch either company from the wired workstation, you are prompted for a destination folder for the system's online *Help*, which is installed locally on each workstation. Select the default folder.

Suppressing Microsoft Security Warnings

You may receive the the following Microsoft security warning when you launching DBA from a workstation:

"The publisher could not be verified. Are you sure you want to run this software?"

To prevent that message from recurring, make the following changes to your Internet options:

- At each client PC, open Internet Explorer and select the Tools > Internet
 Options menu option (this will vary in location within Internet Explorer
 depending on version)
- Click the Security tab in the Internet Options window, then click the Local Intranet icon in the Select a zone to viewor change security settings area. Typically, the icon will look like the Earth behind a PC monitor.
- Click on the Sites button, then from that popup window, click the Advanced button.

- If the Require server verification (https:) for all sites in this zone button is checked, then uncheck that button.
- Enter the name of your server, preceded by "\\" in the Add this website to the zone field. For example, if your server's name is SERVER1, you would enter "\SERVER1" in that field. Next, click the Add button. Then click the Close button.
- Click the *OK* button to close the *Local Intranet* popup window, then click the *OK* button to close the *Internet Options* window.

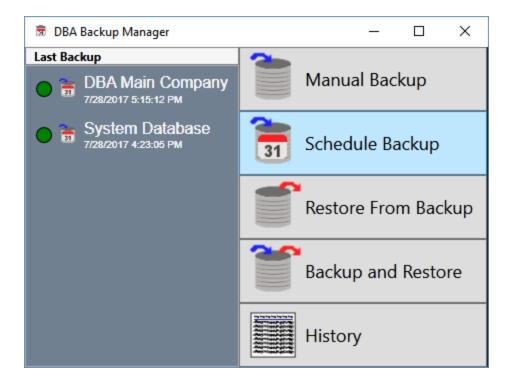
Schedule Daily Database Backups

The final step in new system installation is to use the *Schedule Backup* process within the *Backup Manager* utility to schedule automatic daily backups of your registered databases. See the next section, *Backup Manager*, for details.

Links:

- Backup Manager Overview
- Backup Manager Schedule Backup

5 Backup Manager



Daily backups are essential

DBA manages the entire manufacturing side of your business and therefore it is absolutely essential that you implement a daily backup strategy that protects your valuable data and insures against a system shutdown.

The software cannot protect itself

Database loss or failure can occur from sources outside the control of the software, including power outages, hardware failure, natural disasters, and theft. Do not assume that the software can be repaired if corrupted. If any of these events occur, your only remedy is to restore from backup.

Database failure without a backup is a catastrophic event

If you happen to experience database failure and do not have a backup, it is a catastrophic event for your company that could imperil its very existence. You will lose all or most of your history and it can take weeks to reassemble a system from scratch.

Daily backup is your responsibility

Making daily backups is your responsibility. If you experience database failure, we can offer no remedy other than to restore from backup.

Off-site backup is essential!

Your daily backup strategy should include local backup, a mirror copy to an external drive/device, and off-site backup. Off-site backup is essential because a local backup provides no protection for fire or theft. So always make local backups and off-site backups.

Backup Manager

The *Backup Manager* is an external utility that is used to create database backups, to restore from backup when needed, and to optimize your database performance with a simultaneous backup and restore.

Used solely for database backups

The *Backup Manager* is not a generic backup utility that can be used with multiple file types. Its sole purpose is to create database backups that can then be safely backed up to an external drive and off-site using a generic backup program or service.

Creates FBK files

When the *Backup Manager* makes a database backup, it creates an FBK file that can be safely backed up with a generic software program or service. An FBK file is created using the GBAK utility supplied with the Firebird database. Besides backing up the database, the FBK file does the following:

- Rebuilds indices
- Eliminates obsolete record versions ("garbage")
- Defragment database pages
- Rewrites database tables contiguously

So whenever you restore from an FBK backup file, your database is optimized to be leaner and more efficient.

The backup fails if data corruption is encountered

When an FBK backup file is being created, the backup process will fail if data corruption is encountered that cannot be fixed. The benefit from this is that if yesterday's FBK file was successfully created, you know with confidence that the data corruption occurred in your most recent business day. You can therefore safely restore from yesterday's backup and you minimize any data loss to just one day.

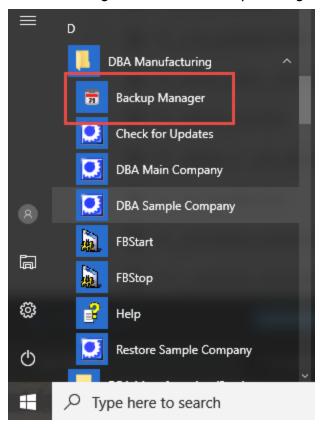
Incorporate FBK backup files in your daily general backup

You will continue to make a general daily backup of all the critical data folders on your server, not just for DBA but for other applications as well. The general daily backup

should incorporate the *(drive letter)\ProgramData\DBABackup* folder, which contains your FBK backup files.

Accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



Backup Manager Menu Options

The *Backup Manager* includes the following menu options:

Manual Backup

Use this option to make a manual backup of a registered company database. A manual backup should always be made prior to installing a product update.

Schedule Backups

Use this option to schedule daily backups of your registered company databases and *System* database. These backups create FBK files that will then be backed up offsite by your daily server backup.

NOTE: You will continue to make a general daily backup of all the critical data folders on your server, not just for DBA but for other applications as well. The daily server backup should incorporate the *(drive letter)* \ProgramData\DBABackup folder, which contains your FBK backup files.

Restore from Backup

Use this option to restore data from a backup.

Backup and Restore

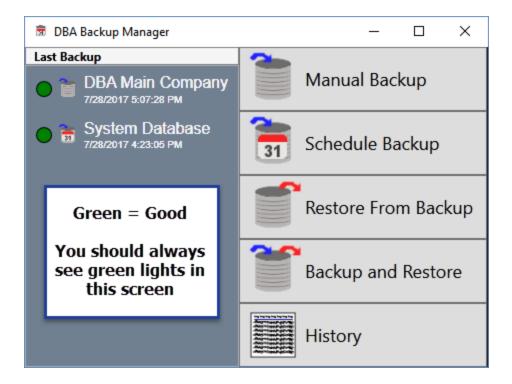
Use this option to perform a GBAK backup and restore in a single process. We recommend running this process on a periodic basis, such as once a quarter, to maintain optimal database performance. All DBA users must be out of the system to perform this one step Backup and Restore.

Backup History

Use this option to view *Backup Manager* history, including manual backups, scheduled backups, and restores from backup.

5.1 Backup Procedures

This section provides recommended backup and restore procedures that will protect your data and optimize your database performance.



Backup Phase 1 - Schedule daily database backups

The first phase of your daily backup process is to schedule daily database backup file creation for all of your registered databases.

The Firebird database requires special backup files

Unlike standard data files, DBA's *Firebird* database is not designed for directly backing up and restoring using Windows copy and paste functions. Instead, phase one of database backup is to create a special *.fbk file that deconstructs the data into a backup file format that enables proper and optimal restoration. Phase two of daily database backup is to use a standard backup program or service to back up the *.fbk file to an off-site location.

Create a backup schedule for each of your databases

Use the *Backup Manager - Schedule Backup* process to create a daily backup schedule for each of the following registered databases.

 Create a daily backup schedule for your Main Company database, which is identified by the registered company name.

- Create a daily backup schedule for your System Database, which stores various system settings.
- Create a daily backup schedule for any secondary companies, which are identified by the registered company name.

Designate a Mirror Copy to an external drive/device for each your scheduled backups

In your database scheduled backup, you can designate a mirror copy directory. This will make a backup copy to another drive/device during the scheduled backup process. This is an important insurance in case of a hard drive failure impacting your default backup location.

Schedule backups to occur off hours

Schedule database backup file creation to occur off hours when the system is not in full use. It is ok to assign the same start time to multiple databases.

Schedule all seven days of the week

Schedule each database backup for all seven days of the week. Even if your plant is closed on the weekend, your DBA system is capable of being can be accessed remotely

Database backup files are stored in the DBABackup folder

Each scheduled backup creates an *.fbk database backup file that can be used to restore your data if ever needed. Database backup files are stored in the DBABackup folder in this location:

(drive letter)\ProgramData\DBABackup

NOTE1: If the *ProgramData* folder is not visible, use Windows Help to determine how to show hidden files, folders, and drives on your particular version of Windows.

Database backup is only the first phase of daily backup

The process described here, which is to schedule backup file creation and mirror copy to an external drive/device for each of your registered database, is only the first phase of your daily backup process. It is vitally important that you also perform the second phase, which is to schedule a daily server backup. The daily server backup will include the *DBABackup* folder so that your database backup files get safely backed up to an off-site location.

Backup Phase 2 – Schedule a daily server backup using an online backup program or service of your choice

The second phase of your daily backup process is to use a generic backup software program or online backup service to schedule a daily general backup of all critical data files on your network file server, including those associated with non-DBA programs.

Schedule the server backup to occur after phase one backup is completed

When you schedule your daily server backup, set the start time to occur after the database backups are fully completed in phase 1.

How much time is required for phase one backup?

The database backup file creation process in phase one can take an hour or even more to complete, depending on the size of your main company database or additional company databases. There are two ways to determine how much time is required for database backup file creation:

- When you optimize a company database through the Backup and Restore process (see next section), you will actually observe how long the process takes to run.
- You can view the most recent *.fbk backup file in the (drive letter)/ProgramData/DBABackup folder on the server and take note of the time stamp that is included in the file name, which captures the time file creation was completed. You can then compare that time with the scheduled start time in the Backup Manager Schedule Backup process to calculate the total time required for backup file creation.

Back up to an off-site location

The daily server backup should be made to an off-site location as a precaution against natural disasters or theft. This can be accomplished using remote backup software or an online cloud backup service.

Back up the DBABackup folder

The daily server backup should include the entire *DBABackup* folder, which contains the *.fbk backup files that were created in phase one and is found in this location:

(drive letter)\ProgramData\DBABackup

NOTE: If the *ProgramData* folder is not visible, use Windows Help to determine how to show hidden files, folders, and drives on your particular version of Windows.

Back up the DBA Reports folder

The daily server backup should include the entire *Reports* folder, which contains your DBA custom form layouts (*.rtm files) and is found in his location:

(drive letter)\Program Files (x86)\DBA Manufacturing\Reports

Back up folders containing your DBA documents and images

The daily server backup should include the folders where you store your DBA-related documents and images. These are user-selected folders, so back up the appropriate folders.

Back up folders for all your non-DBA programs

The daily server backup should include all folders containing critical data associated with any non-DBA programs.

Periodic Restore - Optimize your database performance

The final recommendation is to periodically run the *Backup Manager – Backup and Restore* process on your main company and any additional company databases to optimize database performance.

GBAK boosts database performance

The *Backup and Restore* process uses the GBAK utility supplied with the Firebird database. GBAK boosts database performance by doing the following:

- Rebuilds indices
- Eliminates obsolete record versions ("garbage")
- Defragment database pages
- Rewrites database tables contiguously

So whenever you restore from a GBAK backup, your database is optimized to be smaller and more efficient.

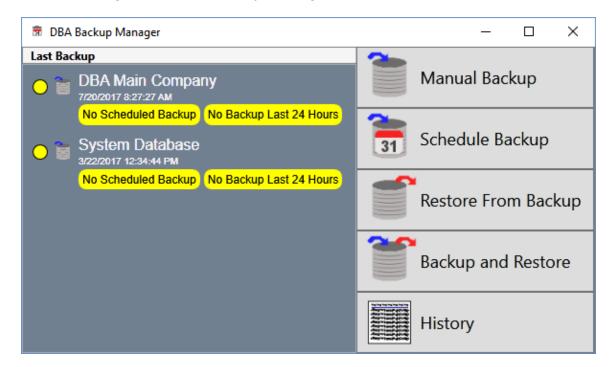
Run on a quarterly basis for best results

To keep your company database optimized for good performance, we recommend running the *Backup and Restore* process on a quarterly basis.

5.2 Last Backup Panel

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



To the left of the *Backup Manager* main menu options is the *Last Backup* display panel. This panel displays the date and time of last successful backups and informs you when backups have not been scheduled, when a database has not been made within the last 24 hours, and when a backup has failed.

Panel Details

Each of your registered databases is displayed in the Last Backup panel.

Status Indicator

A status indicator is displayed to the left of each registered database and is colored as follows:

Green

A green indicator means that backups are scheduled for this database and a backup was successfully completed within the last 24 hours.

Yellow

A yellow indicator is displayed with either of these messages:

No Scheduled Backup

This message indicates that no backups have been scheduled for this database. Use the *Schedule Backup* process to remedy this situation.

No Backup Last 24 Hours

This message indicates that a backup for this database has not been made within the last 24 hours. If *No Scheduled Backup* is also displayed, use the *Schedule Backup* process to initiate a schedule of daily backups. Otherwise, use the *Schedule Backup* option to modify the backup schedule for this database so that a backup is made on all seven days of the week.

Red

A red indicator is displayed with this message:

Failed Backup - Immediate Attention Required

This means that a backup failed to be completed. Select the *History* menu option where you will see the failed backup listed. In the *Log File* column, click the *Open* button to view the error log for this failed backup. Go to the end of the log file where you will see the point at which the backup failed. A backup can fail for various reasons, but the error of most concern is this one, which indicates data corruption:

gbak: ERROR: internal gds software consistency check (can't continue after...)

Stop using the system

If you encounter the above error, stop using the system. Continuing to use the system can perpetuate the corruption indefinitely, making it impossible to determine how many backups you must revert to in order to find a safe restore point.

The only remedy is to restore from backup

Once a database is corrupted, your only remedy is to restore from backup. You will lose all transactions made since your last backup and must reenter them once again. If you backup daily, you can limit the amount of reentry to one day's transactions, which is inconvenient, but achievable.

Database Name

Each registered database is identified as follows:

Main - (Registered Name)

Your Main Company database is identified by your license key registered name.

System Database

System Database identifies your system database, which stores common system-level settings among all your databases.

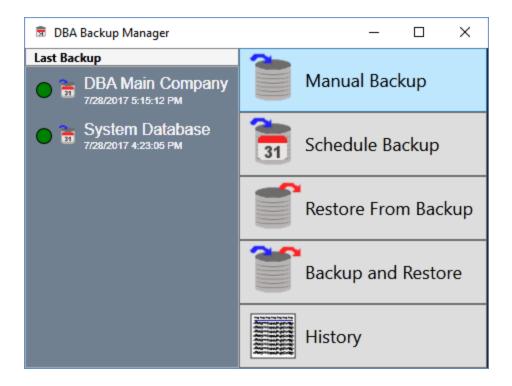
Date and Time

The date and time of the last backup is displayed under the database name.

5.3 Manual Backup

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



Use this option to make a manual backup of your Main Company and System databases (and any other registered company databases you may have).

Recommendations

Make manual database backups prior to each product update

Prior to installing each product update, use the Backup Manager's *Manual Backup* option to back up each of your registered databases. This way if for any reason the update fails, you can immediately restore from backup to resume system operation without any loss of data.

Make sure all users are logged off the system

Backups should be scheduled late at night when users will be off the system. If you ever manually make a backup during working hours, always make sure all users are logged off the system.

Back up each of your registered company databases

A separate backup is required for each database. Schedule daily backups for each of your registered company databases as well as the *System* database.

Make Windows file copies of forms and documents prior to each product update

Prior to installing each product update, make Windows file copies of your forms and documents, which are not included in *Backup Manager* backup processes, which only back up databases. These are stored in the following locations:

Custom Form Layouts (*.rtm files)

Custom form layouts are stored as *.rtm files in the Reports folder, normally in this path -- (drive letter\program files (x86)\DBA Manufacturing\Reports.

Documents and Images

Documents and images can be saved into user-selected folders. Back up the appropriate folders as needed.

Screen Details

Select Database to Backup

Two options are displayed:

From registered databases:

This option is selected by default and lists the registered databases that are installed on this server. Select the database you wish to back up. The following fields are displayed in the grid:

Company Name

Each registered company database will be listed along with the 'System Database', which is a database that coordinates common settings among your company databases.

Path

This field displays the database location.

Last Manual Backup

This field displays the date and time this database was last manually backed up.

From specified path:

Select this option to back up any non-registered databases, which are identified with an *.fdb extension. Use the *Find* button to navigate to the database file.

Select Backup File Path

Two options are displayed:

Use Default Backup Path

The following is the default location for manual backups:

\Program Data\DBABackup\ManualBackups

Use Custom Backup Path

With this option you can specify a custom location using the Find button. This option is used for backing up to an external device.

Create Backup

Click this button to create the backups of the selected databases.

Backup can take an hour or more to complete

Depending on the size of each database, the backup process can take up to an hour or more to complete. This is because the Firebird GBAK utility not only backs up the database, but also rebuilds indices, eliminates obsolete record versions ("garbage"), defragment database pages, and rewrites database tables contiguously.

You can perform other tasks while backup is in progress

When the backup utility is running, it has a light impact on computer resources, so you can freely use the computer for other purposes.

File Naming Convention

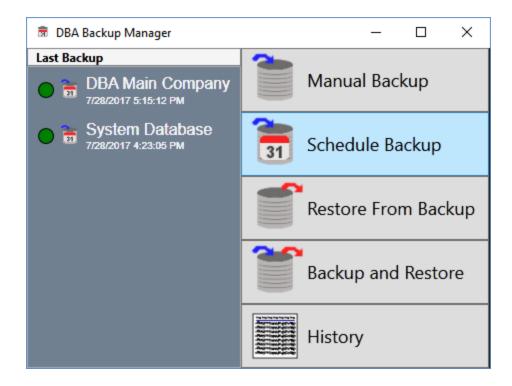
The backup file is created with an *.fbk file type. This file type is for backups and can only be used with the *Restore from Backup* option. The file naming convention is as follows:

Registered Company Name (less spacing and punctuation) + Date + Time

5.4 Schedule Backup

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



You must set up at least one daily backup schedule for your main registered company, your System Database, and any other registered company databases.

Recommendations

Schedule backup to occur when users are off the system

Backups should be scheduled late at night when users will be off the system. If you ever manually make a backup during working hours, always make sure all users are logged off the system.

Back up each of your registered company databases

Use the *Schedule Backup* process to create a daily backup schedule for each of the following registered databases.

 Create a daily backup schedule for your Main Company database, which is identified by the registered company name.

- Create a daily backup schedule for your System Database, which stores various system settings.
- Create a daily backup schedule for any secondary companies, which are identified by the registered company name.

NOTE: You are not permitted to schedule backups for the Sample Company or the Training Company.

Database backup is only the first phase of daily backup

The process described here, which is to schedule backup file creation for each of your registered database, is only the first phase of your daily backup process. It is vitally important that you also perform the second phase, which is to schedule a daily server backup. The daily server backup will include the *DBABackup* folder so that your database backup files get safely backed up to an off-site location.

Link:



Backup Procedures

Screen Details

Scheduled Backups Screen

You are first presented with the *Scheduled Backups* screen, which lists your currently scheduled backups.



New Schedule

Click this button to create a new scheduled backup. The *Create Scheduled Backup* screen is presented.

Scheduled Backups Listing

The following fields and buttons are displayed in the grid:

Schedule ID

The program automatically assigns a sequential number to identify each scheduled backup.

Company Name

This is the registered company name associated with this database.

Description

This is a user-defined description of this scheduled backup.

Backup Directory

This is the location of this database *.fdb file.

Edit

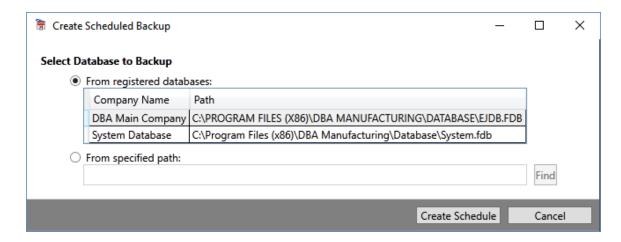
Click this button to edit the specifications of this scheduled backup.

Remove

Click this button to delete this scheduled backup.

Create Scheduled Backup Screen

Use this screen to select the databases associated with the scheduled backup.



Select Database to Backup

Two options are available:

From registered databases:

This option is selected by default and lists the registered databases that are installed on this server. Select the database you wish to back up. The following fields are displayed in the grid:

Company Name

In most cases you will see two databases listed -- the registered name associated with your Main Company and 'System Database', which is a

database that coordinates common settings among your company databases. If you purchased any additional companies, their registered names are displayed as well.

Path

This field displays the database location.

From specified path:

Select this option to back up any non-registered databases, which are identified with an *.fdb extension. Use the *Find* button to navigate to the database file.

Create Schedule

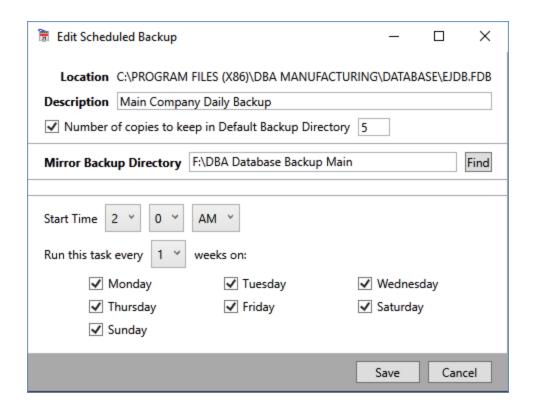
Use this button to advance to the *Edit Scheduled Backup* screen.

Cancel

Use this button to cancel selection and return to the Scheduled Backups screen.

Edit Scheduled Backup Screen

Use this screen to specify scheduled backup details.



Location

This read-only field displays the location of your database file(s).

Description

Enter a description in this field that identifies this scheduled backup.

Number of backup copies to keep

This setting determines the number of sequential backups that are to be maintained in the backup history folder. 5 backups are selected by default and is the recommended setting.

WARNING: Do not clear this checkbox because backup files will accumulate in the history folder without any limitation, which can ultimately fill up your hard drive and lead to backup or disk failures.

Mirror Backup Directory

It is strongly recommended that you designate a mirror copy location that is on a different device or different drive than your default database backup. A backup will be made to the default location and a mirror copy will be made to the drive/device that you specify. This ensures that if you have a hard drive failure that your backups are not all on the same drive as your program.

Start Time

Select the time of day to start this scheduled backup. Establish a time during off hours when users are logged off the system.

Run this task every weeks on:

To make daily backups, set this to '1' week and select each day of the week below. We strongly recommend daily backups.

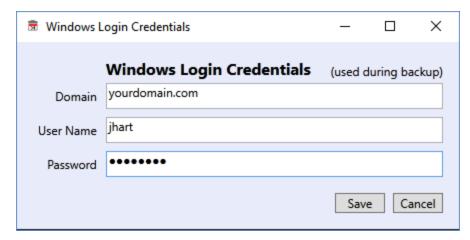
Save

Click this button to save your settings and advance to the *Windows Login Credentials* screen.

Cancel

Click this button to close the screen without saving.

Windows Login Credentials Screen



In this final screen you must designate your Windows login credentials to establish scheduler permissions.

NOTE: If you need help in making these settings, contact your IT service provider for assistance.

Domain

Specify your network's domain name.

NOTE: If you are making backups on a local PC that has no domain name, you can leave this blank.

User Name

Enter your user login name.

NOTE: If you are unsure of your user name, check the *Users* folder on your root directory for reference.

Password

Enter user login password.

Save

Click this button to save your entries and complete scheduled backup creation.

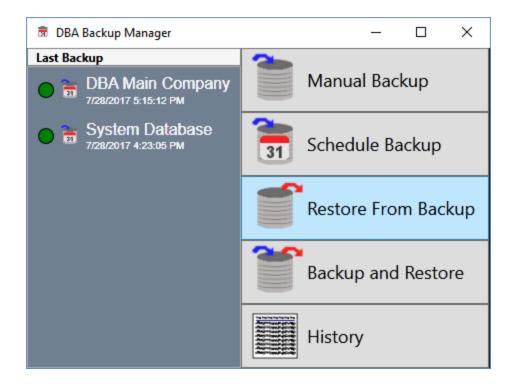
Cancel

Click this button to close the screen without saving.

5.5 Restore from Backup

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



Use this option to restore data from a backup. The use of this function should be very rare. If you are attempting to improve system performance, the Backup and Restore one step procedure should be used.

Get all users out of the DBA system

Before you run the *Restore from Backup* process, make sure all users have exited the DBA system. During the restore process, users will not be able to sign into the system.

Screen Details

Two restore options are available:

From backup history

Select this option to restore from the \ProgramData\DBABackups folder, which is where historical backups are stored.

Company

Select the company name you wish to restore to or the 'System Database' option.

Restore two databases

When you restore from backup, you will always restore two databases -- your registered company database and the 'System Database'.

Backup Selection

Your backups for the selected company or system database are listed in the grid. Select the backup you wish to restore, which would normally be the most recent backup at the top of the list.

From specified path

Select this option to restore from an *.fbk backup file stored in a location other than the \ProgramData\DBABackup folder. Use the Find button to navigate to the backup file.

Select Restore Location

The program automatically finds and displays the restore location. If you wish to restore to some other folder, use the *Find* button to navigate to that location.

Renamed Original Path

As a safety precaution the program automatically renames the existing EJDB.FDB database by appending the file extension as follows:

EJDB.FDB 1.ResBak

If anything happens to interrupt the restore process, the database can be renamed back to EJDB.FDB.

Restore

Click this button to initiate the restore process.

Restore can take an hour or more to complete

Depending on the size of each database, the restore process can take up to an hour or more to complete.

Restoring an older database to a newer product version

In most situations the backup being restored is only a day or two old. If for some reason you need to restore an older backup that was made on an earlier product version, upon launch of the program, you will receive an error message stating that "the database is out of sync with the application..." You are then asked if you wish to upgrade this database. Click Yes to continue. If this does not launch the database

update routine, you may need to right click on the DBA lcon to launch the program and "Run as Administrator" and then proceed to click *Yes* to continue.

WARNING: Never restore a newer database to an older product version

Even though you can safely restore an older database to a new product version, never attempt to restore a newer database to an older product version because the database is not backwardly compatible.

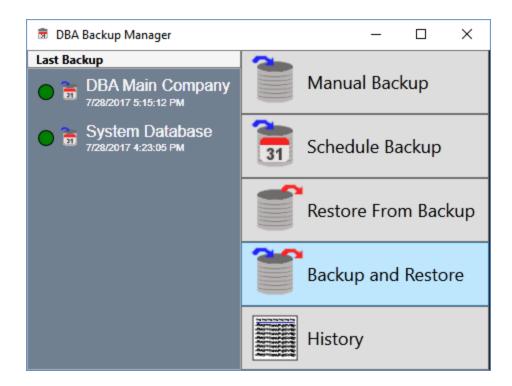
Cancel

Click this button to close the screen without restoring.

5.6 Backup and Restore

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



Use this option to perform a GBAK backup and restore in a single process. We recommend running this process on a periodic basis, such as once a quarter, to maintain optimal database performance. All DBA users must be out of the system to run this one step Backup and Restore procedure.

GBAK boosts database performance

The backup and restore process uses the GBAK utility supplied with the Firebird database. GBAK boosts database performance by doing the following:

- Rebuilds indices
- Eliminates obsolete record versions ("garbage")
- Defragment database pages
- Rewrites database tables contiguously

So whenever you restore from a GBAK backup, your database is optimized to be smaller and more efficient.

Run backup and restore on a quarterly basis

We recommend that you run the Backup and Restore process on a periodic basis, such as once a quarter, to assure optimal database performance.

Allocate up to two or more hours

Depending on the size of your database, the backup and restore process can take up to two or more hours to complete, so plan to run this process during off hours when users are off the system.

Instructions

There are two steps to the backup and restore process:

Step 1 - Run the Backup and Restore

The first step is to run the *Backup and Restore* process within the Backup Manager utility. See *Screen Details* below.

Step 2 – Move the RESBAK file to an external storage device (important)

Each time you perform the *Backup and Restore* process, the program automatically makes a copy of your database as a safety precaution before the actual backup is performed. This copy is a RESBAK file type named as follows:

```
EJDB.FDB 1.ResBak
```

After the *Backup and Restore* process is completed, go to the database folder (which is normally (drive letter\program files (x86)\DBA Manufacturing\Database) and move the RESBAK file to an external storage device.

WARNING: If you do not move the RESBAK file and let RESBAK files accumulate, your database folder will grow rapidly in size and may ultimately fill up your hard drive.

NOTE: If you do not move the RESBAK file and let RESBAK files accumulate, each subsequent copy gets incrementally named as follows:

```
EJDB.FDB_2.ResBak
EJDB.FDB_3.ResBak
Etc.
```

Screen Details

Use this screen to select the database to backup and restore.

Select Database to Backup & Restore

Two options are available:

From registered databases:

This option is selected by default and lists the registered databases that are installed on this server. Select the database you wish to back up and restore.

From specified path:

Select this option to back up and restore a non-registered database, which is identified with an *.fdb extension. Use the *Find* button to navigate to the database file.

Backup & Restore

Use this button to advance initiate the backup and restore process.

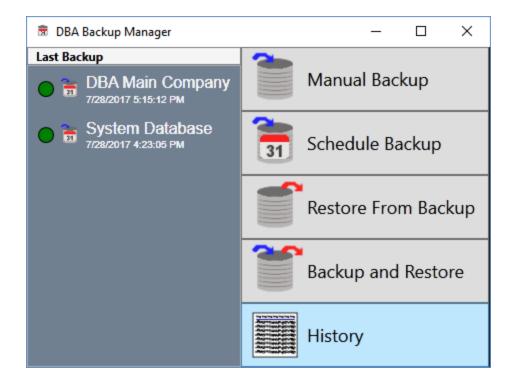
Cancel

Use this button to cancel selection and close the screen.

5.7 Backup Manager - History

The Backup Manager is accessed from the server

The Backup Manager is accessed from the server by clicking Windows Start – DBA Manufacturing – Utilities – Backup Manager.



Use this option to view *Backup Manager* history, including manual backups, scheduled backups, and restores from backup.

Screen Details

Upper Panel

Show All

Your most recent 10 backups are displayed by default. Select this checkbox to expand the display to all your backup history.

Grid

All *Backup Manager* events are listed in the grid, including manual backups, scheduled backups, and restores from backup.

Time

This field displays the event date and time.

Success

A green indicator in this field means that the event was successfully completed. A red indicator means that the event failed to be completed.

Type

The event type is displayed in this field and has these possible values:

Manual

This identifies a manual backup event.

Scheduled

This identifies a scheduled backup event.

Restore

This identifies a restore from backup event.

Company

The company name associated with the event is displayed in this field. Your main company is identified by "Main -" followed by the registered company name. Your system database is identified by "System Database."

Backup

You can click the *Showin Folder* button in this field to display the folder location of the backup file. If the button is grayed out, the backup file no longer exists.

Database

You can click the *Showin Folder* button in this field to display the folder location of the database file associated with this event.

Log File

Each event's details are recorded in a log file. You can click the Open button in this field to view the contents of the log file.

5.8 Recognizing Data Corruption

Restoring from backup is essential if you experience data corruption. This section explains how to recognize data corruption and what to do when it is encountered.

Data Corruption Error Messages

If you encounter any of these error messages during the course of system operation, it is an indication that some data corruption has occurred.

Internal gds software consistency check

Database file appears corrupt. Wrong page type. Page NNN is of wrong type (expected X, found Y)

Decompression overran buffer

Wrong record length

Database file appears corrupt. Bad checksum

Cannot find record back version

Next transaction older than oldest active transaction

Corrupted header page (at least)

Conversion error from string

INET/inet_error: read errno = 10054 or 10038 or 10093

Partner index description not found (175))

Sources of Data Corruption

Data corruption can occur from a number of outside sources beyond the control of the software. Here is a partial listing of these outside sources:

- An abrupt power loss or crash from unclean power
- Hard drive corruption or malfunction
- Direct editing of database tables
- Improper data import using non-DBA utilities
- Third party applications that update the database
- Users logging in during a non-GBAK update or restore process
- Restoring a non-GBAK backup to a running database

What to do if data corruption occurs

If you encounter any of the data corruption error messages listed above, immediately stop using the system and restore the last daily backup before the corruption was first noticed.

Do not keep using the system

Do not keep using the system. This can perpetuate the corruption indefinitely, making it impossible to determine how many backups you must revert to in order to find a safe restore point.

The only remedy is to restore from backup

Once a database is corrupted, your only remedy is to restore from backup. You will lose all transactions made since your last backup and must reenter them once again. If you backup daily, you can limit the amount of reentry to one day's transactions, which is inconvenient, but achievable.

Use the Backup Manager for daily backups

Use the *Backup Manager* for your daily backups because it uses the GBAK backup and restore utility that is supplied with the Firebird database. Should you ever need to restore from backup due to data corruption, a GBAK restore will rebuild and clean up your database for optimal functionality.

If you do not have a backup:

If you do not have a recent backup or no backup at all, you may have to reenter days, weeks, or even months of transactions or start over with a clean database.

If you have allowed data corruption to perpetuate:

If you have allowed data corruption to perpetuate without restoring from backup at the time it was first noticed, your data may be hopelessly corrupted, requiring you to start over with a clean database.

Our ability to help is limited to recovery advice

We are not able to repair a corrupt database. Our ability to help is limited to providing support with the restore from backup process or advising how to start over with a clean database.

Database Protection Measures

You can protect your database from data corruption by taking the following measures:

Install a power protection system (UPS)

An abrupt power loss or crash from unclean power is the most common cause of data corruption. Factories are especially subject to power fluctuations. It is imperative that

you protect your server with a power protection system that includes surge suppression, power conditioning, and battery backup.

Do not edit your database tables

Never directly edit or manipulate your database tables, even if you have a tool that enables you to do so. This is extremely dangerous and can result in severe data loss. This practice also violates section 5 of the *DBA Software License and Maintenance Agreement*.

Do not import data with non-DBA utilities

Never import data by any means other than the data import utilities included with the system. Avoid third party data import programs. The big risk you take by violating these guidelines is that you can "infect" your system with corrupt data from day one that can cause chronic problems that can never be purged from your system.

Do not use third party applications that update the database

Custom programs or reports that extract data from the database are fine, but <u>do not use</u> <u>any third party program that updates the database</u>. This is extremely dangerous and can render your system unsupportable.

6 Product Update Installation

Always update!

Many well known software products such as Microsoft Windows, Microsoft Office, and QuickBooks are sold in versions. Service packs for older versions remain available for several years and there is no obligation to upgrade to the current version. Many people commonly perceive that all software is maintained this way.

This is not the case with DBA. DBA is a highly specialized application with only one version, which is always the current build. Service packs and hotfixes are only available in the current build.

Our support and software maintenance model is based on the premise that all customers are on the current build. When you stay on an older build, you not only do not benefit from new product features and fixees, but you also remain vulnerable to to security and compliance issues introduced by the constantly evolving Microsoft Operating System.

It's also easier for your users to adapt to each build incrementally than it is to skip several builds and then have to "catch up" with a large set of changes.

In conclusion -- <u>always update</u>. It protects your system from problems, helps us provide better support, and makes it easier for your users to keep up with changes.

How updates are distributed

The latest program version can always be found in the <u>What's New</u> area in the online support center.

When a new update is released, we typically provide notification to customers that have resolved programming issues in our support ticket system. We often follow this up with a newsletter announcement. After the early adopter phase has concluded, we set a notification to Admin users at launch of DBA that a new update is available.

The build number identifies each product version

Each new version of the product is identified with a build number. A typical build number looks like this:

394.0.1

Build Number Segments

The build number consists of three digital segments:

Segment 1 = Build Number

The first segment identifies the 3-digit build number. Each build is a major release with significant new product features. A build typically requires administrator tasks and includes new educational materials.

Segment 2 = Service Pack Number

The middle segment identifies a single digit service pack number. A service pack is a minor release with product improvements. Service packs typically do not require administrator tasks.

Segment 3 = Hotfix Number

The final segment identifies a single digit hotfix number. A "hotfix" release consists of one of more high priority bug fixes.

You can optionally preview updates using the Training Company

Before going live with a new update, you have the option of previewing and experimenting with the update on your own company data by installing the Training Company option.

Link:



Training Company Installation

Product Update Documentation

Release Notes

From wherever you download a product update or service pack, whether it is from within the software or from the online support center, the download file is always accompanied by a release notes document in PDF format.

NOTE: Always review the release notes prior to updating because they may include system administrator instructions.

Resolved Programming Issues

A list of resolved programming issues is made available with each product updates and service pack in the What's Newarea of the support center.

6.1 File Download

Installation File Name

The software installation file, which is used for product updates and new system installation, is named as follows:

DBAManufacturing_xxx.x.xxx.exe

The "xxx.x.xxx" portion of the name represents the full build number, which consists of three segments -- the build number, the pack number, and the hotfix number.

Download Link

When logging into the DBA system, administrator users are notified whenever a new product build is available for updating, in which case links are provided to the download file and release notes.

The latest product build is also always available at any time in the *What's New* area in the online support center.

Free Demo System Download Link

Product updates can be applied to the free demo system, in which case the installation file can be downloaded from the *Download* page on our website.

Link:

Download Page

Download to any location on your server

Download the installation file to any location on your server, such as your default downloads folder.

6.2 Update Installation Instructions

Always make a database backup before updating

Always use the *Manual Backup* process within the *Backup Manager* utility to make a database backup to a local storage location before installing a product update. If any unexpected event occurs (such as a power failure) that halts the process, you can restore from backup.

Make copies of forms and documents

Before installing a product update, make copies of your forms and documents, which are not included in the *Backup Manager* backup. These are stored in the following locations:

Custom Form Layouts (*.rtm files)

Custom form layouts are stored as *.rtm files in the Reports folder, normally in this path -- (drive letter\program files (x86)\DBA Manufacturing\Reports.

Documents and Images

Documents and images can be saved into user-selected folders. Back up the appropriate folders as needed.

Anti-virus and firewall settings:

Be aware that anti-virus and firewall settings can potentially interfere with the product update installation process and may require temporary adjustment.

Installation Instructions

On your server, double click the *DBAManufacturing_xxx.x.xx.exe* installation file to launch the update installation wizard.

Welcome to the DBA Manufacturing Update Wizard

The opening screen indicates that the update installation wizard will update your system. Your current build number and update build number are both identified.

License Agreement

The next screen displays the *DBA Software License and Maintenance Agreement*. Select the first option in the lower panel to accept the terms of the license agreement.

Paper Size

In this screen you specify a paper size. Select *Letter* for the standard USA paper size for reports and forms. Specify *A4* for the standard international paper size for reports and forms.

DBA Installation Path

This screen specifies the location where the *DBA Manufacturing* software is installed.

Forms Update

This screen is used to specify how you want your form layouts to be updated.

WARNING: Always give custom forms unique names

Always give your custom form layouts (*.RTM files) unique names so that default forms can be restored without overwriting custom layouts. The update process will always overwrite the standard form names with newly updated forms.

Select one of these two options:

Repair custom forms

The *Forms Repair* utility will modify your customized and renamed form layouts as needed to reflect any programming changes.

Restore default forms

This option is recommended when your forms have unique names. A new set of default form layouts will be installed and will not overwrite your custom and renamed layouts.

Restore Sample Company Data

This screen gives you the option of restoring data in the *Sample Company*. Each new build includes an updated *Sample Company* database, which is used for setup reference, user training, and product evaluation. To keep up with current reference information, always restore sample data with each update.

Review Settings

This screen enables you to review your update installation settings -- your *Paper Size* selection, *Forms* update preference, and *Sample Company* data preference.

Click *Back* to go back and make any changes, if needed.

Click *Install* to begin the update installation. Over the next few minutes you will observe various sets of files being installed, settings established, and database restructurings.

Update Completed

This final screen displays when the update installation has been successfully completed for the indicated build number.

7 License Key Installation

A license key gets installed with new system purchase, whenever you purchase additional users, and annually when your license gets renewed.

Upgrade License

(Admin - Upgrade License)

The system administrator uses this screen to install a new license key whenever annual maintenance is renewed or additional users are purchased. A license key activates the system and enables active users to be set up for the number of licensed users purchased.

License keys were sent by Email

The license key is sent to you by Email. It consists of two components – a *Company Name* and *Serial Number* – that are cut and pasted from the Email into this screen.

License Key Information

The license key is comprised of your *Company Name* and a *Serial Number*. They are displayed as follows in the Email:

Company Name: ABC Manufacturing Co.

Serial Number: MTFcMCEhMCEhMjlvMDEvMDchlTAhlTAhlTlhlUEhlQ==

The *Company Name* is the name you furnished to us and is the name that will display on screens and reports. If prefer different wording for the name, contact support@dbasoftware.com and we will Email you a revised license key.

WARNING: Do not attempt to change the *Company Name* yourself because it will no longer match the *Serial Number*.

License Key Installation – Main Company

When you launch the *Main Company*, you are presented with this message:

The Main Company is only for use when you purchase the product. If you are on the free version, please use the Sample Company for evaluation. If you have purchased the product, click the button below to install your License Key.

Click the *Install License Key* button. You are then presented with this screen:



Do the following:

Copy the *Company Name* from the Email and paste it into the first field on this screen.

Copy the *Serial Number* from the Email and paste it into the second field on this screen.

Click Continue to close the screen.

License Key Installation – Sample Company

You are also provided a second license key, which expands the *Sample Company* into a multi-user system. They are displayed as follows in the Email:

Company Name: DBA Sample Company

Serial Number: MTZcNSEhMCEhMzEvMTlvMzAhlTAhlTAhlTUhlUEhlQ==

Do not attempt to change the *Company Name* yourself because it will no longer match the *Serial Number*.

In the Sample Company, go to Admin – Upgrade License and do the following:

Copy the *Company Name* from the Email and paste it into the first field on this screen.

Copy the *Serial Number* from the Email and paste it into the second field on this screen.

Click Continue to close the screen.

8 Training Company Installation

The *Training Company* is installed side-by-side on the same server as your live company. It is used to preview the latest product build on a copy of your live *Main Company* database and latest *Sample Company* data. It can be used for the following purposes:

User Training

During *Startup Wizard* implementation, it enables you to make transactions to test system setup and train users without affecting the data integrity of your live system.\

Product Update Preview

It enables you to preview each new product build and make test transactions using a copy of your *Main Company* database and the latest *Sample Company* data <u>before</u> you install a product update.

Beta Version Preview

Sometimes during support ticket incidents, a customer is furnished with a "Beta" version of the Training Company to enable preview of a pending build prior to its public release.

Experimentation and Testing

The *Training Company* is ideal for experimenting with new and different settings and processes without affecting the integrity of your live system.

WARNING: Never use as a live system (for temporary use only)

Never use the *Training Company* as a live system. The database is subject to refresh replacement and system updates cannot be applied (removal and re-installation is required for new product builds).

NOTE: Any data entered in the Beta/Training Company <u>cannot be saved</u> or imported back into your live company.

Color Coding (Red Icons and Black Wallpaper)

To clearly differentiate the *Training Company* from your live system, the desktop and start menu icons are colored red instead of blue and the main menu wallpaper within the program panel is black instead of neutral color.

8.1 File Download

Installation File Name

The *Training Company* installation file is named as follows:

DBAManufacturingTraining_xxx.x.xxx.exe

The "xxx.x.xxx" portion of the name represents the full build number, which consists of three segments -- the build number, the service pack number, and the hotfix number.

Download from the What's New area in the Support Center

The *Training Company* installation file is downloaded from the *What's New* area in the online support center.

You must Uninstall and Reinstall with each new Build Version

The *Training Company* version cannot be updated. For each Build Version, you must first go to *Windows > Add Remove Programs* and uninstall the old Training Company version before installing a new version.

8.2 Server Installation

The *Training Company* is is a parallel system to your live DBA system with its own installation folder and wired workstations setup. It shares the *Firebird* database program and operates using your live system's license key.

Must be installed on the same server as your live system

The *Training Company* can only be installed with an existing system and must be installed on the <u>same server/computer</u> and drive where your live company is installed. Even though the *Training Company* is installed in its own folder, it references the live company for various settings and shared files.

You must Uninstall and Reinstall with each new Build Version

The *Training Company* version cannot be updated. For each Build Version, you must first go to *Windows > Add Remove Programs* and uninstall the old Training Company version before installing a new version.

Double click the installation file

Double click on the *DBAManufacturingTraining_xxx.x.xx.exe* installation file to launch the installation wizard.

Welcome to the DBA Beta/Training Company Installation Wizard

This screen indicates that the installation wizard will install the DBA Beta/Training Company on your computer for the indicated build number.

WARNING: Do not use as a live system (for temporary use only)

This wizard will install the *DBA Beta/Training Company* using a copy of your live database for testing and evaluation purposes. Never use the *Beta/Training Company* as a live system. The database is subject to refresh replacement and system updates cannot be applied (removal and reinstallation is required for new product builds).

NOTE: Any data entered in the Beta/Training Company <u>cannot be saved</u> or imported back into your live company.

License Agreement

The next screen displays the *DBA Software License and Maintenance Agreement*. Review and select the first option in the lower panel to accept the terms of the license agreement.

Installation Type

This next screen displays three installation type options:

Standard Installation - Letter Paper Size

Select this option to install the *DBA Beta/Training Company* software to its default location, to use your *Main Company* as the database source, and to specify the *Letter* paper size, which is the standard USA paper size for reports and forms.

Standard Installation - A4 Paper Size

Select this option to install the *DBA Beta/Training Company* software to its default location, to use your *Main Company* as the database source, and to specify the *A4* paper size, which is the standard international paper size for reports and reports and forms.

Custom Installation

Select this option to specify a custom software location or alternate database source.

If you selected a *Standard Installation* option, the *ReviewSettings* panel displays the default *DBA Path*, the *Database Source Folder* in your main company, and the selected *Paper Size*.

Click *Install* to begin standard installation.

Custom Installation Screens

If you selected the *Custom Installation* option, the following screens are displayed.

DBA Installation Path

In this screen you can specify an alternate location for installation of the *DBA Beta/Training Company* software.

Paper Size

In this screen you can specify the desired paper size. Select *Letter* for the standard USA paper size for reports and forms. Specify *A4* for the standard international paper size for reports and forms.

Database Source

This screen enables you to select a source database other than your standard *Main Company*. Select the folder containing the database file (*ejdb.fdb*) you wish to use.

Installation Review

If you had selected the *Custom Installation* installation type, this screen displays the *Review Settings* panel, which enables you to review your *DBA Path, Database Source Folder*, and *Paper Size* settings.

Click *Back* to go back and change any of your custom settings, if needed. Click *Install* to continue.

Progress

This screen displays for several minutes as you observe various sets of files being installed and settings established. The screen closes when processing is completed.

Installation Completed

This final screen displays when installation has been successfully completed for the indicated build number.

Launching the Training Company

The *Training Company* installation makes copies of your *Sample Company* and *Main Company* so that you can review the latest product build with either database source.

Sample Company

The training company Sample Company is automatically updated with that latest sample data. To launch the training company Sample Company, click the DBA Sample Company (Beta) icon on your desktop or navigate to Start – Programs – DBA Manufacturing (Beta) – DBA Sample Company.(Beta).

Main Company

The training company *Main Company* uses a copy of the database source specified during installation. To launch the training company *Main Company*, click the *DBA Main Company* (Beta) icon on your desktop or navigate to Start – Programs – DBA Manufacturing (Beta) – DBA Main Company (Beta).

Color Coding (Red Icons and Black Wallpaper)

To clearly differentiate the *Training Company* from your live system, the desktop and start menu icons are colored red instead of blue and the main menu wallpaper within the program panel is black instead of neutral color.

8.3 Client Workstations Installation

Client workstations access the *Training Company* through your local local area network. A *DBA Manufacturing Client* gets installed on each client workstation to provide start menu access, desktop icons, and a database engine.

WARNING: Do not use wireless connections

Do not use wireless connections because client workstation will experience disconnections, access violation errors, and potential data corruption.

NOTE: If you wish to furnish a PC with a wireless connection, it must be set up as a remote desktop workstation (see System Requirements).

Client installation is only required on a one-time basis

Even though the the *Training Company* will be removed and re-installed with each new product build, client installation does not get removed and remains in place so that workstations have access to all subsequent installations.

Installation Instructions

Perform this installation process on each client workstation that is to have access to the *Training Company*.

Share your DBA Manufacturing (Beta) folder

Share your *DBAManufacturing* (*Beta*) folder on the server, which is normally located at (*drive letter*)*Program Files* (*x*86)*DBA Software**DBA Manufacturing* (*Beta*). Make sure you allow full access to this shared folder under security for all the wired workstation PC's that are to have access to the *Training Company*.

Double click the installation file

Navigate to the *Client* sub-folder on the server, which is normally located at *(drive letter)* \Program Files (x86)\DBA Software\DBA Manufacturing (Beta) \Client\\DBA Client\\normalBeta.exe, which launches the client installation wizard.

Welcome to the DBA Manufacturing Client Installation Wizard

This first screen indicates that the wizard will install the *DBA Manufacturing Client* on your computer.

License Agreement

The next screen displays the *DBA Software License and Maintenance Agreement*. Select the first option in the lower panel to accept the terms of the license agreement.

Installation Type

This screen indicates that a standard installation type will be made to the default *DBA Path*, *Database Host*, and *Database Path*. A custom installation type is not provided.

Progress

On this screen you observe various files being extracted and installed in a local folder. The screen closes when processing is completed.

NOTE: Ignore the *Borland Database Engine Installation* prompt, which only displays for a moment. The program automatically confirms installation and closes the screen.

Install Complete

This final screen indicates that installation is successfully completed.

Desktop shortcuts were installed on the workstation for *DBA Sample Company (Beta)* and *DBA Main Company (Beta)* access.

Verify System Access

Launch the *DBA Sample Company (Beta)* or *DBA Main Company (Beta)* to verify that the workstation can access the system.

8.4 Refresh Database Utility

You can refresh your database in the *Training Company* with a new copy of your source database using the *Refresh Beta Database* utility.

How is refresh database used?

If you've made some transactions, for example, and for some reason you wish to start over with a clean copy of your *Main Company* database, this utility enables you to do so without removing and re-installing the *Training Company* from scratch.

As another example, a period of time may have elapsed since the *Training Company* database was initially copied or refreshed and you wish to review and experiment with your latest *Main Company* data, you can use this utility to quickly refresh the database.

Instructions

Go to Windows Start - DBA Manufacturing Beta - Utilities - Refresh Beta Database to launch the screen.

The *Database Path* defaults to the location of your *Main Company's ejdb.fdb* database file. If you wish to use another database source, click the *Find* button to navigate to and select an alternate *ejdb.fdb* file.

Click the *Refresh* button to begin processing.

9 **Server Migration**

To move your DBA system to a new server, perform the following steps:

Step 1 - You must have an installer that matches your current product build number

Do not attempt to perform a product update and server migration at the same time. Focus either on updating your program or installing a matching build version on your new server and migrating. A product update often has Admin tasks and issues to work through that should not be done at the same time as a server migration.

If your system is not on the latest product build, we recommend you install the latest product update on your old server if possible. Update on your existing server first and perform any and all Admin tasks associated with the update.

If you choose to migrate without updating your current system first, the installer version for the new server must match the build version of your software. Please contact DBA support and we can provide the installer to match your build version.

Links:



Product Update Installation

Step 2 – Back up your databases, custom forms, and Email history

In this step you will back up your databases, custom form layouts, and Email attachments history. It is not necessary to back up your entire DBA Manufacturing folder.

Databases

NOTE: Before you backup your databases, make sure that all users are logged out of DBA. This can be verified through the *Admin - Current Online Users* screen.

Backup Methods:

- Using the DBA Backup Manager (recommended) Use the Manual Backup process within the *Backup Manager* utility to back up your Main Company and System databases. You can choose the *Use Custom Path* option to copy your .fbk files to a location or device to later move them to your new server in Step 4 below.
- Using Windows Copy File Function Ensure that all users are out of DBA and make a copy of EJDB.FDB and SYSTEM.FDB files, normally located in the (drive letter)\Program Files (x86)\DBAManufacturing\Database.

Custom Form Layouts (*.rtm files)

Next, back up your custom form layouts (*.rtm files) in your Reports folder, which is normally located in (drive letter)\Program Files (x86)\DBA Manufacturing\Reports.

Email Attachments

Finally, back up your *EmailAttach* folder, which contains your customer and supplier Email attachments history. It is normally located in (drive letter)\Program Files (x86) \DBA Manufacturing\EmailAttach.

Step 3 - Perform a new system installation on the new server

Perform a new system installation on the new server. The DBA installer must match the build version of our old server system. You will not need a new registration key for this process. The key is embedded in your database and will be activated when you restore your database to the new server in Step 4.

Link:



New System Installation

Verify successful installation

Log into the Sample Company to verify that the program launches and new system installation was successful.

Step 4 - Restore the backups made in step 2

In this step you will restore the files backed up in step 2 to the new server.

Databases (eidb.fdb and system.fdb)

Restore Databases Using the DBA Backup Manager

- Use the Restore from Backup function in the DBA Backup Manager
- Copy your main company and system database .fbk files created in Step 2 to a location on your new server.
- Select the radio button for *From specified path* and point to your main company .fbk file and restore, followed by system database .fbk file and restore
 - Make sure the system database is restored using the system.fdb file name
 - Make sure your main company database is restored using the ejdb.fdb file name
- Set Restore Location to (drive letter)\Program Files (x86)\DBA Manufacturing\Database.

Restore Databases Using Windows Copy File Method

Restore the ejdb.fdb and system.fdb database files to the Database folder, which is normally located in (drive letter)\Program Files (x86)\DBA Manufacturing\Database.

Custom Form Layouts (*.rtm files)

Restore custom *.rtm files to the Reports folder, which is normally located in (drive letter)\Program Files (x86)\DBA Manufacturing\Reports.

Email Attachments

Restore Email attachments to the *EmailAttach* folder, which is normally located in (drive letter)\Program Files (x86)\DBA Manufacturing\EmailAttach.

Step 5 - Verify System

Launch the DBA Main Company and verify that the system launches properly and your data was successfully restored.

Step 6 - Remove and re-install Client PCs

In this step you will do the following to each of the Client PCs that are to have access to the new server.

First, remove the old *DBA Client Installation* program from the computer.

Next, connect the workstation PC to the new server by performing a new DBA Client Installation. Click the link below for installation instructions:.

Link:



Client Workstations Installation

To use your old server as a workstation:

If you wish to convert the old server into a workstation, you must first remove the DBA Manufacturing program from the computer, then you can perform the client installation process.