

PUBLIC

BusComm Fusion Inter- face

ADMINISTRATION GUIDE

Version 1.0.1 PUB INT EN – 002R

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1 INTRODUCTION

The BusComm Fusion Interface, which will be referred to as FUSION throughout this document, extends the iQ-VIEW dictation interface to integrate BusComm's Fusion Dictation solution. The dictation interface of iQ-VIEW provides several patient information of a currently opened exam. This information can be exported by clicking the dictation button within the iQ-VIEW viewer (selection of the dictation button in the "Tools selection" and configuring it for the bottom toolbar).

FUSION is designed as a Dynamic Link Library (DLL) and located within the iQ-VIEW installation folder. As of version 1.0.0, the DLL is named 'nch.dll' due to the existing iQ-VIEW NCH Express Dictate integration and to avoid changes to iQ-VIEW. The filename may change in future versions of FUSION and may be directly integrated into a future iQ-VIEW release without the need of an individual setup.

FUSION provides the following features:

- Receipt of patient and exam information from iQ-VIEW
- Creation of an XML output file and storing of the file in the configured location within the file system
- Provision of a system username (login name) to name mapping
- Configuration of the application to set up storage location and user mapping

NOTE:

The BusComm Fusion software is not part of the setup provided by IMAGE Information Systems Ltd. It is third-party software that must be purchased and installed separately.

2 SYSTEM REQUIREMENTS

FUSION depends on an existing installation of iQ-VIEW 2.7.0 or higher. Former versions of iQ-VIEW are not supported.

2.1 MINIMUM SYSTEM REQUIREMENTS

For more information, please refer to the system requirements of iQ-VIEW 2.7.0 or higher, which can be found in the iQ-VIEW Administration Guide of the respective software version.

2.2 RECOMMENDED SYSTEM REQUIREMENTS

For more information, please refer to the system requirements of iQ-VIEW 2.7.0 or higher, which can be found in the iQ-VIEW Administration Guide of the respective software version.

3 INSTALLING THE SOFTWARE

FUSION is provided as a simple archive file named:

BusCommFusion {version}.zip

and contains the following files:

- nch.dll (FUSION DLL)
- FusionConfig.exe (FUSION Configuration Application)
- Administration Guide.pdf (this document)

3.1 INSTALLATION AFTER DOWNLOAD

To use FUSION in connection with iQ-VIEW / PRO on your hard disk, follow the instructions given here:

- Download the *BusCommFusion {version}.zip* archive file into a directory of your choice.
- Close the iQ-VIEW application (if running).
- Open the Windows Explorer and browse to the installation folder of iQ-VIEW.
- Rename an existing file 'nch.dll' to 'nch_original.dll'.
- Extract the content of the FUSION archive file into the iQ-VIEW installation.

NOTE:

Depending on the operating system, administrative privileges may be required to make changes to the installation folder.

- Start the FUSION configuration application 'FusionConfig.exe' to set up FUSION. For more information, please refer to chapter 8 of this administration guide.

3.2 INSTALLATION FROM CD-ROM

Not applicable

3.3 LAUNCHING THE APPLICATION

In order to use FUSION, the iQ-VIEW application has to be started. FUSION is available after iQ-VIEW is started by pressing the "NCH Express Dictate" button. This button is not automatically available in the bottom toolbar of the iQ-VIEW viewer. It must first be configured. Please refer to the iQ-VIEW user manual of the respective software version for all details on how to add this button to the bottom toolbar and how to use it.

NOTE:

The name "NCH Express Dictate" stems from the fact that actually iQ-VIEW normally interfaces with the third-party dictation software "NCH Express Dictate". The same button will be used, however, to activate the BusComm Fusion interface.

If desired, the name of the button can be changed in the iQ-VIEW language file(s).

4 UNINSTALLING THE SOFTWARE

For uninstalling FUSION, close iQ-VIEW and simply delete the three files belonging to the FUSION interface:

- nch.dll (FUSION DLL)
- FusionConfig.exe (FUSION configuration application)
- Administration Guide.pdf (this document)

Afterwards rename the still existing file 'nch_original.dll' into 'nch.dll'. This will then activate again the original NCH Express Dictate interface.

5 LICENSING

FUSION itself has no licensing. But FUSION depends on iQ-VIEW which comes with its own licensing. For more information regarding licensing of iQ-VIEW, please refer to the iQ-VIEW Administration Guide of the respective software version.

6 LICENSE MIGRATION

Not applicable.

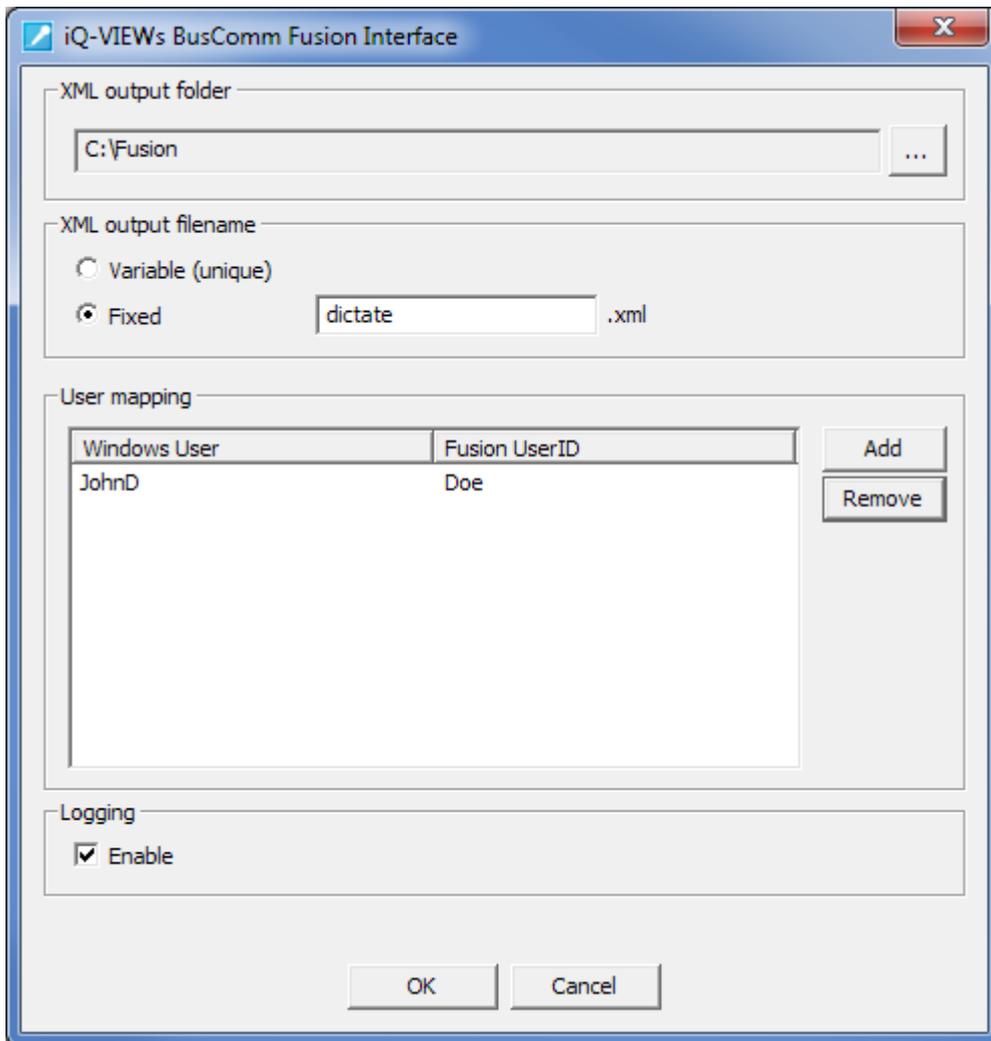
7 MAINTENANCE

There is no maintenance needed for this interface.

8 SOFTWARE ADMINISTRATION

FUSION provides a simple user interface to setup the following features:

- Storage location of exported XML dictation files for BusComm Fusion Dictation Solution
- Definition of the filename of exported XML dictation files
- Setup of user name mapping



8.1 STORAGE LOCATION (OUTPUT FOLDER)

Press the button  to browse to the desired storage location. The location will be displayed in the field beside the button and is stored in the configuration file when exiting the application.



NOTE:

Make sure that all local users, who use FUSION and iQ-VIEW, have writing permission for the selected output folder.

8.2 STORAGE FILE NAMING MODES (OUTPUT FILENAME)

FUSION provides two ways for naming the created file within the "output folder":

- "Variable (unique)": This mode (value=0) will create a unique filename and uses the xml file extension. The unique filename of the output file is generated by the operation system. The format of the filename is:

{UUUU}.xml {UUUU} – unique identifier

- "Fixed": This mode (value=1) will use the configured name.



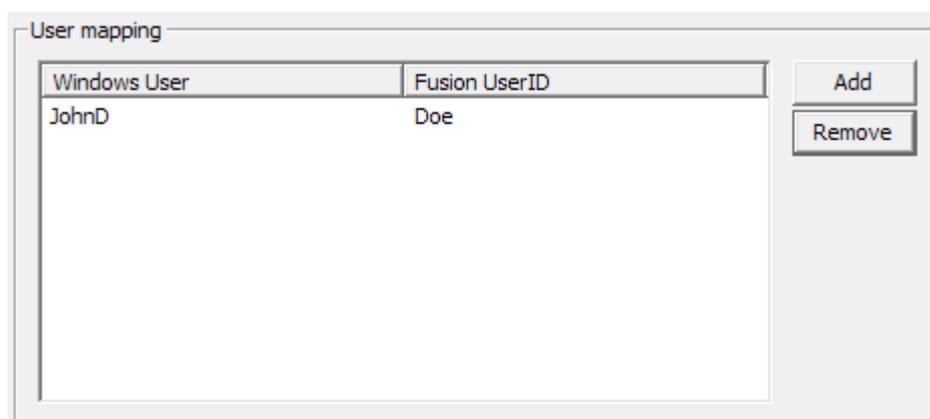
In "Fixed" mode, the filename has to be defined without extension. FUSION will automatically add the extension ".xml". The filename "fusion" (case insensitive) is reserved and cannot be used.

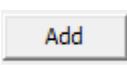
NOTE:

FUSION will not monitor the created files. When in "Fixed" mode, FUSION will overwrite any existing file in the "output folder" at the moment of creating a new dictation.

8.3 USER MAPPING

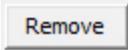
FUSION maintains a user mapping between the current users (Windows logon users) and a mapped name. While using FUSION for each dictation job, the mapped name will be inserted into the XML output for the current user. If no mapping is found, the user name (logon name) will be used instead.



For adding a mapping entry, press the  button in the main dialog.

The appearing dialog shows the available user (logon user) in the drop-down box. Administrative and system accounts as well as disabled accounts are filtered. Select a user and enter a name in the field below and press "Ok".

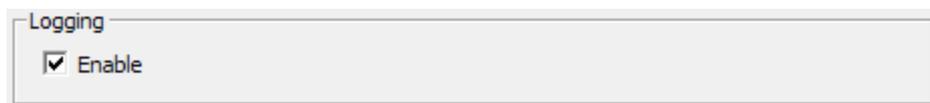


In order to remove a mapping, select the entry in the mapping list of the main dialog and then press the  button.

Double-click an entry within the mapping list of the main dialog. The dialog is similar to the dialog when adding an entry appears. The "Local username" drop-down box will be disabled. Change the value in "User-ID" and press "OK". The updated value will appear in the mapping list of the main dialog.

8.4 LOGGING

If enabled, FUSION will provide a simple logging mechanism for troubleshooting. The log output will be stored in the file 'fusion.log' of the folder in which the DLL resides.



8.5 STORING CONFIGURATION AND RUNTIME INFORMATION

FUSION stores its configuration and runtime information in the XML file 'fusion.xml' using the following format:

```
<?xml version="1.0" ?>
<fusion>
  <folder destinationfolder="C:\Fusion" />
  <filename mode="1" fixed_name="dictate.xml" />
  <usermapping>
    <user login="JohnD" userid="Dr. John Doe" />
  </usermapping>
  <activedictate file="" />
</fusion>
```

The file will be stored in the same folder as the FUSION DLL ("nch.dll").

WARNING:

It is not recommended to ever change any data within the file manually. The given layout of the file is for information purposes only.

8.6 FUSION XML OUTPUT

For each dictation job (each click on the iQ-VIEW dictation button), an XML file will be created and exported to the configured output folder. For more information, please refer to section 8.1. The file name is either unique or fixed, depending on the configuration (see section 8.2).

The XML format of the output file is given below. The table will not include the enclosing key elements, e.g. <\DictationData>, but will assume its appearance in the XML data structure.

KEY	CONTENT	REMARKS
DictationData	List of dictation jobs	
New	A dictation job	
UserID	User name	Mapped user name or Windows logon name, if no mapping exists (refer to chapter 8.3)
Version	Version of FUSION	
TimeGenerated	Date-Time stamp of the creation of the dictation job	UNIX/POSIX time stamp (seconds elapsed since January, 1st 1970) as provided by the C "time()" function.
InstitutionName	Institution name	Provided by iQ-VIEW (from current exam)
ReferringPhysician	Referring physician's name	Provided by iQ-VIEW (from current exam)
Modality	Modality identifier	Provided by iQ-VIEW (from current exam) Defined by DICOM e.g. CR, MR, US, CT
StudyDescription	Study description	Provided by iQ-VIEW (from current exam)
StudyDate	Date of study	Provided by iQ-VIEW (from current exam) DICOM date format: YYYYMMDD
StudyInstanceUID	Unique identifier of study	Provided by iQ-VIEW (from current exam)
AccessionNumber	Accession number	Provided by iQ-VIEW (from current exam)
Sex	Patient's gender	Provided by iQ-VIEW (from current exam) Enumerated values: <ul style="list-style-type: none"> ▪ M = male ▪ F = female ▪ O = other
DOB	Patient's date of birth	Provided by iQ-VIEW (from current exam) DICOM date format: YYYYMMDD
PatientName	Patient name	Provided by iQ-VIEW (from current exam)
PatientID	Patient ID	Provided by iQ-VIEW (from current exam)

Sample XML output:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<DictationData>
  <New>
    <UserID>Dr. Eric Foreman</UserID>
    <Version>1</Version>
    <TimeGenerated>1318399825</TimeGenerated>
    <InstitutionName>Princeton Plainsboro Teaching Hospital</InstitutionName>
    <ReferringPhysician>Dr. James Wilson</ReferringPhysician>
    <Modality>MR</Modality>
    <StudyDescription>Infarction right leg</StudyDescription>
    <StudyDate>20100926</StudyDate>
    <StudyInstanceUID>1.2.752.24.5.3436465393.20100901123813.3517533</StudyInstanceUID>
    <AccessionNumber>NLRAMS0002805625</AccessionNumber>
    <Sex>M</Sex>
    <DOB>19590611</DOB>
    <PatientName>Gregory House, MD</PatientName>
    <PatientID>4624918</PatientID>
  </New>
</DictationData>
```

9 ABBREVIATIONS AND ACRONYMS

DICOM	Digital Imaging and Communications in Medicine
FUSION	BusComm Fusion Interface

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