
B.A.S.I.S. Interface™ 2.0

*B.A.S.I.S. Interface
User Guide*



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The name *B.A.S.I.S. Interface™* was formally B.A.S.I.S. Import.

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1

OVERVIEW

INTRODUCTION

B.A.S.I.S. Interface™ provides an application programming interface (API) designed for database administrators who need to keep sharable data in different databases up-to-date and matching.

For example, university Residence Life, having a B.A.S.I.S. Security database, wants to use the Administration's student database. They simply don't have the time or inclination to enter 5000+ student's names, home addresses, phone numbers, social security numbers, etc. With B.A.S.I.S. Interface the DBA responsible for the Residence Life security database, can import data from the system to assign the B.A.S.I.S. G rooms and add student information.

But B.A.S.I.S. Interface not only allows you to initially import a database of users, it also enables you to keep B.A.S.I.S. user data up-to-date and synchronized with your institution's database. So, for example, if a student is expelled and is inactivated from the Administration's database, B.A.S.I.S. Interface, if set up properly, can automatically delete that student from the B.A.S.I.S. database.

B.A.S.I.S. Interface is also specifically designed to exchange data with CBORD Odyssey, a popular meal card system. When a CBORD card is lost or reissued, B.A.S.I.S. Interface can update the B.A.S.I.S. Security system accordingly. Also the reverse is true: when the B.A.S.I.S. Security system is updated, the CBORD meal card is updated in turn.

OBJECTIVES OF B.A.S.I.S. INTERFACE

The following objectives outline specifically what B.A.S.I.S. Interface can do:

B.A.S.I.S. Interface . . .

- matches multiple department data, including Blackboard, with B.A.S.I.S. Security data.
- automates B.A.S.I.S. G room assignments.
- provides an export table of changes made in the B.A.S.I.S. database for use in updating other systems.
- automates the synchronization between CBORD Odyssey meal card data with B.A.S.I.S. Security data.

B.A.S.I.S. INTERFACE OVERVIEW DIAGRAM – TOP VIEW

Figure 1.1 shows how the B.A.S.I.S. Interface interacts with the B.A.S.I.S. Software and external databases.

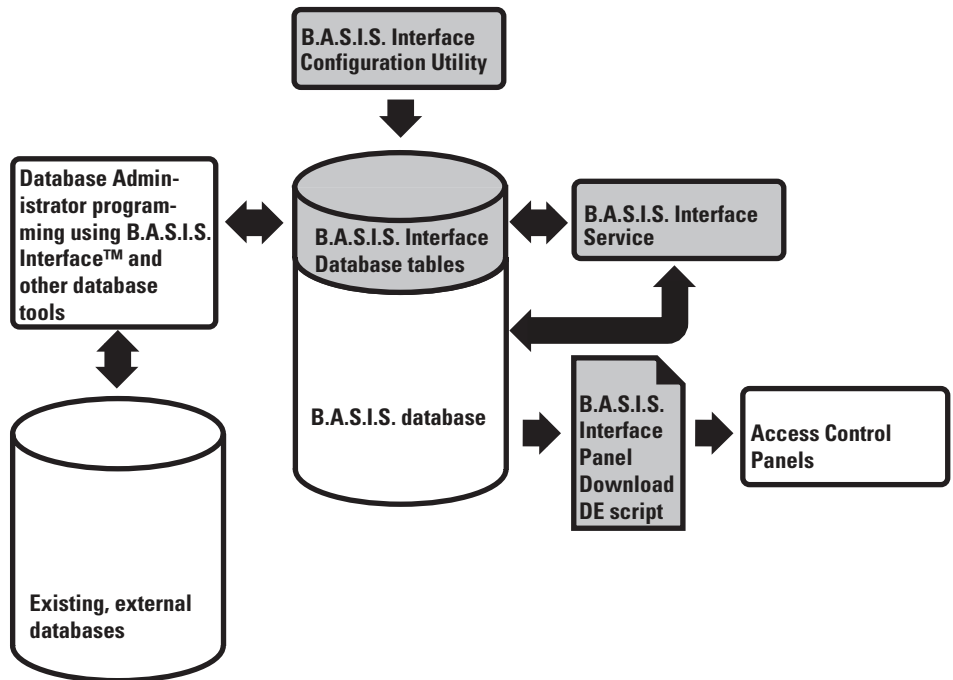


Figure 1.1 Overview diagram of B.A.S.I.S. Interface™ — all gray boxes are part of B.A.S.I.S. Interface.

TECHNICAL OVERVIEW OF IMPORT AND EXPORT DATA

B.A.S.I.S. Interface contains, once installed, four components that enable you to successfully synchronize the data in your databases. The four components are:

- BASIS_IMPORT table
- BASIS_DATA_EXPORT table
- B.A.S.I.S. Interface Service
- B.A.S.I.S. Interface configuration application
- Panel download Data Exchange script

These components are described below.

B.A.S.I.S. Import and export tables

The BASIS_IMPORT and BASIS_DATA_EXPORT tables are actual database tables that are added to and become an integral part of the B.A.S.I.S. Security Database. These database tables bridge the gap between your databases and the B.A.S.I.S. Security database. The data export and import processes work independently and may be performed in either order initially. For a description of the data tables organized by kind of data, see the discussion beginning on [page 3-5](#). For full detailed parameters of the data, see the appendix that describes the two data tables beginning on [page 9-1](#).

B.A.S.I.S. Interface Service

The B.A.S.I.S. Interface Service is a Microsoft *component service* that is the workhorse of B.A.S.I.S. Interface. This service runs in the background, periodically checking for any change to the BASIS_IMPORT table or the B.A.S.I.S. database. Once the service detects a data change, it will perform the appropriate processing.

The service will check regularly for data that is ready to be transferred. The records will be processed in the order that they were written to the tables.

If any part of a single record does not pass the validation, B.A.S.I.S. Interface rejects the entire record and the first error that was identified is written to the error log. For more information on the B.A.S.I.S. Interface Service, see [page 2-6](#).

B.A.S.I.S. Interface configuration application

B.A.S.I.S. Interface also installs the configuration application that enables you to set up the data paths and configure what features of the service will be used. For more information on the installation of the application, see [page 2-3](#).

Panel download script

When B.A.S.I.S. Interface initiates changes, the panels are not notified or updated automatically of the changes. In order to keep the panels up to date with the data in B.A.S.I.S., a Data Exchange script has been provided. For information on the setup and use of this script, see the procedure beginning on [page 5-2](#).

HOW TO USE THIS GUIDE

The following is a description of what you will find in each chapter of this guide:

Chapter 2 - *Installing and configuring the B.A.S.I.S. Interface application* - This chapter describes how to install and configure the B.A.S.I.S. Interface utility.

Chapter 3 - *Understanding Data Import & Export* - If you have data from administrative databases that you need to import to the B.A.S.I.S. database and/or if you need to export data from the B.A.S.I.S. database to administrative databases, review this chapter.

This chapter describes the database tables that B.A.S.I.S. Interface adds to the B.A.S.I.S. database that you can map your existing data to.

Chapter 4 - *Understanding & Configuring the CBORD Interface* - If you have data from an Odyssey CBORD meal card database that you need to import to the B.A.S.I.S. database and/or if you need to export data from the B.A.S.I.S. database to an Odyssey CBORD database, review this chapter.

This chapter provides the instructions for setting up a CBORD Data Transfer Protocol (DTP) file that will automatically synchronize data.

Chapter 5 - *Configuring Automatic Downloads to B.A.S.I.S. Access Control Panels* - Regardless of the kind and extent of data that you want to keep up to date, you will want to update the access control panels that control the access to your facility.

This chapter provides complete instructions on setting up a B.A.S.I.S. Data Exchange script to automatically export data to the access control panels. You must have a current Data Exchange license to perform this function.

Chapter 6 - *Importing and Running B.A.S.I.S. Reports* - This chapter briefly describes how to run the reports from B.A.S.I.S. that come with the B.A.S.I.S. Interface.

Chapter 7 - *Software Requirements* - This chapter/appendix lists the software requirements to properly run B.A.S.I.S. Interface.

Chapter 8 - *Important Terms* - This glossary provides a definition of unique terms in this guide.

Chapter 9 - *BASIS_IMPORT and BASIS_DATA_EXPORT Tables* - This appendix details the two database tables that B.A.S.I.S. Interface installs to the B.A.S.I.S. database and describes the data parameters to be able to properly map your data to them.

HOW TO GET PRODUCT SUPPORT

Support services

When you have a problem or question with B.A.S.I.S. Interface™, your first resource for help is the *BASIS Interface™ User Guide*. If you cannot find a satisfactory answer, contact your local BEST Representative.

Telephone technical support

Four support packages are available. See your BEST representative for more information or to order a support package.

Package No	Package description	Materials	Labor
BASD-INST-1	Recurring basic import/export	BAS-SWG-1225 Data Exchange,	10 hours
	Recurring basic import/export for multiple departments	BAS-SWG-1225 Data Exchange	10 hours per department*
BASD-INST-2	Interface requiring one or all of the following: a. B.A.S.I.S. G auto room assign b. CBORD meal interface c. Custom database triggers	BAS-SWG-1225 Data Exchange and BASD-BI B.A.S.I.S. Interface™	30 hours per dept
BASD-INST-3	End user creates their own scripts with resident DBA or IT staff.	Determine the material needed from the above packages for customer use.	Typically 1-2 hours

* A department is defined as an individual file or feed of data with a unique instruction set for processing.

Four hours of pre-sale consultation is included in the list price of B.A.S.I.S. Interface™, BASD-BI.

Support agreements and labor for software engineering scripting services

Three support agreements are available for purchase with BASD-BI:

Support agreement	Support package description	Materials	Labor
SA-1	Emergency quick call		1 hour support block
SA-2	Preventative maintenance		10 hours per quarter
SA-3	Remote administration		40 hours per quarter

2

INSTALLING AND CONFIGURING THE B.A.S.I.S. INTERFACE APPLICATION

We recommend that B.A.S.I.S. Interface™ be installed on the server where the B.A.S.I.S. Application resides. But before you install the B.A.S.I.S. Interface, make sure that you first know which database you have installed on your system. The two databases that can be used with B.A.S.I.S. Interface are:

- Microsoft SQL 2000 Server
- Oracle 9i

Tip: The default installation uses Microsoft SQL Server 2000.

CONFIGURATION OPTIONS IN B.A.S.I.S. INTERFACE

The following diagram provides a description of the features and options of the B.A.S.I.S. Interface Configuration Utility and maps the place where you can find a discussion of that feature.

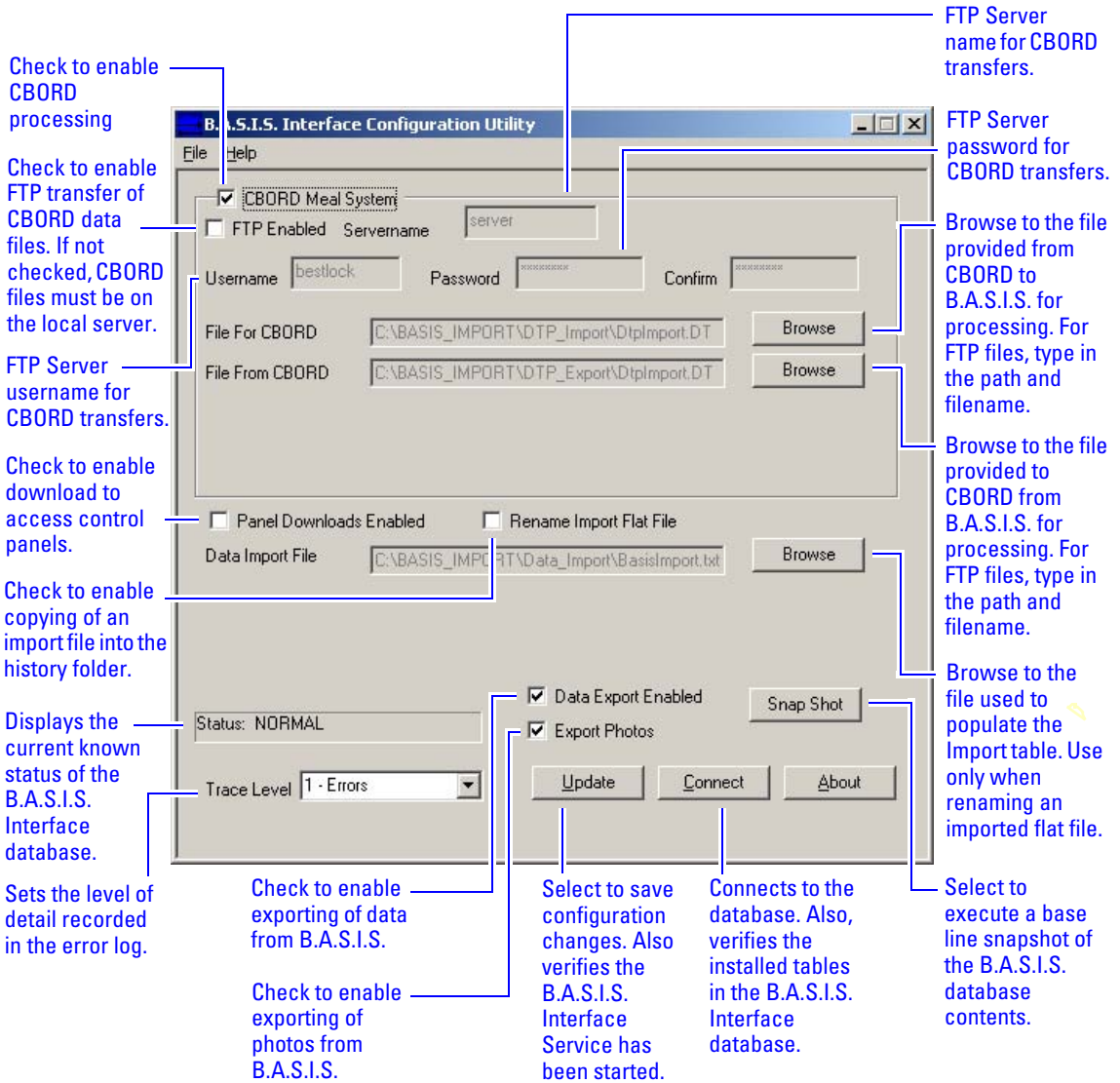


Figure 2.1 Description of the features and options in the B.A.S.I.S. Interface Configuration Utility

INSTALLING B.A.S.I.S. INTERFACE

To install the software:

1. Insert the BASIS Interface™ CD-ROM into your CD-ROM drive.
2. Follow the on-screen instructions.

Note: If the installation routine does not start automatically:

- From the Windows taskbar, click Start > Run.

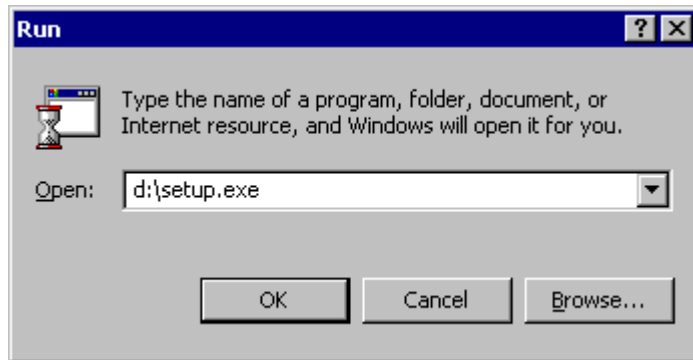



Figure 2.2 Manually running the setup program

- In the Run dialog box, type x:\setup.exe, where 'X' is the name of your CD-ROM drive.
- Click OK, and follow the on-screen instructions.

Upon successful completion, setup.exe will prompt you to run the configuration application.

Once you've installed the B.A.S.I.S. Interface Configuration Utility, you're ready to login and define the parameters B.A.S.I.S. Interface will use to run. 

CONFIGURING B.A.S.I.S. INTERFACE

Logging into B.A.S.I.S. Interface for the first time

To log into the B.A.S.I.S. Interface program

1. From the Start menu, click Programs > B.A.S.I.S. Interface > Import Config.

The Main B.A.S.I.S. Interface window displays:

2. Click Connect.

You should see the Select Data Source window:

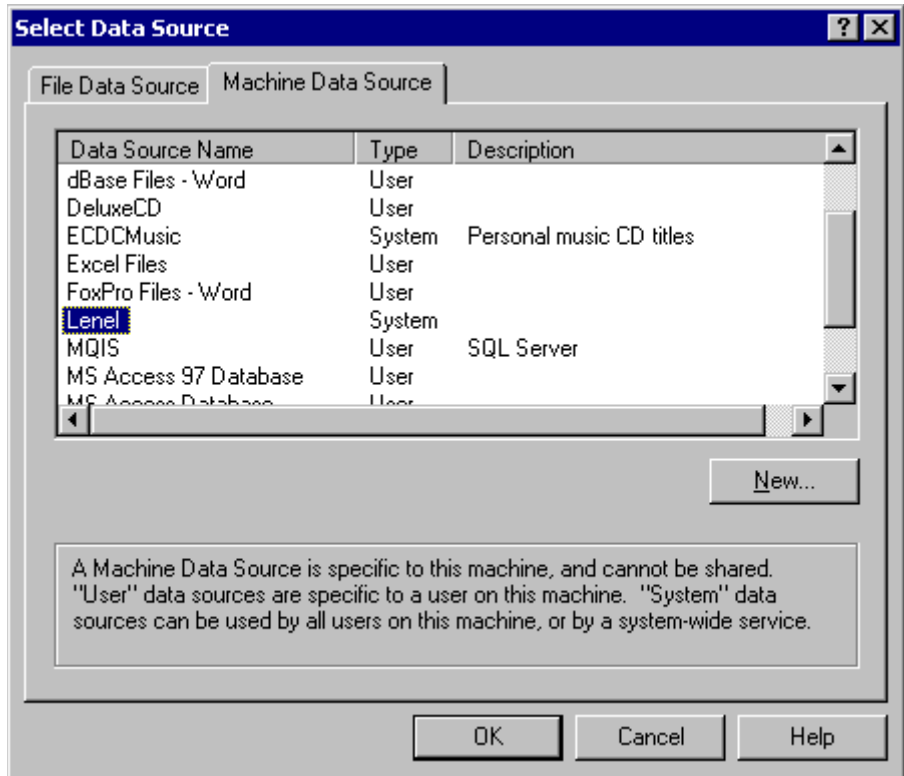


Figure 2.3 Selecting the Lenel machine data source

3. Click the Machine Data Source tab at the top of the window.
4. Scroll down until you see the 'Lenel' data source name, then select it with the mouse. If you have named your ODBC database something else, select the appropriate name.
5. Click OK.

You should see database login window:

6. Type the password, then click OK.

Note: If you don't know or have lost your password, contact your B.A.S.I.S. Representative.

A confirmation window displays: Database failed verification, run create script?

7. Click Yes.

B.A.S.I.S. Interface adds the tables necessary for it to run.

Another confirmation window displays: Database verified successfully.

8. Click OK.

Troubleshooting

If your database does not verify successfully, try one or more of the following:

- Check your ODBC definition to make sure that it is the correct database.
- Try uninstalling and re-installing B.A.S.I.S. Interface (using Setup.exe). Make sure to select the correct type of database when installing.

If all else fails, call for support. See [page 1-5](#) for technical support options.

Managing B.A.S.I.S. Interface services

The B.A.S.I.S. Interface Utility performs its processes as a Windows service, called the *B.A.S.I.S. Interface Service*. This service will be installed and started for the first time when you click the Update button.

This service must be started for B.A.S.I.S. Interface to function.

To start the B.A.S.I.S. Interface Service for the first time:

1. From the main B.A.S.I.S. Interface window, click the Update button.

The inquiry window displays

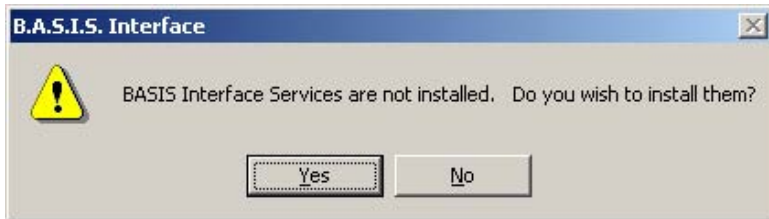


Figure 2.4 Inquiry asking to install the *B.A.S.I.S. Interface Service*

2. Click Yes.

Another inquiry window displays



Figure 2.5 Inquiry asking to start the *B.A.S.I.S. Interface Service*

3. Click Yes.

The B.A.S.I.S. Interface Service is installed and started

If you want to stop the B.A.S.I.S. Interface Service from running in the background automatically, you must manually stop the service.

To stop the B.A.S.I.S. Interface Service

1. From the Windows desktop, click Start > Settings > Control Panel.
2. From the Control Panel window, double-click Administrative Tools.
3. From the Administrative Tools window, double-click Services.
4. From the Services window, double-click B.A.S.I.S. Interface Service.

The Service Properties window displays

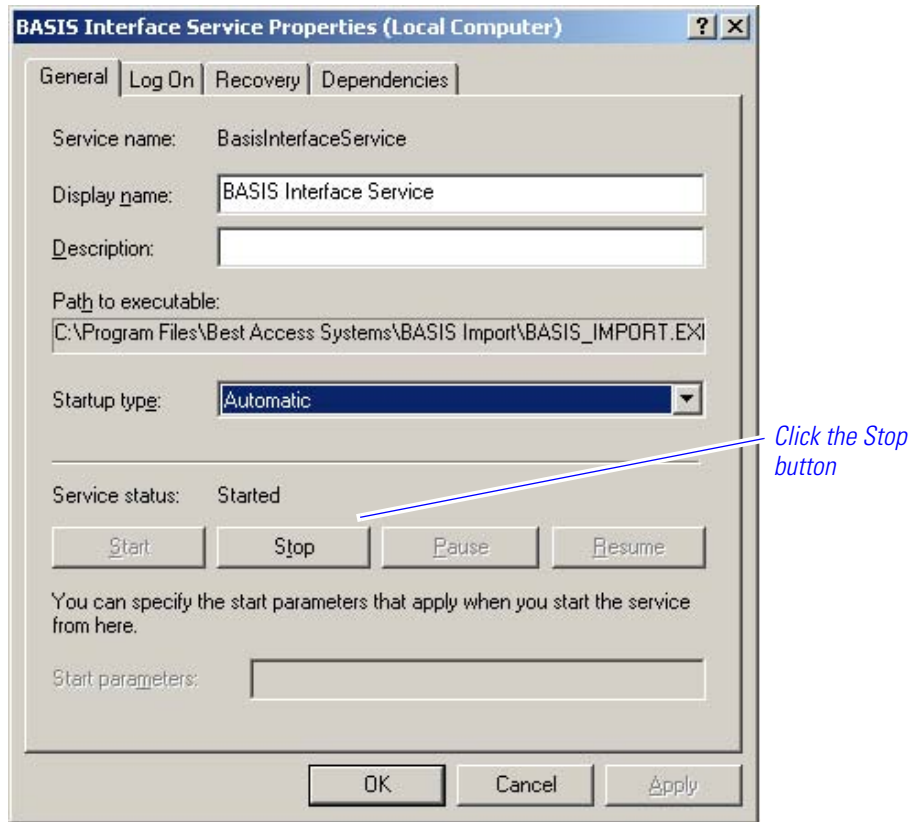


Figure 2.6 Stopping the B.A.S.I.S. Interface Service

5. Click the **Stop** button.
6. Click **OK**.

Note: The service is installed to run automatically, so if the computer restarts, the service will automatically be started. This setting can also be changed in the properties window.

To update the B.A.S.I.S. Interface Service to record a change to the interface

- From the B.A.S.I.S. Interface Utility Main window, click Update. See [Figure 2.7](#).

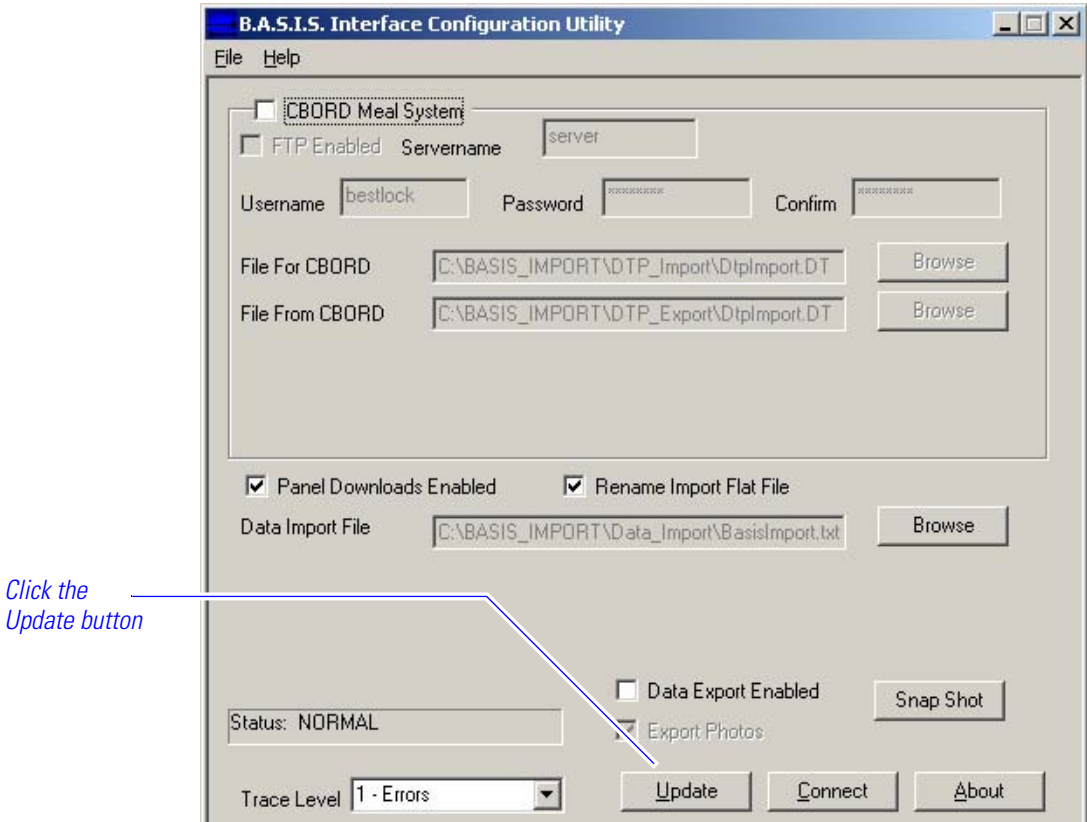


Figure 2.7 Updating B.A.S.I.S. Interface to record a change

Setting the trace level

The *trace level* is a setting that defines the level of detail that is reported to you when data is exchanged. The higher the numbered trace level, the less is filtered and the more detail you will get. Each successive number adds more detail and includes all of the previous level's detail.

Caution: Make sure to set the trace level to an appropriate level. Setting the trace level too high may generate excessive and unnecessary trace detail and may prematurely cause the database size to grow too large. This will, in turn, cause your system performance to slow.

There are five trace levels:

Trace level	Name	Reports . . .
0	Fatal errors	Errors that terminate the import, or data exchange processes, or corrupt the database
1	Errors	All errors, from least severe to fatal.
2	Warning	All errors and warnings
3	Trace	All errors, warnings, and high-level processing activities
4	Detail trace	All errors, warnings, and processing activities.

Caution: Use trace level 4 for debugging only and only one or two records at a time. This trace level produces 100+ lines of trace per patron.

Note: For most applications, trace level 1 usually provides enough detail to manage the data exchange process. You can change the trace level at any time.

To set the trace level:

1. From the B.A.S.I.S. Interface window, click the trace level drop-down list. See [Figure 2.8](#).

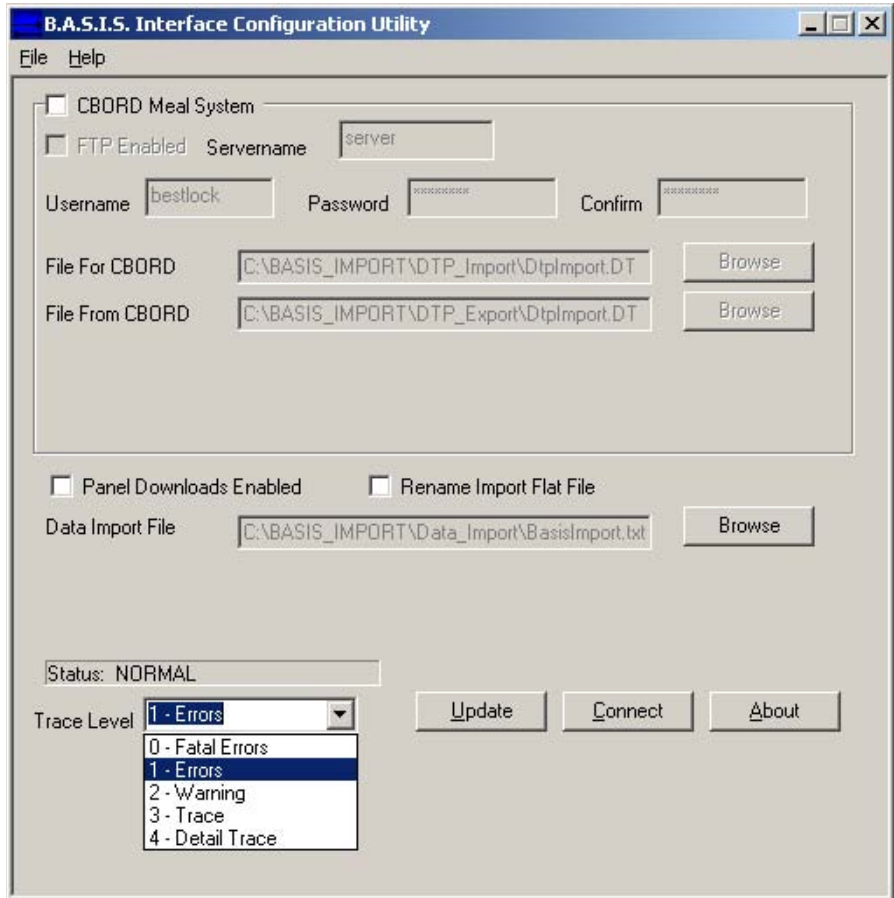


Figure 2.8 Selecting the appropriate trace level

2. Select the trace level.
3. Click Update to save the setting.

CONFIGURING SERVICES FOR PANEL DOWNLOAD

Operating system services that must be running

These are the operating system services that must be running to properly run B.A.S.I.S. Interface:

- LS_dataexchange_server
- LS_linkage_server

To verify that these systems are running or to start them if not running:

1. Open B.A.S.I.S. System Administration.
2. From the menu click Administration > System options.
3. Click the Modify button.
4. In the Linkage Server Host field, type the name of the computer that will run the LS_linkage_server service. Or you can find the computer by clicking the Browse button.
5. In the DataExchange Server Host field, type the name of the computer that will run the LS_dataexchange_server service. Or you can find the computer by clicking the Browse button.
6. Click OK.

Note: If you have not already installed the Lenel hot fixes located on the B.A.S.I.S. Interface CD, run these files now. The names of these files are:

- Hot Fix od2x 2967.exe
- Hot Fix od2x 3023.exe
- Hot Fix od2x 3063.exe
- xmlparser.exe (msxml.msi installer)

7. Restart the computer after all hot fixes have been installed.
8. From the Windows desktop, click Start > Settings > Control Panel.
9. Open the Administrative Tools folder.
10. Open the Services Tool.
11. Open the LS_Linkage_Server service properties window.
12. From the General tab, change the Startup Type to Automatic.
13. Click the Start button and then click OK.
14. Repeat steps 11-13 for the LS_Data_Exchange service.



3

UNDERSTANDING DATA IMPORT & EXPORT

INTRODUCTION

As a Database Administrator your major tasks to implement B.A.S.I.S. Interface are:

- understand the data that B.A.S.I.S. Interface contains
- map your appropriate existing data to those data tables. Mapping data includes:
 - ▲ mapping to populate the B.A.S.I.S. import table
 - ▲ mapping to populate other systems from the B.A.S.I.S. export table

The following sections detail how the data import and export data tables are structured within B.A.S.I.S. Interface.

DATA IMPORT DIAGRAM AND PROCESS

Overview As part of the installation of B.A.S.I.S. Interface™ the installation routine adds two key tables to the B.A.S.I.S. security database:

- BASIS_IMPORT table
- BASIS_DATA_EXPORT table

These database tables bridge the gap between your other data sources and the B.A.S.I.S. Security database. The data export and import processes work independently and may be performed in either order initially.

The following diagram outlines the import process:

Import process Once B.A.S.I.S. Interface has been installed, the import data to B.A.S.I.S. process works as follows:

- 1** The Database Administrator (DBA) populates the BASIS_IMPORT table. This can be done in a variety of ways including database administrative transfer tools, B.A.S.I.S. Data Exchange, database specific transfer tools such as DTS, and custom scripts. For a full description of data content and structure that can be imported, see [page 3-5](#). For the exact table specifications, see [page 9-1](#).
- 2** Once the data is in the BASIS_IMPORT table, the B.A.S.I.S. Interface Service detects the data.
- 3** The B.A.S.I.S. Interface Service updates the B.A.S.I.S. database.

The following diagram outlines the process described above:

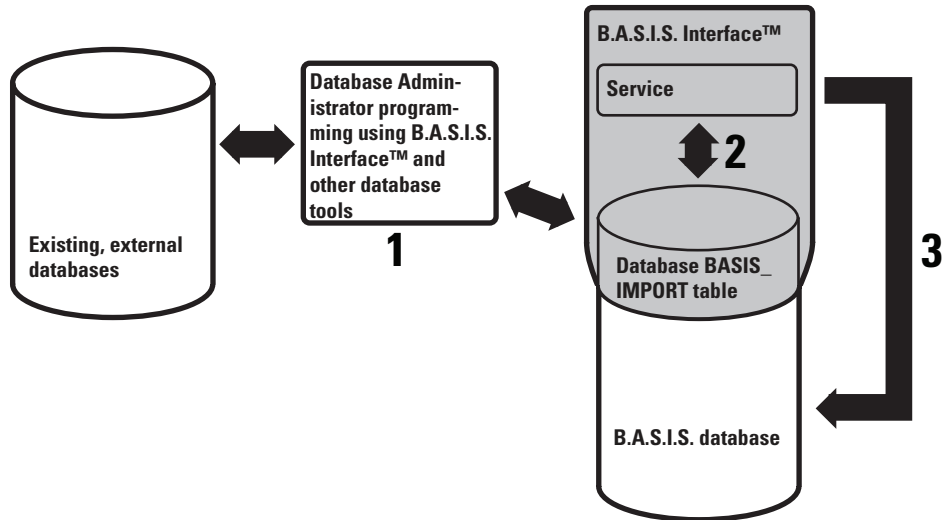


Figure 3.1 B.A.S.I.S. Interface import diagram

DATA EXPORT DIAGRAM AND PROCESS

Not only can B.A.S.I.S. Interface import cardholder and badge data into the B.A.S.I.S. Security database, it can also export the same type of data from the B.A.S.I.S. database to your Administrative databases when the B.A.S.I.S. database changes.

Export process

Once B.A.S.I.S. Interface has been installed, the data export from B.A.S.I.S. process works as follows:

- 1 Cardholder badge changes are made in the B.A.S.I.S. System Administrator application.
- 2 B.A.S.I.S. Interface detects the change.
- 3 B.A.S.I.S. Interface Service adds the change to the BASIS_DATA_EXPORT table. The export of the data is slightly delayed from the action in B.A.S.I.S.
- 4 The Database Administrator (DBA) programmatically mines the data from the BASIS_EXPORT table and updates the external administrative database. This can be done in a variety of ways including database administrative transfer tools, B.A.S.I.S. Data Exchange, database specific transfer tools such as DTP, and custom scripts. For a full description of data content and structure that can be exported, see [page 3-5](#). For the exact table specifications, see [page 9-1](#).

- 5. Once the export record is accounted for, the DBA is also responsible for deleting records in the export table to prevent unmanaged database growth. The following diagram outlines the process described above:

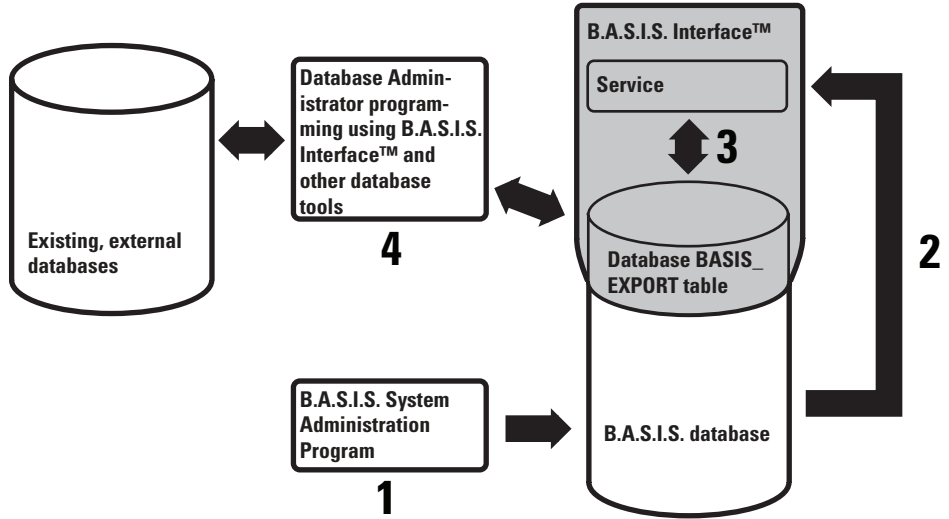


Figure 3.2 B.A.S.I.S. Interface export diagram

DATA DESCRIPTIONS AND VALID VALUES

To be able to map data accurately, you must understand what is valid importable data. The following tables describe the data and their valid conditions and values. Refer to this as you design your database mapping strategy.

The data that can be imported into B.A.S.I.S. using B.A.S.I.S. Interface, can be divided into four categories of data:

- **Control data** – which B.A.S.I.S. cardholder is affected, how that cardholder maps to interfaced systems, and what needs to be done regarding that person.
- **Demographic data** – detailed information about the cardholder.
- **Badge data** – information on whether one, two or three badges assigned to the cardholder in the B.A.S.I.S. system. Specifically, a meal card, a guest card and a standard card may be in each record.
- **Access level data** – information on whether access levels (time zone and reader combinations) need to be assigned to all the badges specified within the given record.

Control data table

Another table exists within B.A.S.I.S. Interface™ in addition to the BASIS_IMPORT and BASIS_DATA_EXPORT tables. The name of this table is BASIS_MASTER_LOOKUP (BML). The intent of the BML table is to link a B.A.S.I.S. cardholder with the same person in your administrative database. Each cardholder within the B.A.S.I.S. database has a corresponding unique identifier record in the BML which is referred to as the BML_ID. Corresponding to that you will use the CUST_NUM field to represent the unique identifier in your administrative database. At least one of these two fields – BML_ID or CUST_NUM – must identify each record to be imported or exported to indicate which data is being affected.

Note: B.A.S.I.S. Interface will maintain the BML table. The above information is provided solely for synchronization understanding.

To use the BML_ID as the mapping field for data import, the cardholder must be initially created in B.A.S.I.S. and must exist prior to being imported through B.A.S.I.S. Interface. If the person exists first in your administrative database, and will be imported into the B.A.S.I.S. Security database, you will need to use the CUST_NUM identifier for that record.

The following table details the control data:

Field name	Description	Valid values
CUST_NUM	Cardholder identifier outside of B.A.S.I.S.	
BML_ID	Primary key for the BASIS_MASTER_LOOKUP table.	Any positive number. Must already exist in the BML table. Not required.
CHANGETYPE	Data that indicates what action will be taken on the cardholder record.	1, A, or M – add if new; modify if exists. 2 – delete the specified patron’s meal card, B.A.S.I.S. G room assignment or standard badge. 3 or D – delete cardholder and all badges and assigned access levels for that cardholder. 4 – delete the listed access levels for the stated badges. 5 – delete all access levels for the stated badges.

Demographic data

Demographic data fields provide detailed information that identifies the cardholder. These fields may contain NULL values; however, the data provided will be used to overwrite the data within B.A.S.I.S. In other words, anytime a record is an add or modify change type (1, A, or M), the cardholder will be updated with the data provided in that record. If the data provided is NULL, then that is what the cardholder will be assigned. All fields are treated as ASCII text.

One exception to this rule is the photofile field. This field will only be used to update the cardholder if a photo is actually supplied. In other words, if an existing photo file exists it will not be removed.

The following table details the demographic data:

Field name	Description	Valid formatting
SSNO	Patron’s Social Security Number or other ID number. Not a primary key.	Each number must be unique. If the SSNO exists, B.A.S.I.S. Interface will try to assign it to an existing employee record.
FIRST	First name.	
MIDDLE	Middle name or initial.	
LAST	Last name.	Required field or the record will fail.
ADDR1	Address 1 line.	

Field name	Description	Valid formatting
CITY	City	
STATE	State or province.	
ZIP	Zip code or postal code.	
HOMEPHONE	Home phone number.	
TITLE	Patron title	Must be included in B.A.S.I.S. List Builder as valid values.
BDATE	Patron date of birth	
DEPT	Patron department	Must be included in B.A.S.I.S. List Builder as valid values.
DIV	Patron division	Must be included in B.A.S.I.S. List Builder as valid values.
LOC	Patron location	
OPHONE	Patron office phone	
BUILDING	Patron building	Must be included in B.A.S.I.S. List Builder as valid values.
FLOOR	Patron floor	
EXT	Patron phone extension	
EMAIL	Patron e-mail	
PHOTOFILE	Patron image	It is recommended that this file be encoded as a JPG graphic file.

Badge data

A single B.A.S.I.S. Interface™ record may affect up to three badges. The three badges which may be affected include the possibility of a meal type badge, (sometimes called a One Card), a B.A.S.I.S. G type badge (room assignment) and a standard badge. Each type of badge is defined by its own set of data.

All specified badges are affected using the Global Badge Data specified first below as well as the Access Level Data specified on [page 3-11](#).

Global badge data

All badges in a B.A.S.I.S. Interface™ record are affected by the *global badge data*. These fields are treated as ASCII text. The status field requires an exact spelling match to the status values specified in the table below. For all badges specified in a single record, the badge will be updated with the data provided in the global data.

Field name	Description	Max length or valid formatting
ACTIVATE	Activation date of any badges stated in this record.	If the field is NULL then the activate date will be the date when the import is run.
DEACTIVATE	Deactivation date of any badges stated in this record.	In order to affect a badge, this field is required. Depending on the definition of the badgetype in BASIS, this may be able to be calculated, but in general, we recommend that you always provide a date.
STATUS	Status of any badges stated in this record.	Default values in B.A.S.I.S. include: ACTIVE LOST RETURNED This field is required if any badges are being added or modified. The entire record will fail if the status is missing and a badge operation is being performed.
EMBOSSSED	Number embossed on the surface of the badge for all badges in the record.	Optional. Numeric.
PINNUMBER	PIN (personal identification number) associated with any badge stated in this record, except the B.A.S.I.S. G room assignment which can't have a PIN.	Optional. Numeric.

Meal card data

To specify a meal card, two fields are required in addition to the global badge data. These fields are treated by B.A.S.I.S. Interface™ as ASCII text. When a meal card is specified, the CUST_NUM field from the control data is required.

Field name	Description	Valid formatting
MEAL_CARD_NUM	The meal card number from CBORD, Blackboard, or another meal card system. Limited to one card per patron.	<p>If CUST_NUM or BML_ID from the import record exists with different MEAL_CARD_NUM, then the old badge will be marked as lost and the new assignment will be made.</p> <p>If the MEAL_CARD_NUM is already assigned to the cardholder for the import record, then the global data and access level data will be updated for the existing badge.</p> <p>If the MEAL_CARD_NUM is specified, it is assumed that the meal card is to be added. The badge type and all required global data will be validated.</p>
MEAL_CARD_BADGE_TYPE	Meal card badge type for meal badge of import cardholder.	<p>The badgetype is case sensitive on the import.</p> <p>Valid meal card badge types include any non-guest badge type specified in B.A.S.I.S.</p>

Room assignment/guest badge data

To specify a room assignment, two fields are required in addition to the global badge data. These fields are treated by the B.A.S.I.S. Interface™ as ASCII text.

Field name	Description	Valid formatting
ROOM_ASSIGNMENT	Name of the room to assign a B.A.S.I.S. G (guest) badge to this patron.	This must be a reader that is guest or offline guest in B.A.S.I.S. There must also be badges available for assignment for this room. The name is case sensitive on the import. If specified, B.A.S.I.S. G assignment is assumed and the badgetype and other global badge data will be validated.
G_SERIES_BADGE_TYPE	G Series badge type for room assignment stated in the import.	The G Series badgetype may be any valid guest badgetype in B.A.S.I.S, but the badgetype specified must be the one assigned to the room specified.

Standard badge data

To specify a non-meal card, or a non-B.A.S.I.S. G badge, three fields are required. All fields are treated by the B.A.S.I.S. Interface™ as ASCII text, but the **BADGEID** and **ISSUECODE** should be numeric.

Field name	Description	Valid formatting
BADGEID	This is a non-G Series, non-meal card number badge ID, for example, a proximity badge ID.	If specified, issue code, type, and global badge data are required and must be validated.
ISSUECODE	Issue code of the badge for the BADGEID stated above.	
TYPE	Badge type for a standard badge created with the BADGEID and ISSUECODE .	Any non-guest badgetype specified in B.A.S.I.S.

Access level data

When badges are specified, up to six access levels may be assigned to that badge. Access levels are combinations of time zones and readers. For example, one access level could be Monday through Friday 8:00 am to 5 pm at the main entrance. The access level information will be applied to all specified badges on the import record.

The ACC_LVL fields are treated as ASCII text by the B.A.S.I.S. Interface™ and must find a case-sensitive match in the access levels defined in BASIS. If the database is segmented, the access levels must all be in the same segment and that segment must be specified on the import record.

A database is segmented to make searches and operations on the database more efficient and secure. For example, a database may need to be segmented if the data of one university tracks several locations or buildings and more than one security staff provides security. The segments will limit options to minimize searching as well as to prevent misassignments.

Field name	Description	Valid formatting
ACC_LVL1, ACC_LVL2, ACC_LVL3, ACC_LVL4, ACC_LVL5, ACC_LVL6	Access level(s) to be assigned to all badge(s) listed in a CHANGETYPE 1, A, or M record, or removed from badges listed for CHANGETYPE 4.	Case sensitive. Must match the access level in B.A.S.I.S.

Field name	Description	Valid formatting
ACC_LVL_ ACTIVATE	Activate date to be assigned to all specified access levels.	Optional fields, but . . . If both fields have NULL, NULL will be assigned.
ACC_LVL_ DEACTIVATE	Deactivate date to be assigned to all specified access levels.	If both dates are provided, both will be used, but the activate date must be before the deactivate date or the entire record will be thrown out as an error. If an ACC_LVL_ACTIVATE is provided, without an ACC_LVL_DEACTIVATE, then an error will be reported and the entire record will be thrown out as an error. If an ACC_LVL_DEACTIVATE is provided, without an ACC_LVL_ACTIVATE, the current date will be assigned as the activate data and the provided deactivate date will be assigned as the deactivate date for the access levels.
SEGMENT_ NAME	Segment name for the access levels provided.	Case sensitive. This field is only required if the B.A.S.I.S. database is segmented. The segment name provided must be the segment that the access levels assigned belong to. The badge types for the badges in the import record must also belong to this segment in order for the assignment of the access levels to be valid. In the case of an add/modify change, if the cardholder is not already assigned to this segment in a segmented database, then that person will be assigned by data import so that the access levels may be assigned. The segment name is required in a segmented database regardless of if badge data is affected.

IMPORTING DATA TO B.A.S.I.S. INTERFACE

Configuring the path for automatic file import

Once the data import file(s) have been created or generated, you need to copy the files to an appropriate directory on the server where the B.A.S.I.S. database resides. B.A.S.I.S. Interface installation creates a directory called 'DATA_IMPORT' at the root, that is, c:\BASIS_IMPORT\DATA_IMPORT. This directory would be a recommended location.

Make sure that the import file is NOT set to read only. If the file is set to read-only, the file cannot be automatically renamed and will be continuously re-imported. Right-click on the file and then click Properties to see [Figure 3.3](#)

To configure the path for automatic file import:

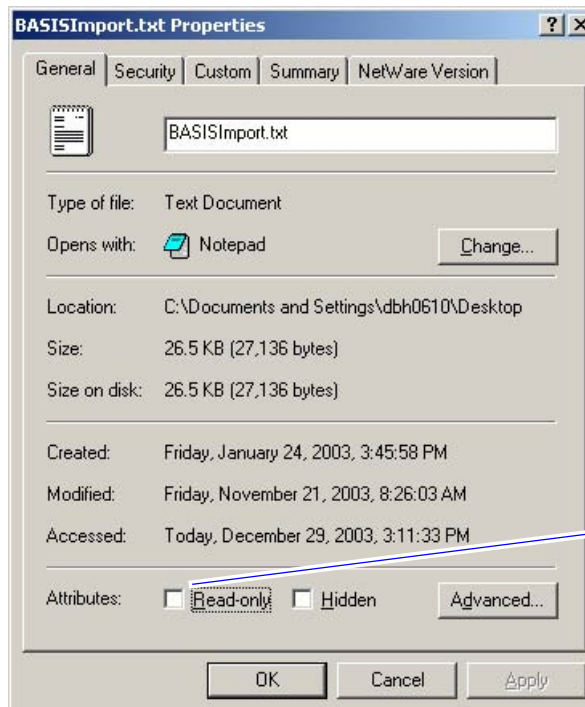


Figure 3.3 B.A.S.I.S. Import Properties settings showing that the Read-only property is cleared

1. From the B.A.S.I.S. Interface window, click the Data import File Browse button. See [Figure 3.4](#).

The Browse for folder window displays.

2. Select the DATA_IMPORT folder, or the folder that contains the Data Import file.

3. Click OK.
4. From the main B.A.S.I.S. Interface Configuration window, click the Update button. Clicking the Update button implements the path change or any other change made to the B.A.S.I.S. Interface configuration window.

Note: If you use a data import file and want the Interface to rename the file upon successful import of data in BASIS_IMPORT table, the service can do that using naming convention IMP[MM-DD-YYYY]. If using files with scheduled processing, the rename may prevent re-processing the same file.

To rename the data import file after processing:

1. From the B.A.S.I.S. Interface Utility window, select the 'Rename Import Flat File' check box. See [page 3-14](#).
2. Click the Update button.

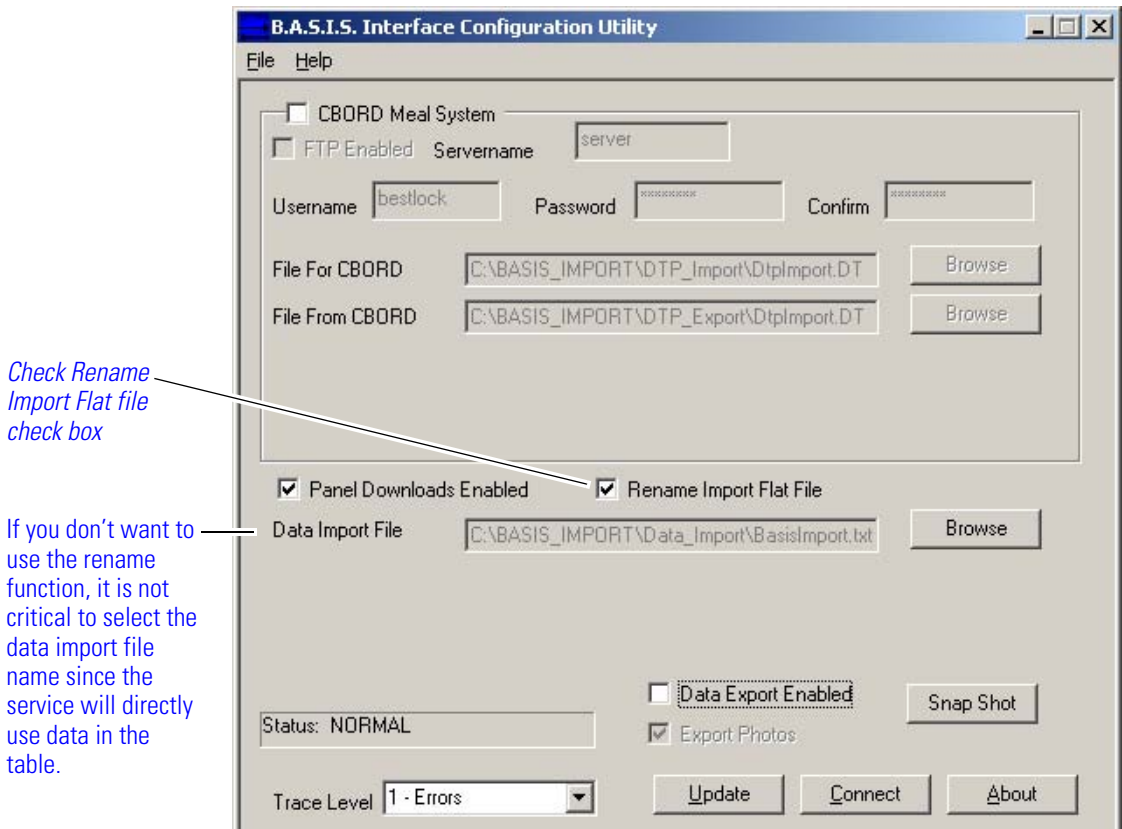


Figure 3.4 Checking the Rename Import Flat File check box

EXPORTING DATA FROM THE B.A.S.I.S. DATABASE

The export feature of the B.A.S.I.S. Interface creates records in an export table. The export record format generally mirrors that of the import table. While the B.A.S.I.S. Interface populates the export table, it has no way to know when the data has been processed by the receiving application; therefore, it is the user's responsibility to delete the records in the export table.

There are two methods of exporting data from the BASIS database:

- **Snapshot export** – creates a baseline for database synchronization. The snapshot operation first deletes the entire contents of the export table, then for each person in the BASIS_MASTER_LOOKUP table, it creates a set of records that taken together list all the exportable demographic data and badge information known for that person.

This is most useful in initial synchronization between databases, especially if you need to import data from B.A.S.I.S. into another system.

- **Incremental export** – adds records documenting individual data changes – additions, deletions, and modifications – as they occur. Without a prior baseline snapshot export, this data may or may not have meaning.

To export snap shot data

1. Start the B.A.S.I.S. Interface™ configuration utility and connect to the BASIS database.

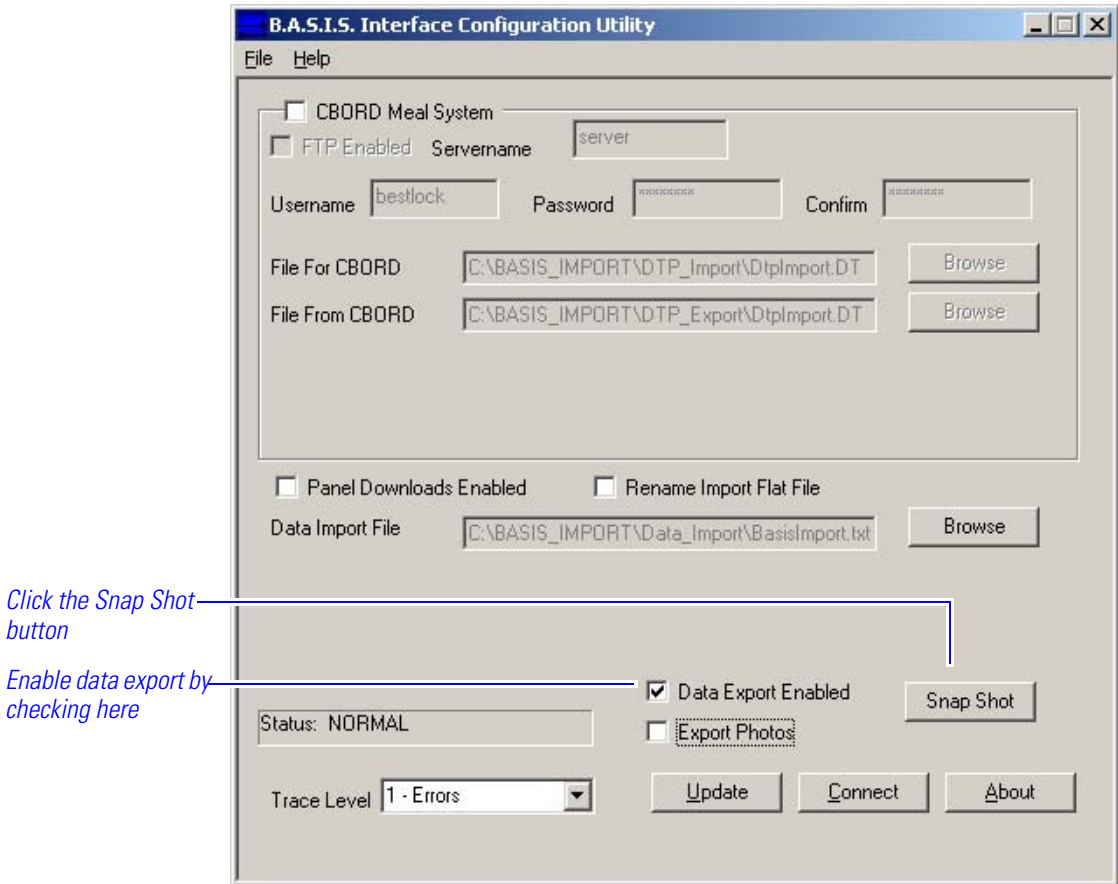


Figure 3.5 Taking a 'snap shot' of the B.A.S.I.S. database

2. Click the Snap Shot button.
A confirmation is displayed
3. Click OK on the message box.

After several minutes, depending on the size and complexity of the BASIS database, the snap shot data will have been added to the export table. There is no interactive acknowledgment of completion, but BASIS_DATA_EXPORT is being populated.

To set up B.A.S.I.S. Interface to export incremental data as changes are made

1. Start the B.A.S.I.S. Interface™ configuration utility and connect to the B.A.S.I.S. database.
2. Select the Data Export Enabled check box. See [Figure 3.5](#).
3. Determine if photos should be monitored and included in the exports. Use the Export Photos check box to indicate this.
4. Click the Update button.

As changes are made in B.A.S.I.S., they will be incrementally added to the BASIS__DATA_EXPORT table.

Removing exported data

The DBA must create a process to include the exported data into the external system. Upon processing a record, remove the record from the BASIS_DATA_EXPORT table.



4

UNDERSTANDING & CONFIGURING THE CBORD INTERFACE

INTRODUCTION

The CBORD® Odyssey meal card system is a program commonly used by many college and university campuses, as well as other institutions that offer long-term meal programs. BEST and CBORD have partnered to help database administrators maintain the integrity of the data in both the B.A.S.I.S. and CBORD systems. They have done this by carefully defining the data to be exchanged and the process by which the data is exchanged.

For a complete guide on creating or generating a *Direct Transaction Processing* (DTP) file, see your CBORD Group Representative or your Best Access Systems Representative.

There are two methods available in the B.A.S.I.S. Interface Utility to exchange files between CBORD and B.A.S.I.S.:

- FTP (File Transfer Protocol)
- Local machine

DATA IMPORT DIAGRAM AND PROCESS

The following diagrams illustrate the on-going process by which a CBORD meal card system database and the B.A.S.I.S. Security database can be kept in synchronization.

Synchron- ization process

B.A.S.I.S. Interface™ controls two separate automated cycles that keep a CBORD and a B.A.S.I.S. database synchronized:

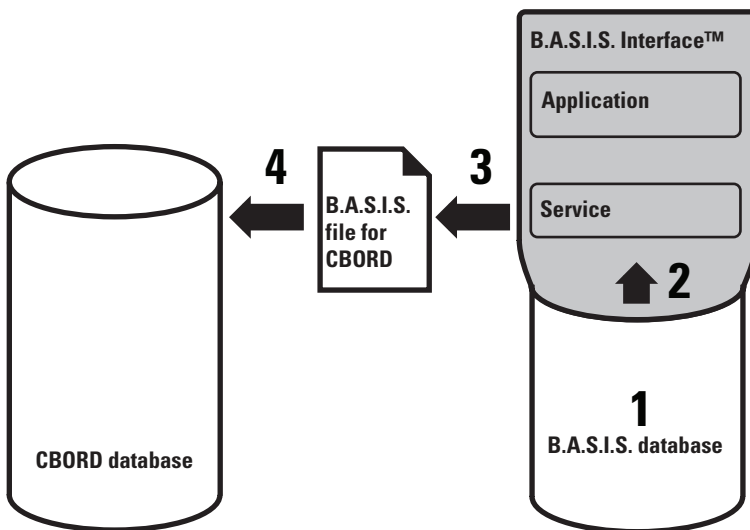
- When a CBORD database change is made
- When a B.A.S.I.S. database change is made

Both of these cycles are executed by separate DTP files, one which is created automatically from the CBORD meal card system and the other which is created by B.A.S.I.S. Interface.

Here is an outline of the two processes:

When the change is made on the B.A.S.I.S. side . . .

- 1** A change is made to the B.A.S.I.S. database.
- 2** The B.A.S.I.S. Interface detects the change.
- 3** The B.A.S.I.S. Interface service creates a DTP file for CBORD. The file is placed in a location agreed upon between CBORD and B.A.S.I.S. Interface.
- 4** The CBORD database is updated.



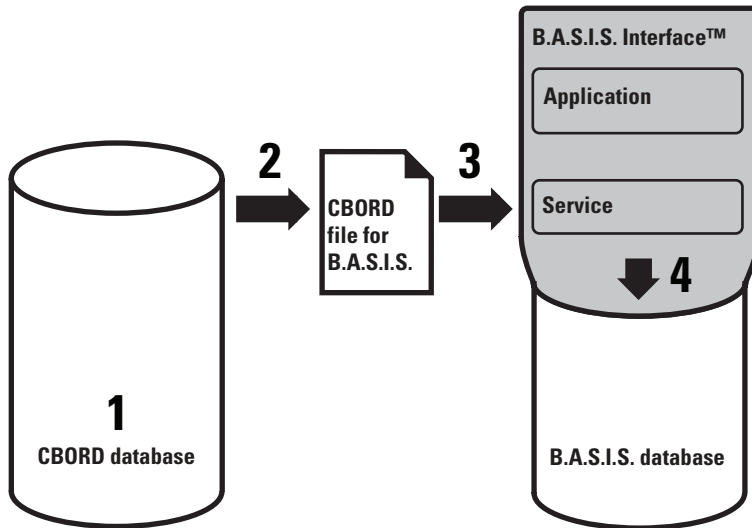
Synchronization after a B.A.S.I.S. change

Figure 4.1 The automated process by which B.A.S.I.S. and CBORD are synchronized after a change to the B.A.S.I.S. database

When the change is made on the CBORD side . . .

- 1** A change is made to the CBORD database.
- 2** This change causes a DTP file to be created.
- 3** The B.A.S.I.S. Interface detects the DTP file (based on name and location).
- 4** The B.A.S.I.S. Interface service makes the change to B.A.S.I.S.
- 5.** The B.A.S.I.S. Interface™ service deletes the DTP file (not shown in the diagram). A backup copy of the DTP file is stored in a file created with the

name: . . . cbordDTPInput-yyyymmdd-hbmiss.dtp in the history folder of the B.A.S.I.S. Interface install directory.



Synchronization after a CBORD change

Figure 4.2 The automated process by which B.A.S.I.S. and CBORD are synchronized after a change to the CBORD database

SETTING UP B.A.S.I.S. INTERFACE TO AUTOMATICALLY SYNCHRONIZE CBORD AND B.A.S.I.S. DATABASES

To set up CBORD for automatic data import:

1. From the B.A.S.I.S. Interface Configuration Utility window, check the CBORD Meal System check box. See [Figure 4.3](#).

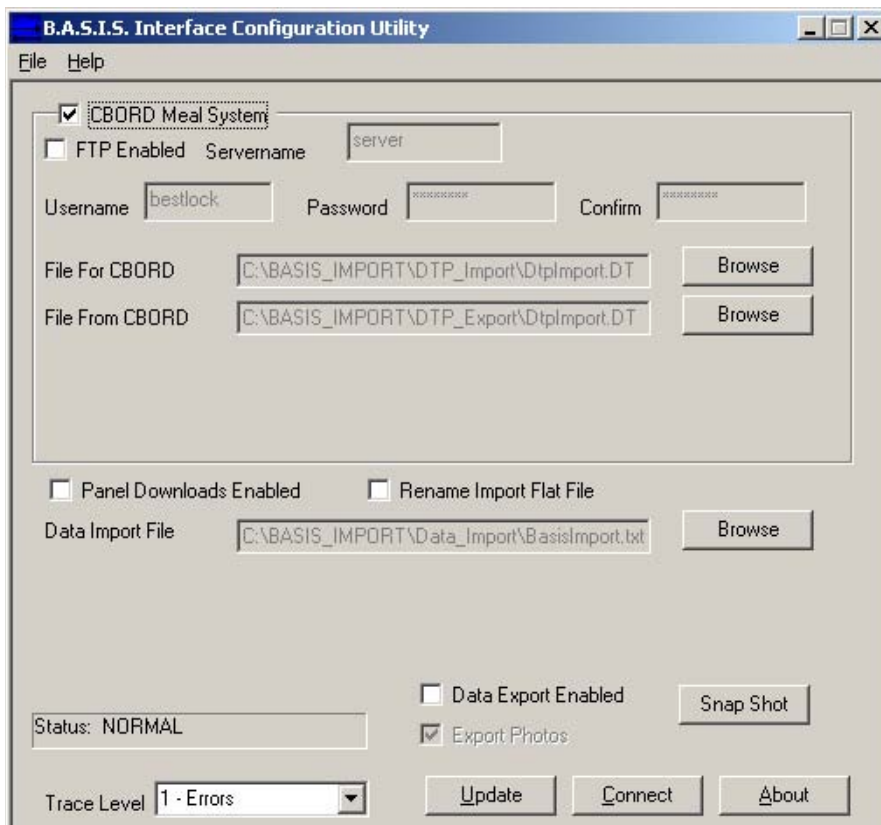


Figure 4.3 B.A.S.I.S. Import Utility Window with CBORD Meal System check box selected

Note: It is recommended that the CBORD DTP file be named BestTran.dtp for both import and export paths.

2. For local machine import follow these steps:
 - ▲ Clear the 'FTP Enabled' check box if already checked.
 - ▲ Click the Browse button for 'File for CBORD' and select the file that will be imported to CBORD and exported from B.A.S.I.S.

Understanding & configuring the CBORD interface

- ▲ Click the Browse button for 'File from CBORD' and select the file that will be exported from CBORD and imported to B.A.S.I.S.

or

2. For FTP Import follow these steps:
 - ▲ Check the 'FTP Enabled' check box.
 - ▲ Complete the fields: Server, Username, Password, and Confirm (password). See your Database Administrator for the information if needed. Specify the server where the CBORD data is contained.
 - ▲ Manually type in the FTP paths to complete the other two fields: 'File for CBORD' and 'File from CBORD.'
3. Click the Update button.

5

CONFIGURING AUTOMATIC DOWNLOADS TO B.A.S.I.S. ACCESS CONTROL PANELS

INTRODUCTION

Once the B.A.S.I.S. database has been updated, either by the data import or the CBORD DTP data exchange processing, the B.A.S.I.S. access control panels that control reader access and monitor alarms need to be updated with the latest data.

Process Follow the steps below to set up the automatic processing of downloading current data to the B.A.S.I.S. access control panels.

Note: To complete this process, your B.A.S.I.S. license must include a license for FormsDesigner and System Administration. If your B.A.S.I.S. installation does not include either of these programs, see your local BEST Representative.

In a quick overview, the setup sequence will proceed like this:

From the B.A.S.I.S. Interface Utility . . .

- Enable Panel downloads

From FormsDesigner . . .

- Import the script
- Open the script
- Define input/output variables

From System Administrator . . .

- Add the script to scheduler
- Set up the schedule

PROCEDURE

Enabling panel downloads

To enable the access control panels to automatically download current data from the B.A.S.I.S. database, follow these steps:

1. From the B.A.S.I.S. Import Configuration Utility Window, check the 'Panel Download Enabled' check box. See [Figure 5.1](#).

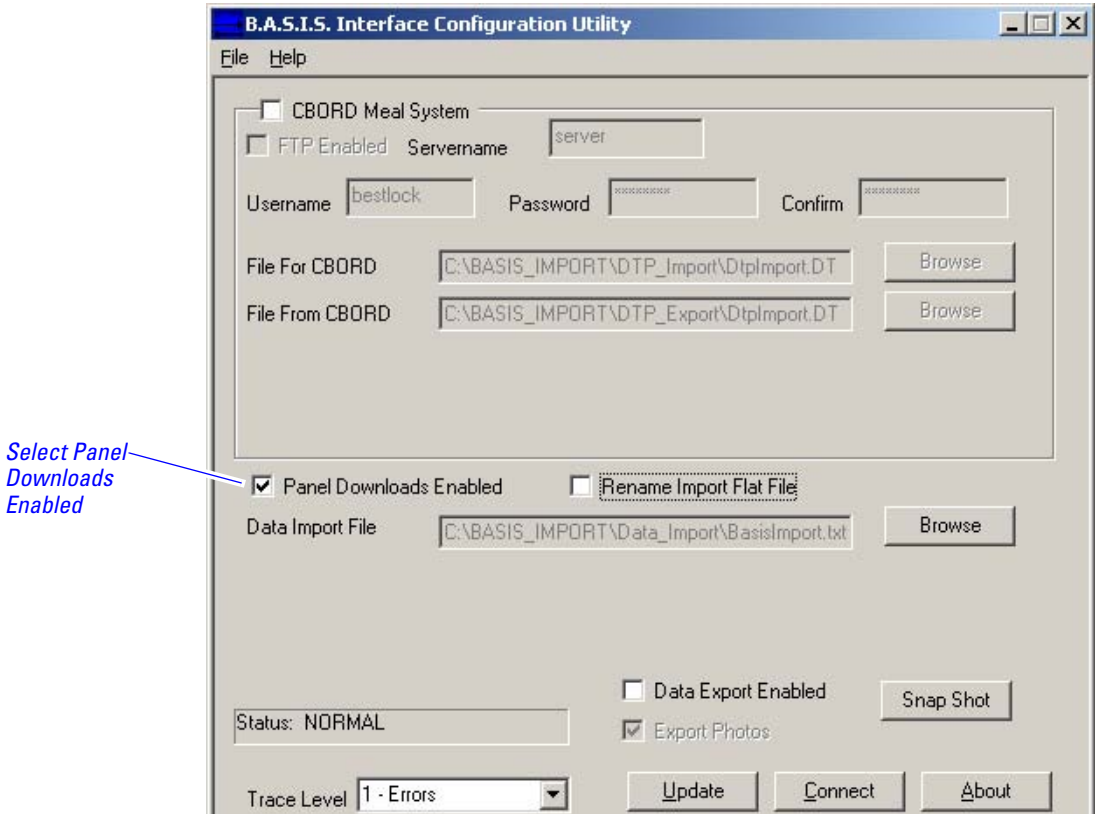


Figure 5.1 Enabling Panel downloads

2. Click the Update button.

Selecting *Panel Downloads Enabled* saves panel download information in the BASIS_QUE database table as badge data changes from the B.A.S.I.S. Interface. The actual panel download is performed via the Data Exchange script discussed below.

Opening the panel download script

To open the script:

1. Open FormsDesigner and log in.
2. Select Cardholder form and click OK.
3. From the menu, click DataExchange > Open . . .

The DataExchange Configurations window displays:

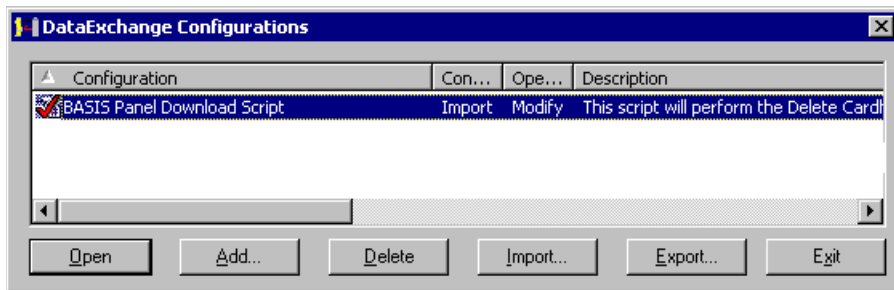


Figure 5.2 Selecting the B.A.S.I.S. Panel Download Script

Is the 'B.A.S.I.S. Panel Download Script' listed?

- ▲ If no, click the Import button and then browse to c:\Program Files\Best Access Systems\BASIS Interface\DE Scripts, and then select PANEL_DOWNLOAD.DEC and click OK.
 - ▲ If yes, select it.
4. Click the Open button.

Defining input/output variables upon import

To define input/output variables:

Because text files are formatted in different ways, you need to define the variables so that the data in the script is exchanged properly. Follow these steps:

1. From the Forms Designer menu, click DataExchange > I/O Definitions

The Database Data Definition window displays:

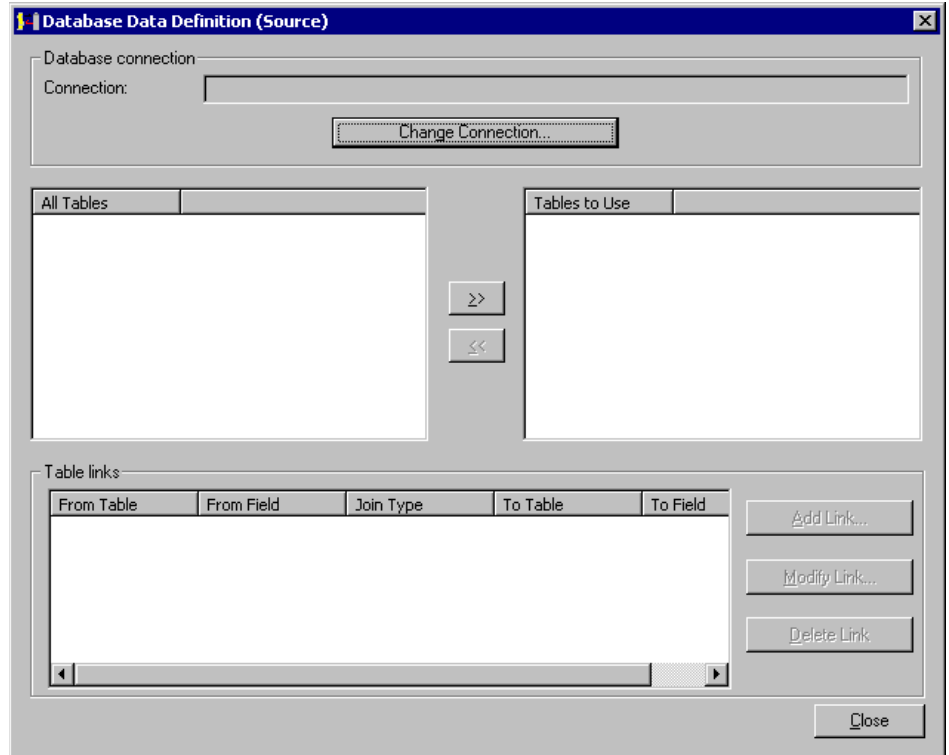


Figure 5.3 Changing the data source connection

2. Click the Change Connection button.

You should see the Select Data Source window:

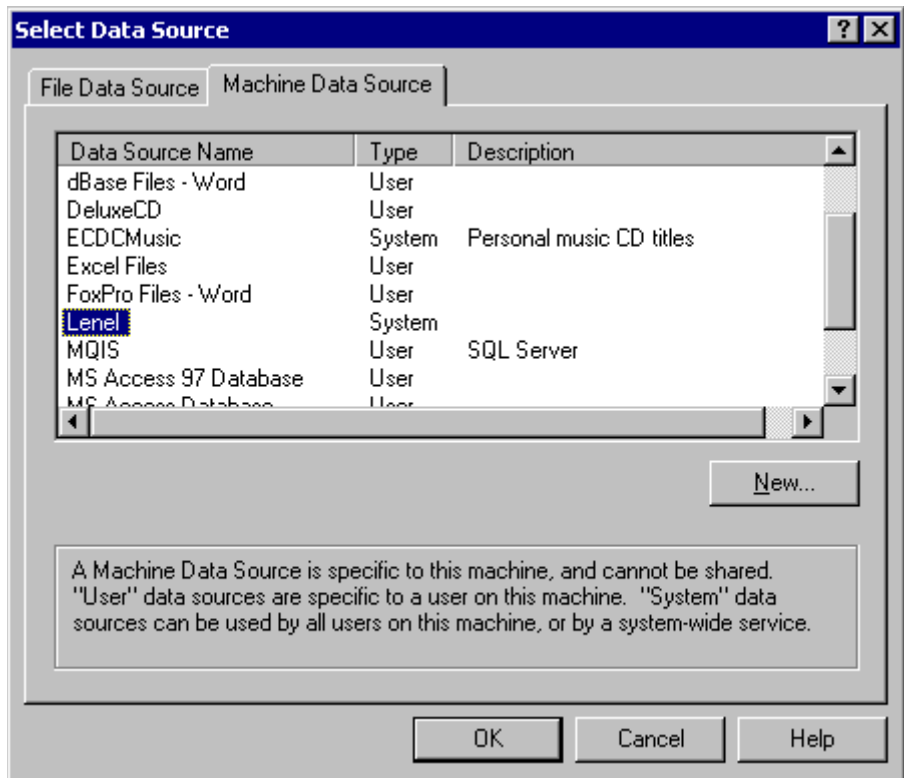


Figure 5.4 Selecting the Lenel machine data source

3. Click the Machine Data Source tab at the top of the window.
4. Scroll down until you see the 'Lenel' data source name, or the ODBC database being used for your B.A.S.I.S. installation, then select it with the mouse. See [Figure 5.4](#).
5. Click OK.
6. Type the password, then click OK.

Note: If you don't know or have lost your password, contact your B.A.S.I.S. Representative.

The Database Data Definition window displays.

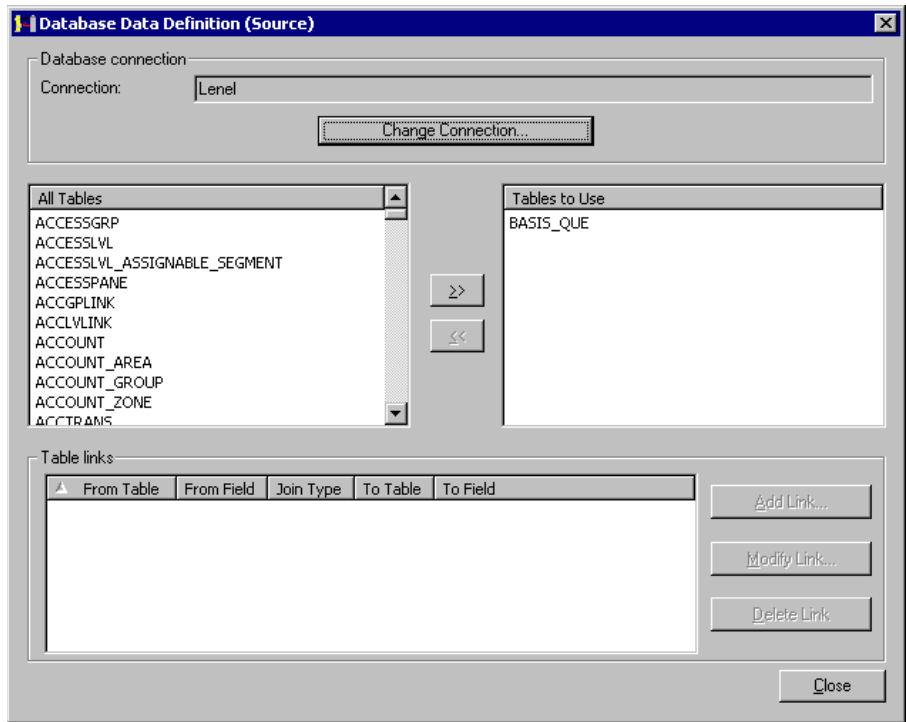


Figure 5.5 Selecting the BASIS_QUE table

7. Click Close.
8. Save the changes to the script.
9. Exit from FormsDesigner.

Scheduling the script to import data

Now that the script has been configured to be processed properly by the B.A.S.I.S. Interface Utility, you will want to schedule the import script to run periodically to keep the B.A.S.I.S. database up to date.

To schedule the script to import data on a one-time or recurring basis:

1. Open System Administration and log in.
2. On the System Administration menu, click Administration > Scheduler.
3. Click the Add button.

The Add Action Wizard window displays:

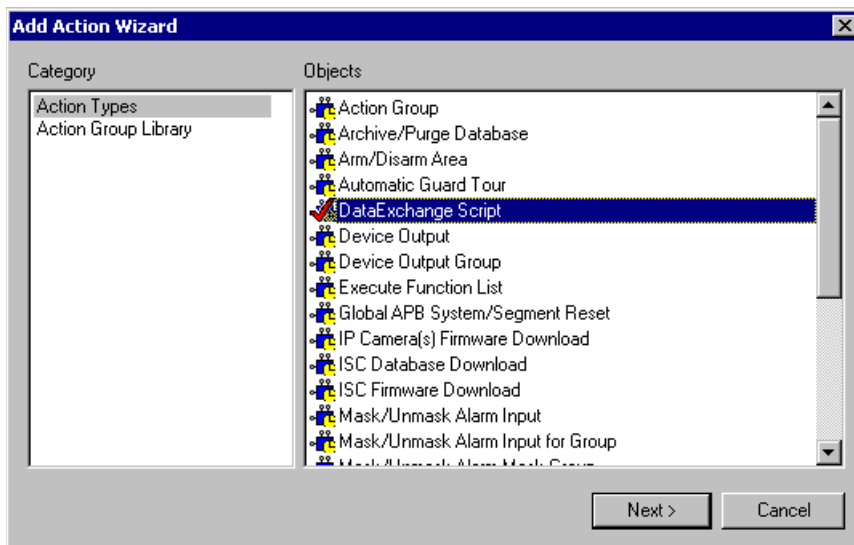


Figure 5.6 Selecting the DataExchange Script action wizard

4. Select the DataExchange Script and click Next >.
5. Select the 'B.A.S.I.S. Panel Download Script,' and then click the Schedule tab.

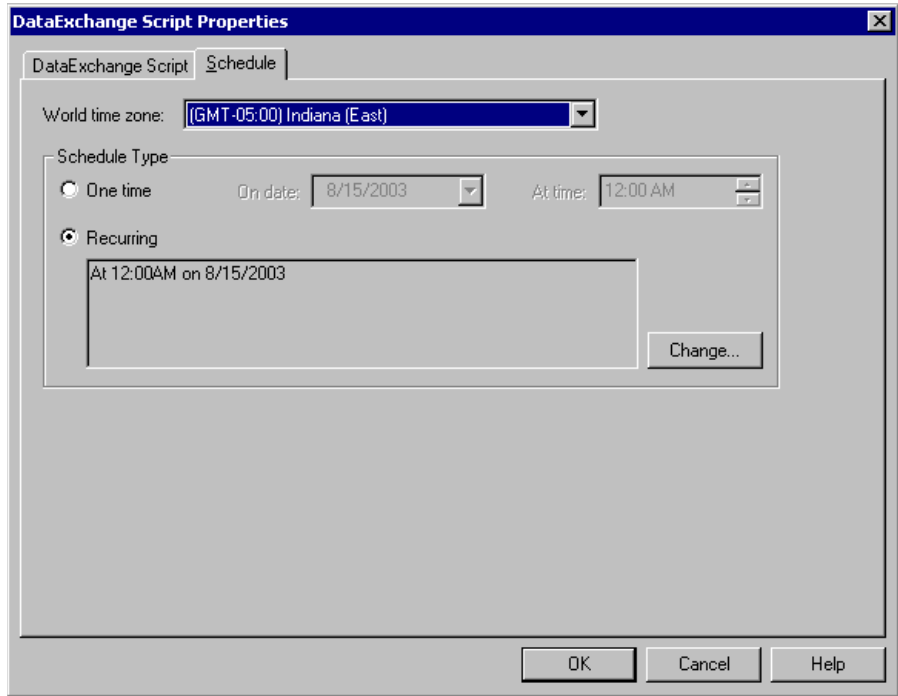


Figure 5.7 Selecting the script to run on a recurring basis

You can either schedule a one-time scheduled script import or a recurring import. If you set the CBORD script to run automatically, you will want to set up a recurring schedule with the same frequency.

For example, if the CBORD DTP file is updated every Monday at midnight, then you will want to set up the panel download to run, say, every Tuesday at 4:00 am.

6. Click the Change button.

The Edit Recurring Action Schedule window displays:

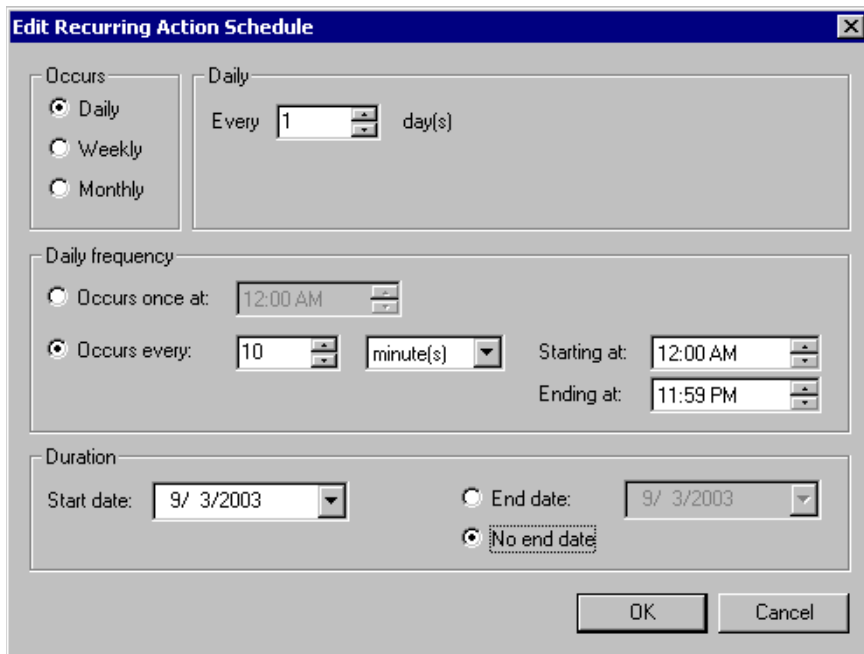


Figure 5.8 Scheduling the run time of the script

7. Use the recurring action scheduler to schedule specifically when the panel download script will run.

Note: You must set the recurring interval to 10 minutes or greater.

8. Click OK.

You have now set up the *B.A.S.I.S. Panel Download Script* to run automatically at the appropriate time. This will keep the B.A.S.I.S. access control panels up-to-date and synchronized with the CBORD meal card database.



6

IMPORTING AND RUNNING B.A.S.I.S. REPORTS

IMPORTING & RUNNING REPORTS

Before importing and running reports, you need to set the *trace level* to the appropriate level. See [page 2-8](#) for a description of each trace level and instructions on setting the trace level.

You can import and run two reports that are specific to B.A.S.I.S. Interface:

- **baog.rpt** — this log records actions taken by BASIS Interface Service. Generally this will include errors about records that were not processed or problems in the setup. With a higher trace level set, more details about processing steps will be recorded.
- **cbordxferlog.rpt** — this log records interactions between B.A.S.I.S. and CBORD including the system that initiated the change: B.A.S.I.S., CBORD, or B.A.S.I.S. Interface.

To import and run a report:

1. Open B.A.S.I.S. System Administration.
2. From the menu, click Administration > Reports.

The Reports window displays

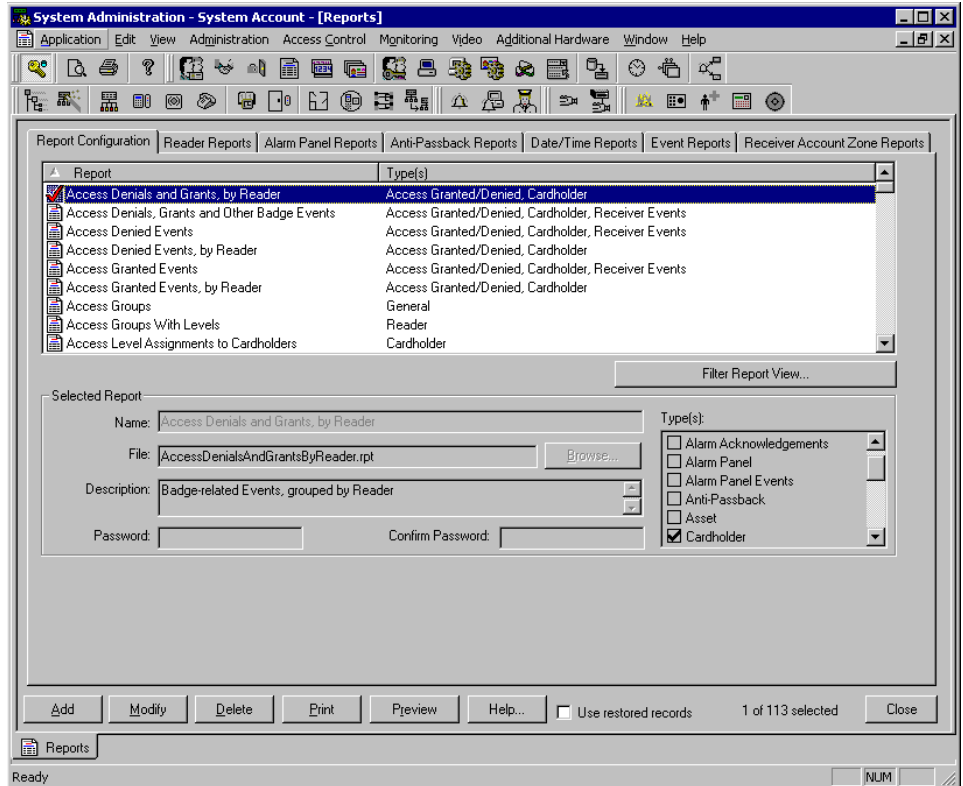


Figure 6.1 Importing the B.A.S.I.S. Interface reports

3. From the Report Configuration tab, click the Add button.
4. Click the Browse button.
 - ▲ Browse to the c:\Program Files\Best Access Systems\BASIS Interface\Reports folder and select the report you want to run.
5. Click Open.

6. In the Selected Report name field, type the name of the report.
The proper names are:
 - ▲ **baog.rpt**: B.A.S.I.S. Interface Log Report
 - ▲ **cbordxferlog.rpt**: CBORD Transfer Log Report
7. Select the report that you want to run from the Reports list and click the Preview button.
The Report displays in the window.
8. View or print the report as needed.



7

SOFTWARE REQUIREMENTS

The software requirements to properly run B.A.S.I.S. Interface are listed below.

SOFTWARE REQUIREMENTS

Regardless of the hardware platform, B.A.S.I.S. Interface requires the following software:

- Windows 2000, service pack 4, Professional or Server
or Windows XP, service pack 1
- MDAC 2.6.7
- SQL Server 2000, service pack 3a
or Oracle 9i
- B.A.S.I.S. ET 5.10.215



8

IMPORTANT TERMS

The following are important terms that will help you better understand B.A.S.I.S. Interface and the import and export process.

**CBORD
Odyssey**

CBORD Group, Inc's meal card system used by many colleges and universities.

data import file

a file having database content formatted to be copied into the B.A.S.I.S. database.

DTP file

'Direct Transaction Processing' — the file formatting method used by CBORD to automatically exchange data with the B.A.S.I.S. database.

**operating
system service**

a low-level computer program that is triggered automatically, usually hidden, and necessary for the proper operation of an application.

script

a sequence of computer application instructions, usually designed to be run automatically.

trace level

a setting that defines the level of detail that is reported when data is exchanged. The higher the numbered trace level, the less is filtered and the more detail is reported. Each successive number adds more detail and includes all of the previous level's detail. There are five trace levels:

Trace level	Name	Reports . . .
0	Fatal errors	Errors that terminate the data exchange or corrupt the database
1	Errors	All errors, from least severe to fatal.
2	Warning	All errors and warnings
3	Trace	All errors, warnings, and high-level processing activities
4	Detail trace	All errors, warnings, and processing activities.

9

BASIS_IMPORT AND BASIS_DATA_EXPORT TABLE STRUCTURES

The following two tables describe the detailed data parameters that B.A.S.I.S. Interface installs. Use these tables to design and program your import and export processes.

BASIS_IMPORT

Column Name	SQL Server Data Type	Oracle Data Type	Nullable	Constraint
row_id	int	Integer	NOT NULL	identity(1,1) - Unique
bml_id	int	Integer	NULL	
cust_num	varchar (50)	varchar2 (50)	NULL	
meal_card_num	varchar (50)	varchar2 (50)	NULL	
meal_card_badge_ type	varchar (64)	varchar2 (64)	NULL	
changetype	varchar (2)	varchar2 (2)	NULL	
ssno	varchar (9)	varchar2 (9)	NULL	
first	varchar (32)	varchar2 (32)	NULL	
middle	varchar (32)	varchar2 (32)	NULL	
last	varchar (32)	varchar2 (32)	NULL	
addr1	varchar (250)	varchar2 (250)	NULL	
city	varchar (40)	varchar2 (40)	NULL	
state	varchar (32)	varchar2 (32)	NULL	

basis_import and basis_data_export table structures

Column Name	SQL Server Data Type	Oracle Data Type	Nullable	Constraint
zip	varchar (15)	varchar2 (15)	NULL	
homephone	varchar (15)	varchar2 (15)	NULL	
title	varchar (32)	varchar2 (32)	NULL	
bdate	datetime	Date	NULL	
dept	varchar (60)	varchar2 (60)	NULL	
div	varchar (32)	varchar2 (32)	NULL	
loc	varchar (32)	varchar2 (32)	NULL	
ophone	varchar (32)	varchar2 (32)	NULL	
building	varchar (32)	varchar2 (32)	NULL	
floor	varchar (8)	varchar2 (8)	NULL	
ext	varchar (8)	varchar2 (8)	NULL	
email	varchar (80)	varchar2 (80)	NULL	
badgeid	varchar (9)	varchar2 (9)	NULL	
type	varchar (64)	varchar2 (64)	NULL	
embossed	varchar (9)	varchar2 (9)	NULL	
activate	datetime	Date	NULL	
deactivate	datetime	Date	NULL	
status	varchar (32)	varchar2 (32)	NULL	
issuecode	varchar (2)	varchar2 (2)	NULL	
pincode	varchar (40)	varchar2 (40)	NULL	
acc_lvl1	varchar (64)	varchar2 (64)	NULL	
acc_lvl2	varchar (64)	varchar2 (64)	NULL	
acc_lvl3	varchar (64)	varchar2 (64)	NULL	
acc_lvl4	varchar (64)	varchar2 (64)	NULL	
acc_lvl5	varchar (64)	varchar2 (64)	NULL	
acc_lvl6	varchar (64)	varchar2 (64)	NULL	
room_assignment	varchar (32)	varchar2 (32)	NULL	
g_series_badge_type	varchar (64)	varchar2 (64)	NULL	
Photofile	image	Long raw	NULL	
segment_name	varchar (64)	varchar2 (64)	NULL	
acc_lvl_activate	datetime	Date	NULL	
acc_lvl_deactivate	datetime	Date	NULL	

BASIS_DATA_EXPORT

Column Name	SQL Server Data Type	Oracle Data Type	Nullable	Constraint
row_id	int	Integer	NOT NULL	identity(1,1) - Unique
Time_stamp	Datetime	Timestamp	NOT NULL	Default current date
bml_row_id	int	Integer	NULL	
cust_num	varchar (50)	varchar2 (50)	NULL	
changetype	varchar (2)	varchar2 (2)	NULL	
meal_card_num	varchar (50)	varchar2 (50)	NULL	
meal_card_badge_type	varchar (64)	varchar2 (64)	NULL	
room_assignment	varchar (32)	varchar2 (32)	NULL	
g_series_badge_type	varchar (64)	varchar2 (64)	NULL	
badgeid	varchar (9)	varchar2 (9)	NULL	
type	varchar (64)	varchar2 (64)	NULL	
status	varchar (32)	varchar2 (32)	NULL	
acc_lvl1	varchar (64)	varchar2 (64)	NULL	
acc_lvl2	varchar (64)	varchar2 (64)	NULL	
acc_lvl3	varchar (64)	varchar2 (64)	NULL	
acc_lvl4	varchar (64)	varchar2 (64)	NULL	
acc_lvl5	varchar (64)	varchar2 (64)	NULL	
acc_lvl6	varchar (64)	varchar2 (64)	NULL	
issuecode	varchar (2)	varchar2 (2)	NULL	
activate	datetime	Date	NULL	
deactivate	datetime	Date	NULL	
embossed	varchar (9)	varchar2 (9)	NULL	
pincode	varchar (40)	varchar2 (40)	NULL	
ssno	varchar (9)	varchar2 (9)	NULL	
first	varchar (32)	varchar2 (32)	NULL	
middle	varchar (32)	varchar2 (32)	NULL	
last	varchar (32)	varchar2 (32)	NULL	
addr1	varchar (250)	varchar2 (250)	NULL	

basis_import and basis_data_export table structures

Column Name	SQL Server Data Type	Oracle Data Type	Nullable	Constraint
city	varchar (40)	varchar2 (40)	NULL	
state	varchar (32)	varchar2 (32)	NULL	
zip	varchar (15)	varchar2 (15)	NULL	
homephone	varchar (15)	varchar2 (15)	NULL	
title	varchar (32)	varchar2 (32)	NULL	
bdate	datetime	Date	NULL	
dept	varchar (60)	varchar2 (60)	NULL	
div	varchar (32)	varchar2 (32)	NULL	
loc	varchar (32)	varchar2 (32)	NULL	
ophone	varchar (32)	varchar2 (32)	NULL	
building	varchar (32)	varchar2 (32)	NULL	
floor	varchar (8)	varchar2 (8)	NULL	
ext	varchar (8)	varchar2 (8)	NULL	
email	varchar (80)	varchar2 (80)	NULL	
Photofile	image	Long raw	NULL	
segment_name	varchar (64)	varchar2 (64)	NULL	

Notes:

