

Standard Import Utility

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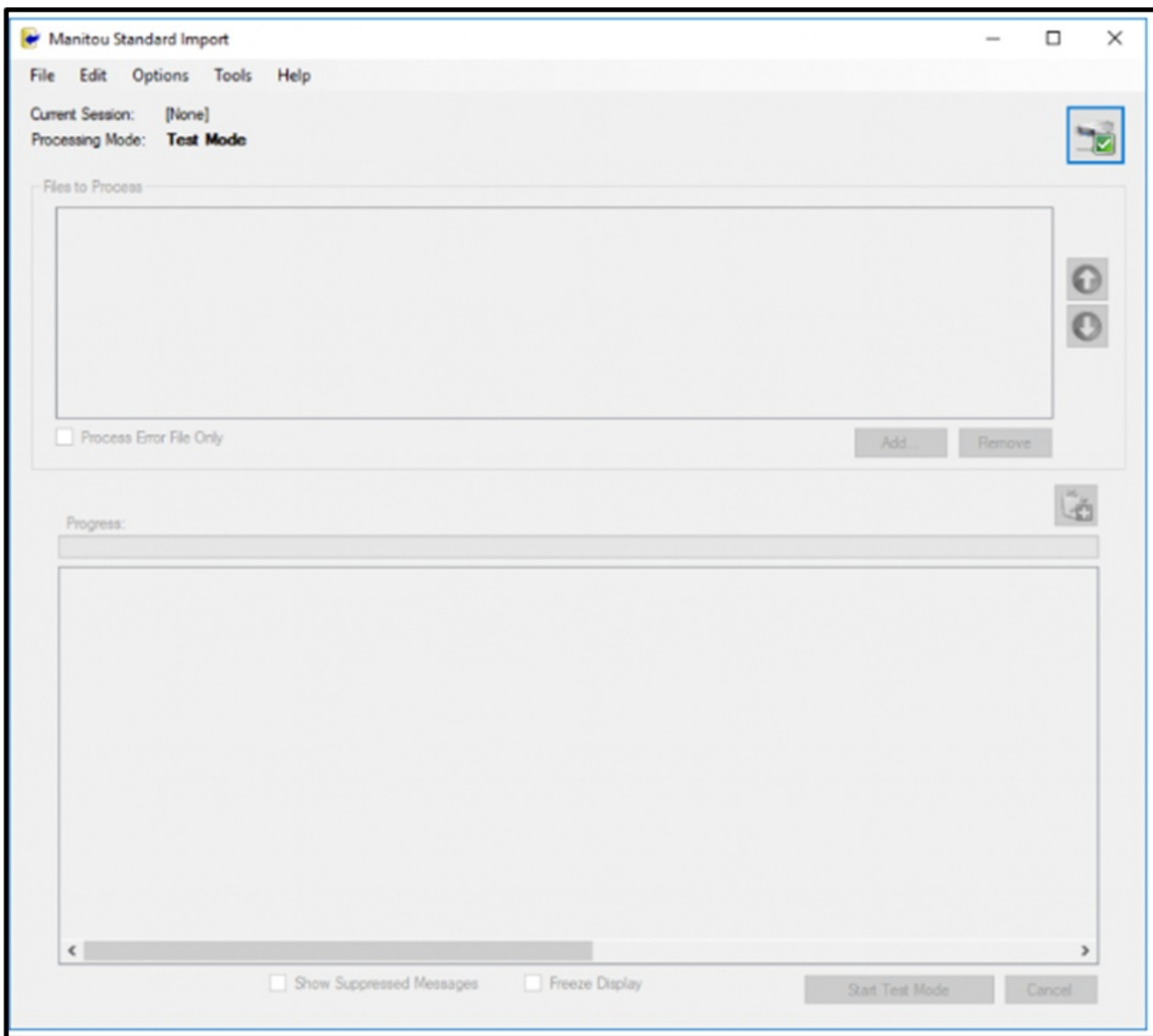
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Application User Interface

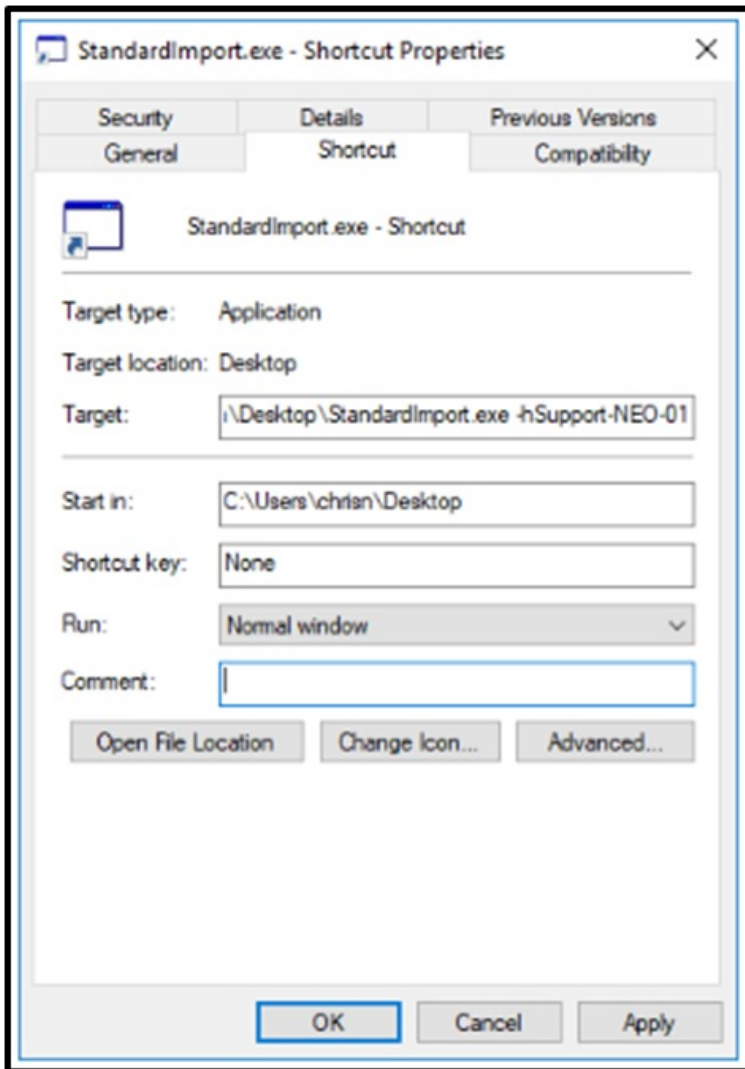
The Standard Import Utility is used to import data into Manitou by using one or more data files that have been provided by the user. This document will explain how files should be organized so that importing data is efficient and less prone to import failures.



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Installation

The Standard Import Utility can exist on any machine as a single executable. It can be ran on the application server without any shortcut parameters, or on a workstation using the `-h<hostname>` parameter. The hostname provided will need to correspond with a Sentry.



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Syntax

An import file can contain three different elements:

- Comments
- Section headers
- Records (data)

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Comments

Inline

Inline comments apply solely to a specific line and must begin with two forward slashes (//). Any text following the slashes is ignored by the import utility.

Block

Block comments apply to all text between two symbols - the begin comment symbol (/*) and the end comment symbol (*). These can appear anywhere in the file. All text between the two symbols is ignored by the import utility.



An exception to this is when the symbols appear inside a quoted string. When a quoted string is present, the text will not be ignored.

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Sections

Section headers are used to group data together. This is done so the import utility knows what type of data is currently being imported.

Section headers are made up of a pound sign (#), the keyword section, and the name of the section. These headers are on a single line.

For example:

```
#SECTION CUSTOMER
```

This tells the utility that all the data lines following this section header will contain customer information until a different section header is defined.

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Records

Data lines, or records, must appear on a single line and in a specific format. Each data element within a record is called a data field, and are separated by commas.

For example:

```
"CUST-001","Customer 001",0,1,"USENG","GMT-05:00",1,,1,0,"Main Street","Whispering Pines",,,
```

Data Line Syntax Rules

1. Each data line is a single line with no carriage return. To insert carriage returns in a quoted string, use the ASCII character 0. This character will be interpreted as a carriage return and, upon import, will be stored in the database as a carriage return.
2. Each data field is separated by a comma. When a data field is optional, a comma is used to separate the optional

field from the following field. This is done because the import utility needs to know that this data field is accounted for even if there is no data for it. In the previous example, the data line ends in a comma because the final field is optional.

3. Spaces between fields are ignored.
4. String (or textual) data is delineated by double quotation marks. This allows the user to use commas or other symbols (such as #, //, /* or commas) inside the string so the utility does not attempt to interpret them. If a double quotation mark is needed inside the string, use two consecutive double quotation marks with no inserted spaces.

For example:

"A string with ""double"" quotes."

Record Definition

In addition to basic syntax checking, the data provided is checked semantically based on the record definition. The record definition shows how many data fields are expected for the record, the type of data for each data field, and whether or not the data field is optional.

Semantic Rules for a Data Line

1. The data field count is verified. If the record definition indicates ten data fields, the user must provide a position for ten fields, even if some of the fields are optional. For example, there should be nine commas in the data line separating the ten data fields.
2. The length of the string is verified. Strings exceeding the data field length in the record definition will produce a warning and will be truncated.
3. The data type of the data field is verified. The following is a summary of all data types
 - STRING: Mixed-case textual data
 - CODE: Upper-case textual data
 - LONGTEXT: Mixed-case textual data of variable size
 - YES/NO: Either 1 (Yes) or 0 (No)
 - VALUE: A positive or negative integer number
 - MONEY: A positive or negative floating point number, such as 12.50
 - DATE: A date value in one of the following formats
 - MM/dd/yyyy

- MM-dd-yyyy
 - TIME: A time value in one of the following formats
 - HH:mm:ss
 - HH:mm
 - DATETIME: A date/time value in one of the following formats:
 - MM/dd/yyyy HH:mm:ss
 - MM/dd/yyyy
 - MM-dd-yyyy HH:mm:ss
 - MM-dd-yyyy
4. Some data fields refer to other data already defined in the database or in one of the existing data records. For example, the ADDRESS record requires a Region name which must be in the database. The import utility will check to see if the data provided is valid.
5. Some data fields can only accept certain values, such as a range of numbers from 1-10 or codes "A", "B", or "C". These values are checked against the record definition for validity. If a VALUE data field is OPTIONAL in the record definition, it will be interpreted as zero or NULL if no data is supplied.



Note that the Application Server may choose to default this value.

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Organizing Data Files

Ordering records in the data files is extremely important, as it ensures efficiency and provides the import utility with appropriate references. References are necessary and show what entities certain data records belong to. For example, an address record must belong to an entity, such as a Customer:

#SECTION CUSTOMER

```
"CUST-001","Customer 001",0,1,"USENG","GMT-05:00",1,,1,0,"Main Street","Whispering Pines",,  
#SECTION ADDRESS  
1,"CUST-001",,0,"548 Crider Avenue",,"Boomtown","OHIO","44663",1
```

In this example, the first two data fields of the ADDRESS section (ContType and ContID) are references to the data line in the CUSTOMER section above it. The address record must come after the customer example because it references it. Placing the ADDRESS section before the CUSTOMER section will produce an error.

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Sections and Data Lines

Sections and data lines should be grouped according to a single entity. This allows the utility to work with a single entity at a time and therefore be as efficient as possible. Though grouping data in this way is not necessary, spreading out data for an entity over the file or files significantly reduces efficiency. Importing data grouped according to a single entity is three times faster than importing data grouped by record type.

For example:

```
// -----  
// Data for Customer 001  
#SECTION CUSTOMER  
"CUST-001","Customer 001",0,1,"USENG","GMT-05:00",1,,1,0,"Main Street","Whispering Pines",,  
  
#SECTION ADDRESS  
1,"CUST-001",,0,"548 Crider Avenue",,"Boomtown","OHIO","44663",1,  
  
// -----  
// Data for Customer 002  
#SECTION CUSTOMER  
"CUST-002","Customer 002",0,1,"USENG","GMT-05:00",1,,1,0,"Pine Avenue","Edgemont Ranch",,  
  
#SECTION ADDRESS  
1,"CUST-002",,0,"123 Pine Avenue",,"Boomtown","OHIO","44663",1,
```

In the example above, data is grouped together by the customer and is the most efficient way to import data.



When using multiple import files, an entity should not span multiple files. When the utility hits the end of the file, it assumes the entity is being switched and goes ahead and imports it.

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Entity Grouping

The following example is a suggested order of data records in a file, grouped by the entity.

CUSTOMER

CUSTOMER, CUSTOPTIONS, CUSTPW, CUSTUFLD, PERMIT, ALTNAME, OC_SCHED, OC_SCHED_D, GENSCHED, GENSCHED_D, CUSTSYS, SAREA, SZONES, AC_SECTOR, CONTLIST, CONTLIST_D, CONTPPOINT, ADDRESS, CALLLIST, CALLLIST_D, ATTN, COMMENTS, ACTIONS, ACTIONS_D, STX, STXLINK, STXPRG, EVENTPRG

AGENCY

AGENCY, GENSCHED, GENSCHED_D, CONTLIST, CONTPPOINT, ADDRESS, CALLLIST, CALLLIST_D, ATTN, COMMENTS

AUTHORITY

AUTHORITY, GENSCHED, GENSCHED_D, CONTLIST, CONTPPOINT, ADDRESS, CALLLIST, CALLLIST_D, ATTN, COMMENTS

BRANCH

BRANCH, GENSCHED, GENSCHED_D, CONTLIST, CONTPPOINT, ADDRESS, CALLLIST, CALLLIST_D, ATTN, COMMENTS

INSTALLER

INSTALLER, GENSCHED, GENSCHED_D, CONTLIST, CONTPPOINT, ADDRESS, CALLLIST, CALLLIST_D, ATTN, COMMENTS, ACTIONS, ACTIONS_D, INSTTX, INSTIDRNG, INSTCHG, INSTCP

PERSON

PERSON, GENSCHED, GENSCHED_D, CONTPPOINT, ADDRESS

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Caveats

- In the case of customer sub-accounts (including STXLINK records where a sub-account is referenced), the sub-account should precede the main account in the file.
- Some records require two or more passes to be completely imported. Be aware that, in Test Mode, these records may produce reference errors that can be completely resolved in Import Mode.
- Certain records must be grouped together and may not be spread through the data file or files. These include records that are required for a minimum store; for example, the main entity and its Address record cannot be separated, because a minimum entity store requires both of these. Call List and Call List Details for a single entity must appear together (all Call Lists may be given, then their details). Actions and Action Details for a single entity must appear together (all Actions may be given, then their details). Open/Close Schedules and their Details for a single entity must appear together (all Schedule headers may be given, then their details).

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Record Definitions

The following is a list of all record definitions currently able to be imported.

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CUSTOMER

CONTID: CODE(12) - UNIQUE

This specifies the new customer's Customer ID and must be unique for all customers in the receiving Manitou database.

FULLNAME: STRING(50)

This is the customer's name.

FILEAS: STRING(50) - OPTIONAL

This field is used to search for a Customer by name and will be converted to be all upper case. Residential names should normally be given as "Last Name, First Name(s)". If left blank, the utility will use the FULLNAME value. For Customers with a SUBTYPE of 0 (residential), the utility will take the last 'word' of the FULLNAME and put it at the beginning followed by a comma and a space, then the rest of the FULLNAME. If the FULLNAME for a Customer record with a SUBTYPE of 0 is "Joe Smith Jr.", and FILEAS is left blank, then the utility will cause FILEAS to be "JR., JOE SMITH" since it sees 'Jr.' as the last word. The import data can properly set FILEAS to be 'SMITH JR., JOE' in these cases.

TIMEFMT: VALUE - OPTIONAL

This refers to the time format to be shown on reports sent to this customer and can be one of the following values.

0=format specified in the Country definition (default),

1=12-hour time format.

2=24-hour time format.

COUNTRY: VALUE

The must reference a valid country in the receiving Manitou database (here and all other occurrences).

LOCALE: CODE(5)

This must reference a valid locale in the receiving Manitou database (here and all other occurrences).

TIMEZONE: CODE(15)

This must reference a valid time zone in the receiving Manitou database (here and all other occurrences).

SUBTYPE: VALUE

This must reference a valid Customer Premises Type. Customer Premises Types can be found in the Supervisor Workstation under Maintenance > Setup > Subtypes. Note that '0' always implies a residential customer type regardless of its description.

MSTID: CODE(12) - OPTIONAL

If supplied, this must reference a valid master customer's Customer ID. It can also point to itself (CONTID = MSTID) signifying that this customer is a master customer. Alarm handling distribution and On Test entries are grouped by master customer.

USEMASTER: YES/NO - OPTIONAL

The Use Master indicator is for future use. Leave blank.

ACCTYPE: VALUE - OPTIONAL

This is the customer account type:

0=Normal Account

1=Main Account

2=Sub-Account

20=System Account

CROSSSTREET: STRING(35) - OPTIONAL

The cross street of the customer.

SUBDIVISION: STRING(35) - OPTIONAL

The subdivision name for the customer.

CMPYID: CODE(12) - OPTIONAL

If supplied, this must reference a valid Accounting Company ID in the receiving Manitou database with an Interface Type of 'Not Interfaced'. Both CMPYID and ACCTID must be supplied or neither (both blank).

ACCTID: CODE(24) - OPTIONAL

Both CMPYID and ACCTID must be supplied or neither. The Accounting Company setup may require ACCTID to be unique. This will be enforced at store time by the Manitou system. For push-type accounting companies (like Sedona) that allow the creation of accounts, provide an asterisk as the first character in the ACCTID string to force creation of this account. Use "*" (AUTO)" to have the accounting software automatically generate a new Account ID.

MAINID: CODE(12) - OPTIONAL

If supplied, this must reference a valid main customer's Customer ID (ACCTYPE is1). This field is required and only valid when ACCTYPE is 2 (Sub-Account).

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AGENCY

CONTID: CODE(12) - UNIQUE

This specifies the new agency's Agency ID and must be unique for all agencies in the receiving Manitou database.

FULLNAME: STRING(50)

FILEAS: STRING(50): OPTIONAL

TIMEFMT: VALUE: OPTIONAL

COUNTRY: VALUE

LOCALE: CODE(5)

TIMEZONE: CODE(15)

SUBTYPE: VALUE: OPTIONAL

This must reference a valid Agency Type. These are found in the Supervisor Workstation under Maintenance > Setup > Subtypes.

DISPCODE: CODE(25): OPTIONAL

This is the Dispatch Charge Code field.

QUESTION: STRING(100): OPTIONAL

This is the question to be asked as an alternate form of verification.

ANSWER: STRING(50): OPTIONAL

This is the expected answer to the above verification question.

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AUTHORITY

CONTID: CODE(12): UNIQUE

This specifies the new authority's Authority ID and must be unique for all authorities in the receiving Manitou database.

FULLNAME: STRING(50)

FILEAS: STRING(50): OPTIONAL

TIMEFMT: VALUE: OPTIONAL

COUNTRY: VALUE

LOCALE: CODE(5)

TIMEZONE: CODE(15)

SUBTYPE: VALUE

This is the type of authority. The possible values are 0=Police, 1=Fire, 2=Medical.

DISPCODE: CODE(25): OPTIONAL

This is the Dispatch Charge Code field.

PERMITREQD: YES/NO: OPTIONAL

This indicates whether customer permits are required.

FALSELMT: VALUE: OPTIONAL

This is the number of false alarms that will be allowed before fees or suspension of service.

FALSETYPE: VALUE: OPTIONAL

This is the type of false alarm period: (0=Sliding Window, 1=Calendar Period, 2=Forever - never resets).

FALSEPER: VALUE: OPTIONAL

This is the width of the sliding window (days) or calendar period (months).

FALSEMNTH: VALUE: OPTIONAL

This is the starting calendar month when FALSETYPE is 1 (Calendar Period).

BRANCH

CONTID: CODE(12): UNIQUE

This specifies the new branch's Branch ID and must be unique for all branches in the receiving Manitou database.

FULLNAME: STRING(50)

FILEAS: STRING(50): OPTIONAL

TIMEFMT: VALUE: OPTIONAL

COUNTRY: VALUE

LOCALE: CODE(5)

TIMEZONE: CODE(15)

INSTALLER

The INSTALLER record refers to Dealers.

CONTID: CODE(12): UNIQUE

This specifies the new dealer's Dealer ID and must be unique for all dealers in the receiving Manitou database.

FULLNAME: STRING(50)

FILEAS: STRING(50): OPTIONAL

TIMEFMT: VALUE: OPTIONAL

COUNTRY: VALUE

LOCALE: CODE(5)

TIMEZONE: CODE(15)

MSTID: CODE(12): OPTIONAL

If supplied, this must reference a valid master dealer's Dealer ID.

USEMASTER: YES/NO: OPTIONAL

This field indicates if a sub-dealer should show its master's information on an alarm screen. MSTID must be specified to have any effect.

MONGRP: VALUE: OPTIONAL

This is the optionally licensed Monitoring Group to be used for the dealer's customer's alarm activity, if not already directed to a specific monitoring group. A value of 0 is the default monitoring group – no override.

MONSTATUS: VALUE: OPTIONAL

This is the Monitoring Status of the Dealer (0=Normal, 1=Inactive). Please note that if this is set to Inactive, alarm monitoring will be stopped for all of this dealer's customers as if each Active customer was set to Inactive.

CMPYID: CODE(12): OPTIONAL

Accounting Company for Dealer Billing.

ACCTID: CODE(24): OPTIONAL

Accounting Company for Dealer Billing. For push-type accounting companies (like Sedona) that allow the creation of accounts, provide an asterisk as the first character in to have the accounting software automatically generate a new Account ID.

CUSTOOS: YES/NO: OPTIONAL

This indicates whether customers are allowed to put their own system on test.

ENGSEC: VALUE: OPTIONAL

This is the Technician security modifier: (0=Monitoring Company Level – normal, 1=Prefix Required). If set to 1, a periodically changing value must be given by the Technician in addition to their password.

PERSON

CONTID: CODE(12): UNIQUE

In the case of an entity-specific contact (local person), this field must be empty and the contact will be tied to the specific entity. If a value for this field is supplied, this person will become a Global Keyholder. Global Keyholders must be imported before being referenced by another entity.

NAME: STRING(50)

FILEAS: STRING(50): OPTIONAL

If left blank, the utility will take the last 'word' of the NAME and put it at the beginning followed by a comma and a space, then the rest of the NAME.

TIMEFMT: VALUE: OPTIONAL

COUNTRY: VALUE

LOCALE: CODE(5)

TIMEZONE: CODE(15)

SUBTYPE: VALUE: OPTIONAL

This must reference a valid Keyholder Type. Keyholder Types can be found in the Supervisor Workstation under Maintenance > Setup > Subtypes.

PASSWD: CODE(12): OPTIONAL

This is the password for this person.

VRTID: CODE(12): OPTIONAL

This is the Voice Response system login ID.

WEBID: CODE(12): OPTIONAL

This is the Web (BoldNet) link between the Manitou user and the Web user (not necessarily the Web login ID).

SUFFIX: STRING(10): OPTIONAL

This is the person's name suffix (e.g., 'Jr.', 'Sr.'). Suggested suffixes are found in the Supervisor Workstation under Maintenance > Setup > Subtypes, although any value may be imported.

INITIALS: STRING(10): OPTIONAL

This cannot be specified in the client, but is constructed by taking the first letter of each of the First Name, Middle Name and Last Name (typically entered by clicking the ellipsis next to the Name field on the Contact List or Keyholder form, or parsed from the Name field if entered through an import).

JOBTITLE: STRING(35): OPTIONAL

This is the person's Job Title.

SALUTATION: STRING(10): OPTIONAL

This is the person's title or salutation (e.g., 'Mr.', 'Mrs.'). Suggested suffixes are found in the Supervisor Workstation under Maintenance > Setup > Subtypes, although any value may be imported.

QUESTION: STRING(100): OPTIONAL

This is the question to be asked as an alternate form of verification.

ANSWER: STRING(50): OPTIONAL

This is the expected answer to the above verification question.

INACTDATEFRM: DATE: OPTIONAL

This is the start of this person's inactive period. This can be left empty even if INACTDATETO is specified.

INACTDATETO: DATE: OPTIONAL

This is the end of this person's inactive period. This can be left empty even if INACTDATEFRM is specified.

VALDATEFROM: DATE: OPTIONAL

This is the start of this person's valid period. This can be left empty even if VALDATETO is specified.

VALDATETO: DATE: OPTIONAL

This is the end of this person's valid period. This can be left empty even if VALDATEFRM is specified.

DOB: DATETIME: OPTIONAL

This is the Birthday (only month and day are shown – it is recommended that the year be 2000 since it allows leap day).

NOTES: LONGTEXT: OPTIONAL

This is any notes or information of interest regarding this person.

CONTID Notes

In the remaining record definitions, CONTID typically refers to the ID of the entity under which the particular record is to be created. DESCR typically applies to the particular record being entered. Similarly, CONTTYPE typically refers to the contact type of the entity under which the record is to be created (0 = monitoring company, 1 = customer, 2 = installer/dealer, 3 = branch, 4 = agency, 5 = authority, 100 = person). The remainder of the records may or may not share common criteria; items with common criteria will be noted as they arise.

AC_SECTOR

AC_SECTOR corresponds to the Sectors item under an Access Control system specified on the Systems form.

CONTID: CODE(12):

This must reference a valid customer.

SYSNO: VALUE

Must reference a valid CUSTSYS record for the above customer.

SECTOR: CODE(5)

DESCR: STRING(35)

ACTIONS

ACTIONS corresponds with the list of the action patterns that display in the main portion of the Action Patterns.

CONTTYPE: VALUE: (0, 1, 2)

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

ACTIONS: CODE(8): UNIQUE

Only one occurrence of the same actions code is allowed per entity.

DESCR: STRING(35)

This is the action pattern description.

ACTIONS_D

ACTIONS_D corresponds with the actual details of the action pattern that display in the Action Patterns form for an entity.

CONTTYPE: VALUE

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

ACTIONS: CODE(8)

CONTTYPE + CONTID + ACTIONS must reference a valid action pattern header for this entity.

CMDTYPE: VALUE

QUAL1: VALUE

QUAL2: CODE(12): CONTID when QUAL2 represents a Serial Number

QUAL2a: CODE(50): PERSONNAME when QUAL2 represents a Serial Number for Local Person

QUAL3: VALUE

QUAL4: VALUE

QUAL4a: CODE(20)

QUAL5: VALUE

QUAL6: VALUE

QUAL7: CODE(12): CONTID when QUAL7 represents a sub-Serial Number

QUAL7a: CODE(50): PERSONNAME when QUAL7 represents a sub-Serial Number for a Local Person
QUAL8: VALUE
QUAL9: CODE(4)
QUAL10: STRING(35)
QUAL11: STRING(255)
QUAL12: VALUE

ADDRESS

This record includes all information necessary to create city record if necessary. ADDRTYPE applies only to local PERSONs; all other entities set this to 0, except in the case of alternate addresses, in which case this is used like a sequence number. MAILADDR applies only to PERSONs. PERSONNAME is used only for local persons. If PERSONNAME is present, CONTTYPE and CONTID refer to the entity to which this person belongs. PERSONNAME is a foreign key to FULLNAME in CONTACT.

CONTTYPE: VALUE

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

PERSONNAME: UNIQUE: OPTIONAL

If supplied, PERSONNAME must reference a valid local person of the above entity.

ADDRTYPE: UNIQUE: OPTIONAL

The ADDRTYPE must reference a valid Address Type. These are found in the Supervisor Workstation under Maintenance > Setup > Subtypes. For non-person entities, this must be 0 or blank (only one site address allowed). Only one address of the same Address Type is allowed per person.

ADDR1: STRING(50)

Address line 1.

ADDR2: STRING(50): OPTIONAL

Address line 2.

CITYNAME: STRING(50)

Must reference an existing country in the receiving Manitou database

REGIONNAME: CODE(35)

This is a CODE (VARCHAR) which corresponds to the FILEAS column in the REGION table. This means REGIONNAME must be in upper case, or a warning will be received. Regions can be edited in the Supervisor Workstation under Maintenance > Setup > Country Setup.

POSTCODE: STRING(15)

COUNTRY: VALUE

Must reference an existing country in the receiving Manitou database.

MAILADDR: YES/NO: OPTIONAL

Applies only to local persons.

ATTN

ATTN is found in the Attentions form of an entity. This does not apply to persons.

CONTTYPE: VALUE: (0, 1, 2, 3, 4, 5)

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

ATTNTYPE: VALUE

The ATTNTYPE must reference a valid Attention Type. These are found in the Supervisor Workstation under Maintenance > Setup > Subtypes. For non-person entities, this must be 0 or blank (only one site address allowed). Only one attention entry of the same type is allowed per entity.

REFCONTID: CODE(12) : OPTIONAL

This must reference a valid contact entity of the main entity's contact list. Either REFCONTID or PERSONNAME must be supplied.

PERSONNAME: STRING(50) : OPTIONAL

This must reference a valid local person's name of the main entity's contact list. Either REFCONTID or PERSONNAME must be supplied.

CALLLIST

CALLLIST is the list of call lists in the Call Lists form for an entity. It is also the basic information presented in the upper section of the Call Lists form.

CONTTYPE: VALUE: (0, 1, 2, 3, 4, 5)

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

CALLLIST: CODE(4)

This is the call list code. Only one call-list entry of the same code is allowed per entity.

DESCR: STRING(35)

This is the call list description.

CLEVEL: VALUE: OPTIONAL

This is the Call List type (0=Main, 1=Sub List). A sub-list can be referenced (included) by a main list, and can also be used stand-alone.

ROTATEACT: YES/NO: OPTIONAL

This indicates whether this call list has a rotation schedule. Only lists that contain only persons may rotate.

ROTATEINT: VALUE: OPTIONAL

This is the interval (in days) at which a rotating call list will be rotated.

ROTATENXT: DATETIME: OPTIONAL

This is when the next rotation will occur (date and time).

ROTATECONTID: CODE(12) : OPTIONAL

If supplied, this must reference a valid global keyholder entity of this call list. For rotating call lists, either ROTATECONTID or PERSONNAME must be used to point to the current head of the rotating list.

PERSONNAME: CODE(50) : OPTIONAL

If supplied, this must reference a valid local person by name of this call list. For rotating call lists, either ROTATECONTID or PERSONNAME must be used to point to the current head of the rotating list.

CALLSCHED: CODE(4) : OPTIONAL

This is the general schedule that can be applied to this call list. It can be used to control when the list is valid. If supplied, this must reference a valid 'Call List Availability' general schedule for this entity.

DEFERLIST: CODE(4) : OPTIONAL

If a CALLSCHED has been specified, this field can be used to redirect to a different call list should the schedule indicate that this list is 'out of schedule'.

CALLLIST_D

Notes: Key is not unique. REFCONTTYPE and REFCONTID/PERSONNAME are used in two ways: (1) to locate a contact in the contlist to get the LISTSEQ number, and (2) to locate an appropriate SUBLIST. If SUBLIST is given, REFCONTTYPE and REFCONTID/PERSONNAME can be null, but if they are not, they refer to a non-person contact whose sublist we wish to include. If SUBLIST is given and no reference contact is given, LISTSEQ and CPTYPENO should be set to -1. PERSONNAME is used only for local persons in which case REFCONTTYPE must be 100 and REFCONTID is null.

This record corresponds primarily with the actual contact list.

CONTTYPE: VALUE

CONTID: CODE(12)

CONTTYPE + CONTID must reference a valid entity.

CALLLIST: CODE(4)

CONTTYPE + CONTID + CALLLIST must reference a valid call list header for this entity.

REFCONTTYPE: VALUE: (0, 1, 2, 3, 4, 5, 100)

This field identifies the contact type of a contact to be referenced by REFCONTID below.

REFCONTID: CODE(12)

This must reference a valid contact entity of the main entity's contact list. Either REFCONTTYPE/REFCONTID or PERSONNAME must be supplied.

PERSONNAME: STRING(50)

This must reference a valid local person's name of the main entity's contact list.