ICW Professional Exchange Server 3.2

User Manual

Document version: 1.0 | Status: Approved

Security level: sensitive

Imprint

InterComponentWare AG

Altrottstr. 31

69190 Walldorf, Germany

Tel.: +49 (6227) 385 – 0

Fax: +49 (6227) 385 – 199

E-Mail: info@icw.de

Document ID: f04596e2-6404-2e10-5fb1-c6062af78a25

Document version: 1.0

Document language: en-US

Security level: sensitive

Product name: ICW Professional Exchange Server 3.2

Product release: ICW Professional Exchange Server 3.2

Last change: January 2011

Table of Contents

1 Welcome to PXS

Professional Exchange Server (PXS) is an electronic patient record for use across the boundaries between different facilities for viewing important medical documents about patients (exam and lab results, OP and discharge reports, etc.) that originate from different facilities and organizations.

The manual explains how to access the electronic medical record with Professional Exchange Server and what functions are available to you for viewing patient data and documents.

1.1 Before you start: Configuring your browser settings

Access to PXS is always over a secure connection using the HTTPS protocol.

All sensitive information should be removed from your Internet Explorer's cache each time you end your session with PXS. To do this you need to make the following setting:

- ***Mozilla Firefox:***
  Menu Tools | Options | Privacy | History: Use custom settings for history | Clear history when Firefox closes

  Use the *Settings* button to specify what information you want deleted from the History.

  > **NOTE** **Private Browsing**
  >
  > If you use the setting *Private Browsing* in Mozilla Firefox you may have problems displaying documents in the medical record.
  > Deactivate *Private Browsing* over the menu item **Tools | Stop Private Browsing**.

- ***Internet Explorer:***
  In Internet Explorer you need to make the following settings:

  > **NOTE** **Displaying documents**
  >
  > Documents in a medical record may not be displayed correctly if the *Do not save encrypted pages to disk* option is activated.

  - Deactivate the option **Tools | Internet Options | Advanced | Security | Do not save encrypted data to disk**.
  - Activate the option **Empty Temporary Internet Files folder when browser is closed**.

1.2 Authorizations and access to the program

To access the application you need a user ID and password. You will receive both of these from your administrator.

Access to patient data and documents is dependent upon the patient's consent. Usually, patients provide written consent to the doctors who are involved in their treatment. The program provides a technical representation of this consent. Therefore, in the normal course of providing treatment to a patient you will only have access to that information and those documents for which you have the corresponding authorization.

Each user is assigned one or more user roles, each of which comprises a defined set of authorizations to access the program. One user role, for example, is for accessing records in case of emergency. Doctors that have been assigned this role have expanded access to patient data in emergency situations. In situations such as these, the emergency doctor can view documents he would not normally be able to access. The program logs all attempts to use the emergency role.

Initial login

The password you receive from your Administrator is for one-time use only. You will asked to change your password when you log in for the first time. The *Change password* dialog will open immediately after you log in.

NOTE **Password secrecy**

Only you should know your password. Be sure to change your password once you have logged on for the first time.
Most Internet browsers offer an option to remember your password. For security reasons, decline this option.

1.3 Change Password

NOTE **Password Guidelines**

Valid passwords consist of between of **8 and 50** characters. Passwords must also contain at least one digit and one of the following special characters: **_ + - #) (§**. Each new password must be different from any of your five prior passwords.

1. On the Admin Bar, click **Change password**.
   ⇨ The *Change password* page opens.
2. Enter your current password in the **Old password** field.
3. In the **New Password** text field, enter your new password.

4. In the **Confirm new password** field, re-enter your new password.
5. Click **Change**.
   ⇨ Your password has been changed. The welcome page will open.

1.4 Getting to know the various user screens

Welcome Page:

The welcome page contains a section for *Messages*. It shows messages notifying you that a source system has sent new documents to PXS pertaining to selected patients. A subscription function allows you to specify for each medical record the documents you are particularly interested in and wish to be notified about (e.g. lab results, etc.).

You can activate the subscription function in the **medical record** under **Actions**.

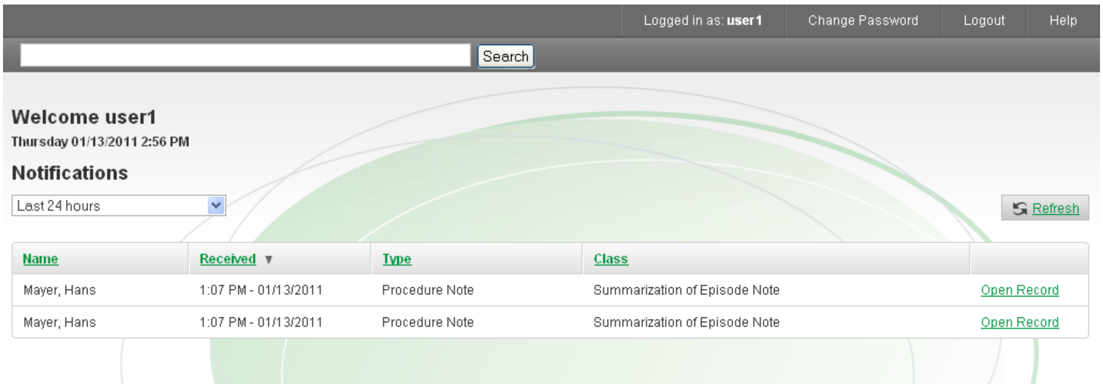


Figure 1: Messages reflecting the receipt of documents

Medical record:

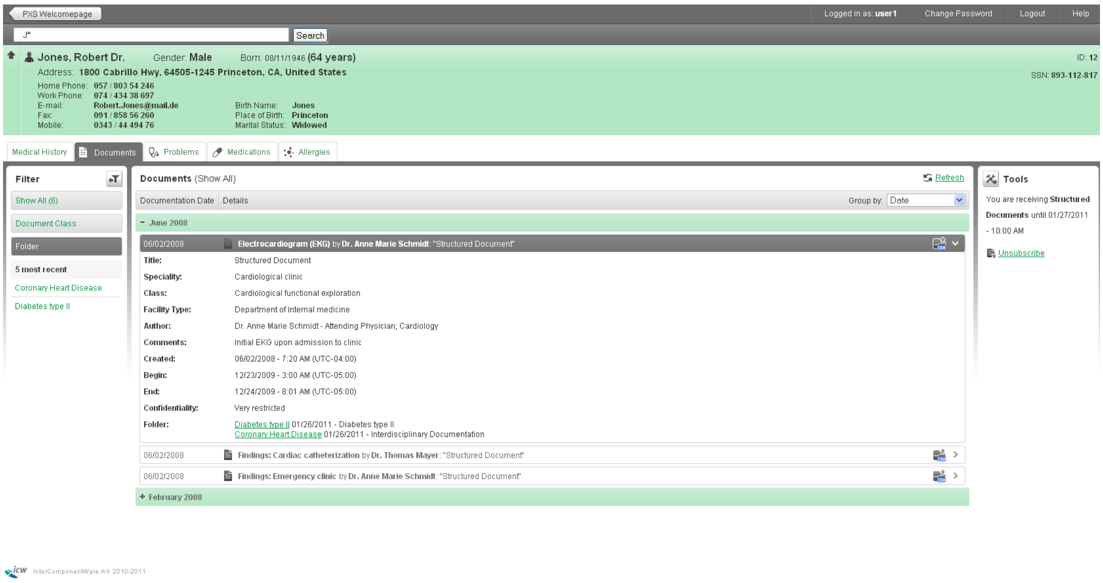


Figure 2: The Documents view in the medical record

The medical record contains the following screens, some of which include specialized actions:

Screen	Description
History	This screen is the medical record's starting screen. It lists all of the documents that are on file in the the selected patient's record. You can use filter or group the list to narrow down the number of list entries shown.
Documents	This screen displays what documents exist along with accompanying information. Click the symbol to view the document, see [page 6]
Problems	This screen lists any documented problems, see [page 8]
Medications	This screen documents any medication the patient received or is receiving, see [page 9]
Allergies	This screen documents any known allergies along with other information, see [page 9]

Document list

In the standard setting, the Documents List shows documents and information about structured data pertaining to an individual patient, grouped by date. The display for the newest document is open. If new documents were added during the previous two days, the two displays for *Today* and *Yesterday* will be open. If new documents were added during the current month, the *This Month* group will also be open. The active column is marked with an arrow and is the one that determines the order of sorting (top to bottom or vice-versa). Any information displayed is considered confidential. The applicable security classification (*most confidential*, etc.) is shown.

NOTE **Images**

To display images based on the DICOM standard, the imagery archiving and content management system Centricity Enterprise Web from GE Healthcare must first be integrated into the system.

Filter folder

This button opens a list of all the folders that you are authorized to access in the filter area. The folders contain at least one document from the medical record that is currently open. The five folders are shown in chronological order. The first folder shown contains the most recent changes. The *Other Folders* section contains additional folders, also in chronological order. The folders group documents, for example by episode of treatment. Documents in a folder are collected from document-creating systems and transmitted to PXS. When you move the mouse over a folder additional information, such as *name*, *last update* and *comments* will be displayed. Once you have clicked the folder, filter the *Documents* section according to the content of this folder. The ⓘ symbol in the table header displays information about *name, last update* and any *comments*.

1.4.1 Functions of the Documents screen

Documents in the table can be grouped in a variety of ways:

Grouped by	Description
Date	The date indicated the date the document was created. The standard setting is for the newest document to be open. When sorted by date, documents are grouped by degree of currency: today, yesterday, this month, <month name>, for example July 2010, March 2010.
Type	This groups documents according to document type. The document type indicates what kind the document is, for instance ultrasound report, discharge report, OR report

Grouped by	Description
Class	This groups documents according to class. Document classes comprise different types of documents, reports, studies, physician letters, and so on.
Specialty	This groups documents by medical specialty (gynecology, laboratory, radiology, and so on).
Facility type	This groups documents according to the type of facility in which they originated (hospital, emergency clinic, and so on).

Filtering by document class

With this filter you can limit the displayed documents to the document class you are interested in.

Existing document classes can be configured by the administrator. They are modified to suit your institution's requirements.

Actions

You can use the *Actions* section to create or modify subscriptions to documents in which you are particularly interested. You will be notified on the welcome page upon receipt of documents such as lab reports. Clicking **Subscribe** will open the dialog. Here you can select the document type in the *Notification for* field, e.g. lab report and the period of validity for the subscription in the *Validity* field.

NOTE **Confidentiality levels for subscribed documents**

Should you not be authorized to view a document because of the level of confidentiality you will not be notified upon receipt of the document category, even though you are subscribed.

For the period of validity of the notification subscription there are the following standard options:

- **one-time:** One-time notification upon receipt of a document of the selected document category. The subscription ends upon receipt of the notification. No additional notifications will be displayed on the welcome page for this patient. This also applies when you did not receive a notification because of the level of confidentiality of the document.
- **24 hours:** Notification upon receipt of documents for the next 24 hours. The subscription ends after 24 hours. No additional notifications will be displayed on the

welcome page. This also applies when you did not receive a notification because of the level of confidentiality of the document.

- **2 (7, 14, 28) days:** Notification upon receipt of documents for the next 2 (7, 14, 28) days. The subscription ends after the selected time period. No additional notifications will be displayed on the welcome page. This also applies when you did not receive a notification because of the level of confidentiality of the document.
- **permanent:** The subscription will permanently send notifications on the receipt of documents of the selected type. If you want to end or change the subscription use the *Actions* area in the medical record. There you will find an *End subscription* option.

NOTE **Document category and period of validity of subscriptions**

The designators in the fields *Notifications for* and *Validity* are standard values. Deviating values are specially adjusted to the peculiarities of your system. Contact your administrator if you have any questions.

1.4.2 Functions of the Problems screen

This view shows the main contents and metadata about the patient's problems. This data originates from documents that are displayed in the Documents view. Clicking the **Structured data** link will take you to the document in the Documents view where you can see it.

Documents can be grouped in a variety of ways:

Grouped by	Description
Date	The date indicates the date the document was created. The standard setting is for the newest document to be open. When sorted by date, documents are grouped by how recent they are: today, yesterday, this month, <month name>, for example July 2010, March 2010.
Problem	This groups documents according to the problem. Depending on the configuration of the application the documents will be grouped by diagnosis for example as ICD-10 code or as text.
Status	This groups documents according to their status.

1.4.3 Functions of the Medications screen

This view displays metadata and most important contents of structured data on a patient's medications. This data originates from documents that are displayed in the Documents view. Clicking the **Structured data** link will take you to the document in the Documents view where you can view it.

Group Documents

Documents can be grouped in a variety of ways:

Grouped by	Description
Date	The date indicated the date the document was created. The standard setting is for the newest document to be open. When sorted by date, documents are grouped by degree of currency: today, yesterday, this month, <month name>, for example July 2010, March 2010.
Activity type	This groups documents according to the activity type. Depending on the configuration of the application the documents will be grouped by activity type.

Activity type filter

This button opens a list of activity types in the filter area. By default the following activity types are listed for medications:

- issued
- planned
- prescribed
- administered
- prescribed and administered
- issued and administered.

1.4.4 Functions of the Allergies screen

This view displays metadata and most important contents of structured data on a patient's allergies. This data originates from documents that are displayed in the Documents view. Clicking the **Structured data** link will take you to the document in the Documents view where you can view it.

2 Finding and viewing patient information

2.1 Searching for a Patient

The search function allows you to search for a patient or multiple patients. From the search result you can access the corresponding *medical record*. The medical record displays demographic data and documents relating to a patient.

The *Search area* is available for you to use while working with any of PXS's user screens.

Figure 3: Search bar

Tips and Tricks When Entering Search Criteria

Which search parameters you can use in PXS is configurable by your administrator. The list below contains the most commonly used options.

- For multi-part criteria, such as street names, enclose the search term in quotation marks, for example "**First Street**".
- Combine more than one search criterion in the search field. Just enter an empty space between terms,
  for example **Johnson Chicago**, or **Jones "New York"**.
- When performing a search you can use an asterisk (*) as a wild card. Just enter the first letter(s) of the search term followed by the asterisk * in the field, for example **M***.

NOTE **Use wildcards only at the end of a string of characters**

Wildcards can only be used at the end of a string of characters (that is, not in numeric expressions or at the beginning or in the middle of a word). They match any word in any of the name and address fields of patients that exist in the system.

2.2 View patient information

After finding the desired patient you can click the patient name to open the medical record. You will be able to access patient documentation according to your type of authorization.

2.2.1 Filtering displayed documents

1. Search for the desired patient.
   ⇨ The **search results list** will open.
2. Click on a the **name** of a patient.
   ⇨ The patient's medical record opens.
3. Click the desired filter in the **Filter section**.
   ⇨ The documentation area displays the existing documentation according to the selected filter, e.g. medical report.
4. Display the document group you are interested in.

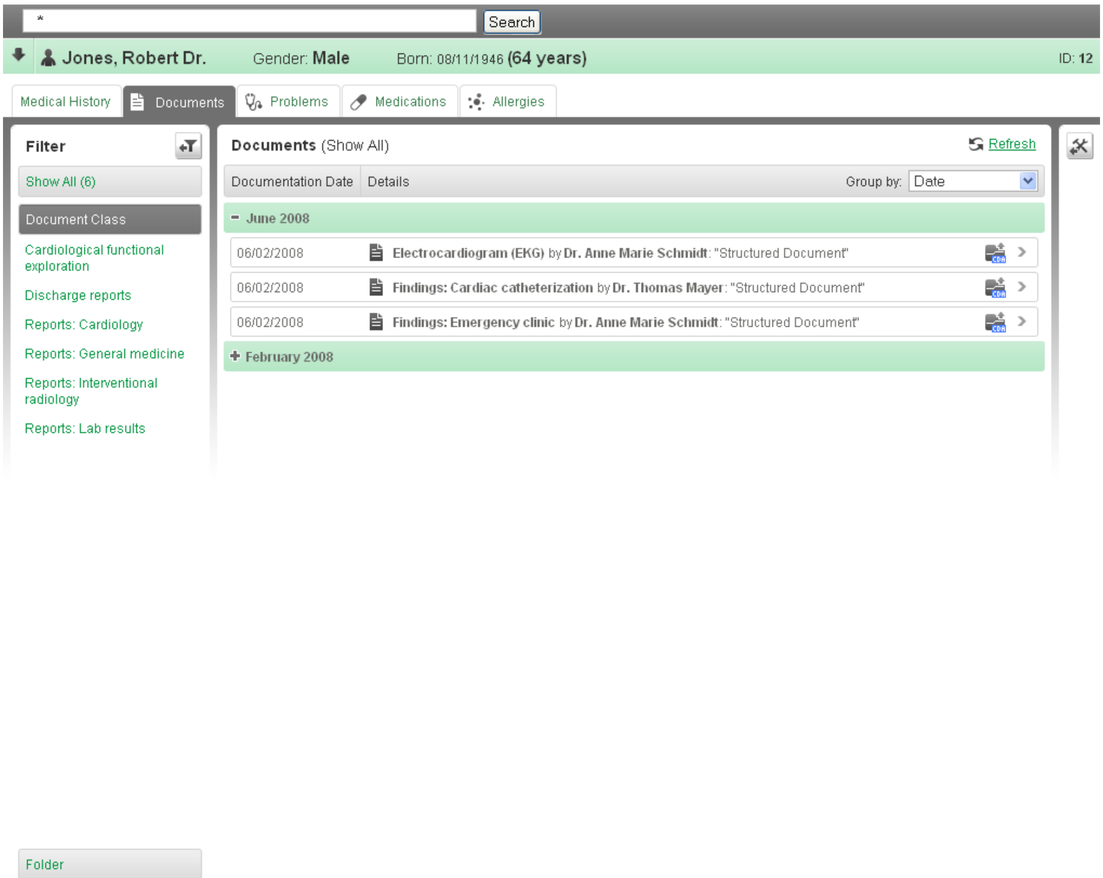


Figure 4: Document list with activated filter

2.2.2 Combining Sort and Filter

You can combine sorting with filtering. This enables you to locate the documents you need quickly out of a mass of documents.

1. Search for the desired patient.
   ⇨ The **search results list** will open.

2. Click on a the **name** of a patient.
   ⇨ The patient's medical record opens.
3. Click the desired filter in the **Filter section**.
   ⇨ The documentation area displays the existing documentation according to the selected filter, e.g. medical report.
4. In the **Group by** menu, select the desired grouping.
   ⇨ The documentation area displays the desired documentation according to the selected filter and grouping, e.g. medical report grouped by facility.

2.2.3 Subscribing to documents and modifying subscriptions

1. Search for the desired patient.
   ⇨ The **search results list** will open.
2. Click on the **name** of a patient.
   ⇨ The patient's medical record opens.
3. Click **Actions** .
   ⇨ The **Actions** area will open.
4. Click Subscribe.
   ⇨ The **Subscriptions** dialog will open.
5. From the selection menu, select **Notifications for** the type of documents you want (e.g. lab report). Only one type of document subscription is allowed for each patient.
6. In the **Validity** field, select the period for which you would like to receive notifications about the receipt of documentation.

NOTE **Selection menus**

The content of the selection menu as well as the document category can be configured to suit the needs of your facility. Contact your administrator if you have any questions.

⇨ You will now receive notifications on the selected documents in the cross-patient notification list, when the source system introduces new documents of this kind in the application and you are authorized to view the document.

2.2.4 Cancelling notifications

1. Search for the desired patient.

- ⇨ The **search results list** will open.

2. Click on the **name** of a patient.
   - ⇨ The patient's medical record opens.
3. Click **Actions** .
   - ⇨ The **Actions** area will open.
4. Click **Cancel notifications**.
   - ⇨ The **Subscribe** button will reappear.

2.2.5 Emergency access

▹ **Prerequisites**: You are registered in the program as a potential emergency care provider. You have no authorization for the documents with your default role.

Emergency access provides you with access to all of a patient's documents regardless of the role assigned to you. Your administrator can provide additional information about access rights under PXS.

1. Click the Emergency icon .
   - ⇨ You will be asked to reenter your password.
2. Enter your password.
   - ⇨ You will be asked to give a reason for the emergency treatment (e.g. "Need to check for allergies to medication").
3. Enter a reason for the emergency treatment and confirm it.

⇨ All documents pertaining to the patient will be displayed. When using the emergency access, the *patient banner* is highlighted in red.

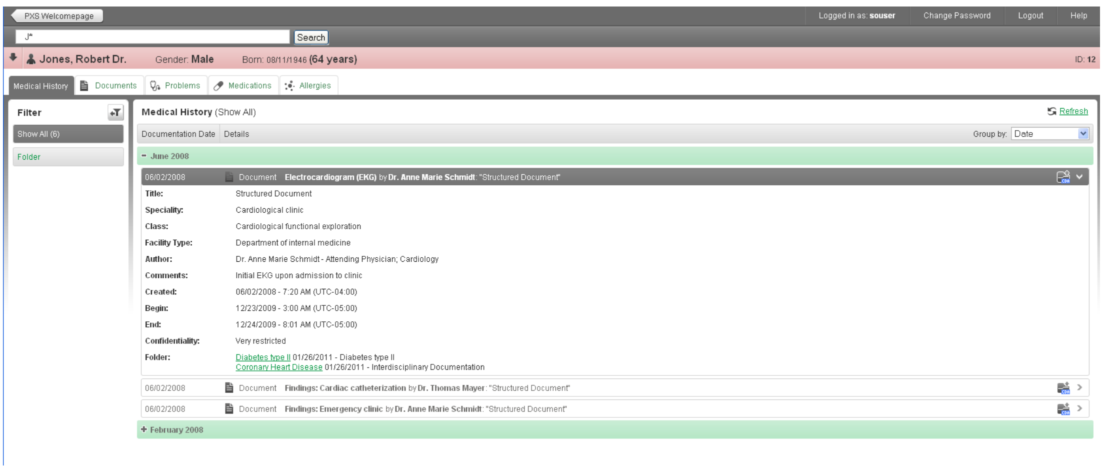


Figure 5: Emergency access

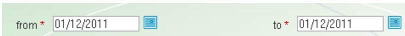
Emergency access remains active until you log off from the program or begin a search for another medical record.

NOTE **Auditing access to records**

By switching to emergency access mode you gain extended access to information to which you would not otherwise be privileged. The program produces a special record of this type of access.

3 Screen icons and elements

The Professional Exchange Server user interface contains the following elements

Element	Meaning
Welcome Page	
	In this list you can select the period for which you would like to receive notifications about incoming documents.
	If you have selected the **Time period...** option on the welcome page they will be displayed in the calendar and the **Filter** button.
	With this button you can filter displayed messages on the receipt of documents according to the period you selected.
Arrows in the table header:	The arrows in the table header change the sorting according to the active column. These arrows can be found on the **Welcome page** and in the **Search results list**.
Update	This symbol refreshes the currently displayed data.
	Use this field to search for medical records, see: Searching for a patient [page 10].
Medical record	
	This button will open the welcome page with the list of notifications.
	This button will open and close the patient banner with the demographic data of the selected patient.
	The tab will open the respective view. The tab of the opened view will be displayed with a darker background.
	This selection menu allows you to group the displayed documents and data. Depending on the selected view, different options will be available.

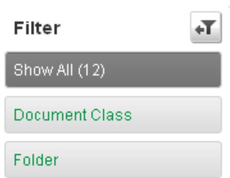
Element	Meaning
	This icon will be visible if you have been assigned to the role of *emergency doctor* and when other documents pertaining to the patient exist, but are not displayed. Clicking the icon will open the emergency access dialog. Enter your password and a reason for the emergency access request. Following that you will have access to all of the patient's documents and data for the duration of the emergency access. The program logs all attempts to use the emergency role.
	This icon will open and close the filter area.
	Using the filter allows you to display documents and data in the view.
	When a folder is active this symbol is displayed in the table header. Move the mouse cursor over the symbol to display additional information about the folder.
	Displays the respective document type. Clicking the symbol will open the document in the respective application, (e.g. GE Healtchare's CWeb viewer).
	These icons open and close the day, week and month areas in the views.
	This button will open and close the document information in the views.
Documents view	
	This icon will open and close the **Actions area** in the documents view. In the actions area you can subscribe to notifications about the receipt of documents.

Table 1: Icons and buttons

List of Figures