



Lotus Domino® Application



GeoCom® File Import

Version 2.0

Administration manual

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1 Fields of application

The application GeoCom® File Import enables you to easily import arbitrary data records from ASCII format into a Lotus Notes database, e.g. into GeoCom® Customer & Contacts. Multiple configuration options serve to adapt the data import exactly to your requirements.

Imports can be manually executed, e.g. for one-time adoption of customer data after a system reinstall, or a Notes agent can serve to permanently synchronize data between external data records and Notes databases.

Multiplex report functions provide you with detailed information regarding all imports, including errors which have possibly occurred.

GeoCom® File Import has the following advantages over the Notes standard import function:

- Insert / Update mode
- Imports to arbitrary target databases
- Manual or automatic import
- Import of response documents
- Import of data consisting of more than 32768 data records
- Automatically start postprocessing agents
- Multiple imports combined to one import action
- Automatically add arbitrary computed fields
- Automatically synchronize with further Notes documents
- E-Mail notifications
- Detailed report functions
- Selective import of partial data
- Determination / check of target field's data type

2 Functionality

All functions are controlled via configuration documents within the database GeoCom® File Import. The lowest level is formed by so called *import definitions*, which determine information regarding imports, like file name and path of target database, protocol definitions, structure of import files as well as mappings to fields of a Notes document.

Action definitions are used to collect one or more import definitions and specify the order in which these are to be carried out.

The import itself is actually done either manually or by starting an agent, which regularly updates the database with the data from the input records.

In either case a report is being made which, depending on the configuration, provides you with arbitrary detailed information concerning the import procedure. Additionally Debug documents can be generated to further specify occurring errors.

These document types are all shown in certain views.

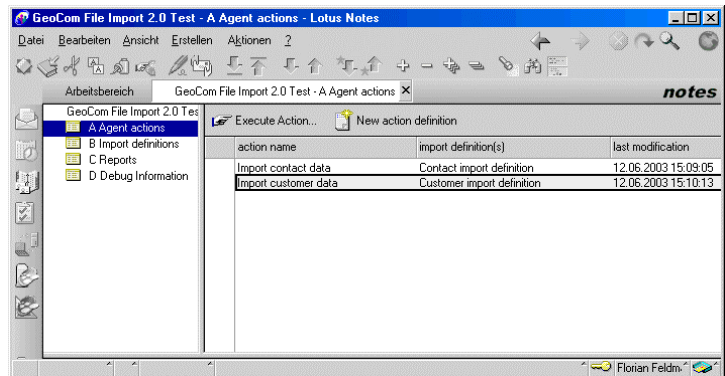


Illustration: Main views

3 Views

GeoCom® File Import shows the existing configuration and result documents in 4 views collectively. A manual import can be done from all four views. Additionally, there are buttons to create the corresponding configuration documents in each view.

3.1 View A. Agent Actions

The view "*A. Agent Actions*" contains a list of all action definitions available. Provided that you dispose over the corresponding access rights, you can view and/or edit the existing action definitions or create new documents.

3.2 View B. Import Definitions

View "*B. Import Definitions*" lists all existing import definitions which can be used by certain agent actions. According to available access rights you can view and/or edit documents or create new import definitions from this view.

3.3 View C. Reports

The view "*C. Reports*" provides you with an overview of all former imports, sorted by name of import definition and date of import action.

3.4 View D. Debug Informationen

The last view, "*D. Debug Informations*", shows system internal information regarding import actions. Such documents are created on import actions, if the option "Debug mode (only for testing)" has been activated within the corresponding import definition.

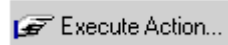
4 Performing imports

There are two ways to perform an import using GeoCom® File Import, which shall be described in the following section:

- manual data import
- automatic data import by a Lotus Notes agent

4.1 Manual import

Every view in GeoCom® File Import provides you with the button



which is used to start an import action.

After actuating this button the following dialog box will appear. It is used to specify the action which is to be executed.

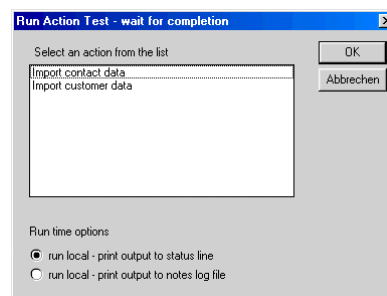


Illustration: Dialog box Run Action

You can also specify, whether the import should be run locally or on the specified server. According to the choice you made, the output of the import report will be done to the local status line or into the Notes log file of the server.

4.2 Automatic import by a Notes agent

Import actions can be performed by Lotus Notes agents, which are regularly started on a server. Agents which shall start import actions have to contain the following Lotus-Script code:

Use "V1 Fileimport"

Sub Initialize

Call AgentAction ("Name_of_Action_Definition")

End Sub

Note that the signer of the agent must dispose over corresponding access rights concerning both the server and the database(s). Additionally, depending on the time needed by the agent, runtime restrictions have to be made within the server document.

5 Steps of development

To begin the development you should have a computer which holds the following files:

- Source file of import data coded in ASCII format in an arbitrary directory
- Lotus Notes target database in the local Notes directory

The following steps have to be executed then:

1. Creation of an import definition
2. Configuration of import definition according to the structure of the import data; specification of target database
3. Creation and configuration of an action definition which uses the previously defined import definition
4. Execution of the previously defined action definition to perform the import
5. Revision of the automatically generated report documents and – if necessary – adjustment of the import definitions

After completion of testing regular execution of the import action can be realised by setting up a corresponding agent.

At the end of this manual you will find a particularized example of a simple data import.

6 Creating action definitions

To create an action definition first switch to view "A. Agent Actions".

Click the button  New action definition, to bring up the following form:

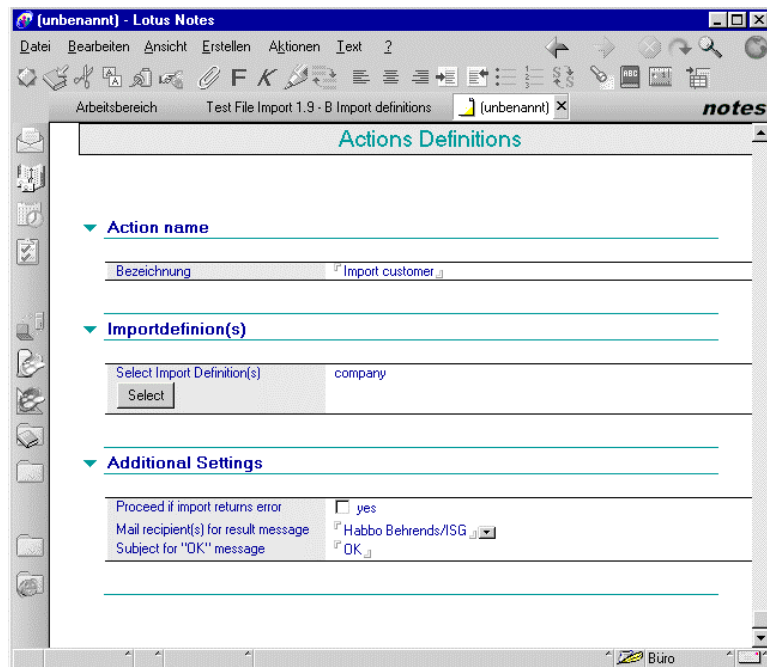



Illustration: Actions Definition

First enter an arbitrary name for this action definition into the field "description" by which it can later be identified.

Then click the button , to specify which import definition(s) should be called by this action definition. A single action definition can contain multiple import definitions which can successively be processed.

Note that you can only select import definitions which already exist, but cannot create new ones from this form! Creation of new import definitions will be explained in the following chapter.

Additionally a result mail can be sent to a specified recipient. For this purpose enter the recipient's eMail address as well as the subject which should be included in the eMail.

If multiple import definitions are processed the application's behaviour in case of an error can be specified.

7 Creating import definitions

An import definition serves to specify the import of ASCII formatted data into a designated Notes database.

To create a new import definition switch to view "B. Import Definitions"

and click the button  to open the following form:

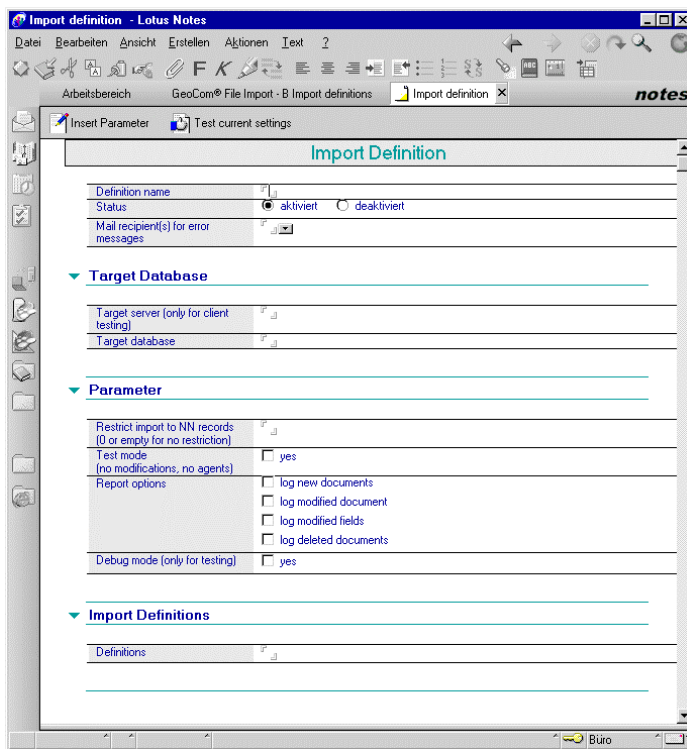


Illustration: Import Definition

7.1 Common Settings

General information concerning the import will be specified here.

7.1.1 Name of import definition

First enter the name for this import definition by which it can later be identified and processed from within an action definition.

7.1.2 Enabling import definitions

The field "Status" specifies, whether or not this definition is allowed to be processed by an agent. If this option is set to deactivated, it can only be used for manual imports.

7.1.3 Delivery of error messages by E-Mail

The field "Mail recipients for error messages" lets you specify to which E-

Mail address(es) error messages should be sent (optional).

7.2 Definition of target database

This section defines the target database of the import.

7.2.1 Target server

The field "Target server" is only used for testing purposes on manual import into a database located on another server.

In normal operation this field must remain empty, since agents can only start import actions on the server they are running on.

7.2.2 Target database

Into the field "Target database" you should enter the file name of the designated target database including the relative directory path.

Example: *DEMO4/kkimport.nsf*

7.3 Parameter

The section "Parameter" is used mainly for testing purposes. In detail the possible functions are:

7.3.1 Limit number of import records

"Restrict import to NN records" can hold a maximum number of entries which are to be imported, regardless of how many entries there are in the source data (setting this field to 0 or leaving it blank will result in no restriction, all records will be imported).

7.3.2 Testmode

The checkbox "Testmode" specifies whether or not this definition should really import data. If this option is activated, no agents will be started by this definition and no changes will be made to the target database. Merely the status reports and debug information will be issued.

7.3.3 Report options

Under "Report options" you can specify which information concerning import actions should be included into the corresponding log file (possibilities are: New documents, modified documents, modified fields, deleted documents).

7.3.4 Debug mode

The switch "Debug mode" can activate the debug modus, which is only meant for testing purposes. This setting will cause a debug document to be generated and stored in view "D. Debug Information". The information

provided in these debug documents is additional to the standard report logs.

7.4 Import parameter

Into this field all actual import parameters are inserted, i.e. information regarding structure of import file as well as mapping of this information to Notes documents and fields.

Each import parameter consists of a corresponding tag in squared brackets and sometimes additional information. Each parameter must start at a new line and has to be of the following form:

```
[Identifier]parameter1,parameter2,...<CR>
```

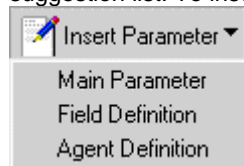
Parameter can be divided into four groups:

1. **Main Parameter**
This includes all parameters, which do not fit to one of the other groups
2. **Field Parameter**
Parameters from this group are surrounded by the tags [begin field definition] and [end field definition] and describe the behaviour of the columns from the import file.
3. **Action Parameter**
Parameters from this group are being surrounded by the tags [begin action definition] ... [end action definition]. These parameters are used in analogy to field parameters (in fact most of the field parameters can be used as action parameters as well), but with these definitions you further process imported data (e.g. by adding data from other, related, Notes documents).
4. **Agent Parameter**
Parameters from this group are being surrounded by the tags [begin agent definition] ... [end agent definition] and describe the behaviour of agents which are to be started during import (e.g. post-processing documents).

Note: Tags without further parameters serve as flags, where a set parameter means a set flag.

7.4.1 Insert parameters

To avoid typing errors all tags can be selected and inserted from a suggestion list. To insert an import parameter, click the button



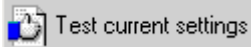
and select the corresponding parameter type.

There are three groups of parameters available: "Main Parameter", "Field Definition" and "Agent Definition".

The parameter will then be inserted to the current cursor position.

Of course all parameters can also be entered manually, without using the suggestion lists.

7.4.2 Syntax test

The button  checks your specified import parameters for syntactical errors. It does not, however, find logical errors!

7.5 Main Parameter

In the following all main parameters usable within GeoCom® File Import will be explained. These parameters form framework for the data import.

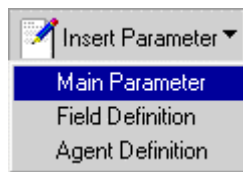


Illustration: Button insert main parameters

7.5.1 [import file]

Specify the name and path of the import ASCII file.

Ex.: [import file]C:\Import\kunde_[yymmdd].csv

Note: An entry **[yymmdd]** will automatically be set to the actual date. In case the import should be done on 2003-06-05, the file named

C:\Import\kunde_030401.csv would be used.

7.5.2 [delimiter]

With this parameter you can specify the delimiter sign that distinguishes fields in the import data.

Ex.: [delimiter];

This setting will use the semicolon “;” as delimiter between fields.

7.5.3 [remove quotes]

Set this flag to remove quotation marks in the import data, if e.g. single fields are marked by quotation marks each.

7.5.4 [create index]

This tag serves to create a consecutive index number each time a document is inserted into the target database..

Ex.: [create index]1000

Thus the index will be counted from 1000 upward for each new document in the database.

7.5.5 Import mode

[insert documents]

This parameter serves as a flag to determine whether or not GeoCom® File Import may create new documents within the target database.

[update documents]

Decides whether or not the application may alter and update existing documents in the target database.

[delete documents]

Decides whether or not GeoCom® File Import may delete documents from the target database in case the import data does not contain the corresponding record.

7.5.6 Update mode, additional information

If update mode is activated (i.e.: [update documents] is set) existing documents from the target database will be possibly overwritten by updated data from the import records. Here you specify how documents are identified as existing.

[update view]

This parameter determines which view within the target database should be used for update checks.

Ex.: [update view](SVIMPORT-CUST)

[update key fields]

This parameter specifies the key field by which documents can unambiguously be identified (e.g. use a unique customer number).

Ex.: [update key fields]DBAKey

7.5.7 Delete mode, additional information

If the import mode [delete documents] is activated, all entries within the target database, which are not included in the import data, will be deleted. These parameters further specify identification of documents.

[delete view]

Enter the view which should be searched for existing documents.

Ex.: [delete view]SVIMPORT-CUST

[delete key fields]

Here you specify the key fields by which documents are unambiguously identified.

Ex.: [delete key fields]DBPStrasse

7.5.8 Synchronisation of field values from existing Notes documents

These options determine rules by which values from other documents can be included into the import records.

[sync from document view]

Specifies the view from which data should be used.

Ex.: [sync from document view](ContactSearchStatus)

[sync from document key fields]

This states, which key fields should be used to identify documents.

Ex.: [sync from document key fields]DBAKey

[sync ignore missing document]

Set this flag if GeoCom® File Import should ignore error messages caused by missing documents..

[sync from document field]

This parameter specifies the field from which you want to use data.

7.5.9 Character-by-character replacement within fields

These parameters serve to define replacement rules for the import data. Whether or not these rules

[replace]

This parameter replaces single characters from the import data by other designated characters.

Ex.:

[replace]<CR>=%0D%0A

[replace]%= %25

[replace];= %3B

[replace]<TAB>= %09

Thus, all hexagonal strings %0D0A (ASCII-Code for carriage return) from the source data will be replaced by the Notes-internal representation of the <CR> character.

Other replacement rules are defined like these:

ASCII-Code %25 will be replaced by a Notes percentage symbol, whereas %3B will be replaced by a semicolon and %09 will be made a tabstop.

[replace all fields]

If this flag is set, the replacement rules defined above will automatically be used for all import fields (unless this is explicitly prohibited within the field). If this parameter is not set, each field which has to use the replacement rules has to be defined separately as replaceable field (see field definitions).

7.5.10 Number formats

[number format thousands separator]

This parameter lets you specify the separator sign used for thousands within the source data.

Ex.: [number format thousands separator].

Thus numbers of format 1.245 can be processed correctly.

[number format decimal separator]

similar to thousands separator, this parameter specifies the decimal separator of numbers.

Ex.: [number format decimal separator],

This entry allows to process numbers in format "0,123".

7.5.11 Further parameters

7.5.11.1 [force update]

This flag defines, whether fields shall be overwritten in any case, without prior check for updates. Otherwise the application checks whether the import data possibly corresponds the existing value before overwriting.

7.5.11.2 [form field]

This parameter connects the document which is to be created with a certain mask document.

Ex.: [form field]Contact

This option causes the new document to be of the type "Contact".

7.5.11.3 [ignore first line]

This flag can be set to ignore the first line of the source data (e.g. if the source data starts with a heading that should not be included into the target database).

7.5.11.4 [ignore empty lines]

If this flag is set, the application will ignore empty lines on import (otherwise, each empty line would produce an empty record within the target database).

7.5.11.5 [ignore lines like]

Use this parameter to ignore lines beginning with the designated character string.

Ex.: [ignore lines like]//

This option causes all lines beginning with two slashes to be recognized as comments and ignored on import.

7.5.11.6 [min column count]

The value specified by this parameter states the minimum number of fields which are expected in the source data.

Ex.: [min column count]10

7.5.11.7 [ignore bad records]

If the source data includes one or more flawed records, the import action will normally be halted with an error message.

If nonetheless the import shall be finished (leaving out the bad records) set this flag to ignore these flawed records on import.

7.5.11.8 [begin column definition] ... [end column definition]

These tags show the beginning and the end of the column definitions. They surround all field definitions concerning import data (see *Field Definitions*).

7.5.11.9 [begin action definition] ... [end action definition]

Like column definitions these parameters also surround field definitions, but these settings do not correlate with the source data but with additional fields or actions which are to be performed on the existing fields (e.g. insert data from existing related documents, see *Field Definitions*).

7.5.11.10 [begin agent definition] ... [end agent definition]

These parameters surround agent definitions (see *Agent Definitions*).

7.6 Field Definitions

Parameters of this type can be used both in the group "Column Definition" for mapping between data from the text source file and the target database, as well as "Action Definitions", which serve to postprocess additional fields of the Notes document.

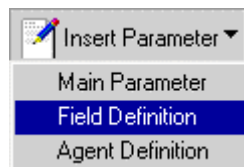


Illustration: Button for inserting field definitions

7.6.1 Usage of field definitions

Field definitions that are used within the column definitions define relations between the columns of the source text file and fields of the Notes document within the target database.

Each column of the import data file must at least be described by an

entry *[name]fieldname*. All tags after the *[name]* tag up to the next *[name]* tag (which marks the beginning of the next field) specify details like data type.

7.6.1.1 **[name]**

This parameter specifies the name of the next field within the target database. The following parameters correlate to this field.

By setting this tag you also automatically end the last field's specifications.

Ex.: `[name]DBFOrt`

7.6.1.2 **[value]**

This parameter can be used to assign a fixed value to a certain field. This parameter should only be used in group "Action Definitions".

Ex.:

`[name]CutomerType`
`[value]Private Customer`

7.6.1.3 **[mandatory]**

This flag marks that the current field is mandatory, if no value can be assigned to this field (e.g. missing data in source file), the import will cause an error message and abort.

7.6.1.4 **[create empty field]**

This command creates an empty field of the given name, even if there is no import data to be included into this field.

Ex.: `[create empty field]IsVisible`

7.6.1.5 **[accept empty]**

If this flag is set, fields of type "date" or "time" may hold empty values without causing an error message.

7.6.1.6 **[on error abort]**

Setting this flag will cause the import to abort if an error occurs while processing this field.

7.6.1.7 **[no error report]**

This flag suppresses – if set – the output of error messages from this field into the log file report.

7.6.1.8 **[multivaluedelim]**

In case the current field holds multiple values, you can specify the delimiter sign by which entries can be separated. The separator may consist of multiple characters.

Ex.: [multivaluedelim]<>

7.6.1.9 [replace]

This parameter causes the replacement rules, which were defined above, to be active for the current field. If the flag [replace all fields] has been set this parameter is redundant.

7.6.1.10 [replace yes]

This parameter causes the replacement rules, which were defined above, to be active for the current field. If the flag [replace all fields] has been set this parameter is redundant.

7.6.1.11 [replace no]

This parameter causes the replacement rules defined above to be inactive for the current field. It is only needed if the flag [replace all fields] has been set.

7.6.1.12 [formula]

With the help of this parameter you can use a Notes formula and probably assign its value to the current field. Usage of this parameter is recommended in group "Action Definitions" only.

Ex.: [formula]@unique (CU_Bereich)

7.6.1.13 [no compare]

This flag causes that no update check is being made before overwriting the field (i.e. the field is overwritten even if the current value is the same as the source value).

7.6.1.14 [updatelog]

Setting this flag to a field will cause this field to work as update status display. All changes to this record during an import will be stored into this field.

7.6.1.15 [remove]

If this flag is set, all possibly existing fields with the current field name will be deleted before assigning the new values. Thus, inconsistencies caused by multiple fields of the same name can be prevented.

7.6.1.16 [type] – data type within target database

The following tags describe, which data type the current field should hold within the target database.

[type text] – text or text list

[type number] – number or list of numbers

[type date] – time or date

[type richtext] - Rich-Text-field

[type authors] – authors field

[type readers] – readers field

[type names] – names field

7.6.2 Selection criteria on import

The following tags serve to decide, whether or not a certain record is to be included into the target database by checking specific field values.

7.6.2.1 [include]

This parameter causes only records with a certain value within the current field to be included into the database.

Ex.: [include]2003

Thus, only entries will be included that hold the number 2003 within the current field.

7.6.2.2 [exclude]

This parameter causes records with a certain value within the current field *not* to be included into the database.

Ex.: [exclude]finished

Thus, all records containing the value “finished” in the current field will be excluded from data import.

7.6.2.3 [ignore]

This flag causes the current field to be ignored on import.

7.6.2.4 [ignore on update]

This flag causes the current field to be ignored on import, if a document of this name already exists.

7.6.2.5 [ignore if existing]

This flag causes the current field to be ignored on import, if the target database already contains a field with the specified name.

7.6.2.6 [ignore if not empty]

This flag causes the current field to be ignored on import, if the target database already contains a field with the specified name that is not empty.

7.6.3 String transformation

[translate]

This parameter serves to replace whole strings by others.

Ex.:

```
[translate]Route=R  
[translate]Contract=C  
[translate]End=E
```

These options cause a field value of "R" to be translated into "Route" within the current field. Likewise the value "C" becomes "Contract" and "E" is translated into "End".

[use like translation]

This flag causes translations to be done by LIKE interpretation. Thus, wildcards can be used to identify groups of strings.

7.6.4 Special values

[current time]

This parameter inserts the current system time into the field.

[current user]

This parameter inserts the current user's name into the field.

7.6.5 Additional data from existing documents

The following parameters can be used to identify and use additional Notes documents (also from within external databases).

7.6.5.1 **[make response]**

This flag causes the current document to be created as response document to another Notes document (this is only recommended within an action definition, that identifies a specific document by [view] and [keys]!).

7.6.5.2 **[database]**

The external database which is to be searched for reference documents can be specified with this parameter. In case this field remains empty, the target database itself will be used automatically.

7.6.5.3 [view]

This parameter defines a view within the (probably external) database that is to be searched for documents.

Ex.: [view](ContactSearchStatus)

7.6.5.4 [refresh view]

This flag specifies whether the view that is to be searched should be updated before searching.

7.6.5.5 [keys]

With this parameter you can specify the key field by which documents in the (external) database should be identified.

7.6.5.6 [use action]

This parameter causes the current field to be assigned a value from a previously identified action (i.e. document, document collection...).

Ex.: [use action]_CustomerDoc

Thus, data of a document will be inserted that has been identified by the action _CustomerDoc before.

7.6.5.7 [use document collection]

Uses multiple previously identified documents.

7.6.5.8 [use fieldname]

Uses data from the specified field. If the field name within the external document and the current document are the same, this parameter is redundant.

Ex.:

[use action]_CustomerDoc
[use fieldname]NAME_OF_SOURCE_FIELD

7.7 Agent Definitions

Agent definitions are surrounded by the tags [begin agent definition] ... [end agent definition].

This section describes the possible agent actions, which can be inserted by the following button:



Illustration: Button for Agent Definitions

7.7.1.1 [name]

Name of the agent from within the target database.

Ex.: [name](Update Single Document)

7.7.1.2 [type]

This parameter states, on which situations the agent will be started.

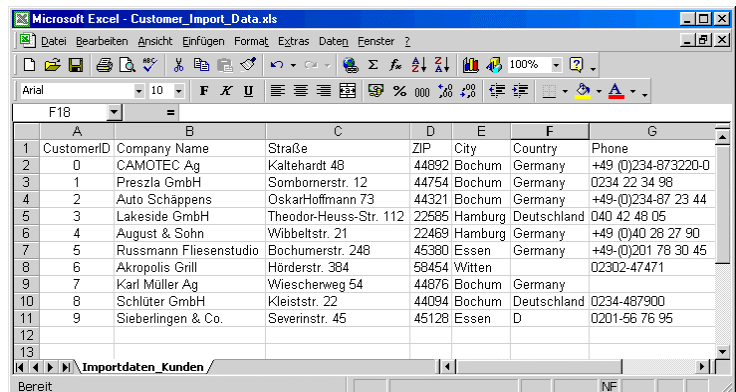
Possible values are:

- run on new document
- run on modified document
- run on unmodified document
- run after import

8 Example of a simple data import

In the following, the fundamental strategy of importing data with GeoCom® File Import shall be made clear on basis of an example import into the customer relationship database GeoCom® Customer & Contacts.

Assuming the import data is available in form of MS Excel table documents, one file each for customers and contact data.

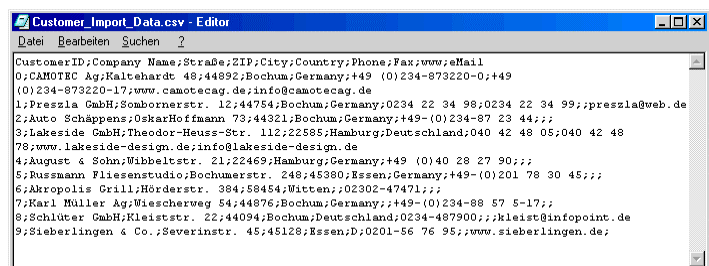


	A	B	C	D	E	F	G
1	CustomerID	Company Name	Straße	ZIP	City	Country	Phone
2	0	CAMOTEC Ag	Kaltehardt 48	44892	Bochum	Germany	+49 (0)234-873220-0
3	1	Preszla GmbH	Sombornerstr. 12	44754	Bochum	Germany	0234 22 34 98
4	2	Auto Schäppens	OskarHoffmann 73	44321	Bochum	Germany	+49-(0)234-87 23 44
5	3	Lakeside GmbH	Theodor-Heuss-Str. 112	22585	Hamburg	Deutschland	040 42 48 05
6	4	August & Sohn	Wibbeltstr. 21	22469	Hamburg	Germany	+49 (0)40 28 27 90
7	5	Russmann Fliesenstudio	Bochumerstr. 248	45380	Essen	Germany	+49-(0)201 78 30 45
8	6	Akropolis Grill	Hörderstr. 384	58454	Witten		02302-47471
9	7	Karl Müller Ag	Wiescherweg 54	44876	Bochum	Germany	
10	8	Schlüter GmbH	Kleiststr. 22	44094	Bochum	Deutschland	0234-487900
11	9	Sieberlingen & Co.	Severinstr. 45	45128	Essen	D	0201-56 76 95
12							
13							

Illustration: Customer data in an Excel document

Make sure that there are fields with an unambiguous CustomerID (within customer's data), resp. an unambiguous ContactID including the corresponding CustomerID (within contact data). These values will be used to assign the contact profiles to the corresponding customer documents, as well as being able to update the data later on.

First these records have to be converted into ASCII format. Therefore save a copy of the import files in the .CSV format. Thus, you will create ASCII readable text files which you can view in a text editor. You will notice that each record now uses one line of text and each field within the record is separated from the others via the semicolon ";".




```
CustomerID;Company Name;Straße;ZIP;City;Country;Phone;Fax;www;eMail
0;CAMOTEC Ag;Kaltehardt 48;44892;Bochum;Germany;+49 (0)234-873220-0;+49
(0)234-873220-17;www.camotecag.de;info@camotecag.de
1;Preszla GmbH;Sombornerstr. 12;44754;Bochum;Germany;0234 22 34 98;0234 22 34 99;;preszla@web.de
2;Auto Schäppens;OskarHoffmann 73;44321;Bochum;Germany;+49-(0)234-87 23 44;
3;Lakeside GmbH;Theodor-Heuss-Str. 112;22585;Hamburg;Deutschland;040 42 48 05;040 42 48
78;www.lakeside-design.de;info@lakeside-design.de
4;August & Sohn;Wibbeltstr. 21;22469;Hamburg;Germany;+49 (0)40 28 27 90;;;
5;Russmann Fliesenstudio;Bochumerstr. 248;45380;Essen;Germany;+49-(0)201 78 30 45;;;
6;Akropolis Grill;Hörderstr. 384;58454;Witten;;02302-47471;;;
7;Karl Müller Ag;Wiescherweg 54;44876;Bochum;Germany;;+49-(0)234-88 57 5-17;;;
8;Schlüter GmbH;Kleiststr. 22;44094;Bochum;Deutschland;0234-487900;;kleist@infopoint.de
9;Sieberlingen & Co.;Severinstr. 45;45128;Essen;D;0201-56 76 95;;www.sieberlingen.de;
```

Illustration: Records in .CSV format

8.1 Import of customer data

Start the application GeoCom® File Import and switch to view "B Import

Definitions". Now use the button  New import definition to create a new document.

You will see this form:

Illustration: Import Definition

Begin with assigning a name to this import definition by which it can later be identified. The fields “Status” and “Mail recipient” can be left unchanged in this example.

Leave the Server field blank, this example import will be run locally. The target database should be the application GeoCom® Customer & Contacts.

The section “Parameter“ does not need to be changed.

8.1.1 Generell import definitions

The following screenshot shows all import definitions which are needed to import customer data from a .CSV file into GeoCom® Customer & Contacts.

Illustration: Import definitions for customer data import

First you should enter general import definitions concerning the import:

```
[import file]C:\Import\Customer_Import_Data.csv
[insert documents]
[update documents]
  [update view](CustomerByID)
  [update key fields]CustomerID
[form field]Customer
[ignore first line]
[ignore empty lines]
[delimiter];
```

[import file] specifies the ASCII file that holds the source data records. Enter the file name including the full file path here.

[insert documents] is set to enable insertion of new documents into the target database.

[update documents] serves as flag (just like [insert documents]) to indicate that updating existing documents is allowed. If documents are to be updated, GeoCom® File Import needs further information on how to identify existing documents.

[update view] specifies the view which is to be searched for existing documents, and **[update key fields]** designates the field by which a document can unambiguously be identified. In this example each customer disposes of unique CustomerID which will be used for this purpose.

The update view is normally not yet available within the target database, so you have to open GeoCom® Customer & Contacts and create a corresponding view by selecting from menu:

Create – View

The following dialog box will appear:

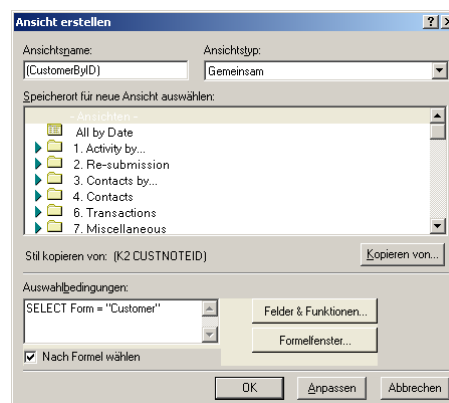


Illustration: Dialog box create view

As this view is to be an invisible one, its name has to be set in left and right parenthesis, e.g. *(CustomerByID)*. Then click the button **Adjust**.

Delete all possibly existing columns in this view, we will only need one column. This column should hold the values of the field "CustomerID" of the corresponding documents. This field does usually not exist in a customer document within GeoCom® Customer & Contacts, so the value of the column should be a Notes formula containing only the value "CustomerID". Finally the column has to be sorted ascending so it can be searched later on. Sort the column by activating the corresponding

option within the column properties.

[form field]Customer denotes that new documents shall be created from the mask “Customer”.

[ignore first line] is used to ignore the headline of the source data (otherwise the headline would be inserted as a regular record), as well as **[ignore empty lines]** specifies that empty lines shall not be included into the database (otherwise each empty line would produce an empty document with no data).

[delimiter]; marks the semicolon character to be the delimiter between source fields.

8.1.2 Specific import definitions

After having specified the general import definitions there are three groups of special import definitions to be made (column definition, action definition und agent definition), each surrounded by an opening ([begin X definition]) and closing ([end X definition]) tag.

[begin column definition]
(...)
[end column definition]

Between these two tags the actual import definitions are made which control processing of each column of the source data. Usually names of fields are specified here into which the imported data is to be inserted. If for example the first lines of the column definition look like this:

[name]COMPANYNAME
[name]CompanyAddress
[name]CompanyMainZIP
[name]CompanyCity
[name]Country
[name]CompanyPhone
[name]CompanyFAX

Then the value from the first imported column will be mapped into the field with the name “COMPANYNAME”, the second imported value will be written to the field “CompanyAddress”, the third value will be assigned to the field “CompanyMainZIP” and so on. If there is no value included within the source data, the corresponding field will be created, but not assigned a value.



Illustration: Import data with empty field instead of Country name

After all data of a record has been recorded, the option **[create empty field]ShowActivity** has to be carried out in order to create an empty field with this name. This field will be needed to make the created documents visible to the application.

[begin action definition]
(...)
[end action definition]

These tags surround action definitions, i.e. actions are declared which can be performed onto the new (or updated) document. In this example

we will only need a single action definition, that sets the value of the (possibly newly generated) field “ShowActivity” to “1”.

[name]ShowActivity
[value]1

[begin agent definition]
(...)
[end agent definition]

Surrounded by these tags are definitions for agents which are to be started by this import action. In this example this is restricted to a single agent that performs the action “Update view/title” onto newly inserted documents (otherwise all imported documents would have to be updated manually).

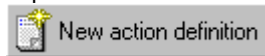
[name](AgentUpdateSingleDocument)
[type]run on new document,run on modified document

The parameter [type] specifies the conditions under which this agent is to be started, in this case on newly inserted or on updated documents.

When all required settings have been made, save and close the document.

8.1.3 Performing the import

After having completed the import definition for importing customer data, a corresponding action definition has to be specified, which uses this import definition. Switch to view “A. Agent Actions” and click the button



The following form will appear:

Action Definitions

▼ **Action name**

Description

▼ **Import definition(s)**

Select import definition(s)

▼ **Additional Settings**

Proceed if import returns error yes

Mail recipient(s) for result message

Subject for "OK" message

Illustration: Action definitions

Enter a name for this definition. This name will be used to identify this definition later on (it is also used to perform actions by agents). Click the

button and choose which import definitions should be carried out by this action. You may specify multiple import definitions which will then be performed successively but in this example you only need to specify your previously defined import definition for customer data.

Save and close the document (“Additional settings“ are not used so far).

By clicking the button you can now perform the previously saved action. Choose the corresponding action from the

dialog menu and confirm with OK- The import of customer data now being performed.

If values should change within the source data (in this case in the .CSV file), you can adopt these changes into the database by simply executing the same import action again. Only the altered documents will be updated, all other documents will not be changed.

8.2 Import of corresponding contact data

Now we will import contact profiles which are assigned to certain customers each.

First we have to create an import definition by clicking the corresponding button. Enter a name for this definition and specify the target database.

8.2.1 General import definitions and column definitions

The general import definitions can mainly be adopted from the import definition for customer data. The import file should be edited according to the name of the new source file and the form field value should be "Contact", not "Customer".

The criterion for existing documents should now be "CustomerID", as well as the update view should be set to "(CustomerByID)". This view has to be created (follow the instructions above) and the column should be filled by the Notes formula "CustomerID".

The column definitions should be as follows (compare the column definitions for customer data import):

```
[begin column definition]
[name]ContactName
[name]ContactTI
[name]ContactGName
[name]ContactSalutation
[name]COMPANYNAME
[name]ContactPhone
[name]ContactFAX
[name]ContactEmail
[name]ContactDivision
[name]CustomerID
[name]ContactID
[create empty field]ShowActivity
[end column definition]
```

8.2.2 Action definitions and linking with customer documents

First, contact documents, too, need the value 1 for ShowActivity to be visible within the application:

```
[name]ShowActivity
[value]1
```

Further there is a field within GeoCom® Customer & Contacts which states that the current document is a contact document:

```
[name]IsContact
[value]1
```

In GeoCom® Customer & Contacts contact profiles are linked with corresponding customer profiles. To produce this linking on import data, the imported contact document is made a response document to the corresponding customer profile.

Here, we connect the new contact document with the self-defined action “\$REF” as response document with that document which holds the same value in the field “CustomerID” (within the view “(CustomerByID)”:

```
[name]$REF
[make response]
[view](CustomerByID)
[keys]CustomerID
```

Finally, contact documents, too, have to be processed by the agent “Update view/title”. This is done in the same way as it has been done while importing customer data.

8.3 Including field values from existing documents

In addition to simple recording of data from source text files, GeoCom® File Import can also complete missing values in contact data from the corresponding customer profiles. For this purpose you have to define a temporary field (e.g. [create empty field]TempData), which will multiple times be overwritten while processing the action definitions:

```
[name]TempData
[use action]$REF
[use fieldname]CompanyPhone
[name]CustomerPhone
[formula]@If (CustomerPhone="";TempData;CustomerPhone)
```

This entry made within the action definitions will produce two things:

1. The action \$REF has been previously linked with the corresponding customer document (see 8.2.2 Action definitions and linking with customer documents). Now the value from the field “CompanyPhone” (within this customer document) is stored into the temporary field “TempData”
2. The field “CustomerPhone” (within the current contact document) will be overwritten with the value from “TempData”, if it has previously been empty, otherwise the existing value will be kept (actually it will be overwritten with itself, which results in no change)

This procedure can be done for arbitrary fields, even if customer and contact profile have the same name for certain fields:

```
[name]TempData
[use action]$REF
[use fieldname]COMPANYNAME
[name]COMPANYNAME
[formula]@If (COMPANYNAME="";TempData;COMPANYNAME)
```

In this case the field “TempData” will be loaded with the value from “COMPANYNAME” (within the corresponding customer profile). Then the field “COMPANYNAME” (within the current contact document) will be overwritten with the value from “TempData”, if it has been empty, otherwise the current value will be kept.

In case the field within the imported document should always be overwritten with data from the corresponding customer profile (regardless whether or not the field contains data from the source file), the check for an empty field does not have to be done anymore:

```
[name]COMPANYNAME
```

[use action]\$REF

Thus the field "COMPANYNAME" within the current contact document will be set to the value of the field of the same name within the corresponding customer profile. If the value shall be taken from a field with a different name, you have to specify the name of the source field as well:

[name>ContactPhone
[use action]\$REF
[use fieldname]CompanyPhone