Data Connect Manual

9.9.0 v1

SECURITY MANAGEMENT SYSTEM

9600-0458

Data Connect Manual
(9600-0458)

Issue 9.9.0 v1 – 15th August 2024
Applies only to version 9.9.0 of the Symmetry software.

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Preface

About this Manual

This guide explains how to import and export data to and from Symmetry.

This guide is intended to be of use to personnel who are responsible for interfacing third-party systems with Symmetry through the import/export options documented in this manual.

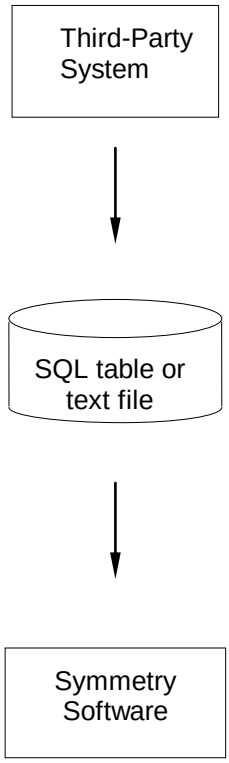
This document is supported by context-sensitive online help available from Symmetry.

Chapter 1: Importing Card Data

Introduction

This chapter describes how to import card holder, visitor and card data into Symmetry. The following diagram illustrates the process.

Note: The Data Connect license must be installed to import/export data. The license is installed by default for Enterprise systems. The Symmetry "Operation/Data/Data Import" screen (but not the "Operation/Data/Data Export" screen) is available if the XML Open Integration Module license is installed.



A separate third-party or Symmetry system exports the data (e.g. card holder name, number, personal data, reader group and time code) to an SQL table in the Symmetry **multiMAXImport** database, or to an ASCII text file. A setting in multimax.ini defines which of these two formats is used.

The SQL import table is named **DataImportTable** for card holders and **VisitorDataImportTable** for visitors (see Note below). An import text file can have any name, with a .txt file extension.

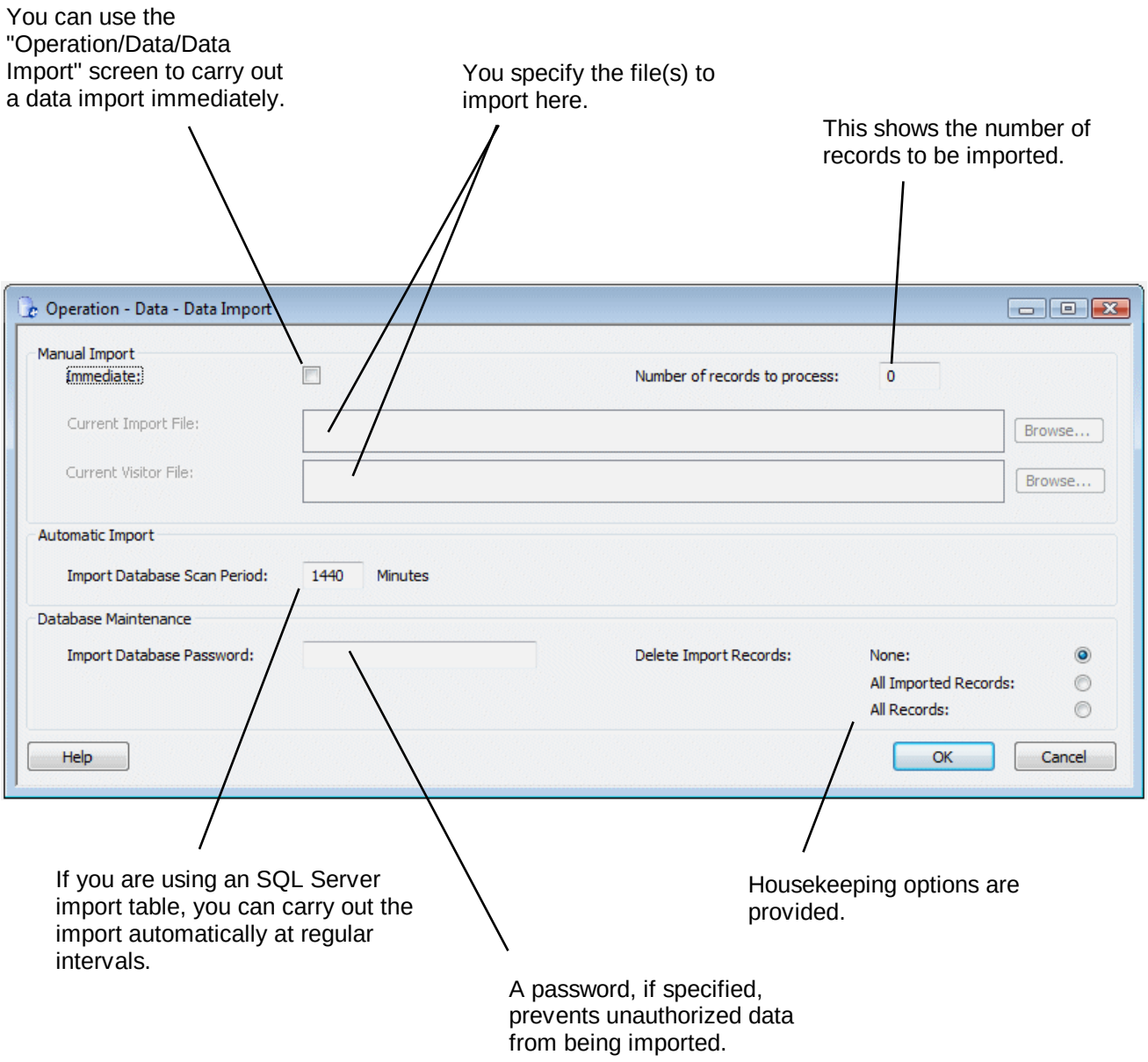
This manual defines the format of the SQL table or text file. Separate formats are used for card holders and visitors.

Symmetry reads the data and creates or modifies the card holder/visitor and card details as appropriate. The import process can be controlled by the "Operation/Data/Data Import" screen. If an SQL import is used, records can be imported automatically by setting the ImportNow field to 1 in the import table.

Importing Card Data

Note: Separate tables (UserDefinedDataImportTable and VisitorUserDefinedDataImportTable) are used to import user-defined field data for card holders and visitors. See Chapter 4 on page 22.

Data Import Screen



Note: Refer to the *Online Help* for full details of how to use the Data Import screen.

The Import Process

Note:

- Refer to the appropriate appendix for details of the required format of the import data.
- For each record, set the RecordStatus field to zero for data import.

During a data import, the following events take place:

1. Symmetry reads the data in the import table/text file.
2. If a password is specified in the "Operation/Data/Data Import" screen, Symmetry checks the encrypted password in the import data. The system will process a record in the import data only if the encrypted password is correct (see *Password Encryption* on page 14).
3. The RecordRequest field in the import data (see page 4) specifies whether, for example, to add a new card holder, modify the details of an existing card holder or change access rights. Symmetry carries out the requested action.
4. The system reads face and signature images, which must be JPEG files stored in the Program Data\Security Management System\Import\Faces and Program Data\Security Management System\Import\Sigs folders on the Symmetry server. The images are automatically deleted from these folders for successfully imported records. **Note**: ensure that each file has a .jpg file extension.
5. Text file import only: when all records in the import file have been processed, each record is added (concatenated) to a file called Export.txt or VisitorExport.txt in Program Data\Security Management System\Import on the Symmetry server. The file is copied to the folder of the import file (if different from the default Import folder).
6. Symmetry updates the RecordStatus field in the SQL import table, Export.txt or VisitorExport.txt (as appropriate) to specify whether importing was successful or unsuccessful. There are different status codes for different error conditions.

   The meaning of each status code is stored in a table called MessageTable (SQL import) or in a text file called Message.txt (text file import). Message.txt is stored in the Program Data\Security Management System\Import folder.

Additional Data Maintained by Symmetry

Symmetry maintains the following information, which should be used by the third-party application when adding information to the data to be imported:

- **Company names**. Whenever a company is added or changed, Symmetry writes the relevant company details to a table called CompanyTable (SQL import) or to a file called Company.txt (text file import).
- **Reader groups**. Whenever a reader group is added or its name is changed, Symmetry writes the reader group ID, company ID, reader group name and shared company ID to a table called ReaderGroupTable (SQL import) or to a file called Readergp.txt (text file import).
- **Time codes**. Whenever a time code is added or its name is changed, Symmetry writes the time code name, ID and company to a table called TimeCodeTable (SQL import) or to a file called TimeCode.txt (text file import).
- **Badge designs**. Whenever a badge design is added or its name is changed, Symmetry writes the badge design name, ID and company to a table called BadgeFormatIDTable (SQL import) or to a file called Badge.txt (text file import).
- **Access codes**. Whenever an access code is added or its name is changed, Symmetry writes the access code name, ID and company to a table called AccessCodeTable (SQL import) or to a file called Accesscd.txt (text file import).
- **Readers**. Whenever a new reader is added or its name is changed, Symmetry writes the reader name, ID and company to a table called ReaderTable (SQL import) or to a file called Reader.txt (text file import).
- **Area**. Whenever a new M2150 intrusion area is added or its name is changed, Symmetry writes the area name, ID and company to a table called AreaTable (SQL import) or to a file called Area.txt (text file import).

Multiple Cards

Symmetry allows a card holder (not visitor) to have multiple cards. RecordRequest 72 can be used to add additional cards to a card holder, or to modify a specific card belonging to a card holder.

Note: The **Multiple Cards** system preference must be set in Symmetry to allow a card holder to be assigned multiple cards through data import.

Most card settings in the "Home/Identity/Card Holders" screen apply to all cards belonging to the same card holder. The following settings (which can be changed through data import) can be different for each card belonging to the same card holder:

CardNumber
CardIssueLevel
ActiveDate
ExpiryDate
CardFormat

Record Request Field

The value of the RecordRequest field affects the behavior of the import process, as detailed next.

RecordRequest = 0 (Add/Modify)

If the RecordRequest field is set to 0 (add/modify), one of two outcomes is possible:

- If the card holder/visitor already exists in the Symmetry database, the details are modified.
- If the card holder/visitor cannot be found in the Symmetry database, a new card holder/visitor is added.

Note: RecordRequest=0 cannot be used to add an additional card to an existing card holder when the **Multiple Cards** system preference is set. RecordRequest=72 is used for this purpose.

Method Symmetry Uses to Find an Existing Card Holder or Visitor in the Database

For each record in the import data, Symmetry attempts to find an existing card holder/visitor in the database as follows:

1. If a non-zero CardNumber field is specified, Symmetry attempts to find an existing card holder/visitor who has the same CardNumber. Card holders (not visitors) can have multiple cards. If a card holder is found by card number, changes that can be different for different cards belonging to the same card holder (e.g. the active date) affect only the specified card. Changes to settings that must be the same for all cards (e.g. PIN code) are applied to all cards.
2. If CardNumber is null or zero, an attempt to locate by EmployeeReference is made (card holders only, not visitors). If a card holder is found by employee reference, all card holders that have the employee reference are modified. If a card holder has multiple cards, all cards belonging to the card holder are modified to match any fields specified in the import data (for example, if an active date is specified in the import data, this is modified throughout all cards belonging to the same card holder).
3. If EmployeeReference and CardNumber are null, Symmetry attempts to find the card holder based on FirstName and LastName. If a card holder is found by name, only the specified card holder is modified. The import fails if more than one card holder exists with this name. If a card holder has multiple cards, all cards belonging to the card holder are modified.

If no match is found, a new card holder/visitor is created.

Rules when modifying an existing card holder/visitor:

- Any field not used to locate the card holder can be modified.
- If any non-mandatory fields are empty, the corresponding fields in the Symmetry database remain unchanged.
- "Temporary cards" defined in the "Home/Identity/Card Holders" screen cannot be modified through data import.
- If a PIN or IDSCode has fewer digits than specified in the "Maintenance/User & Preferences/System Preferences" screen, leading zeroes are added.

- If a PIN or IDSCode has more digits than specified in the "Maintenance/User & Preferences/System Preferences" screen, the import fails with an error code.

- A PIN code must not have three or more repeating or consecutive digits if **Prevent Consecutive PIN Digits** is set in the "Maintenance/User & Preferences/System Preferences" screen (does not apply to IDSCode).

- Access rights can be modified only if the card holder or visitor has no access rights already assigned. It is therefore not possible to modify existing access rights using the ReaderID, ReaderGroupID, AccessCodeID, TimeCodeID, BadgeFormatID or AreaID fields. Use RecordRequest=3, 4, 6 7-22 or 43-59 to modify access rights.

- Record Request 73 (page 11) is used to remove a visitor escort from a visitor's details.

- Please refer to page 11 for additional information about importing visitor records.

- The CardIssueLevel field can be used only if the **Card Issue Levels** option in the "Maintenance/User & Preferences/System Preferences" screen is set.

Rules when creating a new card holder/visitor:

- The LastName and FirstName fields are mandatory.

- If the CardNumber field is empty, and:

  a) **Auto Card Number** is set in the "Maintenance/User & Preferences/System Preferences" screen:

  For any card, Symmetry will set the card number to the lowest unused card number.

  b) **Auto Card Number** is not set, the card number is set to 0 and **Force Inactive** or **Force Identity Inactive** is set as described above.

  Note: There are separate **Auto Card Number** preferences for card holders and visitors.

- If the PIN or IDSCode field is empty, Symmetry will generate a PIN or IDSCode. A PIN or IDSCode of all zeros is not allowed.

- If a PIN or IDSCode has fewer digits than specified in the "Maintenance/User & Preferences/System Preferences" screen, leading zeroes are added.

- If a PIN or IDSCode has more digits than specified in the "Maintenance/User & Preferences/System Preferences" screen, the import fails with an error code.

- A PIN code must not have three or more repeating or consecutive digits if **Prevent Consecutive PIN Digits** is set in the "Maintenance/User & Preferences/System Preferences" screen (does not apply to IDSCode).

- If the ActiveDate field is empty, the active date will be set to the current date.

- If the ExpiryDate field is empty (named **Inactive Date** in the Symmetry user interface) and for a visitor **Visitor Maximum No. of Days** is not set in the "Maintenance/User & Preferences/System Preferences" screen, the inactive date will be left empty (which means no inactive date). If **Visitor Maximum No. of Days** is set, the inactive date is set according to this setting if ExpiryDate is empty.

- Please refer to page 11 for additional information about importing visitor records.

- If the CompanyID field is empty, the company assigned (see CompanyTable or Company.txt) is the one associated with the facility/customer code entered. If multiple companies use the same facility/customer code, CompanyID field must contain a valid company ID.

- The CardIssueLevel field is used only if the **Card Issue Levels** option in the "Maintenance/User & Preferences/System Preferences" screen is set.

- If importing with a badge design that has access rights associated with it, ensure that no other access rights are given in the import record. This is to prevent Symmetry not knowing which set of access rights to use.

- The import process ignores the **Approving Official Is Mandatory** preference.

- Personal data must be supplied for a card record for those personal data fields that are mandatory.

- Data import assigns permissions to each record imported, as specified on page 14.

- If **Prevent Duplicate Credential Encoding** is set in the "Maintenance/User & Preferences/System Preferences" screen, any type of card that can be encoded (e.g. **Legacy**, **AMAG 32-bit**, **AMAG 62-bit** or **AMAG 63-bit**) cannot be created if the unique combination of card number, customer code and card issue level are the same as a card that was previously encoded.

RecordRequest = 1 (Modify)

If the RecordRequest field is set to 1, the specified records are updated with the data contained in the import data. Please refer to the previous section for details of how existing card holders/visitors are located in the database and rules when modifying data.

RecordRequest = 2/5 (Force Inactive/Active)

Setting RecordRequest to 2 forces a card holder/visitor or card to inactive. Setting RecordRequest to 5 clears the force inactive setting. The same mandatory fields apply as when RecordRequest=0.

The existing card holder/visitor or card to force inactive/active is found by using the same method and order as for RecordRequest=0. The result is as follows:

- If a specific card is found and the **Multiple Cards** system preference is set, only the specified card is forced inactive/active (**Force Inactive** set/unset). If **Multiple Cards** is not set, the card holder/visitor is forced to inactive/active (**Force Identity Inactive** set/unset).

- If found by employee reference, all card holders who have the specified employee reference are forced inactive/active (**Force Identity Inactive** set/unset). (Employee references are unique if **Unique Employee Reference** is set in the "Maintenance/User & Preferences/System Preferences" screen.)

- If found by last name and first name, only the specified card holder/visitor is forced inactive/active.

Note: Other changes may be necessary to activate the card holder/visitor or card. For example, the Active and Expiry dates may need to be updated. If other modifications are required, these must be made using a separate import record, with RecordRequest set to 1 or 0.

Note: Optionally, you can also set the Lost field with RecordRequest=2. See the description of the Lost field.

RecordRequest = 3/4/6 (Extend Normal Access Rights/Remove Access Rights)

Setting RecordRequest to 3 causes card holder/visitor normal access rights to be extended, as specified in the ReaderID, ReaderGroupID, TimeCodeID, AccessCodeID and AreaID fields. You can use RecordRequest 7-22 to extend advanced access rights.

If RecordRequest is set to 4, all of the card holder/visitor access rights are removed, including any advanced access rights assigned. To remove access rights in this way, the specified CardNumber must always belong to the specified CompanyID. You may prefer to use RecordRequest 43-59 to remove and re-add access rights (see page 9).

If RecordRequest is set to 6, the specified normal access right is removed from the selected card holder/visitor. This may be selected by reader, reader group, access code or area, as specified by the ReaderID, ReaderGroupID, AccessCodeID or AreaID field. It is not possible to remove advanced access rights using RecordRequest=6.

Note:

- Existing card holders/visitors are found using the same methods as for RecordRequest=0.Other modifications, e.g. changing a personal data field entry, will be ignored by this request.
- Please refer to page 12 for details of the effect of **Card Holders by Company** on the import results.

RecordRequest = 23 (Update Card Usage Remaining)

Note: RecordRequest=23 is provided to provide backward compatibility with previous data import processes. RecordRequest=0 or RecordRequest=1 can be used to update Card Usage Remaining using the CardUsingRemaining import field, which should be used in preference to RecordRequest=23.

If RecordRequest is set to 23, the specified card will have its **Card Usage Remaining** updated according to the value entered in the PIN field. Valid values for this field are as follows.

-1 = No limit 0 = Limit reached 1–9999 = Card Usage Remaining value

The system searches for the existing card holder/visitor in the same way as when RecordRequest is set to 0.

RecordRequest = 24/25 (Visitor Sign in/Out/Closed)

If RecordRequest is set to 24, the specified visitor is either signed in or signed out, using the date and time entered in the Arrival or Departure date respectively.

If RecordRequest is set to 25, the specified visitor's status changes to "closed" and the departure date and time are set to the current date and time. Use this setting if the visitor is no longer expected.

The existing visitor is found by using the same method and order as for RecordRequest=0.

RecordRequest = 7-22 (Extend Advanced Access Rights)

Setting RecordRequest to any value from 7 to 22 causes card holder/visitor advanced access rights to be extended, as specified in the ReaderID, ReaderGroupID, TimeCodeID, AccessCodeID and AreaID fields.

Note:

- The ActiveDate and ExpiryDate fields must be specified, and these update the card's existing active and expiry dates. Any time element of these fields is ignored.
- Existing card holders/visitors are found using the same methods as for RecordRequest=0.Other modifications, e.g. changing a personal data field entry, will be ignored by this request.
- Please refer to page 12 for details of the effect of **Card Holders by Company** on the import results.

RecordRequest=7: Extend Advanced 1 Access Rights
RecordRequest=8: Extend Advanced 2 Access Rights
RecordRequest=9: Extend Advanced 3 Access Rights
RecordRequest=10: Extend Advanced 4 Access Rights
RecordRequest=11: Extend Advanced 5 Access Rights
RecordRequest=12: Extend Advanced 6 Access Rights
RecordRequest=13: Extend Advanced 7 Access Rights
RecordRequest=14: Extend Advanced 8 Access Rights
RecordRequest=15: Extend Advanced 9 Access Rights
RecordRequest=16: Extend Advanced 10 Access Rights
RecordRequest=17: Extend Advanced 11 Access Rights
RecordRequest=18: Extend Advanced 12 Access Rights
RecordRequest=19: Extend Advanced 13 Access Rights
RecordRequest=20: Extend Advanced 14 Access Rights
RecordRequest=21: Extend Advanced 15 Access Rights
RecordRequest=22: Extend Advanced 16 Access Rights

RecordRequest = 42 (Delete)

Setting RecordRequest to 42 deletes the specified card holder/visitor or card.

The existing card holder/visitor or card to delete is found by using the same method and order as for RecordRequest=0. The result is as follows:

- If found by card number, and a card holder has multiple cards, only the specified card is deleted. Otherwise, the card holder/visitor is deleted.
- If found by employee reference, all card holders who have the specified employee reference are deleted.
- If found by last name and first name, the specified card holder/visitor is deleted.

RecordRequest = 43-59 (Remove All, then add Normal/Advanced Access Rights)

RecordRequest 43 causes card holder/visitor normal and advanced access rights to be removed completely, and then normal access rights are added, as specified by the ReaderID, ReaderGroupID, TimeCodeID, AccessCodeID and AreaID fields.

RecordRequest 44-59 causes card holder/visitor normal and advanced access rights to be removed completely, and then advanced access rights are added, as specified by the ReaderID, ReaderGroupID, TimeCodeID, AccessCodeID and AreaID fields. The RecordRequest value determines which of the 16 advanced access rights is added.

Note:

- The ActiveDate and ExpiryDate fields must be specified, and these update the card's existing active and expiry dates. Any time element of these fields is ignored.
- Existing card holders/visitors are found using the same methods as for RecordRequest=0.
- Other modifications, e.g. changing a personal data field entry, will be ignored by this request.
- Please refer to page 12 for details of the effect of **Card Holders by Company** on the import results.

RecordRequest=43: Remove All, then Add Normal Access Rights
RecordRequest=44: Remove All, then Add Advanced 1 Access Rights
RecordRequest=45: Remove All, then Add Advanced 2 Access Rights
RecordRequest=46: Remove All, then Add Advanced 3 Access Rights
RecordRequest=47: Remove All, then Add Advanced 4 Access Rights
RecordRequest=48: Remove All, then Add Advanced 5 Access Rights
RecordRequest=49: Remove All, then Add Advanced 6 Access Rights
RecordRequest=50: Remove All, then Add Advanced 7 Access Rights
RecordRequest=51: Remove All, then Add Advanced 8 Access Rights
RecordRequest=52: Remove All, then Add Advanced 9 Access Rights
RecordRequest=53: Remove All, then Add Advanced 10 Access Rights
RecordRequest=54: Remove All, then Add Advanced 11 Access Rights
RecordRequest=55: Remove All, then Add Advanced 12 Access Rights
RecordRequest=56: Remove All, then Add Advanced 13 Access Rights
RecordRequest=57: Remove All, then Add Advanced 14 Access Rights
RecordRequest=58: Remove All, then Add Advanced 15 Access Rights
RecordRequest=59: Remove All, then Add Advanced 16 Access Rights

RecordRequest = 72 (Add/Modify Card)

This is applicable only if the **Multiple Cards** system preference is set and applies only to card holder (not visitor) imports. The import fails with status '48 - Multiple Cards per Card Holder not enabled' if the **Multiple Cards** preference is not set.

Setting RecordRequest is set to 72 adds or modifies the specified card. If the card holder is not found in Symmetry, a new card holder is created. If the card holder is found, the details are updated. If the card holder is located and the card number is new, the card is added as a multiple card to the card holder. Therefore, if the card holder is found, the specified card is added (if it does not exist) or modified (if it does exist).

Please also refer to the section titled "Multiple Cards" on page 4.

Symmetry searches for an existing card holder as follows:

1. If a non-zero CardNumber field is specified, Symmetry attempts to find an existing card holder\visitor who has the same CardNumber. If a card holder is found by card number, changes that can be different for different cards belonging to the same card holder (e.g. the active date) affect only the specified card. Changes to settings that must be the same for all cards (e.g. PIN code) are applied to all cards.
2. If the card holder\visitor cannot be found by CardNumber, an attempt to locate by EmployeeReference is made. This can be used to add a new card to an existing card holder.

3. If there are no records that match the employee reference, an attempt to locate by first name and last name is made, providing the employee reference in the import data is null. This can also be used to add a new card to an existing card holder.

The import fails with status '47 - Import failed to identify unique card holder' if more than one card holder is found when an employee reference or name is used.

The rules for updating or adding a card holder/card are the same as when RecordRequest=0.

RecordRequest = 73 (Remove Visitor Escort)

This clears the visitor escort from a visitor's card details. If the visitor escort has no other assigned visitors, the Visitor Escort setting in the card holder's details is also removed.

The record request requires only the information necessary to locate the visitor (such as the CompanyID and CardNumber), in the same way as used to amend other visitor details.

The record is processed successfully even if the visitor does not have an assigned visitor escort.

Importing Visitors

Visitor Record Requests

The following Record Requests are specific to visitors (please refer to the above sections):

- 73 - Remove a visitor escort.
- 24 - Sign visitor in/out.
- 25 - Close visitor.

Other Record Requests (such as 0 and 1) are applicable to card holders and visitors.

Specifying the Name of the Card Holder Being Visited

When importing a visitor, a Visiting field is available to specify the name of the card holder who the visitor is visiting. The format of this field must be:

<LastName><separator> <FirstName><separator><MiddleName>
or
<LastName><separator> <FirstName>

When using text import, <separator> must be a forward slash (and no space). When using SQL import, <separator> must be a comma (and no space).

The import process searches for a card holder with that name and if an exact match is found, then that card holder (or the first with that name) is assigned as the card holder being visited. If no matching card holder is found, the import uses the name directly.

If the Visiting field is empty or null, but the VisitingEmployeeRef field is populated, the import process searches for a card holder who has the same employee reference as specified in VisitingEmployeeRef. The record is rejected if a card holder with that employee reference is not present (error code 56), or if more than one card holder has the specified employee reference (error code 57).

Specifying the Visitor Escort the Visitor is Using

When importing a visitor, a VisitorEscortName field is available to specify the name of the card holder who the visitor is using as the visitor escort. The format of this field is the same as described above for the Visiting field.

The import process searches for a card holder with that name and if an exact match is found, then that card holder (or the first with that name) is assigned as the visitor escort. If no matching card holder is found, the import uses the name directly.

If the VisitorEscortName field is empty or null, but the VisitorEscortEmployeeRef field is populated, the import process searches for a card holder who has the same employee reference as specified in VisitorEscortEmployeeRef . The record is rejected if a card holder with that employee reference is not present (error code 56), or if more than one card holder has the specified employee reference (error code 57).

If a card holder is located (either via name or employee reference), the card holder must have an active status. If this is not the case, the record is rejected (with error code 58).

If the card holder located is not a visitor escort, the import sets the card holder as a visitor escort.

Use Record Request 73 to remove a visitor escort from a visitor's card details.

Visitor Inactive Date

When creating a new visitor, if the **Visitor Maximum No. of Days** preference is set in the "Maintenance/User & Preferences/System Preferences" screen, the inactive date is automatically set to be the ActiveDate, plus the number of days specified by the **Visitor Maximum No. of Days**. If the **Visitor Maximum No. of Days** preference is not set and there is no ExpiryDate, there will be no inactive date.

Card Holders By Company

In the Symmetry application, by default, a user is able to assign access rights to only those card holders who belong to the currently-selected company. This is the behavior if **Card Holders by Company** in the "Maintenance/User & Preferences/System Preferences" screen is enabled (the default).

However, if **Card Holders by Company** is disabled, the user is able to view card holders belonging to any other company, and for those card holders, assign access rights to any reader (or other item*) that belongs to the user's currently-selected company. For example, if **Card Holders by Company** is disabled, and:

- "Reader 1" belongs to "Company 1", and
- The user's currently-selected company is "Company 1", then
- The user is able to assign access rights to "Reader 1" to any card holder belonging to any company.

The same functionality is available for a data import. In this case, the CompanyID field is used to represent the currently-selected company.

*Reader, reader group, access code or area.

Examples - Using Record Request 0, 1 or 3

The following shows examples when adding access rights using Record Request =3.

Assume the following data is already set up:

- "Reader 1" belongs to "Company 1"
- "Card Holder 1" who has card number 1 belongs to "Company 1"
- "Card Holder 2" who has card number 2 belongs to "Company 2"
- "Card Holder 3" who has card number 3 belongs to "Company 3"

Card Holders By Company selected:

CompanyID	CardNumber	ReaderID	Result
1	1	1	Success - the reader and card holder belong to "Company 1".
2	2	1	Fail - the reader does not belong to "Company 2".
3	3	1	Fail - the reader does not belong to "Company 3".
1	2	1	Fail - card number 2 does not belong to "Company 1".
1	3	1	Fail - card number 3 does not belong to "Company 1".

Card Holders By Company NOT selected:

CompanyID	CardNumber	ReaderID	Result
1	1	1	Success - the reader and card holder belong to "Company 1".
2	2	1	Fail - the "currently logged-in" company is "Company 2", but the reader does not belong to this company.
3	3	1	Fail - the "currently logged-in" company is "Company 3", but the reader does not belong to this company.
1	2	1	Success - the "currently logged-in" company is "Company 1", the reader belongs to this company and therefore can be assigned to any card holder in any company.
1	3	1	

Examples - Using Record Request 6

Record Request 6 is used to remove individual access rights.

Removing access rights operates in exactly the reverse manner to adding access rights − when **Card Holders by Company** is disabled, data import can remove any reader (or other item) that belongs to the specified CompanyID from the access rights of any card holder belonging to any company. The results are the same as given in the previous table.

Record Request 4

Record Request 4 is used to remove all access rights assigned to a card holder or visitor. In this case, the card holder or visitor must always belong to the "currently logged-in" company. That is, the specified CardNumber must belong to the specified CompanyID.

Permissions Assigned to Imported Records

Permissions allow Symmetry users to view or edit the imported records. Permissions are determined by the Symmetry user role(s) that are assigned to an imported record, which after import can be displayed by clicking the **Permissions** button in, for example, the "Home/Identity/Card Holders" screen.

The permissions assigned to each imported record are determined by the **Default Permissions** setting ("Maintenance/User & Preferences/Roles" screen) and the **Imported Card Permissions Role** setting ("Maintenance/User & Preferences/System Preferences" screen). The user roles that data import assigns to the permissions of each record are those defined by **Default Permissions** belonging to the role specified by **Imported Card Permissions Role**.

M4000 First Responders

If imported card holders or visitors are being assigned M4000 first-responder access rights, the role being used to carry out the data import (as specified by **Imported Card Permissions Role** in the "Maintenance/User & Preferences/System Preferences" screen) must have **Assign First Responder Access Codes to Cards and Badges** enabled in the "Maintenance/User & Preferences/Roles" screen. If this is not the case, the import will fail (with message code 61).

First-responder access rights are assigned during data import if the access code specified in the import data has **First Responder Lockdown** set in the Symmetry "Operation/Times/Access Codes" screen.

For further details about M4000 first responders, please refer to the Symmetry *Online Help*.

Password Encryption

Protection against importing unauthorized data is provided by the Encryption field. Encryption is applicable to both SQL and text file import.

If a password is specified in the "Operation/Data/Data Import" screen, the system checks that the password matches the encrypted password in each record of the import data. Processing of a record is not carried out if the encrypted password is incorrect.

If password security is required, the third-party software must be able to encrypt the password as follows:

1. Concatenate every field that is used for encryption (see DataImportTable on page 31). This will mean converting all numbers and dates to their string representations.

   Dates must be converted to the string representation dd/mm/yyyy, without leading zeroes and any time component. Any empty fields must not be included.

   The order of concatenation is the same as the order of the fields (see the appropriate appendix).

2. Extend the length of the password with null characters (decimal 0) to match the length of the concatenated string, then perform an exclusive OR between the ASCII value of each character in the concatenated string and the ASCII value of each character in the password.

3. Sum each decimal result of the exclusive OR.

Example

The following gives an example of an encryption of the password "enigma" for a card holder record.

The encryption value of 2542 was calculated as follows:

1. The concatenated string is: "SoapJoe451456Security Guard29/6/2015120"

2. The assumed password is **enigma**.

3. An exclusive OR with enigma (‘S’ XOR ‘e’, ‘o’ XOR ‘n’, ‘a’ XOR ‘i’, ‘p’ XOR ‘g’, ‘J’ XOR ‘m’ and ‘o’ XOR ‘a’) produces a resultant string of characters. Summed result in decimal is 139.

4. The exclusive OR of the ASCII value of each remaining character in the concatenated string with 0, and summing each result in decimal gives a result of 2403. 2403 + 139 = 2542.

Field Name	Value	Note
LastName	Soap	
FirstName	Joe	
CardNumber	45	
CompanyID	1	
CardIssueLevel		
EmployeeReference	456	EmployeeReference is not relevant for visitor records and takes no part in encryption
PIN		
PersonalData1	Security Guard	
PersonalData2		
PersonalData3		
PersonalData4		
PersonalData5		
PersonalData6		
PersonalData7		
PersonalData8		
PersonalData9		
PersonalData10		
ActiveDate	29/6/2015	
ExpiryDate		
ReaderGroupID	1	
TimeCodeID	2	
RecordRequest	0	
InactiveComment		
Encryption	**2542**	

CardFormat Field

The value for the CardFormat field should match the required Format ID, as shown in the "Install/System/Default Settings/Credential Formats" screen in Symmetry. For example: 0=Legacy; 6=HID SE; 7=HID Corporate; 8=Barcode 37; 9=NXP Desfire 56; 10=AMAG 62; 11=AMAG 32; 12=AMAG 63.

If no CardFormat is specified, Symmetry applies a default as follows:

- If only one credential format is enabled in the "Install/System/Default Settings/Credential Formats" screen, this format is used.
- If there are multiple credential formats enabled, Symmetry uses the default for the applicable company group (as defined by the "Install/System/Default Settings/Credential Formats" screen). The applicable company group is the company group of the company that is specified in the import data. If the company belongs to multiple company groups, Symmetry uses the company group that has the lowest ID (typically, this is the first company group created). If no company is specified in the import data, the first company in the database is used to determine the company group as above.
- If there are multiple formats enabled in the "Install/System/Default Settings/Credential Formats" screen and a default is not specified, the import fails with record status 50,"The specified Card Format is out of range".

Length of Employee Reference for Data Import

By default, the maximum number of characters that can be imported through the EmployeeReference field in the import data is 20. You can change the maximum using the EmployeeReferenceMaskSize parameter in the multimax.ini file on the Symmetry server (as documented in the *Symmetry Software Installation Manual*). If the supplied data is too long in length, data import will discard the excess.

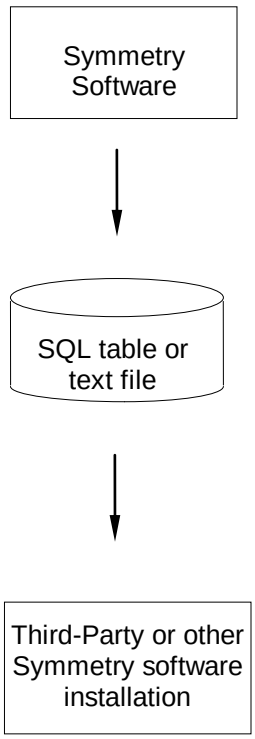
EmployeeReferenceMaskSize can be set a value between 1 and 100. The **Employee Reference** field in Symmetry can have a maximum of 100 characters.

Chapter 2: Exporting Card Data

Introduction

This chapter describes how to export details of card holders and cards from Symmetry to a third-party system or to another similar Symmetry installation. The following diagram illustrates the process. **Note:** You cannot export visitor records from Symmetry.

Note: The Data Connect license must be installed to import/export card details. The license is installed by default for Enterprise systems.



Symmetry exports the data (e.g. card holder's name, number, personal data, etc.) to an SQL table or to ASCII text file. A setting in multimax.ini defines which of these two formats is used. The export process is controlled by the "Operation/Data/Data Export" screen.

For an SQL export, the SQL table is named **DataExportTable** in the **multiMAXExport** database (see Note below).

If you export to a text file, a file named CreateImport.txt is created in the ProgramData\Security Management System\Export folder. You can also specify an output filename of your choice in the "Operation/Data/Data Export" screen, which is created in addition to CreateImport.txt. A text export file is in a format which can be immediately imported into another Symmetry system using the "Operation/Data/Data Import" screen.

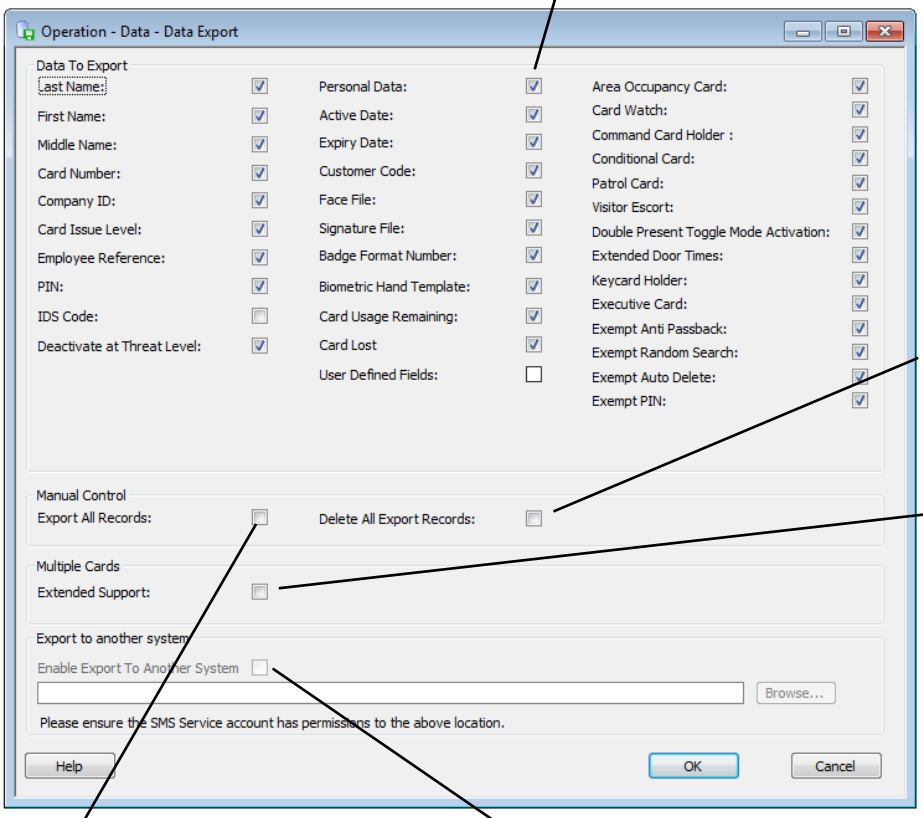
The third-party or separate Symmetry system reads the exported data and imports/processes the data as required.

Exporting Card Holder Details

Note: A separate table (UserDefinedDataExportTable) is used to export user-defined field data for card holders and visitors. See Chapter 4 on page 22.

Data Export Screen

Select the information you wish to export. The export database will contain a null field for any data item that has **No** selected.



Select this option, then **OK** if you wish to delete ALL records in the export database.

This option is available only if **Multiple Cards** is set in the System Preferences screen.

Choose this option if you want the RecordRequest field in the exported data to be set to 72 for any card holder addition or modification. This allows card data to be imported more easily into a different system when card holders can have multiple cards.

If the option is not set, values 0 and 1 are used for RecordRequest, and only the primary card is exported (the card shown first in the "Home/Identity/Card Holders" screen).

You can export data manually by selecting **Export All Records**, then **OK**.

Select this option to enable automatic exports to a text file.

Note: By default, for automatic exports, card details are exported only after a user adds, modifies or deletes a card from the Identity/Card Holders or Identity/Bulk Card Amendments screen in Symmetry. However, an INI file parameter set at the Symmetry server allows imported card data also to be exported. The optional parameter in the [multiMax] section is DataExportAfterImport=1.

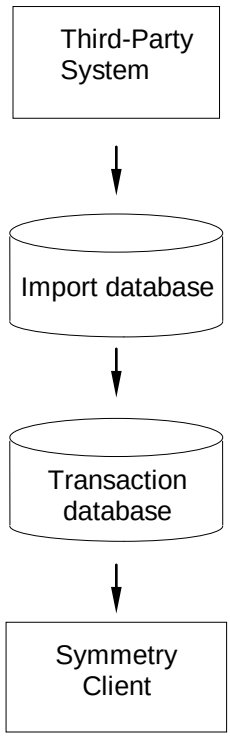
Chapter 3: Importing Alarms/Events from Third-Party Systems

Importing Alarms and Events

You can import alarms and events from third-party systems into the Symmetry transaction database via the TxnImportTable of the Symmetry SQL import database (multiMaxImport). This allows Symmetry clients to display live alarms/events from third-party systems in the Alarm and Activity windows and to produce reports of these transactions. The following diagram illustrates the import process.

If required, imported alarms/events can be associated with a specific reader, monitor point and/or card holder in the Symmetry database. For example, an "Access denied" transaction could be imported for a specific card holder at a specific reader. On import, the alarm/event is converted into a transaction in the Symmetry log, which allows trigger commands, emails, etc. to be generated from imported alarms/events. If a record of the imported alarm/event is needed (in addition to the converted alarm/event), set DuplicateImportedTransactions to "1" in multimax.ini.

Note: For performance reasons, it is recommended that alarms/events are not added to the import table at times when cards are being imported into the Symmetry database.



The third-party system exports alarms/events into the **TxnImportTable** of the import database (**multiMaxImport**). The format of TxnImportTable is specified in the following section. The data includes the alarm/event type, location, and the date and time of the alarm/event.

The import database must be in SQL Server format (text format is not supported). The database is automatically created during the installation of Symmetry.

The Symmetry support service reads the alarms/events entered into the import database and automatically checks and moves the alarms/events into the “live” transaction database (multiMaxTxn). This occurs for each alarm/event as it is added to the table (as opposed to import “batches” used in the card import mechanism).

Symmetry clients can display the alarms/events in the Alarms screen and produce reports that include the alarms/events.

Importing Alarms/Events

SQL Server - TxnImportTable

The TxnImportTable table of the import database (multiMaxImport) is used to import alarms/events from a third-party system into Symmetry.

Field Name	Data Type	Comments
TxnImportId	integer	Value assigned automatically by SQL Server
TxnDateTime	datetime	Date and time; format according to locale of server
WhatField	nvarchar(255)	Mandatory. This is the name of the alarm/event. The name will be displayed in screens such as "Home/ Monitoring/Alarms" and "Home/Monitoring/Activity". The ResponseName belonging to the specified ResponseMnemonic is not used.
WhereField	nvarchar(255)	
FirstName	nvarchar(40)	
LastName	nvarchar(40)	
TimeZone	nvarchar(4)	Time zone code associated with the transaction time.
AlarmColour	integer	Alarm text color; see Note below.
AlarmPriority	smallint	Valid range 1 - 999.
Alarm	tinyint	Transaction type; 0 = event, 1= alarm.
CompanyID	integer	Company ID. The field must not be null.
DeviceID	integer	Use this field to specify the reader or monitor point if DeviceType is specified. The DeviceID must correspond to the device in the Symmetry database.
DeviceType	integer	Optional field to specify that the alarm/event is associated with a reader or monitor point. Use a value of 77 for a monitor point, or 82 for a reader. Also specify the DeviceID and ResponseMnemonic.
ResponseMnemonic	integer	If you are associating the alarm/event with a specific DeviceType and/or CardNumber, use this field to specify the ResponseMnemonic of the transaction type. For example, 17784 for "Card Expired". ResponseMnemonic must be one of the values given in the ResponseMnemonic column of the ResponseTable in the multiMAX database. To view the possible values and their meanings, open the multiMAX database in SQL Server Management Studio, right-click the table, and choose **Select Top 1000 Rows**.
CardNumber	integer	Optional field to specify that the alarm/event is associated with a specific card number in the Symmetry database. Also specify CustomerCode and ResponseMnemonic.
CustomerCode	integer	Use this field to specify the customer/facility code if CardNumber is specified.

Note: Specify a value for AlarmColour only if you want to specify a custom color for the alarm text. If you leave the field empty, Symmetry uses the standard Symmetry alarm/event colors.

If you want to specify a custom color, you can calculate the required value for AlarmColour by taking the hex value of each of the three individual color components (blue, green, red), concatenating the values,

then calculating the decimal equivalent. For example, pale blue has a blue color value of 255 (FF), green color value of 255 (FF) and a red color value of 128 (80), as displayed in the color chart of Microsoft Paint. Concatenating the hex values (BGR) gives a hex value of FFFF80, which when converted to decimal is 16777088.

Examples of other commonly used colors are as follows:

Red:	255
Blue:	16711680
Green:	32768
Black:	0
Brown:	4210816
Pink:	16744703

Symmetry automatically determines the background color, which is the same for each Symmetry display theme (Light, Dark and High Contrast). If you require the text and background color to change depending on the selected theme, leave AlarmColour empty.

Chapter 4: Importing and Exporting User-Defined Field Data

Introduction

The Symmetry "Install/System/Default Settings/Credential Formats" screen allows "user-defined fields" to be set up as part of a credential format. User-defined fields appear as additional fields in the Credentials tab of the "Home/Identity/Card Holders" or "Home/Identity/Visitors" screen when the credential format is selected.

You can import and export user-defined field data for card holders and visitors in text or SQL database format.

Importing User-Defined Field Data from an SQL Database

You can use the following tables in the multiMAXImport database to import user-defined field data:

- UserDefinedDataImportTable – For card holders.
- VisitorUserDefinedDataImportTable – For visitors.

The required formats of the SQL tables are given in the following sections.

Symmetry validates the imported data against the requirements of the credential format assigned to the card holder or visitor.

UserDefinedDataImportTable

Use this SQL table to import user-defined data for card holders.

Field Name	Data Type	Comments
UserDefinedDataId	integer	This value is assigned automatically by SQL Server.
RecordCount	integer	Specify the RecordCount of the card holder that this user-defined data belongs to. You can obtain the RecordCount from the DataImportTable after the card-holder data has been imported (see page 31).
UserDefinedFieldId	integer	Specify the ID of the user-defined field. You can obtain the ID from UserDefinedFieldsTable (see page 23), which provides all user-defined fields in Symmetry.
ImportStringValue	nvarchar(max)	If the user-defined field is of type "String", specify the string value in this field.

ImportNumberValue	bigint	If the user-defined field is of type "Number", specify the value in this field.
ImportDateTimeValue	datetime	If the user-defined field is of type "Date", specify the date in this field. If the user-defined field is of type "Time", specify the time in this field (the import uses only the time, but the minimum date you can use is 1970).
ImportBoolValue	bit	If the user-defined field is of type "Boolean", specify the boolean value in this field.

VisitorUserDefinedDataImportTable

Use this SQL table to import user-defined data for visitors.

Field Name	Data Type	Comments
UserDefinedDataId	integer	This value is assigned automatically by SQL Server.
RecordCount	integer	Specify the RecordCount of the visitor that this user-defined data belongs to. You can obtain the RecordCount from the VisitorDataImportTable after the visitor data has been imported (see page 35).
UserDefinedFieldId	integer	Specify the ID of the user-defined field. You can obtain the ID from UserDefinedFieldsTable (see the next section), which provides all user-defined fields in Symmetry.
ImportStringValue	nvarchar(max)	If the user-defined field is of type "String", specify the string value in this field.
ImportNumberValue	bigint	If the user-defined field is of type "Number", specify the value in this field.
ImportDateTimeValue	datetime	If the user-defined field is of type "Date", specify the date in this field. If the user-defined field is of type "Time", specify the time in this field (the import uses only the time, but the minimum date you can use is 1970).
ImportBoolValue	bit	If the user-defined field is of type "Boolean", specify the boolean value in this field.

UserDefinedFieldsTable

This table in the multiMAXImport SQL database specifies all user-defined fields defined in the Symmetry "Install/System/Default Settings/Credential Formats" screen. Symmetry updates the table when a Symmetry user creates or modifies user-defined fields.

Field Name	Data Type	Comments
UserDefinedFieldId	integer	Specifies the ID of the user-defined field.
UserDefinedFieldName	nvarchar(40)	Specifies the name of the user-defined field.
DataType	nvarchar(10)	Specifies the user-defined field type.
CompanyId	integer	Specifies the company that the user-defined field belongs to.

Exporting User-Defined Field Data to the SQL Database

You can export user-defined field data to the UserDefinedDataExportTable in the multiMAXExport SQL database by selecting **User Defined Fields** in the "Operation/Data/Data Export" screen.

The following describes the format of the table.

UserDefinedDataExportTable

Field Name	Data Type	Comments
UserDefinedDataId	integer	This value is assigned automatically by SQL Server.
RecordCount	integer	This specifies the RecordCount of the card holder that this user-defined data belongs to. The RecordCount is the same as the RecordCount of the exported card-holder data in the DataExportTable (see page 43).
UserDefinedFieldId	integer	This specifies the ID of the user-defined field, as recorded in the UserDefinedFieldsTable (see page 23).
ExportStringValue	nvarchar(max)	If the user-defined field is of type "String", this field specifies the string value.
ExportNumberValue	bigint	If the user-defined field is of type "Number", this field specifies the number value.
ExportDateTimeValue	datetime	If the user-defined field is of type "Date" or "Time", this field specifies the date or time. For a user-defined Time field, the date is set to 1970 (e.g. a time of 09:15 exports as 1970-01-01 09:15:00.000).
ExportBoolValue	bit	If the user-defined field is of type "Boolean", this field specifies the boolean value.

Importing User-Defined Field Data using a Text Import File

The UserDefinedData field in the import file (see page 51 for card holders or 54 for visitors) allows you to import user-defined field data. That is, data for user-defined fields in the Credentials tab of the "Home/Identity/Card Holders" or "Home/Identity/Visitors" screen that is required for the selected Credential Format. User-defined fields are set up using the "Install/System/Default Settings/Credential Formats" screen in Symmetry.

UserDefinedData is a string field that consists of any number of comma-separated pairs of values enclosed in "[" and "]". For example:

"[1,MyStringValueA],[2,MyStringValueB],[3,12345],[4,17/12/2022]"

Each pair of values has the format:

[UserDefinedDataID,UserDefinedData]

Where:

- UserDefinedDataID is the ID of the user-defined field, as obtained from UserDefinedFields.txt (see the next section).

- UserDefinedData is the data for the user-defined field:
  - If the Symmetry user-defined field is of type "String", enter a string value.
  - If the Symmetry user-defined field is of type "Number", enter an integer.
  - If the Symmetry user-defined field is of type "Date", enter a date only. The format must follow that as set up on the Symmetry server, e.g. dd/mm/yyyy.
  - If the Symmetry user-defined field is of type "Time", enter a time only. The format must follow that as set up on the Symmetry server, e.g. 19:00.
  - If the Symmetry user-defined field is of type "Boolean", enter 1 or 0.

Symmetry validates the imported data against the requirements of the credential format assigned to the card holder or visitor. Note that a single error will prevent the whole record from being imported (so if, for example, you use the wrong date format, the whole record will not import).

UserDefinedFields.txt

This file specifies all user-defined fields defined in the Symmetry "Install/System/Default Settings/Credential Formats" screen. Symmetry updates the file when a Symmetry user creates or modifies user-defined fields. The file is located in the Program Data\Security Management System\Import folder.

Field Name	Data Type	Note
UserDefinedFieldId	integer	Specifies the ID of the user-defined field.
UserDefinedFieldName	text(40)	Specifies the name of the user-defined field.
DataType	text(10)	Specifies the user-defined field type.
CompanyId	integer	Specifies the company that the user-defined field belongs to.

Exporting User-Defined Field Data to a Text File

You can export user-defined field data by selecting **User Defined Fields** in the "Operation/Data/Data Export" screen.

The user-defined field data is exported to the UserDefinedData field in the standard file used for text exports of card data (see Appendix D on page 58). UserDefinedData has the same format as for text imports (see page 24).

Chapter 5: Alfapass Interface

The Alfapass interface is used to import card details from an Alfapass access control system into the Symmetry import table. The interface provides the link between the "third-party system" (in this case the Alfapass database) and the import table, as shown in the figure on page 1.

Once the card details are in the import table, they are automatically imported into the main Symmetry database in the normal way. The **Import Database Scan Period** in the Data Import screen (page 2) determines how frequently the Alfapass system is accessed and the new data imported.

The import data must be in SQL format.

Alfapass cards use a customer code of zero.

Installing the Interface

To install the interface, carry out the following at the Symmetry server.

Step 1 – Check the Symmetry Installation

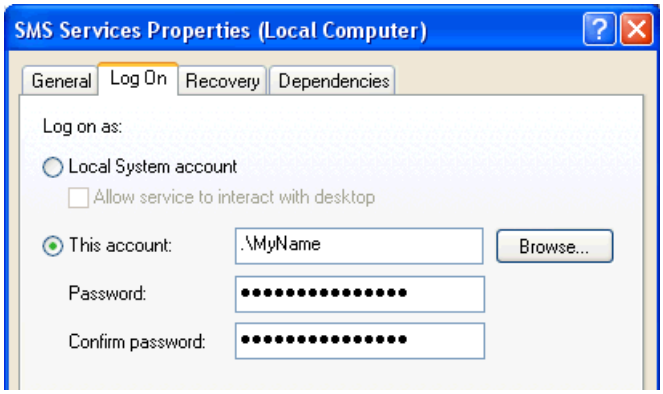
At the Symmetry server:

1. Check that the "SMS Services" service logs on with Administrator rights:

   a) Open **Administrative Tools, Services** in the Windows Control Panel.

   b) Double-click **SMS Services**.

   c) Make sure that **This account** is selected in the Log On tab, and that the selected account has Administrator rights:



   d) Click **OK** and close the Control Panel.

2. If a license for the Symmetry Data Connect option is not already installed, install it now using the "Maintenance/Licensing/System Licenses" screen (not required for Enterprise edition).

3. Open multimax.ini, which is located in the ProgramData\Security Management System folder, and set the following:

   DataImportEnabled=1 (to indicate SQL data import)
   ImportExportAllPersonalData=1 (the default, to enable 50 personal data titles to be imported)

   If necessary, edit the values, save changes and close the file.

Step 2 – Install the Files

At the Symmetry server:

1. Copy the following supplied files to the Symmetry installation folder (by default Program Files\Security Management System):

   AlfaPass.dll
   AlfaPassConfig.exe
   RegisterAlfaPass.bat

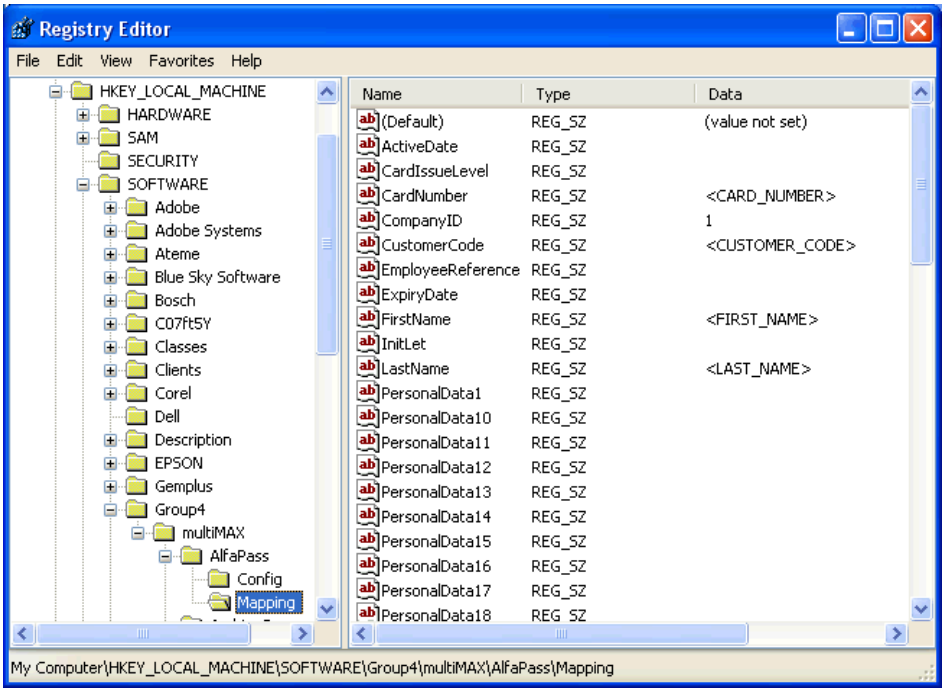
2. Double-click RegisterAlfaPass.bat, and click OK when you see the succeeded message. This registers the dll.

Step 3 – Map Alfapass Tags to Symmetry Personal Data Fields

At the Symmetry server:

1. Open the Registry Editor (select **Start, Run**, enter **regedit** in the **Open** field and clicking **OK**).

2. Open HKEY_LOCAL_MACHINE\SOFTWARE\Group4\multiMAX\Alfapass\Mapping. This displays the mappings between the Symmetry card holder fields and the Alfapass tags:

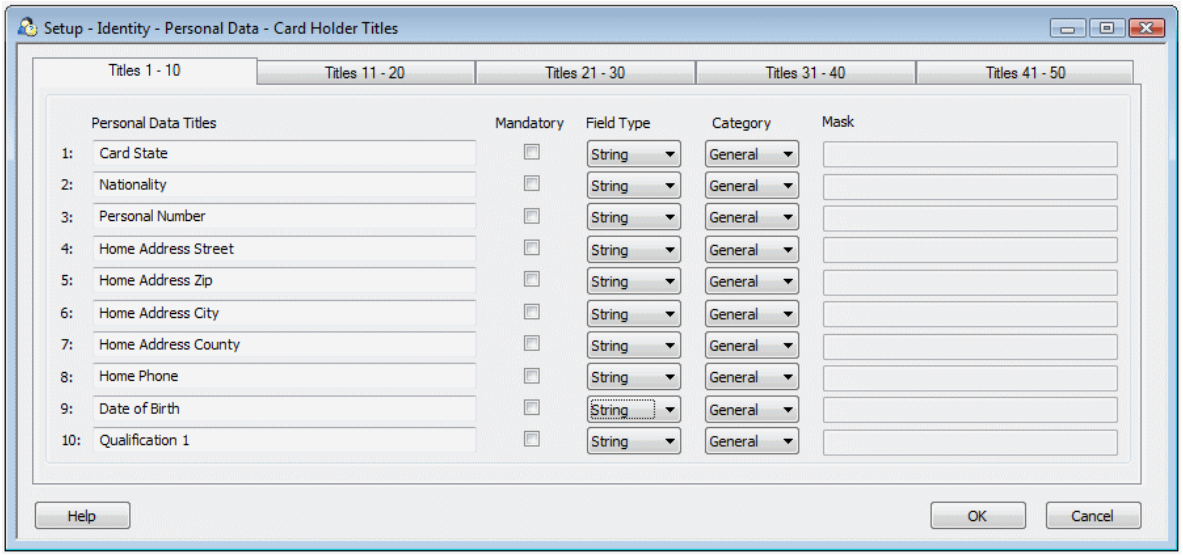


3. To set up a mapping, double-click the appropriate Symmetry card holder field on the right-hand side of the Registry Editor window. This displays the Edit String dialog. Enter the Alfapass tag name in the **Value data** field, then click **OK**. The Alfapass tag name must be enclosed in chevrons ("<" and ">"). The chevrons indicate that the information is variable and will be obtained from Alfapass. If you want the field value to be static, such as the CompanyID, do not enclose the value in chevrons.

Step 4 – Configure Symmetry

At the Symmetry server:

1. If you have mapped Alfapass tags to Symmetry personal data titles in the registry, open the **"Setup/Identity/Personal Data/Card Holder Titles"** screen in Symmetry:



2. Set the personal data titles to match the mappings made in the registry. Select **String** or **Edit List** for the **Field Type**.

3. Open the **"Setup/Configuration/Facility\Customer Codes"** screen in Symmetry. Make sure that only one customer code is defined, using a customer code of zero.

4. Restart the Symmetry server.

Step 5 – Complete the Alfapass Website Security Certificate

At the Symmetry server:

1. Make sure there is network connectivity to the Alfapass web interface.

2. Using a web browser, enter the URL to the Alfapass logon page (i.e. https://...). This will need to be supplied by Alfapass.

3. When prompted, choose to continue to the website.

4. Enter the username and password supplied by Alfapass.

5. An "Access Denied" prompt is displayed. Click certificate error **Untrusted Certificate**.

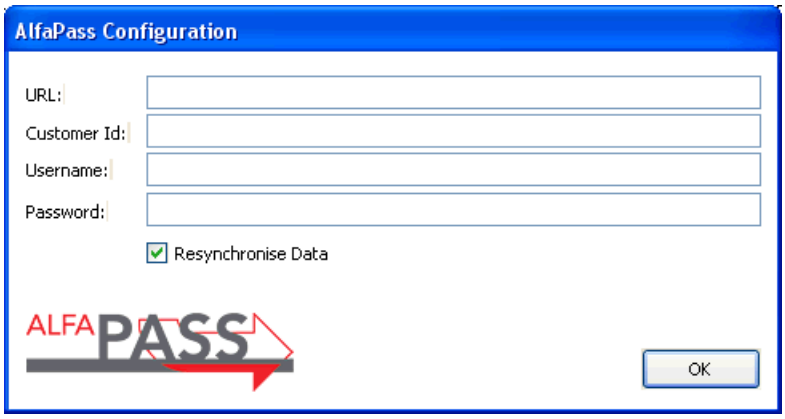
6. Click **View Certificates**.

7. Click **Install Certificate**.

Step 6 – Configure Alfapass Communications

At the Symmetry server, carry out the following to enable communications between the Symmetry server and Alfapass:

1. Double-click **AlfaPassConfig.exe**, which you copied to the Symmetry installation folder. The following is displayed:



2. Enter the logon information provided by Alfapass, and make sure that **Resynchronise data** is selected. This will cause all card holder data to be downloaded from the Alfapass system the first time Symmetry connects. This option is automatically deselected after the first download, which will cause only new or changed data to be downloaded.

3. Click **OK**.

Using the Interface

At the Symmetry server:

1. Open the **"Operation/Data/Data Import"** screen in Symmetry (see page 2).

2. Select the **Immediate** option, then click **OK**.

3. If you want to set up automatic imports, set up an **Import Database Scan Period** in the **"Operation/Data/Data Import"** screen.

4. Access rights are not imported from the Alfapass system. Therefore, you may want to use the **"Home/Identity/Card Holders"** or **"Home/Identity/Bulk Card Amendments"** screen to assign access rights to the imported cards.

5. Wait a few minutes, then open the **"Home/Identity/Card Holders"** screen to verify that the import has been successful.

Appendix A: SQL Format for Card Data Import

This appendix describes the format of the data expected by the "Operation/Data/Data Import" screen when an SQL import table is being used (DataImportTable in the multiMAXImport database). DataImportEnabled must be set to 1 in multimax.ini.

SQL Server - DataImportTable

Note: This table is used only for card holders (not visitors).

Note: User-defined fields in the Credentials tab of the Card Holders screen is imported from the UserDefinedDataImportTable, as described in Chapter 4 on page 22.

Field Name	Data Type	Used for Encryption	Comments
RecordCount	integer	No	Value assigned automatically by SQL Server
LastName	nvarchar(40)	Yes	
FirstName	nvarchar(40)	Yes	
CardNumber	bigint	Yes	
CompanyID	integer	Yes	Valid Range: 1 to 64
CardIssueLevel	tinyint	Yes	Valid Range 0 to 7. Use null if **Card Issue Levels** is not set in System Preferences
EmployeeReference	nvarchar(128)	Yes	See page 16.
PIN	nvarchar(10)	Yes	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/ User & Preferences/ System Preferences" screen). See page 7. Valid range for Card Usage Remaining: 1 to 9999, 0, -1.
PersonalData1	nvarchar(100)	Yes	
PersonalData2	nvarchar(100)	Yes	
PersonalData3	nvarchar(100)	Yes	
PersonalData4	nvarchar(100)	Yes	
PersonalData5	nvarchar(100)	Yes	
PersonalData6	nvarchar(100)	Yes	
PersonalData7	nvarchar(100)	Yes	
PersonalData8	nvarchar(100)	Yes	
PersonalData9	nvarchar(100)	Yes	
PersonalData10	nvarchar(100)	Yes	
ActiveDate	datetime	Yes	Enter date (**must** be after 2nd Jan 1992) and optionally the time

ExpiryDate	datetime	Yes	Enter date and optionally the time
ReaderGroupID	integer	Yes	Obtain by referring to ReaderGroupTable
TimeCodeID	integer	Yes	Obtain by referring to TimeCodeTable
RecordRequest	smallint	Yes	0-73 - See page 5 onwards.
RecordStatus	smallint	No	Set to 0 for import. MessageTable gives meaning of updated value
InactiveComment	nvarchar(40)	Yes	Used for RecordRequest=2
Encryption	integer	Yes	Not used in calculation of encryption value
CustomerCode	integer	No	Valid range 0-999999. This field is mandatory if there is more than one customer/facility code defined in Symmetry.
FaceFile	nvarchar(128)	No	
SignatureFile	nvarchar(128)	No	
InitLet	nvarchar(40)	No	Middle initial or middle name
BadgeFormatID	integer	No	See also the DefaultBadge field
PersonalData11	nvarchar(100)	No	
PersonalData12	nvarchar(100)	No	
PersonalData13	nvarchar(100)	No	
PersonalData14	nvarchar(100)	No	
PersonalData15	nvarchar(100)	No	
PersonalData16	nvarchar(100)	No	
PersonalData17	nvarchar(100)	No	
PersonalData18	nvarchar(100)	No	
PersonalData19	nvarchar(100)	No	
PersonalData20	nvarchar(100)	No	
PersonalData21	nvarchar(100)	No	Personal data 21 through to 50 are available when ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file
PersonalData22	nvarchar(100)	No	
PersonalData23	nvarchar(100)	No	
PersonalData24	nvarchar(100)	No	
PersonalData25	nvarchar(100)	No	
PersonalData26	nvarchar(100)	No	
PersonalData27	nvarchar(100)	No	
PersonalData28	nvarchar(100)	No	
PersonalData29	nvarchar(100)	No	
PersonalData30	nvarchar(100)	No	
PersonalData31	nvarchar(100)	No	
PersonalData32	nvarchar(100)	No	
PersonalData33	nvarchar(100)	No	
PersonalData34	nvarchar(100)	No	
PersonalData35	nvarchar(100)	No	
PersonalData36	nvarchar(100)	No	
PersonalData37	nvarchar(100)	No	
PersonalData38	nvarchar(100)	No	
PersonalData39	nvarchar(100)	No	
PersonalData40	nvarchar(100)	No	
PersonalData41	nvarchar(100)	No	
PersonalData42	nvarchar(100)	No	

PersonalData43	nvarchar(100)	No	
PersonalData44	nvarchar(100)	No	
PersonalData45	nvarchar(100)	No	
PersonalData46	nvarchar(100)	No	
PersonalData47	nvarchar(100)	No	
PersonalData48	nvarchar(100)	No	
PersonalData49	nvarchar(100)	No	
PersonalData50	nvarchar(100)	No	
HandTemplateValue1	tinyint	No	Valid Range 0 - 255
HandTemplateValue2	tinyint	No	Valid Range 0 - 255
HandTemplateValue3	tinyint	No	Valid Range 0 - 255
HandTemplateValue4	tinyint	No	Valid Range 0 - 255
HandTemplateValue5	tinyint	No	Valid Range 0 - 255
HandTemplateValue6	tinyint	No	Valid Range 0 - 255
HandTemplateValue7	tinyint	No	Valid Range 0 - 255
HandTemplateValue8	tinyint	No	Valid Range 0 - 255
HandTemplateValue9	tinyint	No	Valid Range 0 - 255
ReaderID	integer	No	Obtain by referring to ReaderTable
AccessCodeID	integer	No	Obtain by referring to AccessCode Table
ImportNow	bit	No	Valid Range 0 or 1. When set to 1 and RecordStatus set to 0, the import process is started within 10 seconds.
BatchReference	uniqueIdentifier (16)	No	Not used.
DefaultBadge	bit	No	Specifies whether or not to use the default card holder badge design, as specified in the "Setup/Identity/Badge Designer" screen. 1 = use default badge design. 0 = don't use default badge design. When set to 1, do not specify BadgeFormatID.
IDSCode	nvarchar(10)	No	Specifies the IDS code of the card, which can be to access intrusion options at an M2150 intrusion reader, as an alternative to using a card. The code can have up to 8 digits (e.g. 0001-9999 for a 4-digit IDS code, as set in the "Maintenance/User & Preferences/ System Preferences" screen. See page 7. Each card requires a unique IDS code.
AreaID	integer	No	Defines the M2150 intrusion areas assigned to the card. Obtain by referring to AreaTable.
CardIdentifier	nvarchar(40)	No	Not used.
DeactivateAtThreatLevel	integer	No	Range 1-5.
CardUsageRemaining	integer	No	Alternative to using RecordRequest=23. 0=Limit Reached,-1=No limit, or 1-9999.
Priority	integer	No	Specifies the priority of the import record, where 1 is the highest priority (default 100). Records are imported in order of priority, which may provide benefits when there is a very large number of cards to import.

Lost	bit	No	This field is used only if RecordRequest is 2 (Force Inactive). Valid Range 0 or 1. Set to 1 to set the Lost status. Set to 0 to clear the Lost status. Setting Lost to 1 with RecordRequest=2 will set the Lost status and force the card or cardholder inactive. To remove only the Lost status, use RecordRequest=2 and set Lost to 0. To clear both the force inactive and Lost status at the same time, use RecordRequest=5 (in this case, the Lost field is not relevant and the Lost status is removed from all cards found).
AreaOccupancyCard	bit	No	Valid Range 0 or 1. Set to 1 to set the card as an Area Occupancy card. Set to 0 to clear the Area Occupancy status.
CardWatch	bit	No	Valid Range 0 or 1. Set to 1 to set the Card Watch status. Set to 0 to clear Card Watch status.
CommandCard	bit	No	Valid Range 0 or 1. Set to 1 to set the card as a Command Card. Set to 0 to clear the Command Card status.
ConditionalCard	bit	No	Valid Range 0 or 1. Set to 1 to set the card as a Conditional Card. Set to 0 to clear the Conditional Card status.
ExecutivePriv	bit	No	Valid Range 0 or 1. Set to 1 to set the card as an Executive Card. Set to 0 to clear the Executive Card status. ExecutivePriv and KeyCard cannot both be set to 1 during an import. If you set only one of these to 1, but the other is already set in the database, the change specified in the import is actioned and the other option in the database is cleared.
ExtendedAccess	bit	No	Valid Range 0 or 1. Set to 1 to set Extended Door Times. Set to 0 to clear the Extended Door Times status.
KeyCard	bit	No	Valid Range 0 or 1. Set to 1 to set the card as a Keycard. Set to 0 to clear the Keycard status. See also ExecutivePriv above.
PatrolCard	bit	No	Valid Range 0 or 1. Set to 1 to set the card as a Patrol Card. Set to 0 to clear the Patrol Card status.
VisitorEscort	bit	No	Valid Range 0 or 1. Set to 1 to set the card as a Visitor Escort card. Set to 0 to clear the Visitor Escort status.
AdvancedToggleMode	bit	No	Valid Range 0 or 1. Set to 1 to set "Advanced Toggle Mode" in the Card Holders screen. Set to 0 to deselect this option.
ExemptAutoDelete	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from the Auto Delete rule. Set to 0 if the card is subject to the rule.
ExemptRandomSearch	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from random searches. Set to 0 if the card is subject to random searches.

ExemptAntiPassback	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the antipassback rules. Set to 0 if the card is subject to the rules.
ExemptPIN	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the need to enter a PIN at readers. Set to 0 if the card is subject to the rule.
CardFormat	tinyint	No	Please refer to page 15 for a description of this field.

SQL Server - VisitorDataImportTable

This table is used only for visitor records.

Note: User-defined fields in the Credentials tab of the Visitors screen are imported from the VisitorUserDefinedDataImportTable, as described in Chapter 4 on page 22.

Field Name	Data Type	Used for Encryption	Comments
RecordCount	integer	No	Value assigned automatically by SQL Server
LastName	nvarchar(40)	Yes	
FirstName	nvarchar(40)	Yes	
CardNumber	integer	Yes	
CompanyID	integer	Yes	Valid Range: 1 to 64
CardIssueLevel	tinyint	Yes	Valid Range 0 to 7. Use null if **Card Issue Levels** is not set in System Preferences
PIN	nvarchar(10)	Yes	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/ User & Preferences/ System Preferences" screen). See page 7. Valid range for Card Usage Remaining: 1 to 9999, 0, -1.
PersonalData1	nvarchar(100)	Yes	
PersonalData2	nvarchar(100)	Yes	
PersonalData3	nvarchar(100)	Yes	
PersonalData4	nvarchar(100)	Yes	
PersonalData5	nvarchar(100)	Yes	
PersonalData6	nvarchar(100)	Yes	
PersonalData7	nvarchar(100)	Yes	
PersonalData8	nvarchar(100)	Yes	
PersonalData9	nvarchar(100)	Yes	
PersonalData10	nvarchar(100)	Yes	
ActiveDate	datetime	Yes	Enter date (**must** be after 2nd Jan 1992) and optionally the time
ExpiryDate	datetime	Yes	Enter date and optionally the time
ReaderGroupID	integer	Yes	Obtain by referring to ReaderGroupTable
TimeCodeID	integer	Yes	Obtain by referring to TimeCodeTable
RecordRequest	smallint	Yes	0-73 - See page 5 onwards.
RecordStatus	smallint	No	Set to 0 for import. MessageTable gives meaning of updated value

InactiveComment	nvarchar(40)	Yes	Used for RecordRequest=2
Encryption	integer	Yes	Not used in calculation of encryption value
CustomerCode	integer	No	Valid range 0-999999. This field is mandatory if there is more than one customer/facility code defined in Symmetry.
FaceFile	nvarchar(128)	No	
SignatureFile	nvarchar(128)	No	
InitLet	nvarchar(40)	No	Middle initial or middle name
BadgeFormatID	integer	No	See also the DefaultBadge field
PersonalData11	nvarchar(100)	No	
PersonalData12	nvarchar(100)	No	
PersonalData13	nvarchar(100)	No	
PersonalData14	nvarchar(100)	No	
PersonalData15	nvarchar(100)	No	
PersonalData16	nvarchar(100)	No	
PersonalData17	nvarchar(100)	No	
PersonalData18	nvarchar(100)	No	
PersonalData19	nvarchar(100)	No	
PersonalData20	nvarchar(100)	No	
PersonalData21	nvarchar(100)	No	Personal data 21 through to 50 are available when ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file.
PersonalData22	nvarchar(100)	No	
PersonalData23	nvarchar(100)	No	
PersonalData24	nvarchar(100)	No	
PersonalData25	nvarchar(100)	No	
PersonalData26	nvarchar(100)	No	
PersonalData27	nvarchar(100)	No	
PersonalData28	nvarchar(100)	No	
PersonalData29	nvarchar(100)	No	
PersonalData30	nvarchar(100)	No	
PersonalData31	nvarchar(100)	No	
PersonalData32	nvarchar(100)	No	
PersonalData33	nvarchar(100)	No	
PersonalData34	nvarchar(100)	No	
PersonalData35	nvarchar(100)	No	
PersonalData36	nvarchar(100)	No	
PersonalData37	nvarchar(100)	No	
PersonalData38	nvarchar(100)	No	
PersonalData39	nvarchar(100)	No	
PersonalData40	nvarchar(100)	No	
PersonalData41	nvarchar(100)	No	
PersonalData42	nvarchar(100)	No	
PersonalData43	nvarchar(100)	No	
PersonalData44	nvarchar(100)	No	
PersonalData45	nvarchar(100)	No	
PersonalData46	nvarchar(100)	No	
PersonalData47	nvarchar(100)	No	
PersonalData48	nvarchar(100)	No	

PersonalData49	nvarchar(100)	No	
PersonalData50	nvarchar(100)	No	
HandTemplateValue1	tinyint	No	Valid Range 0 - 255
HandTemplateValue2	tinyint	No	Valid Range 0 - 255
HandTemplateValue3	tinyint	No	Valid Range 0 - 255
HandTemplateValue4	tinyint	No	Valid Range 0 - 255
HandTemplateValue5	tinyint	No	Valid Range 0 - 255
HandTemplateValue6	tinyint	No	Valid Range 0 - 255
HandTemplateValue7	tinyint	No	Valid Range 0 - 255
HandTemplateValue8	tinyint	No	Valid Range 0 - 255
HandTemplateValue9	tinyint	No	Valid Range 0 - 255
ReaderID	integer	No	Obtain by referring to ReaderTable
AccessCodeID	integer	No	Obtain by referring to AccessCode Table
ImportNow	bit	No	Valid Range 0 or 1. When set to 1 and RecordStatus set to 0, the import process is started within 10 seconds.
BatchReference	uniqueIdentifier (16)	No	Not used.
Representing	nvarchar(40)	No	
Vehicle	nvarchar(40)	No	
ArrivalDate	datetime	No	When used with RecordRequest 24, the value entered signifies the visitor sign-in date/time.
DepartureDate	datetime	No	When used with RecordRequest 25, the value entered signifies the visitor sign-out date/time.
Visiting	nvarchar(40)	No	Specifies the name of the person the visitor is visiting. Please refer to page 11.
Message	nvarchar(255)	No	
BusinessCardFile	nvarchar(128)	No	
ContactNumber	nvarchar(40)	No	
DefaultBadge	bit	No	Specifies whether or not to use the default visitor badge design (specified in "Setup/Identity/Badge Designer" screen). 1 = use default badge design. 0 = don't use default badge design. When set to 1, do not specify BadgeFormatID.
AreaID	integer	No	Defines the M2150 intrusion areas assigned to the card. Obtain by referring to AreaTable.
CardIdentifier	nvarchar(40)	No	Not used.
DeactivateAtThreatLevel	integer	No	Range 1-5.
CardUsageRemaining	integer	No	Alternative to using RecordRequest=23. 0=Limit Reached,-1=No limit, or 1-9999.
Priority	integer	No	Specifies the priority of the import record, where 1 is the highest priority (default 100). Records are imported in order of priority, which may provide benefits when there is a very large number of visitors to import.

Lost	bit	No	This field is used only if RecordRequest is 2 (Force Inactive). Valid Range 0 or 1. Set to 1 to set the Lost status. Set to 0 to clear the Lost status. Setting Lost to 1 with RecordRequest=2 will set the Lost status and force the card or cardholder inactive. To remove only the Lost status, use RecordRequest=2 and set Lost to 0. To clear both the force inactive and Lost status at the same time, use RecordRequest=5 (in this case, the Lost field is not relevant and the Lost status is removed from all cards found).
AreaOccupancyCard	bit	No	Valid Range 0 or 1. Set to 1 to set card as an Area Occupancy card. Set to 0 to clear Area Occupancy status.
CardWatch	bit	No	Valid Range 0 or 1. Set to 1 to set the Card Watch status. Set to 0 to clear Card Watch status.
ExtendedAccess	bit	No	Valid Range 0 or 1. Set to 1 to set card with Extended Door Times. Set to 0 to clear Extended Door Times status.
ExecutivePriv	bit	No	Valid Range 0 or 1. Set to 1 to set the card as an Executive Card. Set to 0 to clear the Executive Card status.
ExemptAutoDelete	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from the Auto Delete rule. Set to 0 if the card is subject to the rule.
ExemptRandomSearch	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from random searches. Set to 0 if the card is subject to random searches.
ExemptAntiPassback	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the antipassback rules. Set to 0 if the card is subject to the rules.
ExemptPIN	bit	No	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the need to enter a PIN at readers. Set to 0 if the card is subject to the rule.
VisitingEmployeeRef	nvarchar(128)	No	Specifies the employee reference of the card holder the visitor is visiting. Please refer to page 11.
VisitorEscortName	nvarchar(40)	No	Specifies the name of the visitor's visitor escort. Please refer to page 12.
VisitorEscortEmployeeRef	nvarchar(128)	No	Specifies the employee reference of the visitor escort. Please refer to page 12.
CardFormat	tinyint	No	Please refer to page 15 for a description of this field.

Symmetry Data SQL Tables

Symmetry automatically updates the following tables in the multiMAXImport database when items are added or changed in Symmetry.

AccessCodeTable

This data is populated only when an access code is added or changed (see page 4).

Field Name	Data Type
AccessCodeID	integer
CompanyID	integer
AccessCodeName	nvarchar(40)

AreaTable

This data is populated only when an M2150 intrusion area is added or changed (see page 4).

Field Name	Data Type	Note
AreaID	integer	
AreaName	nvarchar(40)	
CompanyID	integer	

BadgeFormatIDTable

This data is populated only when a badge design is added or changed (see page 4).

Field Name	Data Type	Note
BadgeFormatID	integer	
BadgeFormatName	nvarchar(40)	
CompanyID	integer	

CardFingerprintTemplateImportTable

Field Name	Data Type
CardFingerprintTemplateID	integer
RecordCount	integer
FData	binary

CompanyTable

This data is populated only when a company is added or changed (see page 4).

Field Name	Data Type
CompanyTableID	integer
CompanyID	integer
CompanyName	nvarchar(40)
CustomerCode	integer

MessageTable

Field Name	Data Type
RecordStatus	smallint
Message	nvarchar(120)

MessageTable contents:

0	The record has not been imported yet.
1	The record has been successfully imported.
2	The mandatory fields have not been specified in this record.
3	The card issue levels preference must be set to import this record.
4	Could not find the specified record in the database.
5	The format of this record is incorrect.
6	This record has an encryption error.
7	A general error has occurred on this record.
8	Cannot add this card as it already exists in the database.
9	The specified card issue level is out of range.
10	The specified PIN is out of range/invalid.
11	The specified company is not defined in the database.
12	The specified reader group is not defined in the database.
13	The specified time code is not defined in the database.
14	The specified expiry date is before the active date.
15	An unknown record request has been specified.
16	The card holder's face image file could not be found.
17	The card holder's signature image file could not be found.
18	The specified customer code is not valid for this company.
19	More than one customer code exists for the selected company.
20	More than one company exists for the selected customer code.
21	The specified card number is out of range. (Also check the customer code.)
22	The customer code is out of range.
24	The specified badge format ID is not valid for the specified company.
25	The Card Number needs to be specified for this system.
26	The employee reference has not been supplied or it already exists in the database.
27	There is a reader group time code conflict. (Not used.)
28	The reader group and time code already exist. (Not used.)
29	Biometric data incorrect.
30	Mandatory personal data not set.
31	The specified reader is not defined in the database.
32	The specified access code is not defined in the database.
33	There is a reader time code conflict. (Not used.)
34	The reader and time code already exist. (Not used.)
35	There is an access code conflict. (Not used.)
36	The access code already exists. (Not used.)
38	The specified card is used in a trigger command.
39	The specified card has no visitor escort assigned to it.
40	Card does not meet personal data requirements.

41 Active and expiry dates have not been specified.
42 The specified Card Usage Remaining is out of range.
43 The specified IDS Code is out of range.
44 The specified Area is not defined in the database.
45 There is a area conflict. (Not used.)
46 The area already exists. (Not used.)
47 Import failed to identify unique card holder
48 Multiple cards per card holder not enabled
49 The specified Deactivate at Threat Level is out of range
50 The specified Card Format is out of range
51 Unused
54 The Key Card and Executive Card options are mutually exclusive
55 The IDS Code must be unique
56 Card holder with matching employee ref not located
57 More than one card holder with matching employee ref
58 Card holder is not active
59 Credentials Previously Encoded
60 Invalid User Defined Data
61 Insufficient Access Rights To Assign Access Code (see page 14)

ReaderGroupTable

This data is populated only when a reader group is added or changed (see page 4).

Field Name	Data Type
ReaderGroupID	integer
CompanyID	integer
ReaderGroupName	nvarchar(40)
SharedCompanyID	integer

ReaderTable

This data is populated only when a reader is added or changed (see page 4).

Field Name	Data Type
ReaderID	integer
CompanyID	integer
ReaderName	nvarchar(40)

TimeCodeTable

This data is populated only when a time code is added or changed (see page 4).

Field Name	Data Type
TimeCodeID	integer
TimeCodeName	nvarchar(40)
CompanyID	integer

UserDefinedFieldsTable

Please refer to page 23.

VersionTable

Field Name	Data Type
VersionID	integer
ReleaseVersion	nvarchar(40)
LanguageVariant	nvarchar(40)
BuildLevel	nvarchar(40)
RegionID	integer
InternalBuildNumber	integer

Appendix B: SQL Format for Card Data Export

This appendix describes the data exported by the "Operation/Data/Data Export" screen when an SQL export database is being used (DataExportEnabled = 1 in multimax.ini).

Note: User-defined fields in the Credentials tab of the Card Holders screen is exported to the UserDefinedDataExportTable, as described in Chapter 4 on page 22.

SQL Server - DataExportTable

Symmetry stores the card-holder details in the DataExportTable of the SQL Server database. DataExportTable has the following format.

Field Name	Data Type	Comments
RecordCount	integer	Auto increment counter for sorting
LastName	nvarchar(40)	
FirstName	nvarchar(40)	
CardNumber	integer	
CompanyID	integer	Range: 1 to 64
CardIssueLevel	tinyint	Range 0 to 7.
EmployeeReference	nvarchar(128)	See page 16.
PIN	nvarchar(10)	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/User & Preferences/ System Preferences" screen).
PersonalData1	nvarchar(100)	
PersonalData2	nvarchar(100)	
PersonalData3	nvarchar(100)	
PersonalData4	nvarchar(100)	
PersonalData5	nvarchar(100)	
PersonalData6	nvarchar(100)	
PersonalData7	nvarchar(100)	
PersonalData8	nvarchar(100)	
PersonalData9	nvarchar(100)	
PersonalData10	nvarchar(100)	
ActiveDate	datetime	
ExpiryDate	datetime	

RecordRequest	smallint	Always 0 if exporting all records. If the export is for delta changes: 2 = The specified card has been deleted. If the export is for delta changes and **Extended Support** (page 18) is not set in the Data Export screen: 0 = The specified details are for a newly-created card holder. 1 = The specified details contain modifications to the details of an existing card holder (the record shows all the details, not just those that have changed). If the export is for delta changes and **Extended Support** is set: 72 = The specified details are for a newly-created or modified card or card holder.
InactiveComment	nvarchar(40)	Not used
Encryption	integer	Not used
CustomerCode	integer	Range: 0 to 999999
FaceFile	nvarchar(128)	JPEG face filename. The system exports face images as JPEG files to their subfolders below the specified folder (e.g. C:\Program Data\Security Management System\Export\Faces).
SignatureFile	nvarchar(128)	JPEG signature filename. The system exports signature images as JPEG files to their subfolders below the specified folder (e.g. C:\Program Data\Security Management System\Export\Sigs).
ExportTimeStamp	datetime	Date and time that data was exported
Active	bit	Shows whether card holder is active (true) or inactive (false)
AccessGranted	bit	Set to true if access rights for normal access are specified
InitLet	nvarchar(40)	Middle initial or middle name
BadgeFormatID	integer	
PersonalData11	nvarchar(100)	
PersonalData12	nvarchar(100)	
PersonalData13	nvarchar(100)	
PersonalData14	nvarchar(100)	
PersonalData15	nvarchar(100)	
PersonalData16	nvarchar(100)	
PersonalData17	nvarchar(100)	
PersonalData18	nvarchar(100)	
PersonalData19	nvarchar(100)	
PersonalData20	nvarchar(100)	
PersonalData21	nvarchar(100)	Personal data 21 to 50 are exported only if ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file.
PersonalData22	nvarchar(100)	
PersonalData23	nvarchar(100)	
PersonalData24	nvarchar(100)	
PersonalData25	nvarchar(100)	
PersonalData26	nvarchar(100)	
PersonalData27	nvarchar(100)	
PersonalData28	nvarchar(100)	
PersonalData29	nvarchar(100)	

PersonalData30	nvarchar(100)	
PersonalData31	nvarchar(100)	
PersonalData32	nvarchar(100)	
PersonalData33	nvarchar(100)	
PersonalData34	nvarchar(100)	
PersonalData35	nvarchar(100)	
PersonalData36	nvarchar(100)	
PersonalData37	nvarchar(100)	
PersonalData38	nvarchar(100)	
PersonalData39	nvarchar(100)	
PersonalData40	nvarchar(100)	
PersonalData41	nvarchar(100)	
PersonalData42	nvarchar(100)	
PersonalData43	nvarchar(100)	
PersonalData44	nvarchar(100)	
PersonalData45	nvarchar(100)	
PersonalData46	nvarchar(100)	
PersonalData47	nvarchar(100)	
PersonalData48	nvarchar(100)	
PersonalData49	nvarchar(100)	
PersonalData50	nvarchar(100)	
HandTemplateValue1	tinyint	
HandTemplateValue2	tinyint	
HandTemplateValue3	tinyint	
HandTemplateValue4	tinyint	
HandTemplateValue5	tinyint	
HandTemplateValue6	tinyint	
HandTemplateValue7	tinyint	
HandTemplateValue8	tinyint	
HandTemplateValue9	tinyint	
IDSCode	nvarchar(10)	Specifies the IDS code of the card, which can be to access intrusion options at an M2150 intrusion reader, as an alternative to using a card. The code can have up to 8 digits (e.g. 0001-9999 for a 4-digit IDS code, as configured in the "Maintenance/User & Preferences/ System Preferences" screen.
CardIdentifier	nvarchar(40)	Not used.
DeactivateAtThreatLevel	integer	Range 1-5.
CardUsageRemaining	integer	0=Limit Reached,-1=No limit, or 1-9999.
Lost	bit	Set to 1 if card has a lost status.
AreaOccupancyCard	bit	Set to 1 if the card is an area occupancy card.
CardWatch	bit	Set to 1 if the card has a Card Watch status.
CommandCard	bit	Set to 1 if the card is a command card.
ConditionalCard	bit	Set to 1 if the card is a conditional card.
ExecutivePriv	bit	Set to 1 if the card is an executive card.
ExtendedAccess	bit	Set to 1 if the card has extended (alternative) door times.
KeyCard	bit	Set to 1 if the card is a key card.
PatrolCard	bit	Set to 1 if the card is a patrol card.
VisitorEscort	bit	Set to 1 if the card holder is a visitor escort.

AdvancedToggleMode	bit	Set to 1 if the card has "Advanced Toggle Mode" set.
ExemptAutoDelete	bit	Set to 1 if the card is an executive card and is exempt from the Auto Delete rule.
ExemptRandomSearch	bit	Set to 1 if the card is an executive card and is exempt from random searches.
ExemptAntiPassback	bit	Set to 1 if the card is an executive card and is exempt from antipassback rules.
ExemptPIN	bit	Set to 1 if the card is an executive card and is exempt from the need to enter a PIN at readers. Set to 0 if the card is subject to the rule.
CardFormat	tinyint	This is the ID of the credential format, as specified in the "Install/System/Default Settings/Credential Formats" screen. For example, 0=Legacy; 6=HID SE; 7=HID Corporate; 8=Barcode 37; 9=NXP Desfire 56; 10=AMAG 62; 11=AMAG 32; 12=AMAG 63.

Appendix C: Text Format for Card Data Import

This appendix describes the format of the data expected by the "Operation/Data/Data Import" screen when a text import file is being used (DataImportEnabled = 2 in multimax.ini).

Import File for Card Holders (.Txt)

Note:

- The following table is used only for card holders (not visitors).
- The text delimiter is a quote ("). The field delimiter is a comma (,).
- Each card holder record in the import file must be separated by a <cr> (Return/Enter on keyboard).

Field Name	Data Type	Example	Comments
LastName	text(40)	"Smith",	
FirstName	text(40)	"Neil",	
CardNumber	integer	456,	
CompanyID	integer	13,	Valid Range 1 to 64
CardIssueLevel	short	1,	Valid Range 0 to 7. The range for CardIssueLevel must be 0 to 7 when the **Card Issue Levels** preference is set to **Yes**, or blank if set to **No**.
EmployeeReference	text(128)	"EMP456",	See page 16.
PIN	text(10)	"1234",	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/ User & Preferences/ System Preferences" screen). See page 7. Valid range for Card Usage Remaining: 1 to 9999, 0, -1.
PersonalData1	text(100)	"Gloucester",	
PersonalData2	text(100)	"England",	
PersonalData3	text(100)	"P772 FJO",	
PersonalData4	text(100)	,	
PersonalData5	text(100)	,	
PersonalData6	text(100)	,	
PersonalData7	text(100)	,	
PersonalData8	text(100)	,	

PersonalData9	text(100)	,	
PersonalData10	text(100)	,	
ActiveDate	date	17/03/2012,	Enter a date only. The format must follow that as set up on the server, e.g. dd/mm/yyyy (**must** be after 2nd Jan 1992). If the card is currently expired and has not been forced inactive in the Card Holder's screen, the card's status is automatically set to Active if the current date is between the active and expiry dates.
ExpiryDate	date	19/12/2012,	The format must follow that as set up on the server, e.g. dd/mm/yyyy. Optionally hours can be specified (e.g. 19/12/2012 19:00:00)
ReaderGroupID	integer	1,	Obtain by referring to ReaderGp.txt
TimeCodeID	integer	1,	Obtain by referring to TimeCode.txt
RecordRequest	short	0,	0-73 - See page 5 onwards.
RecordStatus	short	0,	Must be 0
InactiveComment	text(40)	,	Used for RecordRequest=2
Encryption	integer	,	Not used in calculation of encryption value
CustomerCode	integer	999,	Valid range 0-999999
FaceFile	text(128)	"face1.jpg",	
SignatureFile	text(128)	"sig1.jpg",	
InitLet	text(40)	"J",	Middle initial or middle name
BadgeFormatID	integer	3,	Obtain by referring to Badge.txt. See also the DefaultBadge field.
PersonalData11	text(100)	"Contractor",	
PersonalData12	text(100)	,	
PersonalData13	text(100)	,	
PersonalData14	text(100)	,	
PersonalData15	text(100)	,	
PersonalData16	text(100)	,	
PersonalData17	text(100)	,	
PersonalData18	text(100)	,	
PersonalData19	text(100)	,	
PersonalData20	text(100)	,	
PersonalData21	text(100)	,	Personal data 21 through to 50 are available when ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file
PersonalData22	text(100)	,	
PersonalData23	text(100)	,	
PersonalData24	text(100)	,	
PersonalData25	text(100)	,	
PersonalData26	text(100)	,	
PersonalData27	text(100)	,	
PersonalData28	text(100)	,	
PersonalData29	text(100)	,	
PersonalData30	text(100)	,	
PersonalData31	text(100)	,	
PersonalData32	text(100)	,	
PersonalData33	text(100)	,	
PersonalData34	text(100)	,	

PersonalData35	text(100)	,	
PersonalData36	text(100)	,	
PersonalData37	text(100)	,	
PersonalData38	text(100)	,	
PersonalData39	text(100)	,	
PersonalData40	text(100)	,	
PersonalData41	text(100)	,	
PersonalData42	text(100)	,	
PersonalData43	text(100)	,	
PersonalData44	text(100)	,	
PersonalData45	text(100)	,	
PersonalData46	text(100)	,	
PersonalData47	text(100)	,	
PersonalData48	text(100)	,	
PersonalData49	text(100)	,	
PersonalData50	text(100)	,	
HandTemplateValue1	integer	,	Valid range 0 - 255
HandTemplateValue2	integer	,	Valid range 0 - 255
HandTemplateValue3	integer	,	Valid range 0 - 255
HandTemplateValue4	integer	,	Valid range 0 - 255
HandTemplateValue5	integer	,	Valid range 0 - 255
HandTemplateValue6	integer	,	Valid range 0 - 255
HandTemplateValue7	integer	,	Valid range 0 - 255
HandTemplateValue8	integer	,	Valid range 0 - 255
HandTemplateValue9	integer	,	Valid range 0 - 255
ReaderID	integer	,	Obtain by referring to Reader.txt
AccessCodeID	integer	,	Obtain by referring to AccessCd.txt.
DefaultBadge	bit	,	Specifies whether or not to use the default card holder badge design, as specified in the "Setup/Identity/Badge Designer" screen. 1 = use default badge design. 0 = don't use default badge design. When set to 1, do not specify BadgeFormatID.
IDSCode	text(10)	,	Specifies the IDS code of the card, which can be to access intrusion options at an M2150 intrusion reader, as an alternative to using a card. The code can have up to 8 digits (e.g. 0001-9999 for a 4-digit IDS code, as set in the "Maintenance/User & Preferences/ System Preferences" screen. See page 7. Each card requires a unique IDS code.
AreaID	integer	,	Defines the M2150 intrusion areas assigned to the card. Obtain by referring to Area.txt. End entry with a carriage return.
CardIdentifier	text(40)	,	Not used.
DeactivateAtThreatLevel	integer	,	Range 1-5.
CardUsageRemaining	integer	,	Alternative to using RecordRequest=23. 0=Limit Reached,-1=No limit, or 1-9999.

Lost	bit	,	This field is used only if RecordRequest is 2 (Force Inactive). Valid Range 0 or 1. Set to 1 to set the Lost status. Set to 0 to clear the Lost status. Setting Lost to 1 with RecordRequest=2 will set the Lost status and force the card or cardholder inactive. To remove only the Lost status, use RecordRequest=2 and set Lost to 0. To clear both the force inactive and Lost status at the same time, use RecordRequest=5 (in this case, the Lost field is not relevant and the Lost status is removed from all cards found).
AreaOccupancyCard	bit	,	Valid Range 0 or 1. Set to 1 to set card as an Area Occupancy card. Set to 0 to clear Area Occupancy status.
CardWatch	bit	,	Valid Range 0 or 1. Set to 1 to set the Card Watch status. Set to 0 to clear Card Watch status.
CommandCard	bit	,	Valid Range 0 or 1. Set to 1 to set the card as a Command Card. Set to 0 to clear the Command Card status.
ConditionalCard	bit	,	Valid Range 0 or 1. Set to 1 to set the card as a Conditional Card. Set to 0 to clear the Conditional Card status.
ExecutivePriv	bit	,	Valid Range 0 or 1. Set to 1 to set the card as an Executive Card. Set to 0 to clear the Executive Card status. ExecutivePriv and KeyCard cannot both be set to 1 during an import. If you set only one of these to 1, but the other is already set in the database, the change specified in the import is actioned and the other option in the database is cleared.
ExtendedAccess	bit	,	Valid Range 0 or 1. Set to 1 to set Extended Door Times. Set to 0 to clear the Extended Door Times status.
KeyCard	bit	,	Valid Range 0 or 1. Set to 1 to set the card as a Keycard. Set to 0 to clear the Keycard status. See also ExecutivePriv above.
PatrolCard	bit	,	Valid Range 0 or 1. Set to 1 to set the card as a Patrol Card. Set to 0 to clear the Patrol Card status.
VisitorEscort	bit	,	Valid Range 0 or 1. Set to 1 to set the card as a Visitor Escort card. Set to 0 to clear the Visitor Escort status.
AdvancedToggleMode	bit	,	Valid Range 0 or 1. Set to 1 to set "Advanced Toggle Mode" in the Card Holders screen. Set to 0 to deselect this option.
ExemptAutoDelete	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from the Auto Delete rule. Set to 0 if the card is subject to the rule.
ExemptRandomSearch	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from random searches. Set to 0 if the card is subject to random searches.

ExemptAntiPassback	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the antipassback rules. Set to 0 if the card is subject to the rules.
ExemptPIN	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the need to enter a PIN at readers. Set to 0 if the card is subject to the rule.
CardFormat	short	,	Please refer to page 15 for a description of this field.
UserDefinedData	text(255)	"[1,abc],[2.99]"	Each pair of values enclosed in "[" and "]" specifies the ID of a user-defined field and the data value for that field. See page 24.

Import File for Visitors (.Txt)

Note:

- The following table is used only for visitors.
- The text delimiter is a quote ("). The field delimiter is a comma (,).
- Each visitor record in visitor import file must be separated by a <cr> (Return/Enter on keyboard).

Field Name	Data Type	Example	Comments
LastName	text(40)	"Smith",	
FirstName	text(40)	"George",	
CardNumber	integer	456,	
CompanyID	integer	13,	Valid Range 1 to 64
CardIssueLevel	short	1,	Valid Range 0 to 7. The range for CardIssueLevel must be 0 to 7 when the **Card Issue Levels** preference is set to **Yes**, or blank if set to **No**.
PIN	text(10)	"1234",	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/ User & Preferences/ System Preferences" screen). See page 7. Valid range for Card Usage Remaining: 1 to 9999, 0, -1.
PersonalData1	text(100)	"Gloucester",	
PersonalData2	text(100)	"England",	
PersonalData3	text(100)	"VO54 FJO",	
PersonalData4	text(100)	,	
PersonalData5	text(100)	,	
PersonalData6	text(100)	,	
PersonalData7	text(100)	,	
PersonalData8	text(100)	,	
PersonalData9	text(100)	,	
PersonalData10	text(100)	,	
ActiveDate	date	17/03/2012,	Enter a date only. The format must follow that set up on the server, e.g. dd/mm/yyyy (**must** be

			after 2nd Jan 1992). If the card is currently expired and has not been forced inactive in the Visitor's screen, the card's status is automatically set to Active if the current date is between the active and expiry dates.
ExpiryDate	date	19/12/2012,	The format must follow that as set up on the server, e.g. dd/mm/yyyy. Optionally hours can be specified (e.g. 19/12/2012 19:00:00)
ReaderGroupID	integer	1,	Obtain by referring to ReaderGp.txt
TimeCodeID	integer	1,	Obtain by referring to TimeCode.txt
RecordRequest	short	0,	0-73 - See page 5 onwards.
RecordStatus	short	0,	Must be 0
InactiveComment	text(40)	,	Used for RecordRequest=2
Encryption	integer	,	Not used in calculation of encryption value
CustomerCode	integer	999,	Valid range 0-999999
FaceFile	text(128)	"face1.jpg",	
SignatureFile	text(128)	"sig1.jpg",	
InitLet	text(40)	"J",	Middle initial or middle name
BadgeFormatID	integer	3,	Obtain by referring to Badge.txt. See also the DefaultBadge field.
PersonalData11	text(100)	"Contractor",	
PersonalData12	text(100)	,	
PersonalData13	text(100)	,	
PersonalData14	text(100)	,	
PersonalData15	text(100)	,	
PersonalData16	text(100)	,	
PersonalData17	text(100)	,	
PersonalData18	text(100)	,	
PersonalData19	text(100)	,	
PersonalData20	text(100)	,	
PersonalData21	text(100)	,	Personal data 21 through to 50 are available when ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file
PersonalData22	text(100)	,	
PersonalData23	text(100)	,	
PersonalData24	text(100)	,	
PersonalData25	text(100)	,	
PersonalData26	text(100)	,	
PersonalData27	text(100)	,	
PersonalData28	text(100)	,	
PersonalData29	text(100)	,	
PersonalData30	text(100)	,	
PersonalData31	text(100)	,	
PersonalData32	text(100)	,	
PersonalData33	text(100)	,	
PersonalData34	text(100)	,	
PersonalData35	text(100)	,	
PersonalData36	text(100)	,	
PersonalData37	text(100)	,	

PersonalData38	text(100)	,	
PersonalData39	text(100)	,	
PersonalData40	text(100)	,	
PersonalData41	text(100)	,	
PersonalData42	text(100)	,	
PersonalData43	text(100)	,	
PersonalData44	text(100)	,	
PersonalData45	text(100)	,	
PersonalData46	text(100)	,	
PersonalData47	text(100)	,	
PersonalData48	text(100)	,	
PersonalData49	text(100)	,	
PersonalData50	text(100)	,	
HandTemplateValue1	integer	,	Valid range 0 - 255
HandTemplateValue2	integer	,	Valid range 0 - 255
HandTemplateValue3	integer	,	Valid range 0 - 255
HandTemplateValue4	integer	,	Valid range 0 - 255
HandTemplateValue5	integer	,	Valid range 0 - 255
HandTemplateValue6	integer	,	Valid range 0 - 255
HandTemplateValue7	integer	,	Valid range 0 - 255
HandTemplateValue8	integer	,	Valid range 0 - 255
HandTemplateValue9	integer	,	Valid range 0 - 255
ReaderID	integer	,	Obtain by referring to Reader.txt
AccessCodeID	integer	,	Obtain by referring to AccessCd.txt.
Representing	text(40)	,	
Vehicle	text(40)	,	
ArrivalDate	date	,	When used with RecordRequest 24, the value entered signifies the visitor sign-in date/time.
DepartureDate	date	,	When used with RecordRequest 25, the value entered signifies the Visitor sign-out date/time.
Visiting	text(40)	,	Specifies the name of the person the visitor is visiting. Please refer to page 11.
Message	text(255)	,	
BusinessCardFile	text(128)	,	
ContactNumber	text(40)	,	
DefaultBadge	bit	,	Specifies whether to use the default visitor badge design, as specified in the "Setup/Identity/Badge Designer" screen. 1 = use default badge design. 0 = don't use default badge design. When set to 1, do not specify BadgeFormatID. End entry with a carriage return.
CardIdentifier	text(40)	,	Not used.
DeactivateAtThreatLevel	integer	,	Range 1-5.
CardUsageRemaining	integer	,	Alternative to using RecordRequest=23. 0=Limit Reached,-1=No limit, or 1-9999.

Lost	bit	,	This field is used only if RecordRequest is 2 (Force Inactive). Valid Range 0 or 1. Set to 1 to set the Lost status. Set to 0 to clear the Lost status. Setting Lost to 1 with RecordRequest=2 will set the Lost status and force the card or cardholder inactive. To remove only the Lost status, use RecordRequest=2 and set Lost to 0. To clear both the force inactive and Lost status at the same time, use RecordRequest=5 (in this case, the Lost field is not relevant and the Lost status is removed from all cards found).
AreaOccupancyCard	bit	,	Valid Range 0 or 1. Set to 1 to set card as an Area Occupancy card. Set to 0 to clear Area Occupancy status.
CardWatch	bit	,	Valid Range 0 or 1. Set to 1 to set the Card Watch status. Set to 0 to clear Card Watch status.
ExtendedAccess	bit	,	Valid Range 0 or 1. Set to 1 to set card with Extended Door Times. Set to 0 to clear Extended Door Times status.
ExecutivePriv	bit	,	Valid Range 0 or 1. Set to 1 to set the card as an Executive Card. Set to 0 to clear the Executive Card status.
ExemptAutoDelete	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from the Auto Delete rule. Set to 0 if the card is subject to the rule.
ExemptRandomSearch	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card holder is exempt from random searches. Set to 0 if the card is subject to random searches.
ExemptAntiPassback	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the antipassback rules. Set to 0 if the card is subject to the rules.
ExemptPIN	bit	,	Valid Range 0 or 1. This field is relevant only if ExecutivePriv is set to 1. Set to 1 if the card is exempt from the need to enter a PIN at readers. Set to 0 if the card is subject to the rule.
VisitingEmployeeRef	text(128)	,	Specifies the employee reference of the card holder the visitor is visiting. Please refer to page 11.
VisitorEscortName	text(40)	,	Specifies the name of the visitor's visitor escort. Please refer to page 12.
VisitorEscortEmployeeRef	text(128)	,	Specifies the employee reference of the visitor escort. Please refer to page 12.
CardFormat	short	,	Please refer to page 15 for a description of this field.
UserDefinedData	text(255)	"[1,abc],[2.99]"	Each pair of values enclosed in "[" and "]" specifies the ID of a user-defined field and the data value for that field. See page 24.

Symmetry Data Text Files

Symmetry automatically updates the following text files when items are added or changed in Symmetry. The files are located in the Program Data\Security Management System\Import folder.

AccessCd.txt

This data is populated only when an access code is added or changed (see page 4).

Field Name	Data Type
AccessCodeID	integer
CompanyID	integer
AccessCodeName	text(40)

Area.txt

This data is populated only when an M2150\M4000 intrusion area is added or changed (see page 4).

Field Name	Data Type	Note
AreaID	integer	
AreaName	text(40)	
CompanyID	integer	

Badge.txt

This data is populated only when a badge design is added or changed (see page 4).

Field Name	Data Type	Note
BadgeFormatID	integer	
BadgeFormatName	text(40)	
CompanyID	integer	

Company.txt

This data is populated only when a company is added or changed (see page 4).

Field Name	Data Type
CompanyID	integer
CompanyName	text(40)
CustomerCode	integer

Message.txt

Field Name	Data Type	Example
RecordStatus	short	0,
Message	text(120)	"The record has not been imported yet."<cr>

Message.txt contents:

0,"The record has not been imported yet."

1,"The record has been successfully imported."

2,"The mandatory fields have not been specified in this record."
3,"The card issue levels preference must be set to import this record."
4,"Could not find the specified record in the database."
5,"The format of this record is incorrect."
6,"This record has an encryption error."
7,"A general error has occurred on this record."
8,"Cannot add this card as it already exists in the database."
9,"The specified card issue level is out of range."
10,"The specified PIN is out of range/invalid."
11,"The specified company is not defined in the database."
12,"The specified reader group is not defined in the database."
13,"The specified time code is not defined in the database."
14,"The specified expiry date is before the active date."
15,"An unknown record request has been specified."
16,"The card holder's face image file could not be found."
17,"The card holder's signature image file could not be found."
18,"The specified customer code is not valid for this company."
19,"More than one customer code exists for the selected company."
20,"More than one company exists for the selected customer code."
21,"The specified card number is out of range." (Also check the customer code.)
22,"The customer code is out of range."
24,"The specified badge format ID is not valid for the specified company."
25,"The Card Number needs to be specified for this system."
26,"The employee reference has not been supplied or it already exists in the database."
27,"There is a reader group time code conflict." (Not used.)
28,"The reader group and time code already exist." (Not used.)
29,"Biometric data incorrect."
30,"Mandatory personal data not set."
31,"The specified reader is not defined in the database."
32,"The specified access code is not defined in the database."
33,"There is a reader time code conflict." (Not used.)
34,"The reader and time code already exist." (Not used.)
35,"There is a access code conflict." (Not used.)
36,"The access code already exists." (Not used.)
38,"The specified card is used in a trigger command."
39,"The specified card has no visitor escort assigned to it."
40,"Card does not meet personal date requirements."
41,"Active and expiry dates have not been specified."
42,"The specified Card Usage Remaining is out of range."
43,"The specified IDS Code is out of range."
44,"The specified Area is not defined in the database."
45,"There is a area conflict." (Not used.)
46,"The area already exists." (Not used.)
47,"Import failed to identify unique card holder."
48, "Multiple cards per card holder not enabled."

49, "The specified Deactivate at Threat Level is out of range"
50, "The specified Card Format is out of range"
51, Unused
54, " The Key Card and Executive Card options are mutually exclusive "
55, "The IDS Code must be unique"
56, "Card holder with matching employee ref not located"
57, "More than one card holder with matching employee ref"
58, "Card holder is not active"
59, "Credentials Previously Encoded"
60, "Invalid User Defined Data"
61, "Insufficient Access Rights To Assign Access Code" (see page 14)

Reader.txt

This data is populated only when a reader is added or changed (see page 4).

Field Name	Data Type
ReaderID	integer
CompanyID	integer
ReaderName	text(40)

ReaderGp.txt

This data is populated only when a reader group is added or changed (see page 4).

Field Name	Data Type
ReaderGroupID	integer
CompanyID	integer
ReaderGroupName	text(40)
SharedCompanyID	integer

TimeCode.txt

This data is populated only when a time code is added or changed (see page 4).

Field Name	Data Type
TimeCodeID	integer
TimeCodeName	text(40)
CompanyID	integer

UserDefinedFields.txt

Please refer to page 25.

Export.txt and VisitorExport.txt

The format of Export.txt and VisitorExport.txt (see page 3) are the same as the card holder or visitor import file, except RecordStatus can be any one of the values (except 0) specified in Message.txt.

Appendix D: Text Format for Card Data Export

This appendix describes the data exported by the "Operation/Data/Data Export" screen when text export file is required (DataExportEnabled = 3 in multimax.ini). If you export data using this method, a file named CreateImport.txt is created in the Symmetry Export folder. You can also specify an output filename of your choice in the "Operation/Data/Data Export" screen, which is created in addition to CreateImport.txt. A text export file is in a format which can be immediately imported into another Symmetry system using the "Operation/Data/Data Import" screen.

Exported File Format

Note:

- The text delimiter is a quote ("). The field delimiter is a comma (,).
- Each card holder record is separated by a <cr> (Return/Enter on keyboard).

Field Name	Data Type	Example	Comments
LastName	text(40)	"Smith",	
FirstName	text(40)	"George",	
CardNumber	integer	456,	
CompanyID	integer	13,	Valid Range: 1 to 64
CardIssueLevel	short	1,	Valid Range 0 to 7. If the CardIssueLevel field is blank, it indicates that a card issue level has either not been set in Symmetry or is zero.
EmployeeReference	text(128)	"EMP456",	See page 16.
PIN	text(10)	"1234",	A PIN can have up to 8 digits (e.g. 0001-9999 for a 4-digit PIN, as set in the "Maintenance/User & Preferences/ System Preferences" screen).
PersonalData1	text(100)	"Gloucester",	
PersonalData2	text(100)	"England",	
PersonalData3	text(100)	"N41 ABC",	
PersonalData4	text(100)	,	
PersonalData5	text(100)	,	
PersonalData6	text(100)	,	
PersonalData7	text(100)	,	
PersonalData8	text(100)	,	
PersonalData9	text(100)	,	

PersonalData10	text(100)	,	
ActiveDate	date	05/06/2012 00:00:00,	Created in local format. The date format follows that as set up on the server, e.g. dd/mm/yyyy or mm/dd/yyyy, etc.
ExpiryDate	date	07/12/2012 19:00:00,	Created in local format. The date format follows that as set up on the server, e.g. dd/mm/yyyy or mm/dd/yyyy, etc.
ReaderGroupID	integer	,	Always blank
TimeCodeID	integer	,	Always blank
RecordRequest	short	0,	Always 0 if exporting all records. If the export is for delta changes: 42 (not 2) = The specified card has been deleted. If the export is for delta changes and **Extended Support** (page 18) is not set in the Data Export screen: 0 = The specified details are for a newly-created card holder. 1 = The specified details contain modifications to the details of an existing card holder (the record shows all the details, not just those that have changed). If the export is for delta changes and **Extended Support** is set: 72 = The specified details are for a newly-created or modified card or card holder.
RecordStatus	short	0,	Always 0
InactiveComment	text(40)	"",	Not used
Encryption	integer	0,	
CustomerCode	integer	999,	Valid range 0-999999
FaceFile	text(128)	"21.jpg",	The system exports face images as JPEG files to their subfolders below the specified folder (e.g. C:\Program Data\Security Management System\Export\Faces).
SignatureFile	text(128)	"55.jpg",	The system exports signature images as JPEG files to their subfolders below the specified folder (e.g. C:\Program Data\Security Management System\Export\Sigs).
InitLet	text(40)	"J",	Middle initial or middle name
BadgeFormatID	integer	3,	
PersonalData11	text(100)	"Contractor",	
PersonalData12	text(100)	,	
PersonalData13	text(100)	,	
PersonalData14	text(100)	,	
PersonalData15	text(100)	,	
PersonalData16	text(100)	,	
PersonalData17	text(100)	,	
PersonalData18	text(100)	,	
PersonalData19	text(100)	,	
PersonalData20	text(100)	,	

PersonalData21	text(100)	,	Personal data 21 to 50 are exported only if ImportExportAllPersonalData is set to 1 (the default) in the server's multimax.ini file. Otherwise, PersonalData21 through to 50 will show a blank entry.
PersonalData22	text(100)	,	
PersonalData23	text(100)	,	
PersonalData24	text(100)	,	
PersonalData25	text(100)	,	
PersonalData26	text(100)	,	
PersonalData27	text(100)	,	
PersonalData28	text(100)	,	
PersonalData29	text(100)	,	
PersonalData30	text(100)	,	
PersonalData31	text(100)	,	
PersonalData32	text(100)	,	
PersonalData33	text(100)	,	
PersonalData34	text(100)	,	
PersonalData35	text(100)	,	
PersonalData36	text(100)	,	
PersonalData37	text(100)	,	
PersonalData38	text(100)	,	
PersonalData39	text(100)	,	
PersonalData40	text(100)	,	
PersonalData41	text(100)	,	
PersonalData42	text(100)	,	
PersonalData43	text(100)	,	
PersonalData44	text(100)	,	
PersonalData45	text(100)	,	
PersonalData46	text(100)	,	
PersonalData47	text(100)	,	
PersonalData48	text(100)	,	
PersonalData49	text(100)	,	
PersonalData50	text(100)	,	
HandTemplateValue1	integer	,	Valid range 0 - 255
HandTemplateValue2	integer	,	Valid range 0 - 255
HandTemplateValue3	integer	,	Valid range 0 - 255
HandTemplateValue4	integer	,	Valid range 0 - 255
HandTemplateValue5	integer	,	Valid range 0 - 255
HandTemplateValue6	integer	,	Valid range 0 - 255
HandTemplateValue7	integer	,	Valid range 0 - 255
HandTemplateValue8	integer	,	Valid range 0 - 255
HandTemplateValue9	integer	,	Valid range 0 - 255
ReaderID	integer	,	Always blank
AccessCodeID	integer	,	Always blank
DefaultBadge	integer	,	Always blank
IDSCode	text(10)	,	Specifies the IDS code of the card, which can be to access intrusion options at an M2150 intrusion reader, as an alternative to using a card. The code can have up to 8 digits (e.g. 0001-

			9999 for a 4-digit IDS code, as configured in the "Maintenance/User & Preferences/ System Preferences" screen).
AreaID	integer	,	M2150 intrusion areas assigned to the card.
CardIdentifier	text(40)	,	Not used.
DeactivateAtThreatLevel	integer	,	Range 1-5.
CardUsageRemaining	integer	,	Alternative to using RecordRequest=23. 0=Limit Reached,-1=No limit, or 1-9999.
CardFormat	short	,	This is the ID of the credential format, as specified in the "Install/System/Default Settings/Credential Formats" screen. For example, 0=Legacy; 6=HID SE; 7=HID Corporate; 8=Barcode 37; 9=NXP Desfire 56; 10=AMAG 62; 11=AMAG 32; 12=AMAG 63.
UserDefinedData	text(255)	"[1,abc],[2.99]"	Each pair of values enclosed in "[" and "]" specifies the ID of a user-defined field and the data value for that field. See page 24.