EMSOW
Quick Reference

January 2017

Table of contents

Introduction

What is EMSOW?

EMSOW (Electronic Management System of Operations Workflow) is a cloud-based business management solution for mobile radiology providers. EMSOW was designed to streamline the mobile radiology workflow in a single, user-friendly platform. EMSOW simplifies the most complex operations of mobile diagnostic businesses by automatically sorting and transmitting tests for interpreting and billing according to the patient's insurance, test modality, and the reading physician.

The key features of EMSOW include the following:

- Scheduling and logistics
- Work time tracking for technologists
- Patient data entry
- Document management
- DICOM images viewing and automated interpretation
- PACS-based image storage and transfer
- Medical records management
- Electronic fax for sending reports
- Billing and collections
- Financial analysis and forecasting
- Inventory management

About this manual

EMSOW is constantly being developed to satisfy customer requests and ever-changing workflow requirements. Therefore, this manual is limited to the most commonly used features and is mostly intended for new users. Universal Software will keep working on improving this manual; however, if something is missing here, you are always welcome to contact our technical support.

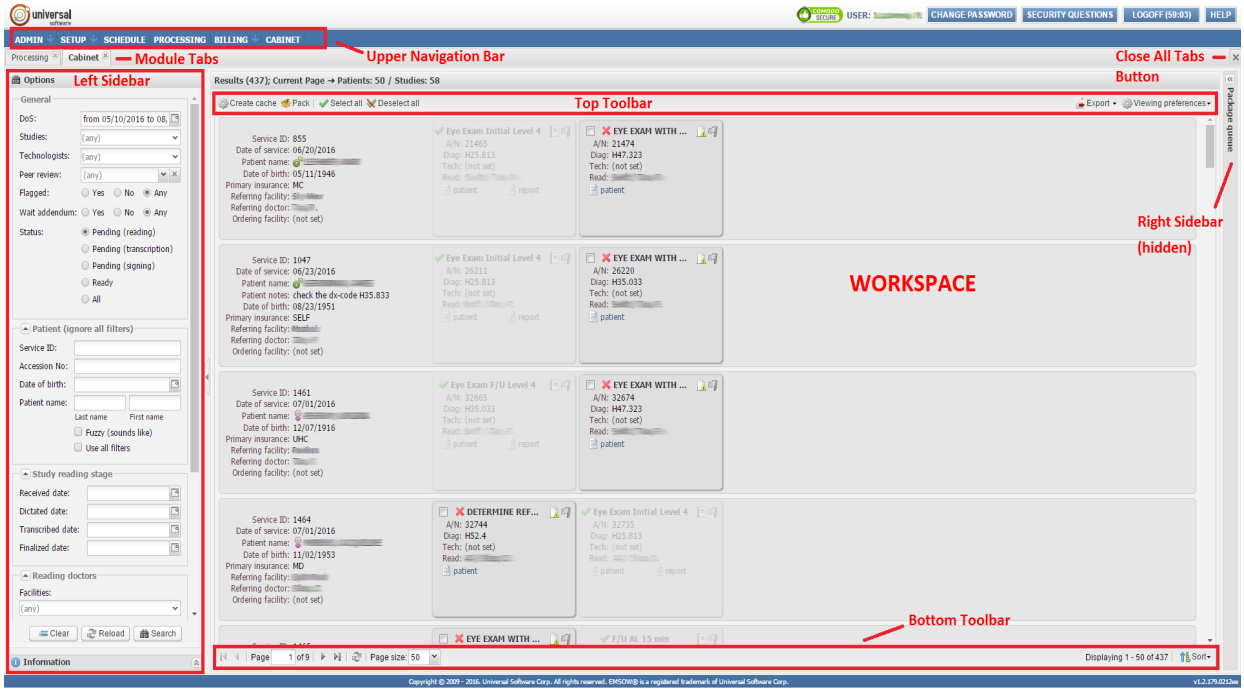
Technical support

If you need assistance with EMSOW or its associated products (e.g. EMSOW PACS Bridge), please contact our support service. You are also welcome to give us any feedback on the product.

☎	Support line:	**+1 (888) 551-6703 ext. 2** (from 7 AM until 7 PM EST)
✉	Email us:	support@unvsoft.com

User Interface

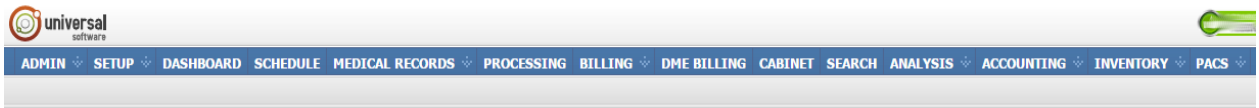
EMSOW's user interface is intended to make the user experience as simple and efficient as possible. It provides quick access navigation, various options for data search and display, as well as reminders. The common user interface components include the upper navigation bar, the module tabs, the top and bottom toolbars, the left and right sidebars.



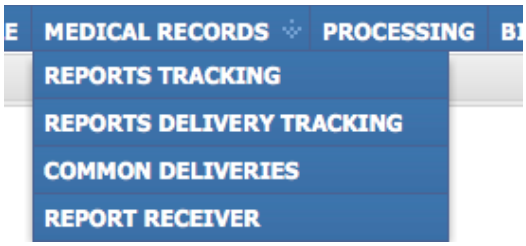
Upper navigation bar and EMSOW modules

EMSOW is a module-based application. Such modules as Schedule, Cabinet, and Processing allow you to perform activities specific to particular business tasks. The modules available to you may depend on your role in the system (e.g. reading doctors usually have access to Cabinet only).

The modules are accessed via the upper navigation bar that contains the **ADMIN, SETUP, DASHBOARD, SCHEDULE, MEDICAL RECORDS, PROCESSING, BILLING, DME BILLING, CABINET, SEARCH, ANALYSIS, ACCOUNTING, INVENTORY** and **PACS** items.



The items with a down-facing arrow open a submenu that groups related modules together:



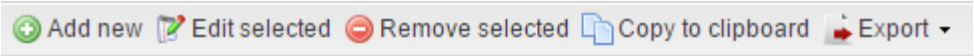
Open modules appear as tabs on the tab bar. You can have multiple modules open at the same time, which allows you to perform all the activities you need from a single web browser window. To close a tab, click the cross button near its title, or click the **Close All Tabs** button on the right of the tab bar.

Most EMSOW modules comply to the following pattern:

- The module's workspace is an area that displays data related to your task, often in the form of a table. The workspace usually includes the bottom toolbar that lets you flip through the table's pages and set the number of records to be displayed on one page. The bottom toolbar also may have such features as search and sorting. The workspace's top toolbar contains module-specific features. Common toolbar features typical for table-based EMSOW modules are described in the next sections. For description of toolbars specific to particular modules, such as Cabinet and Processing, please refer to the corresponding sections of the manual.
- The left sidebar serves as the place for setting search options in most modules. For example, it can help you find studies performed on a specific date in the Cabinet module.
- The right sidebar, if it is present, contains module-specific features.

Top toolbar

The top toolbar provides quick access to a variety of options by clicking its buttons. Different modules have different toolbars depending on their functionality. In table-based modules, the most common tool buttons are **Add new, Edit selected, Remove selected, Copy to clipboard** and **Export**.



The **Add new** button is used to add a new record. It usually opens the "Add new record" window with specific record information to be added. Fill in all the required fields in the window, then click **OK** to save the changes or **Cancel** to quit without saving. The new record appears in the module.

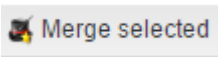
The **Edit selected** button opens the editing window where you can make changes to the selected records by adding, editing or removing the required data.

Use the **Remove selected** button to remove records. Select the records to be removed, click this button and click **OK**.

The **Copy to clipboard** button allows you to copy the text information of the selected records to your operating system's clipboard and paste it to any text editor.

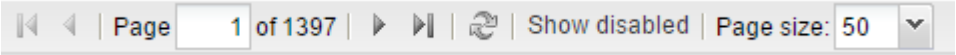
Export – click this button to export the records as an Excel, CSV, PDF or HTML file.

Some modules contain the **Merge selected** button. It allows you to merge the selected records. You can select several records, click this button, and then you will be prompted to select the target record for merging. Only the target record will remain, and all the information from the other ones will be merged into the target record.

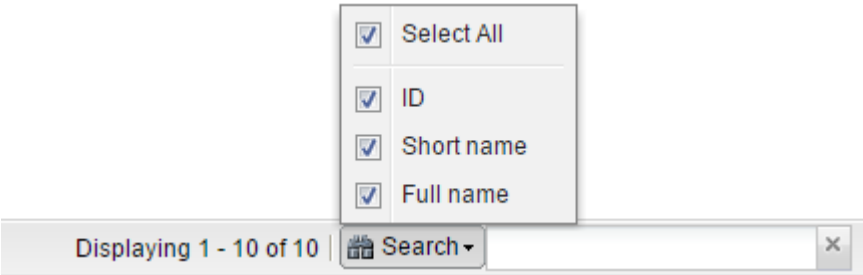


Bottom toolbar

The bottom toolbar provides an easy-to-use set of options such as to choose the page, refresh it, show disabled records and set the page size.



The search field in the bottom toolbar allows you to search for records. Select the search criteria in the drop-down list and enter any of the criteria in the search field.



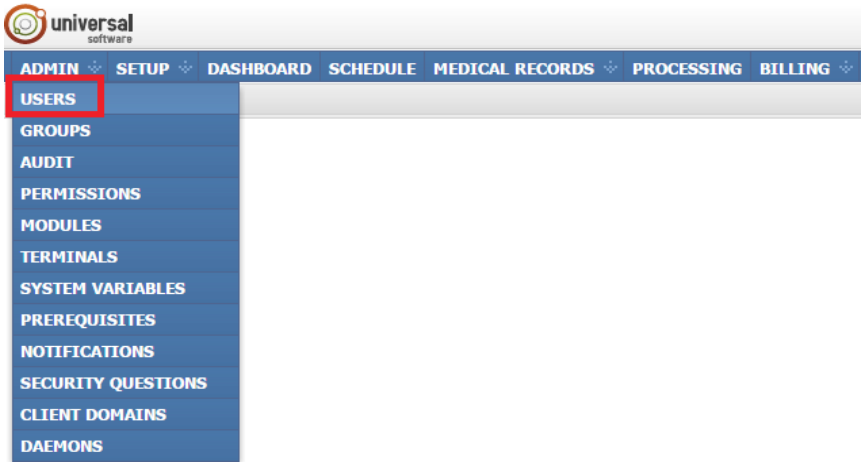
Search results appear as you type.

System Administration

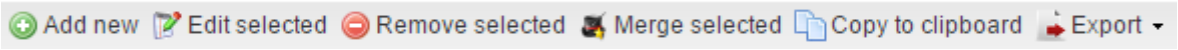
The Admin module allows you to control user permissions and roles, set system variables for advanced system configuration, view the status of system daemons, as well as set up client domains.

Managing user accounts

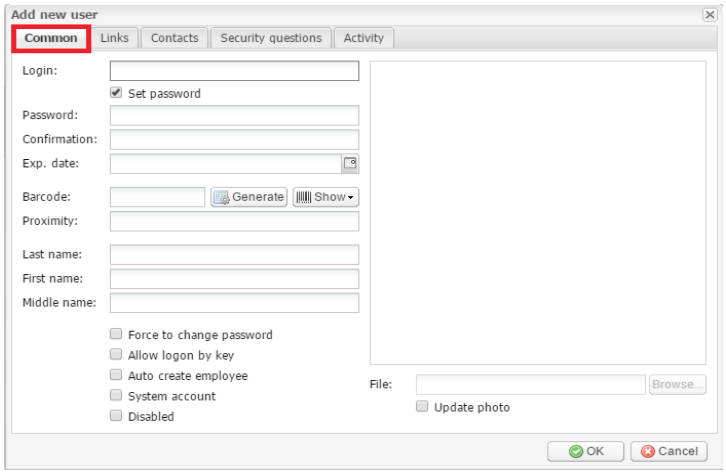
The Users module allows system administrators to manage user accounts. In this module you can add new users to the system, remove them, and edit particular information about them. To open the module, sign into your account on your EMSOW site, click **ADMIN** in the upper navigation bar and click **USERS** in the drop-down menu.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:



The **Add new** button is used to add a new user. It opens the **Add new user** window with specific user information to be added. The **Common** options in the window are: **Login**, **Password**, **Expiration date**, **Barcode**, **Proximity**, as well as the **Last, First** and **Middle name** of the user.



Login and **Password** are required to be filled in. Create a login for the user, set a password and confirm it. In the **Expiration date** field you can select the date when the user loses access to the account. In this case the account will remain but the user's access to it will be blocked.

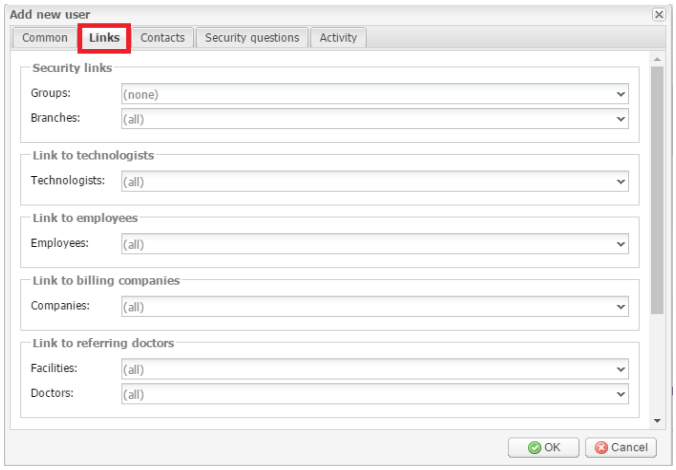
Users can also access their accounts with barcodes and proximity keys. Generate a Barcode by clicking the **Generate** button or enter a proximity key in the **Proximity** field. These features allow the users to logon by scanning their security keys with a code reading device. Both of the codes are required to be unique. You can view the generated barcode by clicking the **Show** button.

You can force the user to change the password. This is useful when you create a new user account and want the user to change their password when they log in for the first time.

Selecting the **Allow logon by key** checkbox allows the user to log in to the site via the Dashboard of the master EMSOW domain. The **Auto create employee** checkbox allows you to create an employee record for the user automatically (for more information please refer to the EMPLOYEES module). The **System account** option is not typically used for a regular user. By selecting the **Disabled** checkbox you can disable the user account thus disallowing the user to logon.

There is also an option to upload or update the user photo.

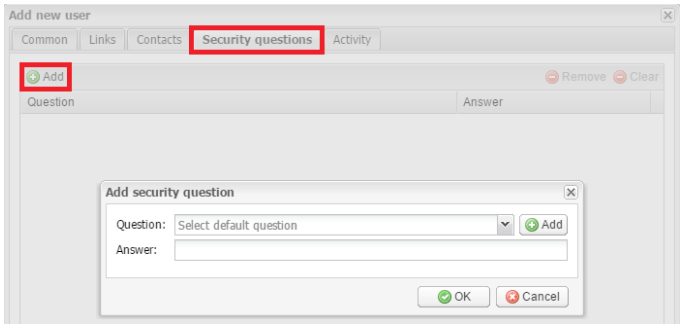
Next, you can link the user account to a particular group, branch etc. so that the user is limited to see particular information. User accounts can have security links to groups and branches; links to technologists, employees, billing companies, referring or reading doctors or facilities; as well as to client domains.



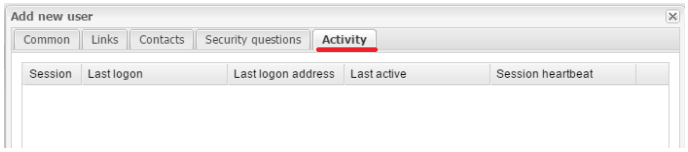
For example, in order to provide access to EMSOW for a reading doctor, you should create a user account and link it to the reading doctor's record. For more information please refer to the TECHNOLOGISTS, REFERRING DOCTORS, READING DOCTORS and GROUPS modules.

Add the user's contacts such as Phone, Fax, E-mail, Jabber, Address and Location, by going to the Contacts tab.

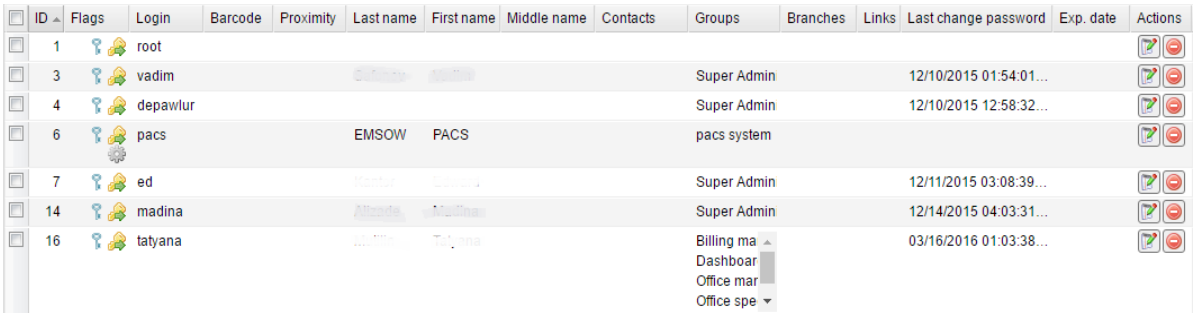
You can select a security question as an extra security layer using the **Security questions** tab.



The **Activity** tab shows the user recent activity as a list of sessions, but it is not relevant for a new user, so initially this field is blank.



After saving the user account, it appears in the table with the corresponding properties such as the user's given name, their contacts, and their links to groups.



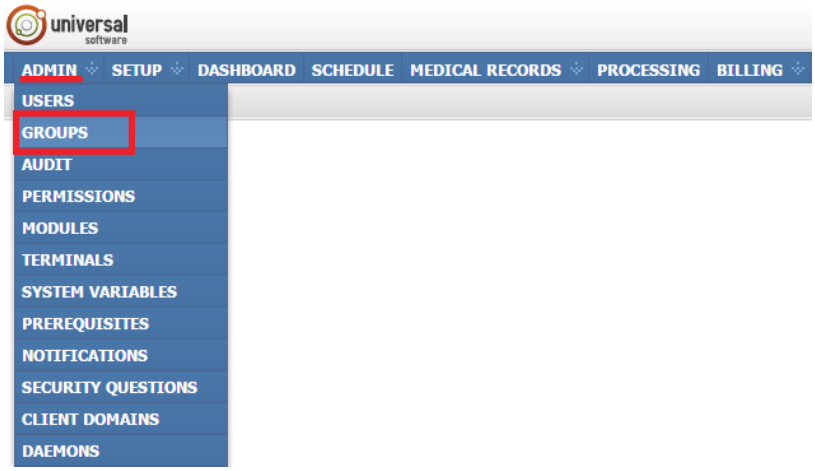
The **Edit selected** button opens the user editing window where you can make changes to the user account. Select the required user, click the button, and modify the **Common** info, the **Links**, the **Contacts**, and the **Security questions**. You can also view the user's recent activity as a list of sessions in the **Activity** tab. Click **OK** to save the changes or **Cancel** to quit without saving.

 – For editing, there is as well another button in the rightmost column **Actions**. You can click it to edit the required user account without selecting it in the table.

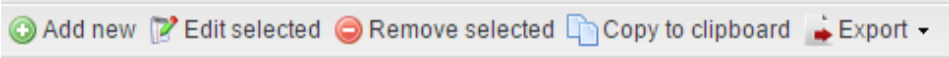
– For removing users, there is as well another button in the rightmost column **Actions.** You can click it to remove the required user account without selecting it in the table.

Managing groups

EMSOW features available to you depend on your role in the system (e.g. reading doctors usually have access to Cabinet only). The Groups module allows your administrator to control and modify permissions for user groups. To open the module, sign into your account on your EMSOW site, click **ADMIN** in the upper navigation bar and click **GROUPS** in the drop-down menu.

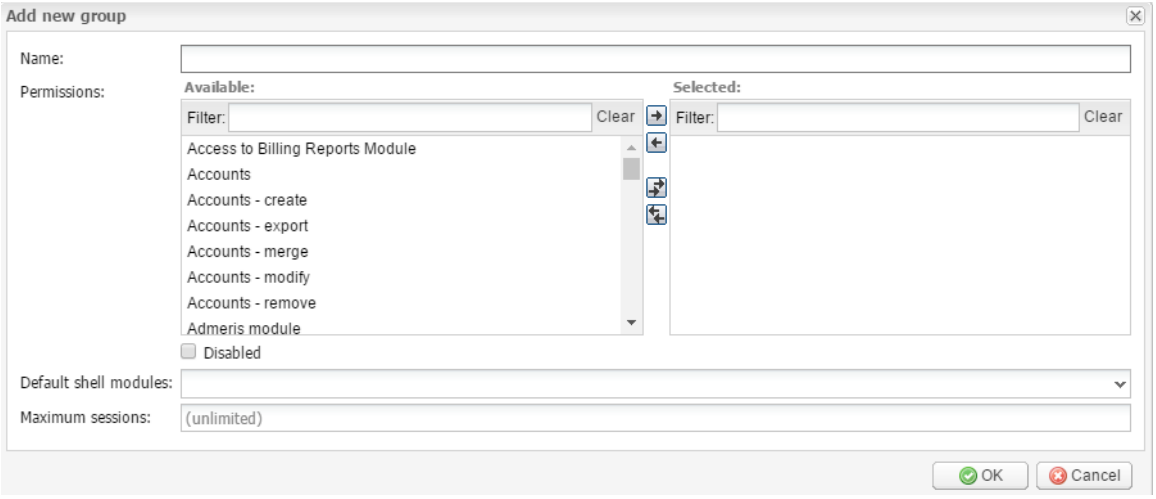


On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:

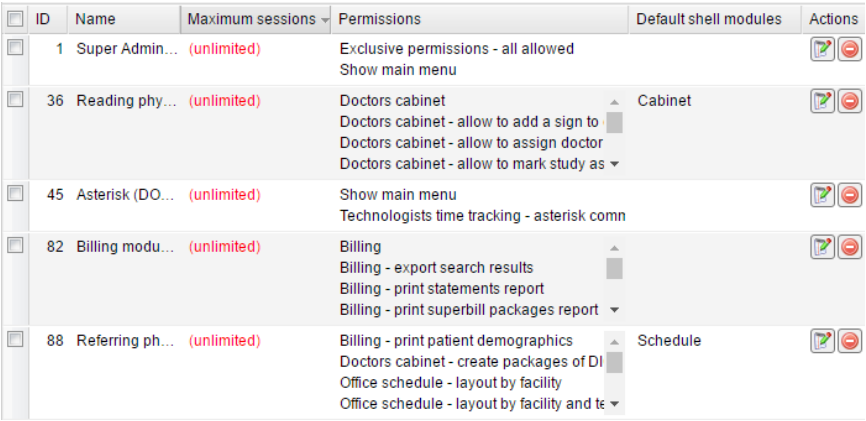


Add new – click this button to add a new group. In the window that opens fill out fields with information about the group you need to create. Type the **Name,** select **Permissions**, **Default shell modules** and the **Maximum sessions** number if it is necessary to limit it. By default the number of sessions is unlimited. You can add and remove **Permissions** using the buttons with arrows.

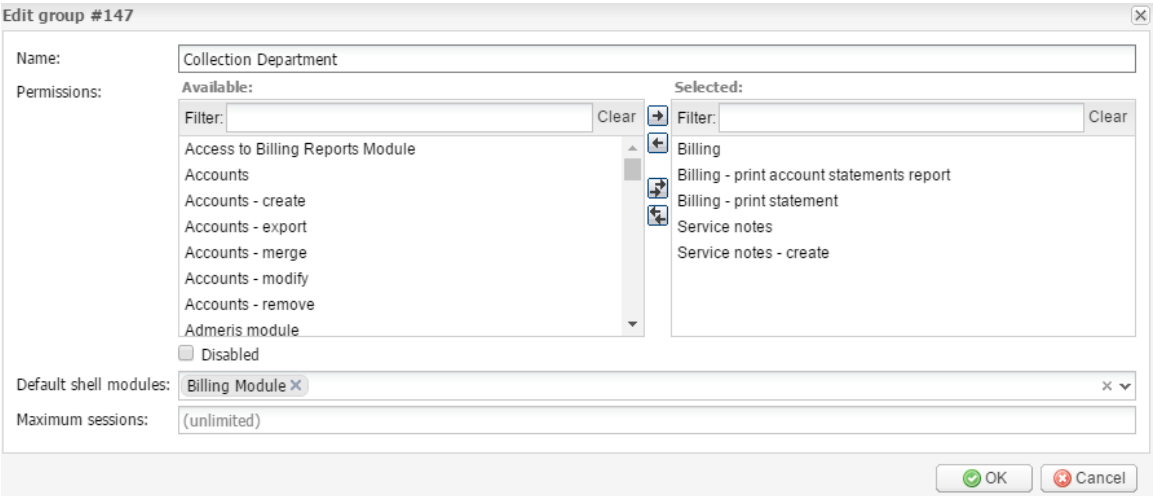
The **Default shell modules** option lets you specify the modules that will open for the users of the group automatically. For example, you can select **Cabinet** as the default shell module for reading doctors. Users cannot close the default shell modules while working in EMSOW.



After saving the user group, it appears in the table with the corresponding properties.



The **Edit selected** button opens the group editing window where you can make changes to the user group. Select the required record and modify the **Name, Permissions**, **Default shell modules** or **Maximum sessions**. You can add and remove **Permissions** using the buttons with arrows. Click **OK** to save the changes or **Cancel** to quit without saving.

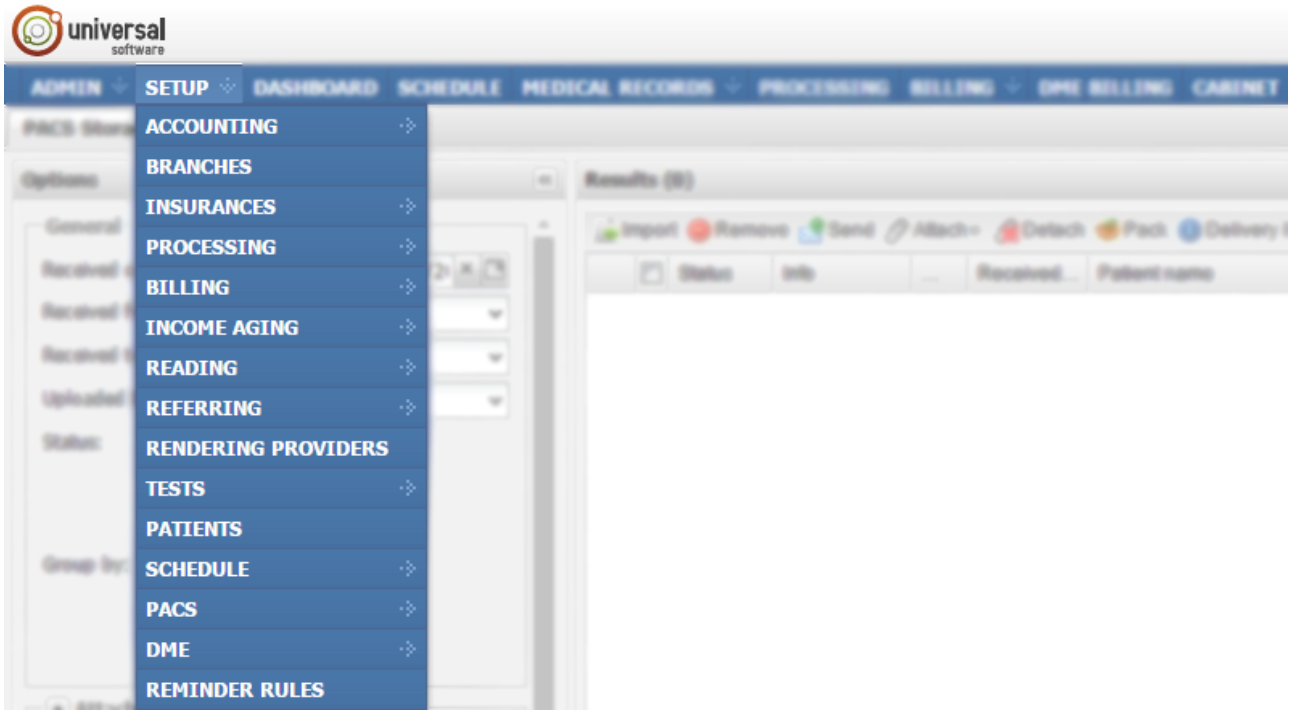


– For editing, there is as well another button in the rightmost column **Actions**. You can click it to edit the required record without selecting it in the table.

– For removing records, there is as well another button in the rightmost column **Actions**. You can click it to remove the required user group without selecting it in the table.

EMSOW Setup

To access EMSOW settings, click **SETUP** in the upper navigation bar, and then select the required settings in the drop-down menu.



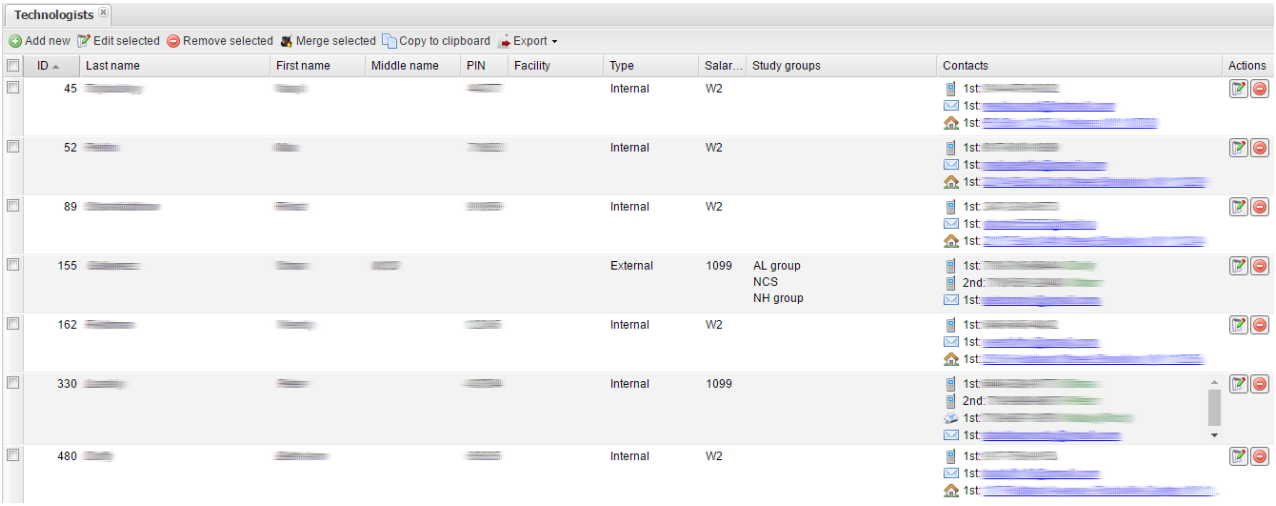
Below is a description of the SETUP menu items.

Accounting setup

This module is designed for managing your technologists, employees and departments.

Managing technologists

Follow the path **SETUP → ACCOUNTING → TECHNOLOGISTS** to open the technologists managing tab:

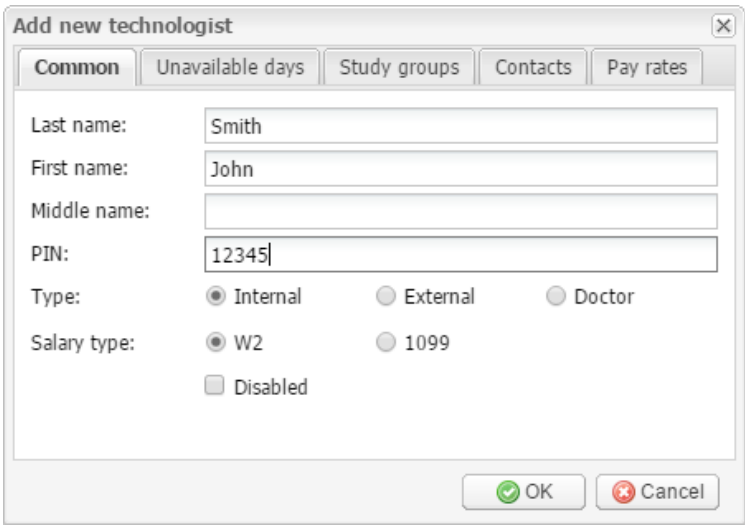


Here you can see the list of technologists arranged in several columns: ID, Last name, First name, Middle name, PIN, Facility, Type, Salary type, Study groups, Contacts, and Actions. The **Contacts** column may contain phone and fax numbers, e-mail (click on it to create a new message in your e-mail application), Jabber, address (click on it to see this place in Google Maps), and location (also can be opened in Google Maps). The last column contains two buttons for editing and removing a technologist.

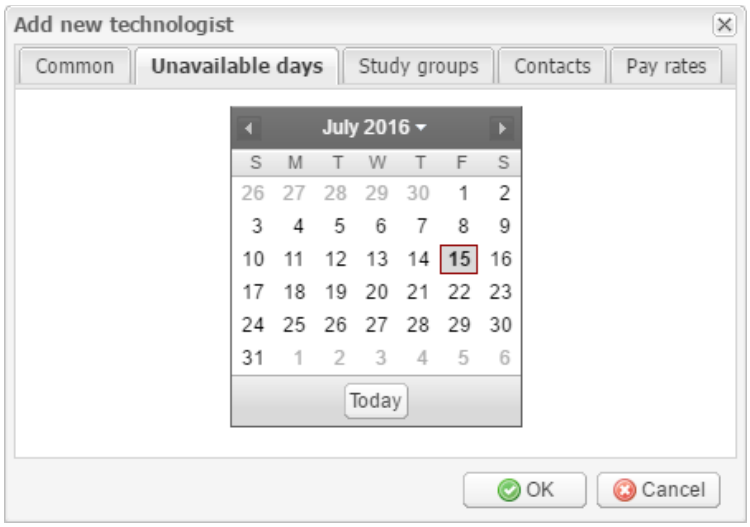
Above the list of technologists you can see the toolbar:

Add new – use this button to add a new technologist. After you click the button, a pop-up window will open.

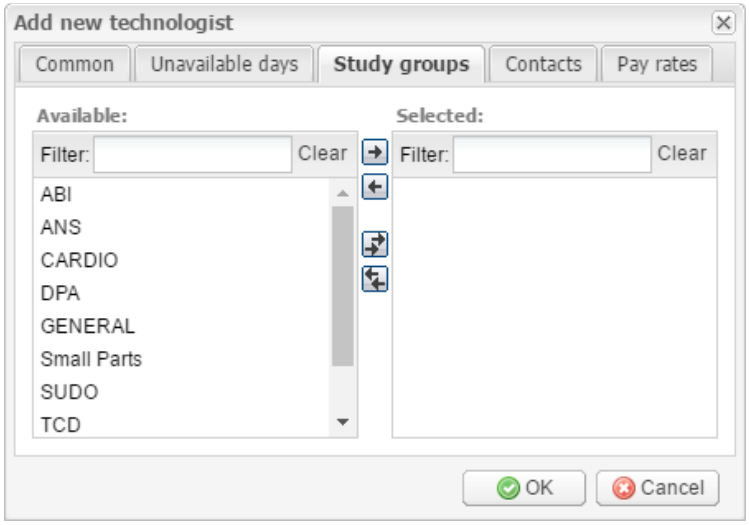
On the **Common** tab you need to enter the last name, first name, middle name, PIN, select the type of technologist (if you select “External”, you need to select the facility from which the technologist comes from) and the type of salary. Click the **Disabled** checkbox to make the technologist's account unavailable for use (e.g. when the technologist has resigned). The only required fields are **Last name** and **First name**.



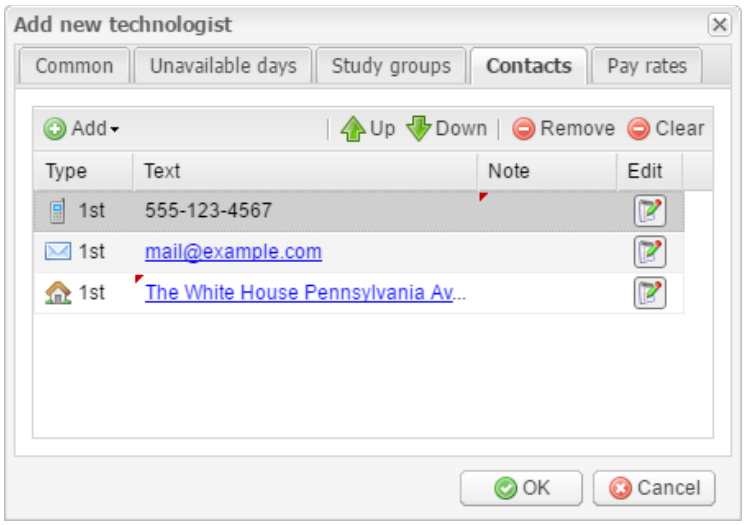
On the **Unavailable days** tab you can select the days when the technologist is not available (e.g. on vacation).



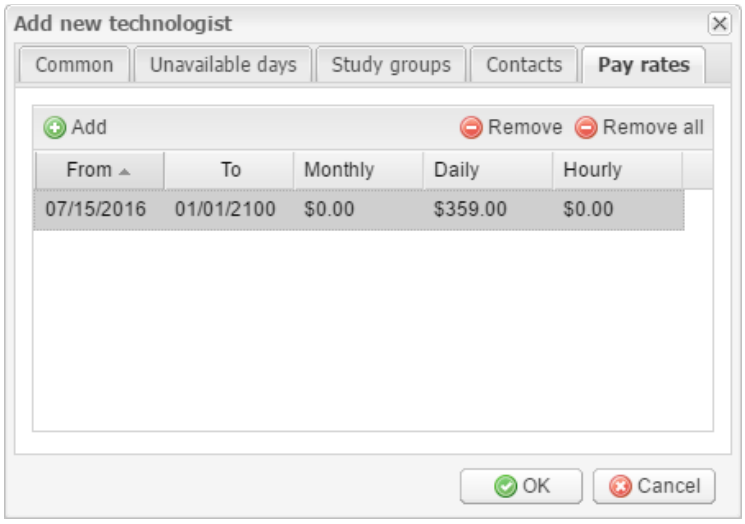
On the **Study groups** tab you can set groups of studies that the technologist carries out.



On the Contacts tab you can click the **Add** button to select various contacts for the technologist in the drop-down menu, such as phone and fax numbers, e-mail, Jabber, address and location. Use the **Up** and **Down** buttons to change the priority of the contact (for example, if the technologist has two e-mails, you can set which of them will be primary). To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.



On the **Pay rates** tab you can set monthly, daily, and weekly pay rates for the technologist. Click the **Add** button to add a pay rate. To remove them, use the buttons **Remove** or **Remove all**.



After all necessary parameters are set up, click **OK** to add the technologist or **Cancel** to quit without saving.

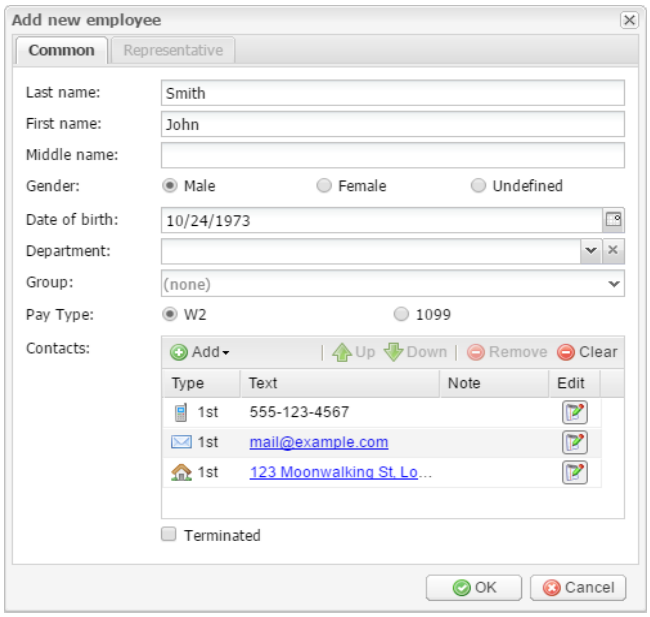
Edit selected – use this button to edit the selected technologist. After you click the button, the **Edit technologist** window will open. This window is identical to the **Add new technologist** window described above. You can also double-click selected technologists to edit them.

Managing employees

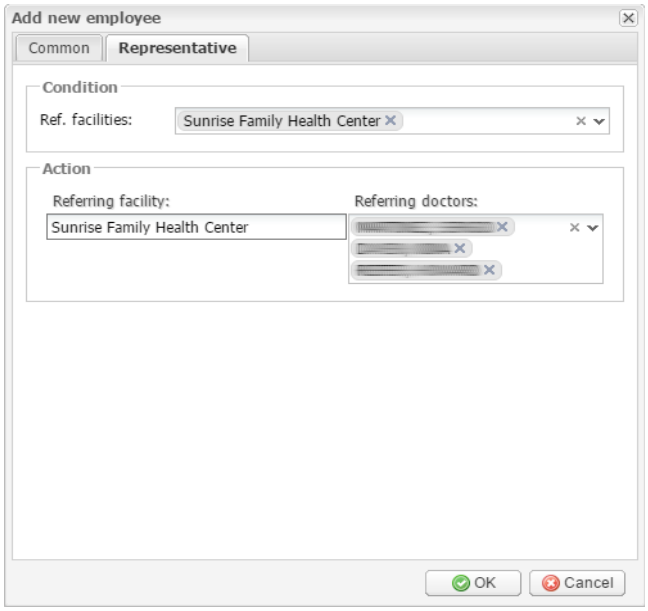
Follow the path **SETUP → ACCOUNTING → EMPLOYEES** to open the employees managing tab. Its interface is almost identical to the technologists managing tab described above: there is a list of employees and a few toolbars.

On the toolbar above the list of employess, click the **Add new** button to add a new employee. As the result, a pop-up window will open:

On the **Common** tab you can enter the last name, first name, middle name, select the gender, enter the date of birth, select the department, group, pay type, and add contacts. Click the **Terminated** checkbox not to display the employee in the list of employees (e.g. if the employee has resigned). The only required fields are **Last name** and **First name**.



If you have selected **Account representative** or **Vendor representative** in the **Group** field, you can open the **Representative** tab and select the referring facilities and doctors which the employee represents:

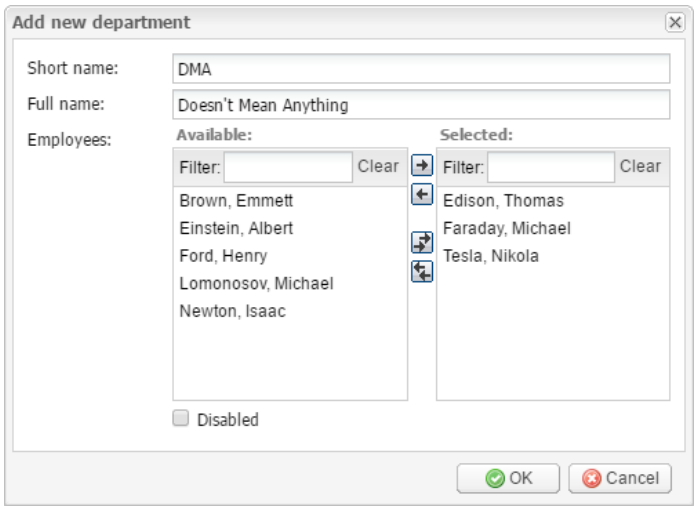


After all necessary parameters are set up, click **OK** to add the employee or **Cancel** to quit without saving.

Edit selected – use this button to edit the selected employee. After you click the button, the **Edit employee** window will open. This window is identical to the **Add new employee** window described above. You can also double-click selected employees to edit them.

Managing departments

Follow the path **SETUP → ACCOUNTING → DEPARTMENTS** to open the departments managing tab. Its interface is similar to the technologists and employees managing tabs described above: there is a list of departments and a few toolbars.



On the toolbar above the list of departments, click the **Add new** button to add a new department. As the result, a pop-up window will open:

You need to enter the short name and full name of the new department, and select the employees that work in the department. Click the **Disabled** checkbox to make the department unavailable for use.

After all necessary parameters are set up, click **OK** to add the department or **Cancel** to quit without saving.

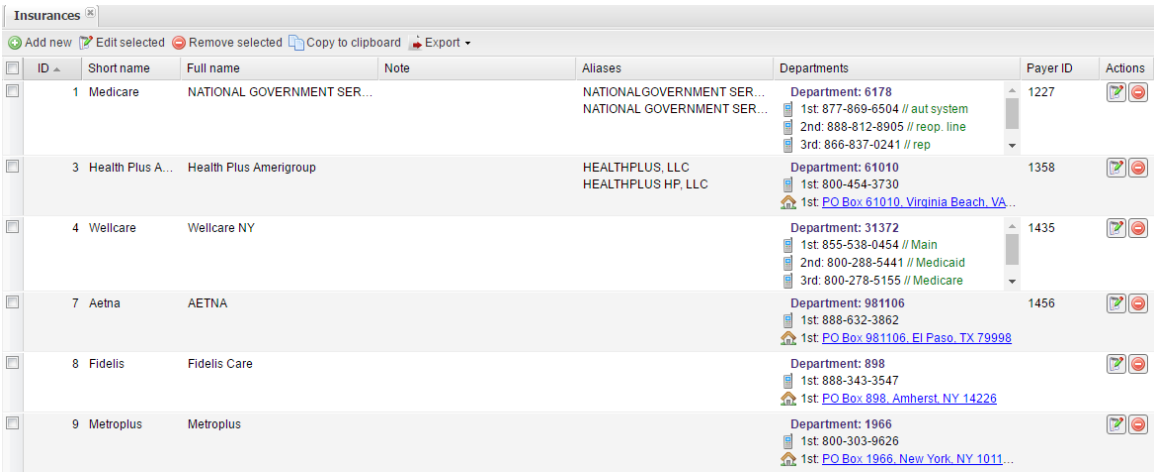
Use the **Edit selected** button to edit a department. After you click this button, the pop-up window will open. This window is identical to the **Add new department window** described above.

Insurances setup

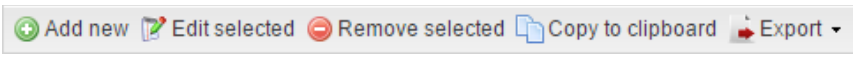
The Insurance module is designed for managing patient insurances.

Follow the path **SETUP → INSURANCES → INSURANCES** to open the insurances managing tab:

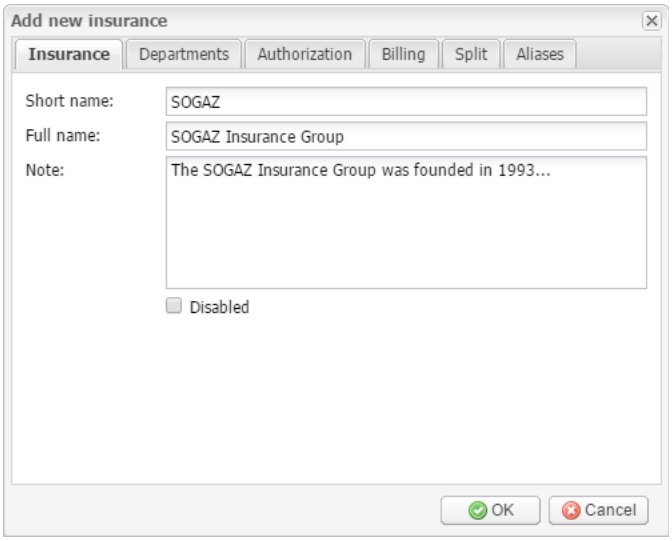
Here you can see the list of insurances arranged in several columns: ID, Short name, Full name, Note, Aliases, Departments, Payer ID, Actions. The last column contains two buttons for editing and removing insurance.



Above the list of insurances you can see the toolbar:

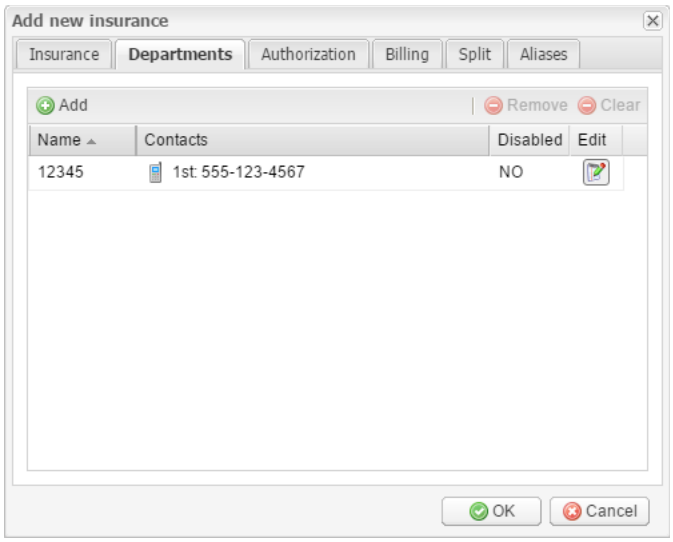


Add new – use this button to add a new insurance. After you click this button, a pop-up window will appear.

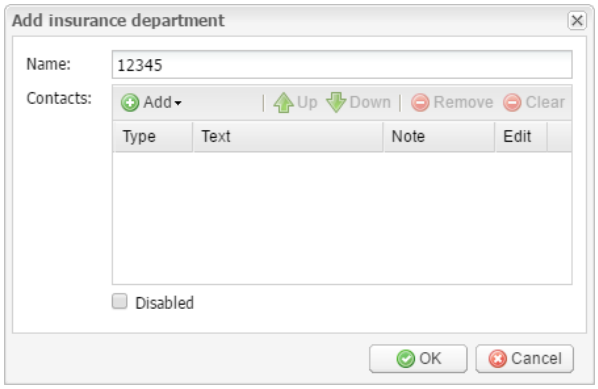


On the **Insurance** tab enter the short name and full name of the new insurance. In the **Note** field, you can add an annotation for the insurance. Click the **Disabled** checkbox to make the insurance unavailable for use. The only required field is **Short name**.

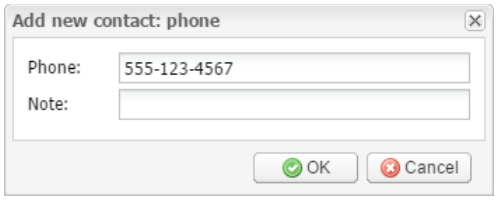
On the **Departments** tab you can add and remove departments for the insurance:



Click the **Add** button to add a new department. As the result, a pop-up window will open:

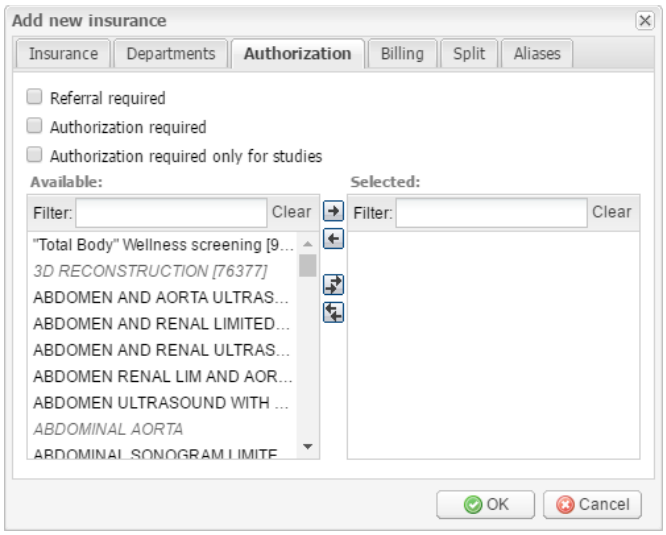


Enter the name of the department into the **Name** field. To add contacts, click the **Add** button and select the type of the contact in the drop-down menu: **Phone**, **Fax**, **E-mail**, **Jabber**, **Address**, or **Location.** Then enter the contact information and click **OK** to save or **Cancel** to quit without saving.



To remove a contact, click the **Remove** button. To remove all contacts, click the **Clear** button. Click the **Disabled** checkbox to make the department unavailable for use.

On the **Authorization** tab you can manage the referral and authorization settings for the insurance:

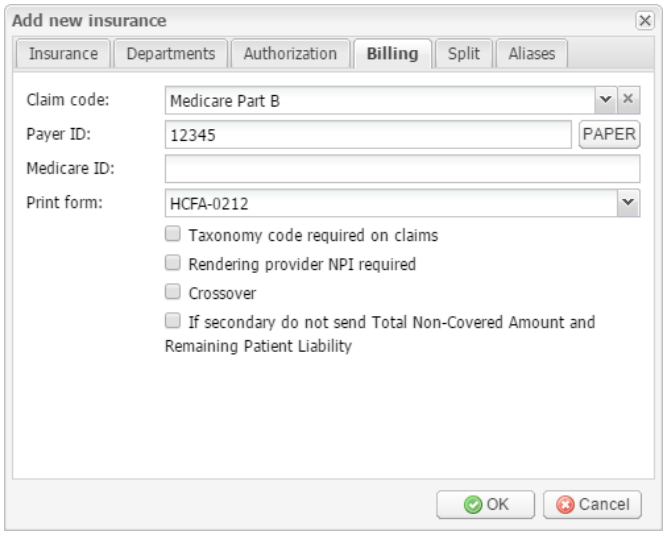


Click the **Referral required** checkbox if the patient has to get a referral (a written order from the primary care doctor for the patient to see a specialist or get certain medical services) before the patient can get medical care from anyone except their primary care doctor.

Click the **Authorization required** checkbox if the insurance company needs to check before it will agree to cover certain prescribed medications or medical procedures.

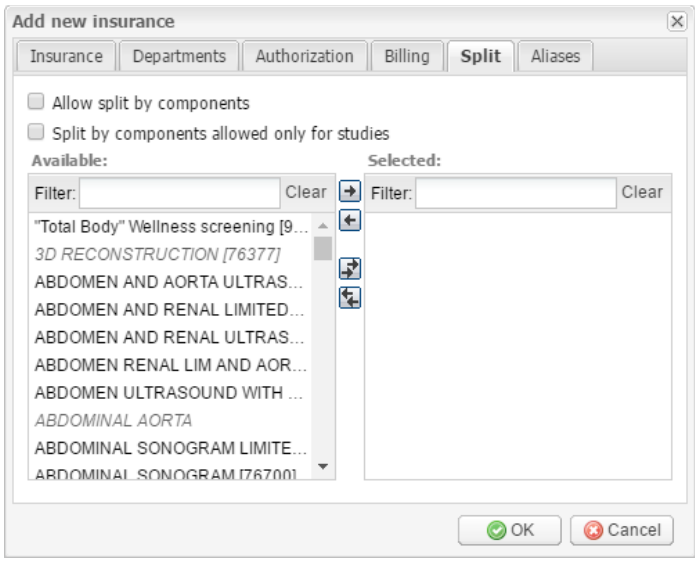
If you want to specify the studies that require authorization, click the **Authorization required only for studies** checkbox and select the necessary studies below by using the arrow buttons.

On the next tab you can set up the billing settings:

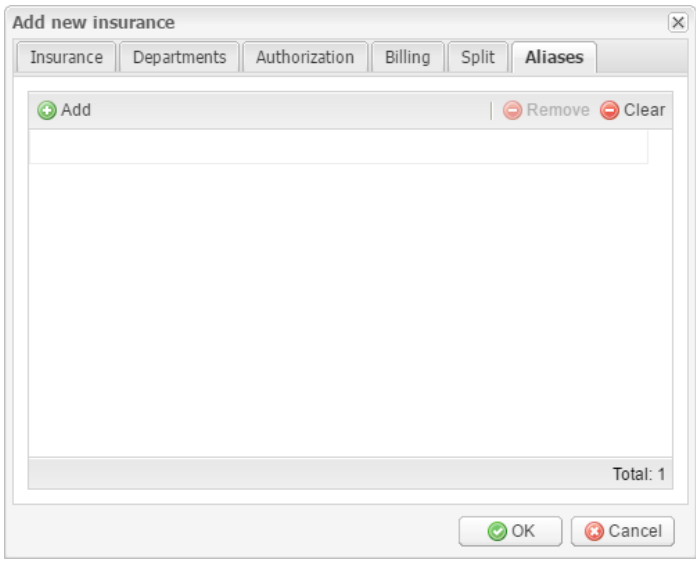


Here you can select the **Claim code,** enter the **Payer ID** (click the **PAPER** button for paper claims), enter Medicare ID, and select the type of printed form. If taxonomy codes or the rendering provider NPI are required on claims, click the corresponding checkboxes. Click the **Crossover** checkbox for crossover claims. If the insurance is supposed to be secondary and you don't need to send total non-covered amount and remaining patient liability, click the last checkbox.

On the **Split** tab you can set up the splitting parameters:



Click the **Allow split by components** if you want to allow splitting by components for all studies. If you want to specify the studies for which the splitting is allowed, click the **Split by components allowed only for studies** checkbox, and select the necessary studies below by using the arrow buttons.



On the last tab you can add aliases to the insurance:

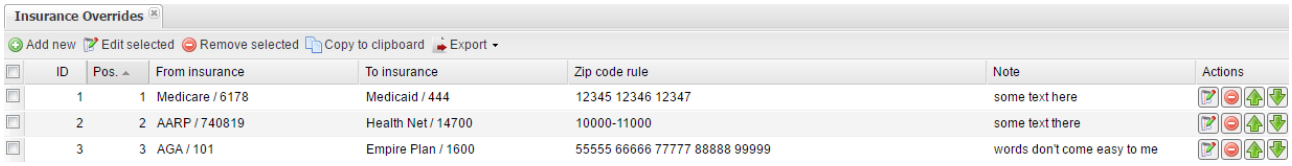
Click the **Add** button to add a new alias. To delete the selected alias, click the **Remove** button. To delete all aliases, click the **Clear** button.

Click **OK** to finish adding the new insurance or **Cancel** to quit without saving.

To edit the existing insurance select it and then click the **Edit** button on the aforementioned toolbar. As the result, the **Edit insurance** window will open. This window is identical to the **Add new insurance window** described above.

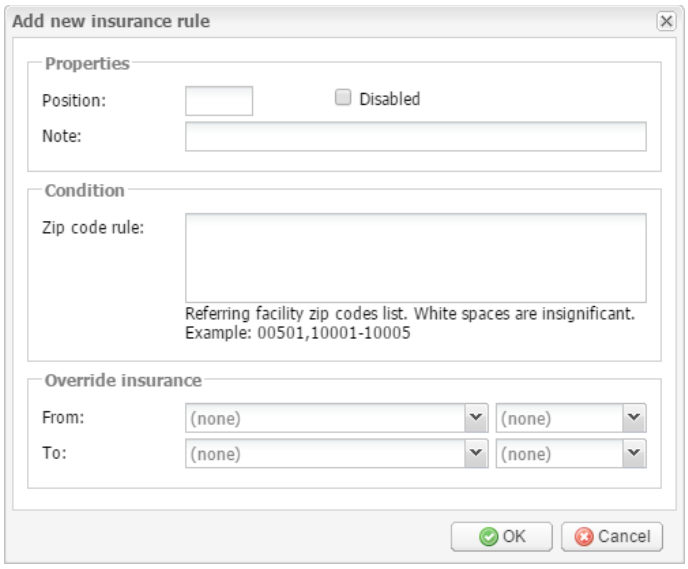
Insurance override rules

Follow the path **SETUP → INSURANCES → INSURANCE OVERRIDES** to open the insurance override tab:



Here you can see the list of override rules and the toolbar above it.

Click the **Add new** button on the toolbar to add a new override rule. As the result, a new pop-up window will open:



Type the position number into the **Position** field (it determines the rule's priority). Check the **Disabled** checkbox to make the override rule unavailable for use. In the **Note** field you can enter an annotation.

Type the referring facility ZIP codes into the **Zip code rule** field. These ZIP codes are the condition of the insurance override rule: if one of the ZIP codes coincides with the referring facility's ZIP code, the rule will apply.

In the bottom **Override insurance** section, select the insurance to be overridden in the **From** field and the insurance that will override it in the **To** field.

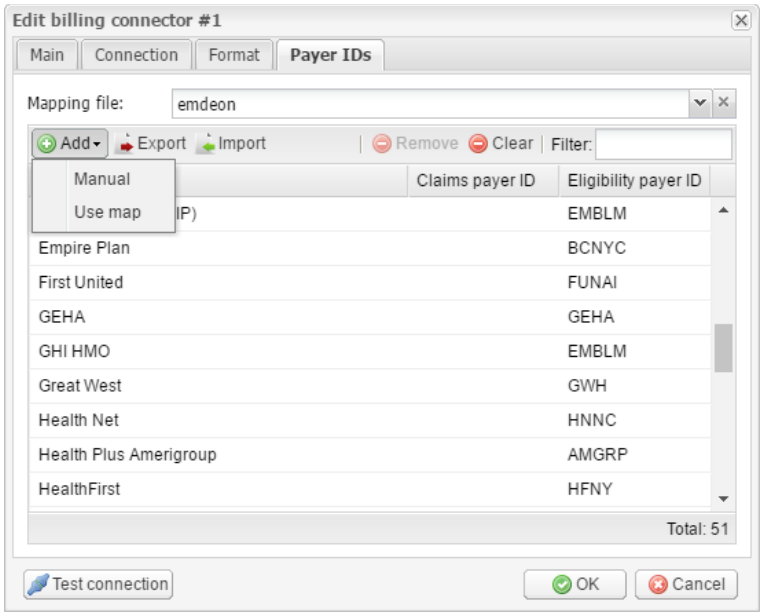
Click **OK** to finish adding the new insurance override rule or **Cancel** to quit without saving.

Click the **Edit selected** button to edit the selected override rule. After you click this button, the **Edit insurance rule** window will open. This window is identical to the **Add new insurance rule** window described above. You can also double-click the selected rule or click the edit icon in the **Actions** column to edit it.

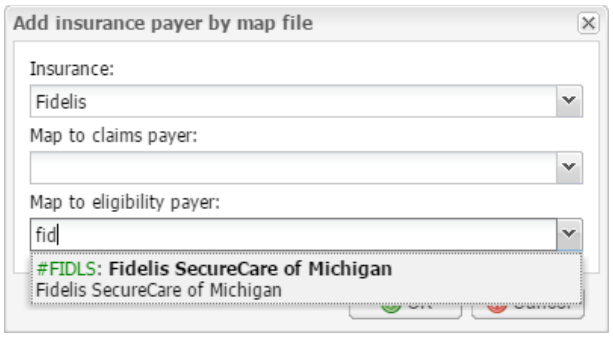
Insurance eligibility check setup

Follow the path **SETUP → BILLING → BILLING CONNECTORS** to open the Billing connectors tab. Then select the eligibility billing connector (most of the time it is called "Emdeon eligibility") and click the

Edit selected button on the toolbar. You can also double-click the billing connector with the left mouse button or click the **Edit** button in the **Actions** column. As the result, the **Edit billing connector** window appears. Select the **Payer IDs** tab. Select mapping file “emdeon”, then click **Add** and **Use map**.



In the new window, select the insurance you would like to add the Payer ID to. And then in the **Map to eligibility payer** field, search for it again. Select what you have found and click **OK**.

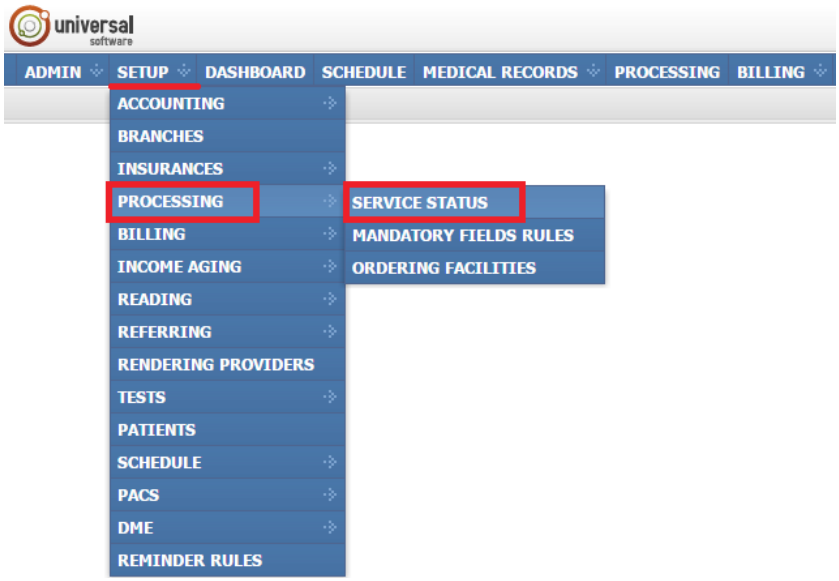


Processing setup

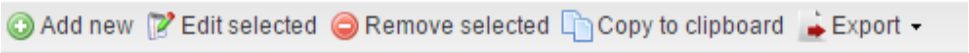
The Processing module in the Setup section allows you to modify such processing options as service statuses, mandatory fields rules, and ordering facilities.

Managing Service Statuses

The Service Status module is used to modify service statuses. To open the module, sign into your account on your EMSOW site, select **SETUP** in the upper navigation bar, click **PROCESSING** in the drop-down menu and then click **SERVICE STATUS** in the next drop-down menu going to the right.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new service status.

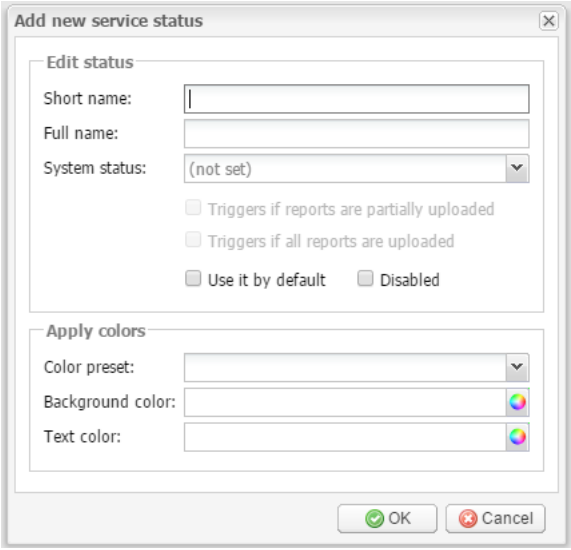
In the new window, fill out fields with information about the new service status. Type in the short and full names and select a system status to be mapped to the new status.

The available system statuses are “Scheduled”, “Performed”, and “Canceled”. If you create a new “Performed” status, you can select if the status should be triggered if reports are partially uploaded or only if all reports are uploaded.

Next, select if it is required to use this status by default and then apply colors to highlight services with this status in the schedule (for more information please refer to the OFFICE SCHEDULE COLORS module).

Click the **Disabled** checkbox to make the status unavailable for use.

Click **OK** to save the new service status or **Cancel** to quit without saving.



After saving the new service status, it appears in the table with the following columns: ID, Short name, Full name, System status, Options, Colors and Actions.

ID	Short name	Full name	System status	Options	Colors	Actions
1	Scheduled	Scheduled	Scheduled	✔	Example of text	
3	Walk-In	Walk-In	Performed		Example of text	
4	Cancelled	Cancelled	Cancelled	✔	Example of text	
5	No-Show	No-Show	Cancelled		Example of text	
16	Performed	Performed	Performed	✔	Example of text	

The statuses that are checked in the **Options** column are used by default.

Edit selected – this button opens the service status edit window where you can make modifications to the selected status and its colors.

Click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required service status without selecting it in the table.

– For removing service statuses, there is as well another button in the rightmost column **Actions.** It allows you to remove the required service status without selecting it. Click this button and then click **OK**.

Managing Mandatory Fields Rules

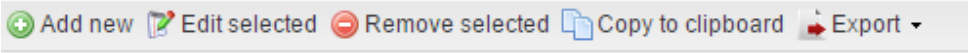
To open the Mandatory Fields Rules managing tab, follow the path **SETUP → PROCESSING → MANDATORY FIELDS RULES**:

ID	Pos.	Condition	Requirements	Actions
2	2	System status: Performed No restrictions: Disabled Business: Retail	Patient Last Name; Patient First Name; Patient Gender; Patient Date of Birth; Referring Doctor	
50	3	System status: Scheduled No restrictions: Disabled	Patient Last Name; Patient First Name; Patient Gender; Patient Date of Birth; Referring Doctor	
16	4	Stage: Billing Business: Retail	Patient Last Name; Patient First Name; Patient Gender; Patient Date of Birth	
5	6	(any)	Patient Last Name; Patient First Name; Patient Gender	

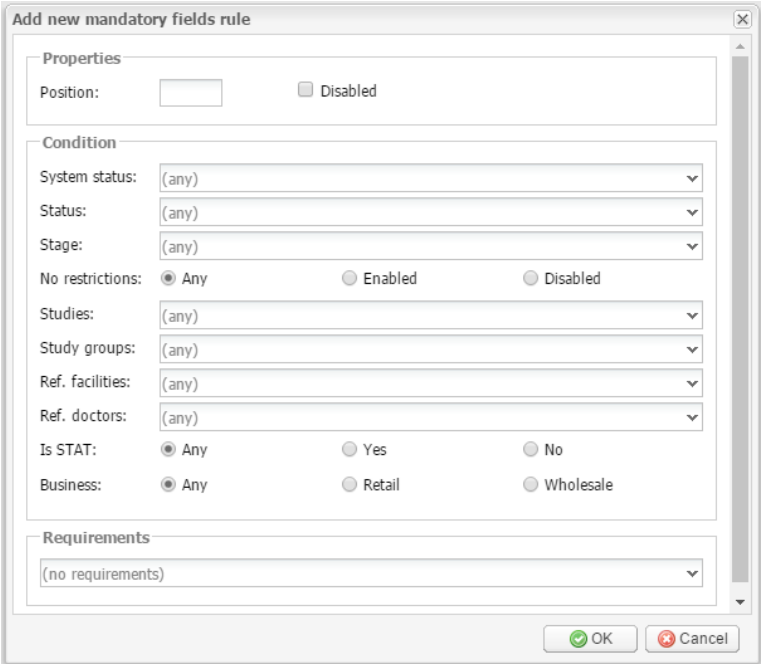
Here you can see the list of rules arranged in several columns: ID, Position, Condition, Requirements, and Actions.

The **Mandatory Fields Rules** module provides a way to create requirements and restrictions that make it mandatory to fill out certain fields while processing services and studies. Therefore, this module prevents data entry mistakes.

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – use this button to add a mandatory fields rule. After you click this button, the **Add new mandatory fields rule** window appears:



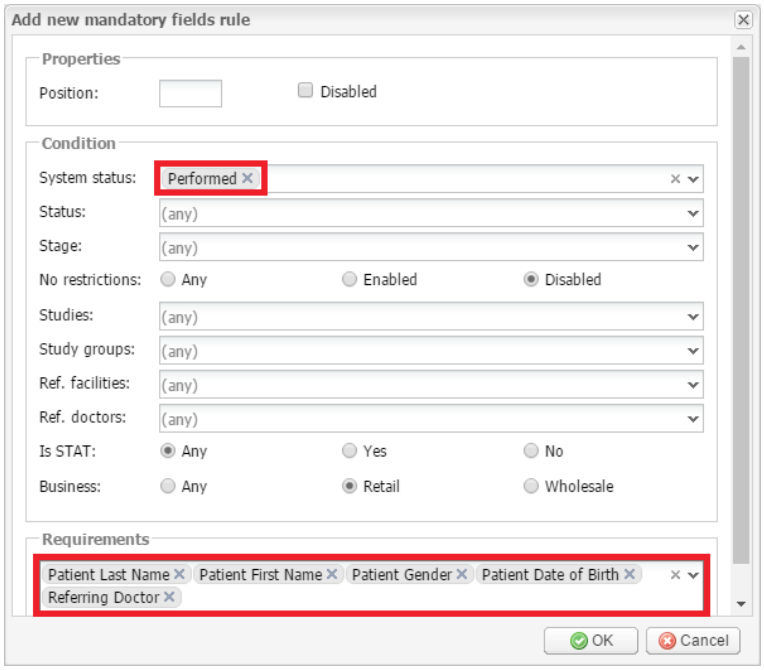
It consists of three sections: **Properties**, **Condition** and **Requirements**.

In the **Properties** section in the **Position** field, enter the number of the rule. This number determines the priority of the rule. The lower the number, the higher the priority. Select the **Disabled** checkbox to make the mandatory fields rule unavailable for use.

In the **Condition** section, you can select various conditions (such as System status, Status, Stage, Studies, Study groups, Referring facilities and Referring doctors) that will trigger the rule.

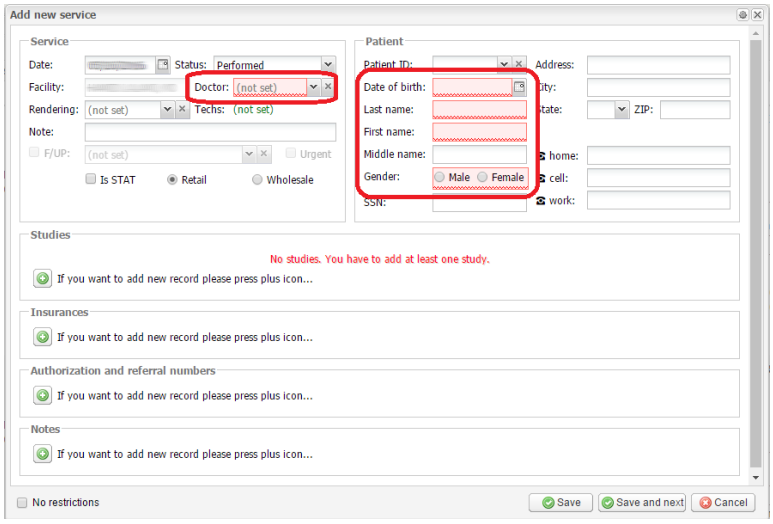
In the **Requirements** section, select requirements that the rule will enforce when it is triggered.

If you leave a mandatory field blank while processing a service or a study, the system will not allow you to save the changes.
For example, the Last Name, First Name, Gender, Date of Birth and Referring Doctor fields are mandatory to be filled out for services with the system status “performed” (see the screenshot below).

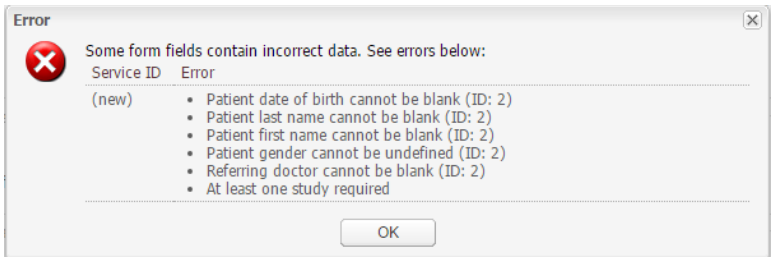


After you specify all the required settings, click **OK** to add the mandatory fields rule or **Cancel** to quit without saving.

When you are adding a new service, you can see which fields are mandatory to be filled out (they are highlighted in red until you start filling them out).



If you attempt to save the service without filling out these fields, an error window appears:



Therefore, you need to fill out all required fields before saving the service.

Edit selected – this button opens a mandatory fields rule edit window, which is identical to the **Add new mandatory fields rule** window described above. After editing a mandatory fields rule, click **OK** to save the changes or **Cancel** to quit without saving.

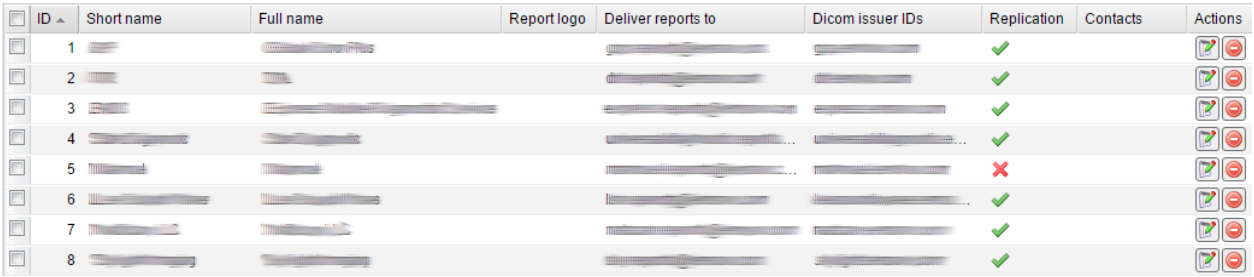
— For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required rule without selecting it in the table.

— For removing mandatory fields rules, there is as well another button in the rightmost column **Actions.** It allows you to remove the required rule without selecting it in the table. Click this button and then click **OK**.

— There are as well the **Move up** and **Move down** buttons in the rightmost column **Actions.** They allow you to move rules up and down, therefore changing their positions.

Managing Ordering Facilities

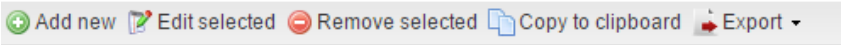
The Ordering Facilities module is used to modify ordering facilities. To open the module, sign into your account on your EMSOW site and follow the path **SETUP → PROCESSING → ORDERING FACILITIES**.



Here you can see the list of ordering facilities arranged in several columns: ID, Short name, Full name, Report logo, Deliver reports to, Dicom issuer IDs, Replication Contacts and Actions.

Multiple ordering facilities are used in custom configurations where it is required to maintain multiple EMSOW sites that send studies to your site for reading and/or billing. In such a setting, each of the sites is treated as an ordering facility, and EMSOW allows you to keep data in sync between your site and the ordering facilities based on data replication. Please contact our technical support if you need to set up a multi-site configuration.

If you need to make some modifications to the existing setup of ordering facilities, use the top toolbar buttons:



— For editing, there is as well another button in the rightmost column **Actions**. You can click it to edit the required ordering facility without selecting it in the table.

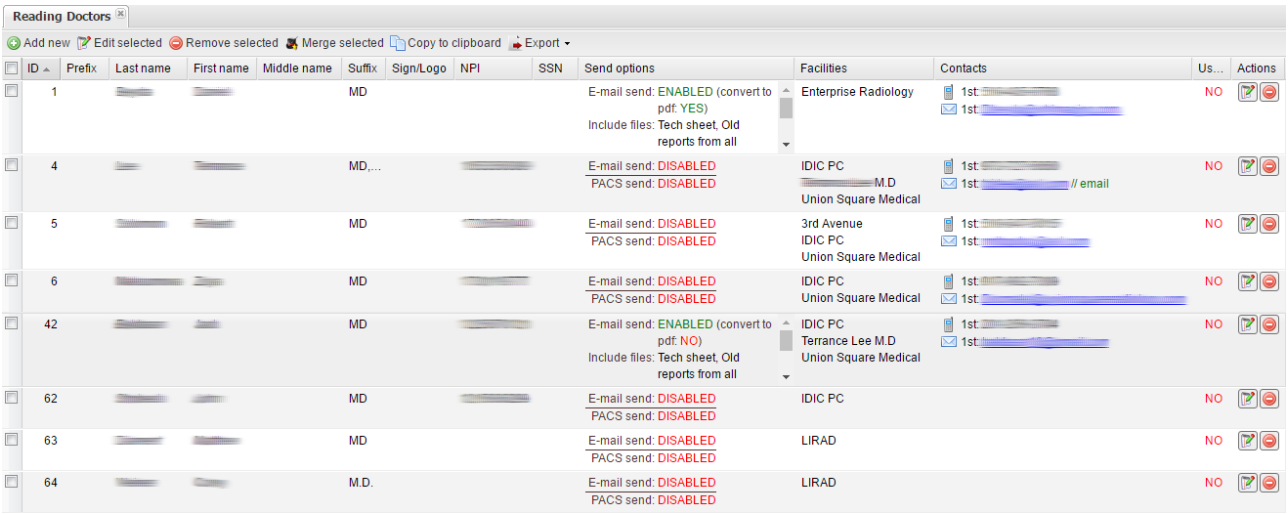
— For removing ordering facilities, there is as well another button in the rightmost column **Actions**. You can click it to remove the required ordering facility without selecting it in the table. Click this button and then click **OK**.

Reading Setup

The Reading Setup module is designed for managing reading doctors, reading facilities, reading rules, reading times, report templates, and report receiver providers.

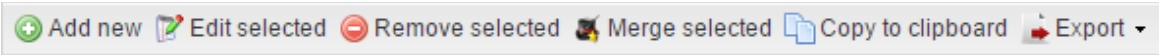
Managing reading doctors

Follow the path **SETUP → READING → READING DOCTORS** to open the **Reading Doctors** tab:



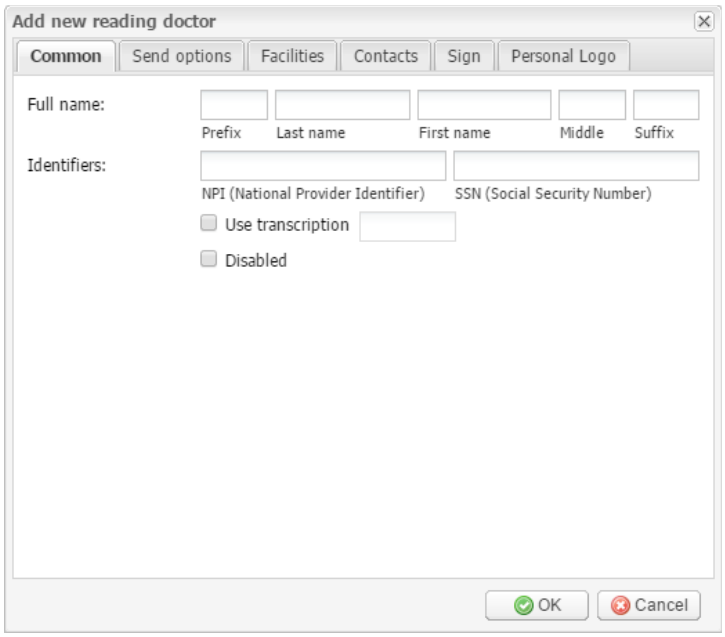
Here you can see the list of reading doctors arranged in the columns: ID, Prefix, Last name, First name, Middle name, Suffix, Sign/Logo, NPI, SSN, Send options, Facilities, Contacts, Use transcription, Actions. The last column contains two buttons for editing and removing a reading doctor.

Above the list of reading doctors you can see the toolbar:

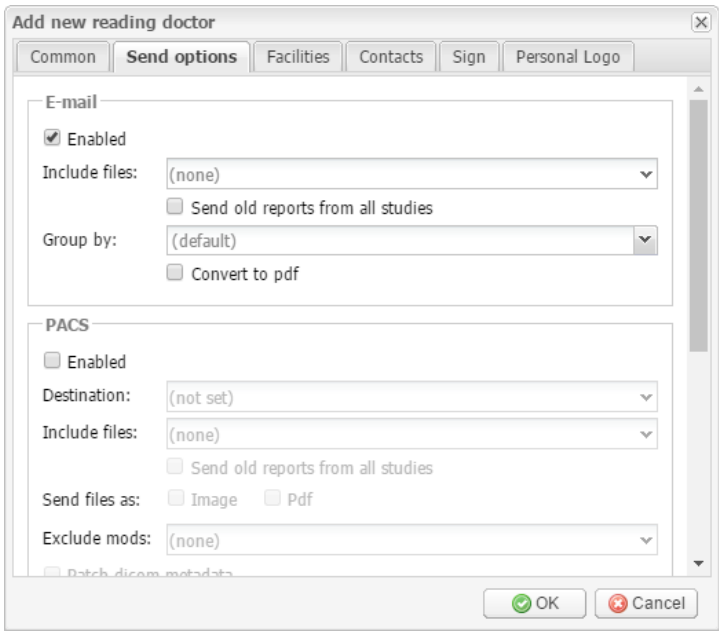


Add new – click this button to add a new reading doctor. As the result, the **Add new reading doctor** window will appear.

Here, on the **Common** tab, you can add the full name (which consists of the prefix, last name, first name, middle name, and suffix) and identifiers (NPI and SSN). Click the **Use transcription** checkbox to set a transcription fee. Click the **Disabled** checkbox to make the reading doctor's account unavailable for use.



On the next tab – **Send options** – you can set up the parameters of sending processed studies to the reading doctor:

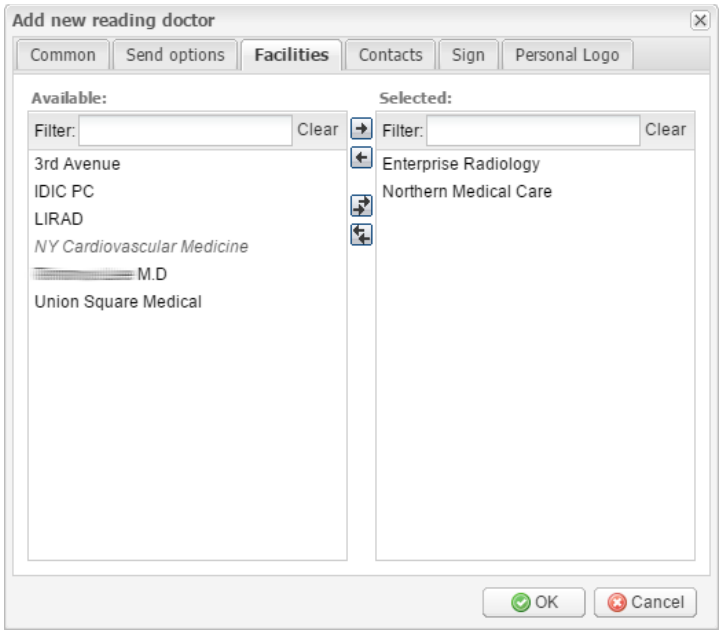


In the **E-mail** section, you can set up the parameters of sending the processed studies via e-mail. To enable sending the processed studies via e-mail, click the **Enabled** checkbox. In the **Include files** list, you can select the file types that can be sent via e-mail. If you need to send old reports from all studies, click the corresponding checkbox. In the **Group by** list, you can select the way of grouping files: all in single file, by patient, by patient/study. If you need to convert files to PDF, click the corresponding checkbox.

In the **PACS** section, you can set up the parameters of sending the processed studies to a PACS server. To enable sending the processed studies to a PACS server, click the **Enable** checkbox. In the **Destination** list, select the required PACS server. In the **Include files** list, you can select the file types that can be sent to the PACS server. If you need to send old reports from all studies, click the corresponding checkbox. If you

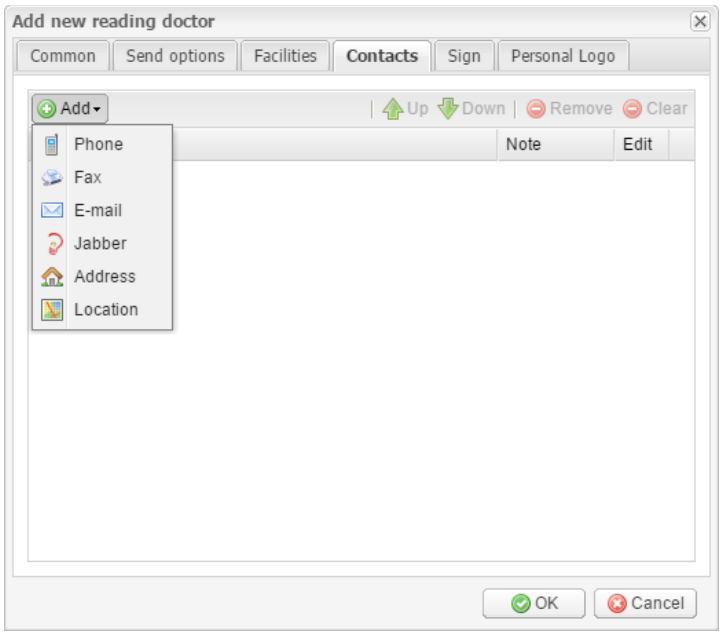
need to send the files as DICOM images or PDF files, check the corresponding checkboxes in the **Send files as** field. In the **Exclude mods** list, you can select the DICOM modalities that will not be sent. Click the **Patch DICOM metadata** checkbox to select the kinds of metadata that will be exported from EMSOW into the DICOM images. If you select **Institution name**, you can also use the referring facility name as the "Institution name" tag and enter a prefix to be added to the name. If you select **Issuer of A/N**, you can also select the accession number type to be exported: auto, internal, or external. External accession numbers are used when studies are sent to your EMSOW site from an external EMSOW site (also known as a client domain).

On the next tab – **Facilities** – you can select reading facilities that the reading doctor is associated with.

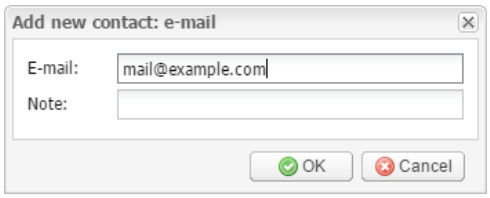


Use the arrow buttons to select the required facility or drag the facility from the **Available** to the **Selected** section. The reading facilities displayed in italic are disabled.

On the next tab – **Contacts** – you can add contacts for the reading doctor. To add a contact, click the **Add** button and select the contact type in the drop-down menu: Phone, Fax, E-mail, Jabber, Address, or Location.

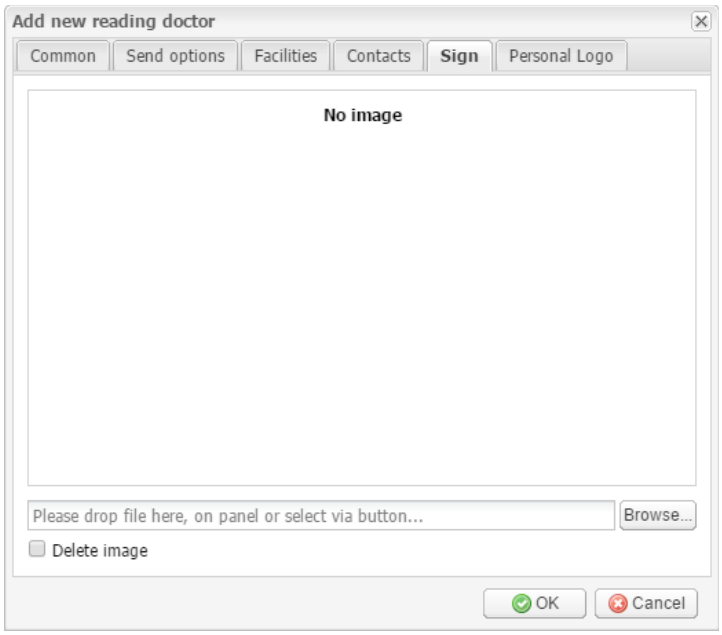


After you select the type of the contact, you can enter the contact information in the new pop-up window:



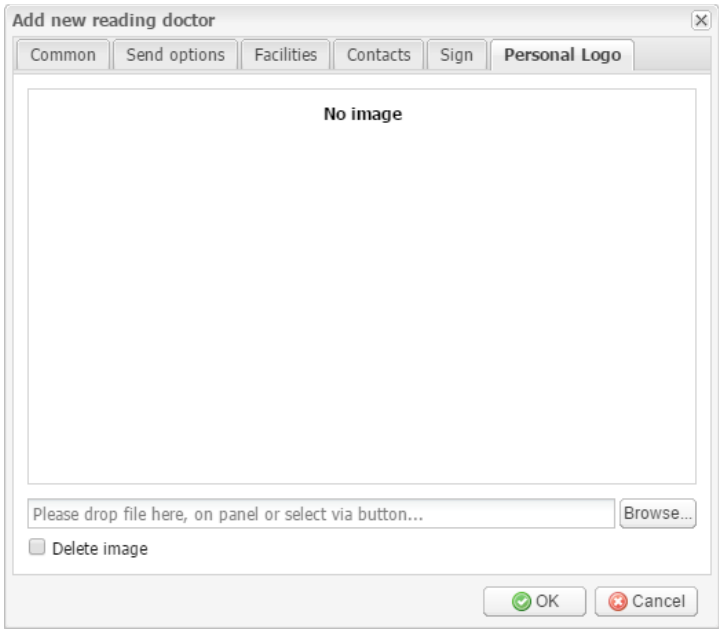
Use the **Up** and **Down** buttons to change the contact's priority over other contacts of the same type. For example, if there are several phone numbers, you can set which of them will be the first, which of them will be the second, and so on. To edit the selected contact, click the **Edit** button or double-click the contact. To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.

On the next tab – **Sign** – you can upload the doctor's signature:



Click the **Browse** button and select the file with the signature. The signature will be used for signing image interpretation reports. To remove the signature, click the **Delete image** checkbox.

The last tab is **Personal Logo.** Here you can upload a personal logo for the doctor by clicking the **Browse** button and selecting the file with the personal logo:



To remove the logo, click the **Delete image** checkbox.

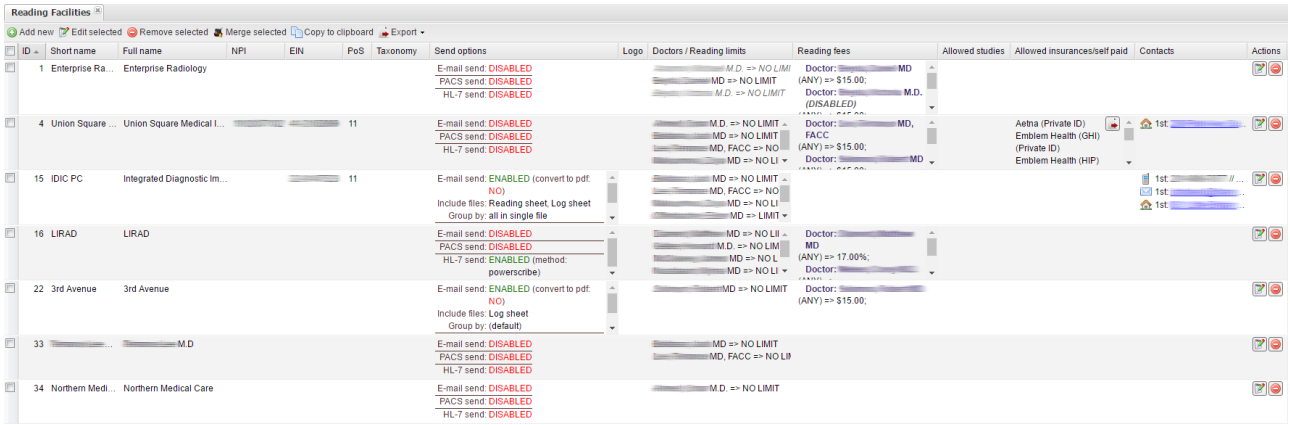
After you enter all necessary information, click **OK** to add the reading doctor or **Cancel** to close the window without saving.

For editing an existing reading doctor, click the **Edit selected** button on the toolbar. You can also double-click the reading doctor or click the edit button in the **Actions** column. As the result, the **Edit reading**

doctor window will appear. This window is identical to the **Add new reading doctor** window described above.

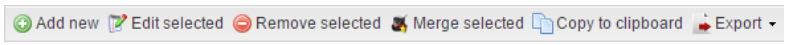
Managing reading facilities

Follow the path **SETUP → READING → READING FACILITIES** to open the **Reading Facilities** tab:

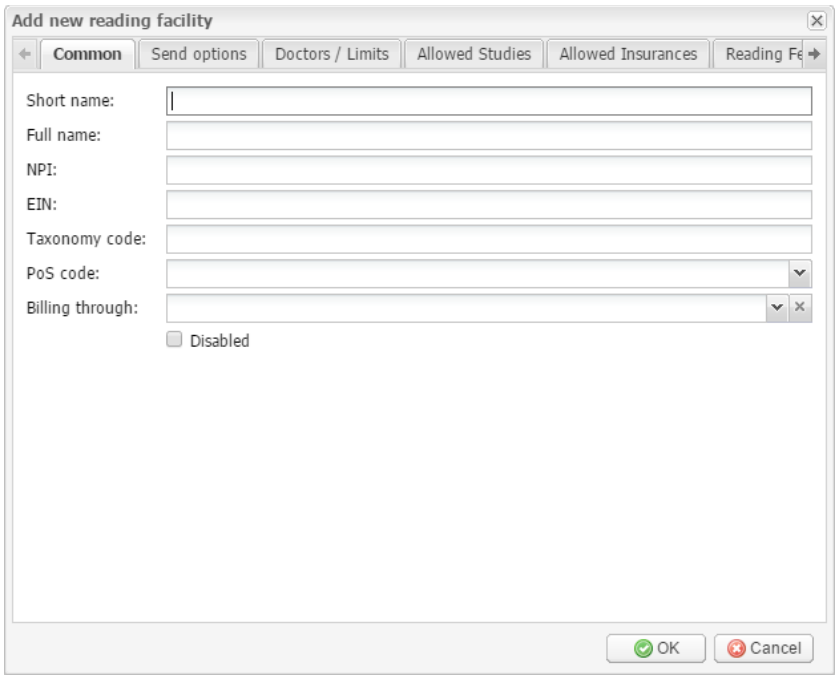


Here you can see the list of reading facilities arranged in the columns: ID, Short name, Full name, NPI, EIN, PoS, Taxonomy, Send options, Logo, Doctors / Reading limits, Reading fees, Allowed studies, Allowed insurances/self-paid, Contacts, and Actions. The last column contains two buttons for editing and removing a reading facility.

Above the list of reading facilities you can see the toolbar:

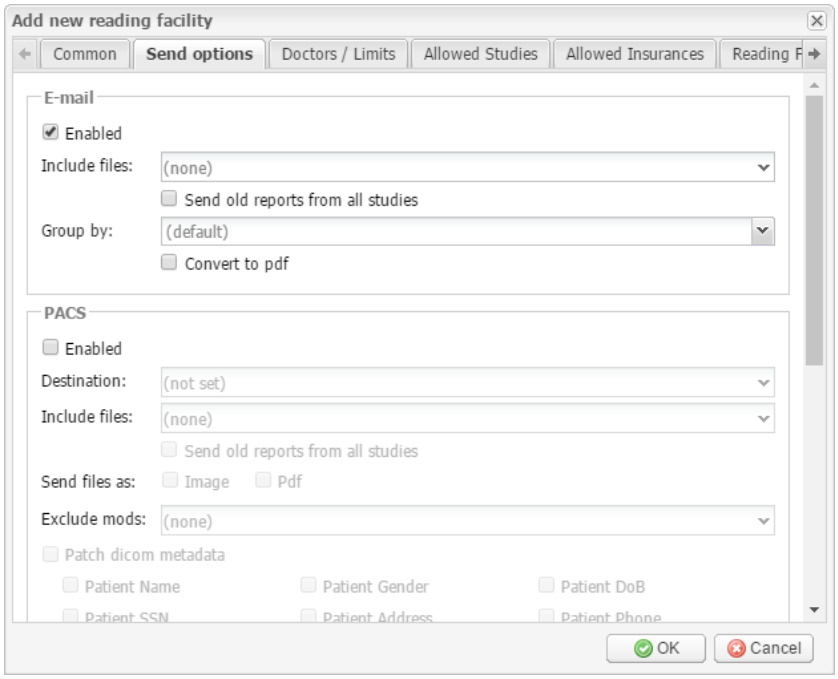


Add new – click this button to add a new reading facility. As the result, the **Add new reading facility** window will appear.



On the **Common** tab, you can enter the short name, full name, NPI, EIN, taxonomy code, and select the PoS code and billing company. Click the **Disabled** checkbox to make the reading facility unavailable for use.

On the next tab – **Send options** – you can set up the parameters of sending processed studies to the reading facility:



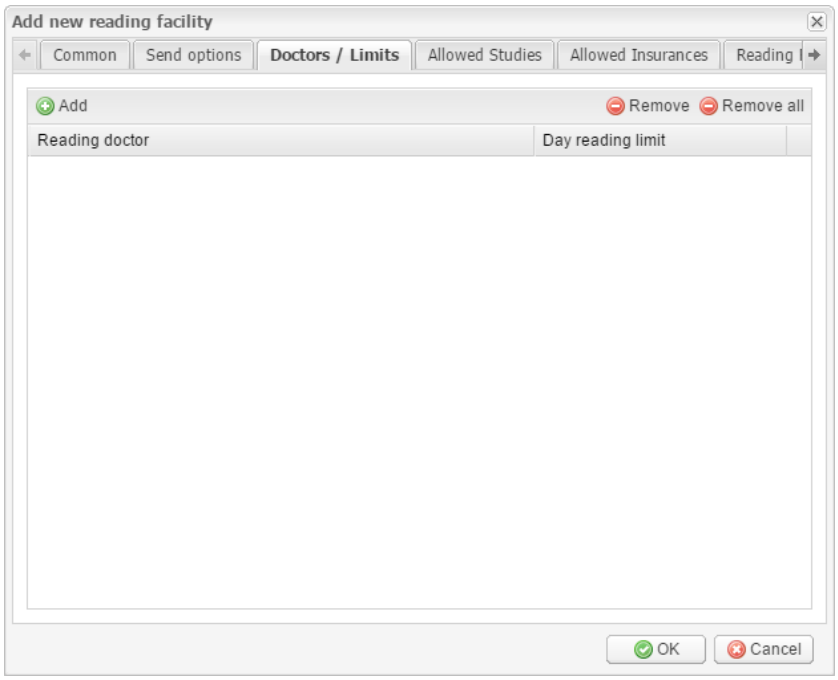
In the E-mail section, you can set up the parameters of sending the processed studies via e-mail. To enable sending the processed studies via e-mail, click the **Enabled** checkbox. In the **Include files** list, you can select the file types that can be sent via e-mail. If you need to send old reports from all studies, click the corresponding checkbox. In the **Group by** list, you can select the way of grouping files: all in single file, by patient, by patient/study. If you need to convert files to PDF, click the corresponding checkbox.

In the **PACS** section, you can set up the parameters of sending the processed studies to a PACS server. To enable sending the processed studies to a PACS server, click the **Enable** checkbox. In the **Destination** list, select the required PACS server. In the **Include files** list, you can select the file types that can be sent to a PACS server. If you need to send old reports from all studies, click the corresponding checkbox. If you need to send the files as DICOM images or PDF files, check the corresponding checkboxes in the **Send files as** field. In the **Exclude mods** list, you can select the DICOM modalities that will not be sent. Click the **Patch dicom metadata** checkbox to select the kinds of metadata that will be exported from EMSOW into the DICOM images. If you select **Institution name**, you can also use the referring facility name as the "Institution name" tag and enter a prefix to be added to the name. If you select **Issuer of A/N**, you can also select the accession number type to be exported: auto, internal, or external. External accession numbers are used when studies are sent to your EMSOW site from an external EMSOW site (also known as a client domain).

In the **HL-7** section, you can set up the parameters of sending the processed studies using the HL-7 standard. To enable sending the processed studies using the HL-7 standard, click the **Enabled** checkbox. Then you can select the desired method. To view its options, click the wrench icon.

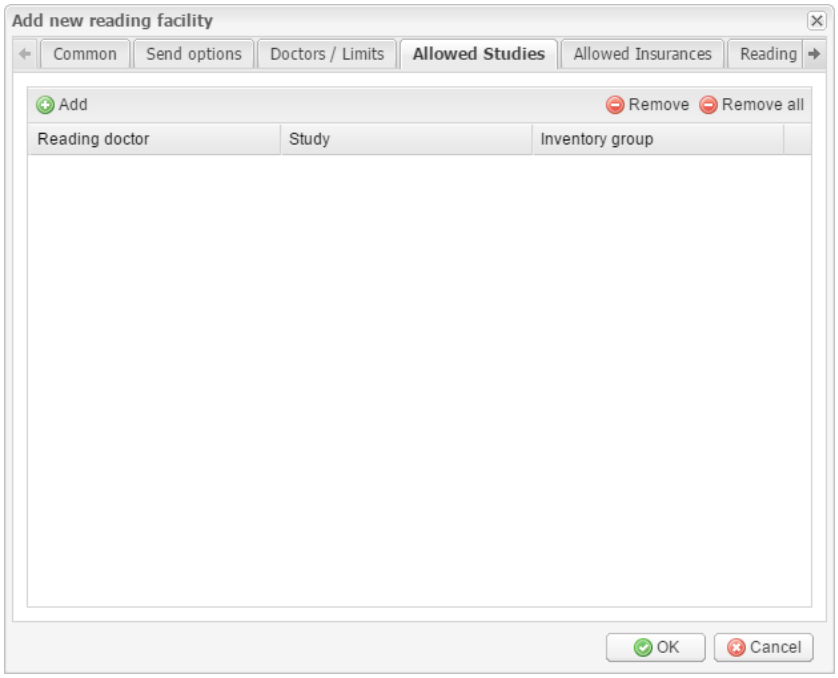
In the **No send** field you can select the reading doctors to which the processed studies will not be sent to.

On the next tab – **Doctors / Limits** – you can set a daily reading limit for each reading doctor:



Click the **Add** button and then select in the **Reading doctor** column the reading doctor for whom you want to set a reading limit. After you select the required reading doctors, you can set their reading limit in the **Day reading limit** column. The default value is *no limit*. To delete a reading limit rule, select it and click the **Remove** button. To delete all rules, click the **Remove all** button.

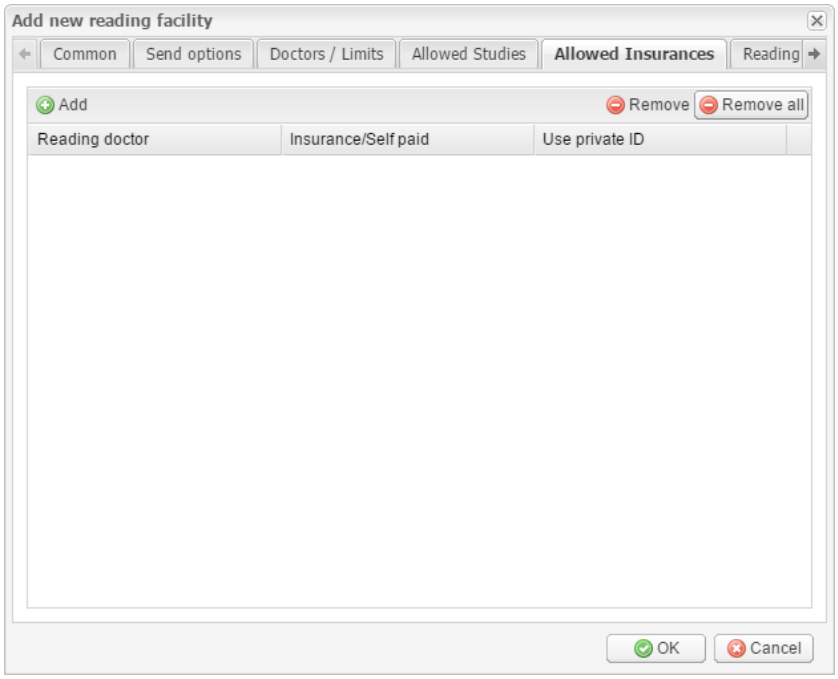
On the next tab – **Allowed Studies** – you can select the studies that a specific reading doctor can read:



Click the **Add** button and then select in the **Reading doctor** column the reading doctor for whom you want to set an allowed study. Then select the allowed study in the **Study** column. You can also select an

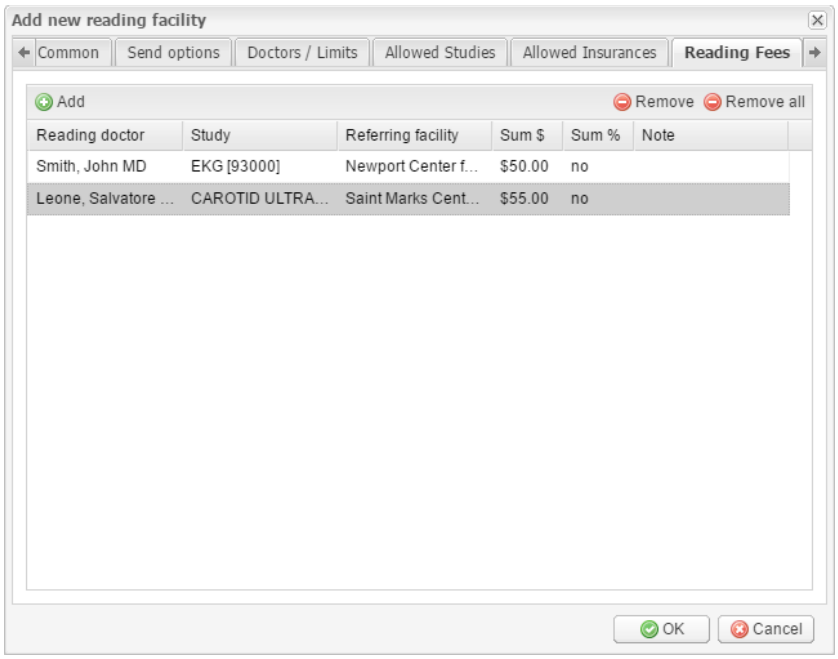
inventory group in the **Inventory group** column. The default value for the last two columns is *(any)*. To delete an allowed study rule, select it and click the **Remove** button. To delete all rules, click the **Remove all** button.

On the next tab – **Allowed Insurances** – you can select allowed insurances for specific reading doctors:



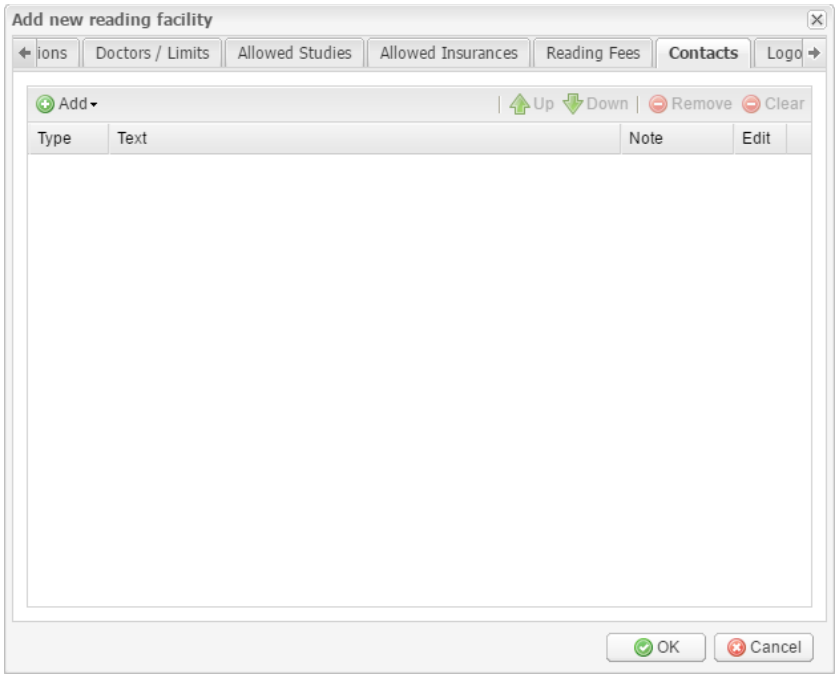
Click the **Add** button and then select in the **Reading doctor** column the reading doctor for whom you want to set an allowed insurance. Then select the allowed insurance in the **Insurance/Self paid** column. The default value is *(any)*. You can also select to use or not to use the private ID in the **Use private ID** column. The default value is *NO*. To delete an allowed insurance rule, select it and click the **Remove** button. To delete all rules, click the **Remove all** button.

On the next tab – **Reading fees** – you can setup the reading fees for reading doctors:



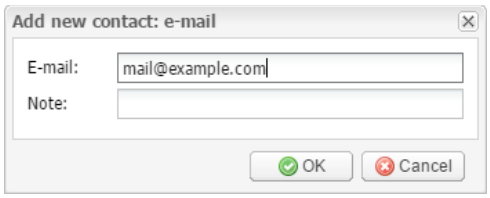
Click the **Add** button to add a new reading doctor the reading fees should be set up for. You can also specify the study and referring facility in the corresponding columns. You can enter the amount of reading fee in US Dollars or in percentage values. In the Note column, you can add an annotation.

On the next tab – **Contacts** – you can add contacts for the reading facility:



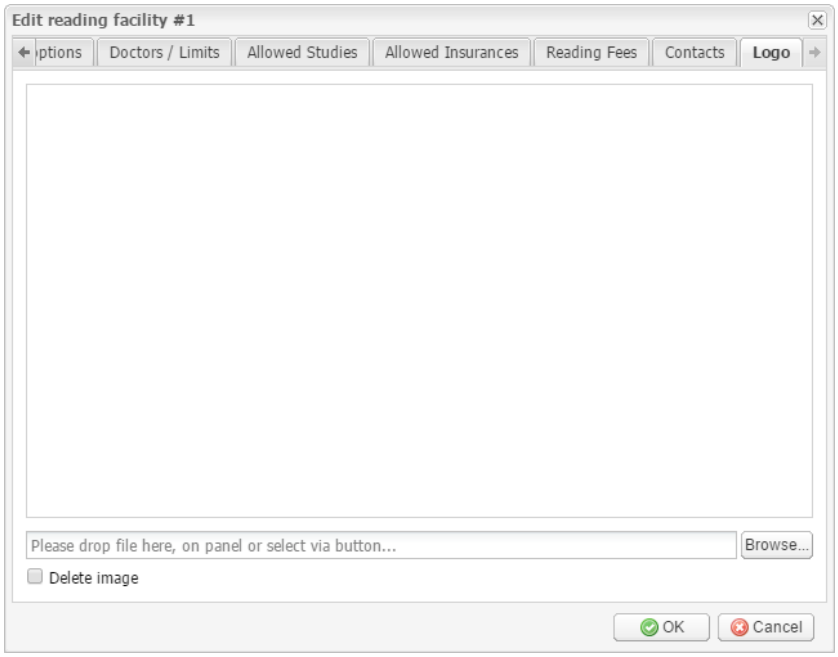
To add a contact, click the **Add** button and select the contact type in the drop-down menu: Phone, Fax, E-mail, Jabber, Address, or Location.

After you select the type of the contact, you can enter the contact information in the new pop-up window:



Use the **Up** and **Down** buttons to change the contact's priority over other contacts of the same type. For example, if there are several phone numbers, you can set which of them will be the first, which of them will be the second, and so on. To edit the selected contact, click the **Edit** button or double-click the contact. To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.

On the last tab – **Logo** – you can upload a logo for the reading facility:



To do this, click the **Browse** button and select the file with the logo. To remove the logo, click the **Delete image** checkbox.

After you enter all necessary information, click **OK** to add the reading facility or **Cancel** to close the window without saving.

To edit an existing reading facility, click the **Edit selected** button on the toolbar. You can also double-click the reading facility or click the edit button in the **Actions** column. As the result, the **Edit reading facility** window will open. This window is identical to the **Add new reading facility** window described above.

Managing reading rules

Follow the path **SETUP → READING → READING RULES** to open the **Reading Rules** tab:

Reading Rules

Add new | Edit selected | Remove selected | Copy to clipboard | Export

ID	Pos.	Condition	Goes to	Note	Actions
139	2	Insurances: 1199, Aetna, Aetna Meritain Health, Aetna Student, Aetna/HTH Worldwide, Affinity Essentials Obamacare, Affinity Medicaid, Affinity Medicare, Americhoice, Americhoice/Medicare,	Primary: LIRAD / (no doctor)	LIRAD-Sage, Medspan, Skylight(Velazsuez, Blakeman, Novof, Ahmed, Zasypkin) LY IMAGING	
483	3	Insurances: 1199, AARP, Aetna, Aetna Meritain Health, Aetna Student, Aetna/HTH Worldwide, American Plan Administrators, Americhoice, Atlantis/Easy Choice, BC/BS, BC/BS Medicare, Centers Plan	Primary: Union Square Medical / Lee, T.	Dr. Lee-Echo- Sage, Medspan	
62	4	Ordering facilities: Total Mobile Ultrasound, Total Mobile Ultrasound NJ Study groups: GENERAL, VASCULAR	Primary: Union Square Medical / Baldasar, J.	Dr. Baldasar- TMU	
788	5	Payers: self Ordering facilities: NatScan, LLC	Primary: Union Square Medical / Maksumova, Z.	Dr. Maksumova- Self for Natscan	
743	6	Ordering facilities: Total Mobile Ultrasound Study groups: ABI, ANS, CARDIO, DPA	Primary: Union Square Medical / Lee, T.	Dr.Lee- TMU	
883	7	Insurances: Medicare Study groups: GENERAL	Primary: Union Square Medical / Baldasar, J.	Baldasar- Medicare-Union	
704	8	Insurances: 1199, AARP, Aetna, Aetna Meritain Health, Aetna Student, Aetna/HTH Worldwide, America's Choice Healthplan, American Plan Administrators, Americhoice,	Primary: Union Square Medical / Maksumova, Z.	Dr. Maskumova- Windree	
763	9	Referring doctors: HSUIH, C. Ordering facilities: Total Mobile Ultrasound	Primary: LIRAD / (no doctor)	TMU-Dr. Hsuih- LIRAD	
44	10	Payers: self Ordering facilities: Leo Sound Waves Study groups: ABI, ANS, CARDIO, DPA	Primary: Union Square Medical / Lee, T.	Dr. lee- Self	

Here you can see the list of reading rules arranged in the columns: ID, Position, Condition, Goes to, Note, and Actions. The last column contains two buttons for editing and removing the reading rule and also contains arrow buttons for changing the priority of a reading rule.

The reading rules determine where processed studies will be sent for reading.

Above the list of reading rules you can see the toolbar:

Add new | Edit selected | Remove selected | Copy to clipboard | Export

Add new – use this button to add a new reading rule. After you click this button, the **Add new reading rule** window appears:

Add new reading rule

Properties

Position: Disabled

Note:

Condition

Payers: (any)

Insurances: (any)

Referring facilities: (any)

Referring states: (any)

Referring doctors: (any)

Ordering facilities: (any)

Branches: (any)

Business types: (any)

Technologists: (any)

Rendering providers: (any)

OK | Cancel

It consists of three sections: **Properties**, **Condition**, and **Goes to (reading)**.

In the **Properties** section in the **Position** field, enter the number of the rule. This number determines the priority of the rule. The lower the number, the higher the priority. Select the **Disabled** checkbox to make the reading rule unavailable for use. In the **Note** field you can type an annotation for the rule.

In the **Condition** section, you can select various conditions, such as payers (insured or self-pay patients), insurances, referring facilities, referring states, referring doctors, ordering facilities, branches, business types, technologists, rendering providers, studies, study groups, and inventory groups.

If a processed study meets these conditions, the study will be sent to the reading facility or the reading doctor specified in the **Goes to (reading)** section. In this section, to add a destination for reading, click the **Add** button. Then select the position (primary, secondary, tertiary, or additional), reading facility, reading doctor, amount of reading fees in US dollars, and (or) amount of reading fees in percentage values. In the **No send** column, you can choose not to send the study to the specified reading doctor.

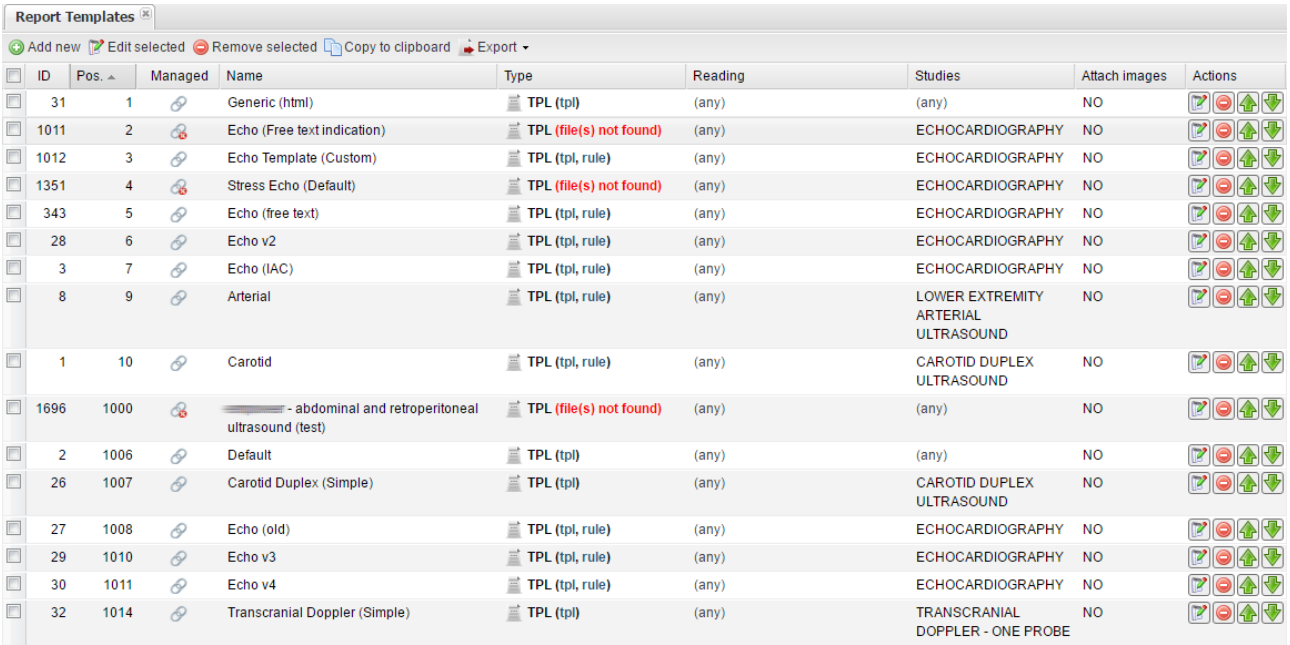
If there are multiple doctors specified, the doctors will receive the study for reading in order from last to first. The first doctor in the list, or the primary reading doctor, will be the one who puts their signature on the report. Each of the doctors may be assigned a different fee for their work.

After you specify all required data, click **OK** to add the reading rule or **Cancel** to close the window without saving.

To edit an existing reading rule, click the **Edit selected** button on the toolbar, or double-click the reading rule. You can also click the editing button in the **Actions** column. As the result, the **Edit reading rule** window appears. This window is identical to the **Add new reading rule** window described above.

Managing reading report templates

Follow the path **SETUP → READING → REPORT TEMPLATES** to open the **Report Templates** tab:

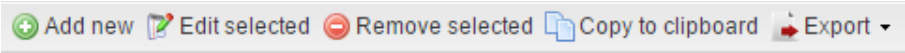


ID	Pos.	Managed	Name	Type	Reading	Studies	Attach images	Actions
31	1		Generic (html)	TPL (tpl)	(any)	(any)	NO	
1011	2		Echo (Free text indication)	TPL (file(s) not found)	(any)	ECHOCARDIOGRAPHY	NO	
1012	3		Echo Template (Custom)	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
1351	4		Stress Echo (Default)	TPL (file(s) not found)	(any)	ECHOCARDIOGRAPHY	NO	
343	5		Echo (free text)	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
28	6		Echo v2	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
3	7		Echo (IAC)	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
8	9		Arterial	TPL (tpl, rule)	(any)	LOWER EXTREMITY ARTERIAL ULTRASOUND	NO	
1	10		Carotid	TPL (tpl, rule)	(any)	CAROTID DUPLEX ULTRASOUND	NO	
1696	1000		[redacted] - abdominal and retroperitoneal ultrasound (test)	TPL (file(s) not found)	(any)	(any)	NO	
2	1006		Default	TPL (tpl)	(any)	(any)	NO	
26	1007		Carotid Duplex (Simple)	TPL (tpl)	(any)	CAROTID DUPLEX ULTRASOUND	NO	
27	1008		Echo (old)	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
29	1010		Echo v3	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
30	1011		Echo v4	TPL (tpl, rule)	(any)	ECHOCARDIOGRAPHY	NO	
32	1014		Transcranial Doppler (Simple)	TPL (tpl)	(any)	TRANSCRANIAL DOPPLER - ONE PROBE	NO	

Here you can see the list of report templates arranged in the columns: ID, Position, Managed, Name, Type, Reading, Studies, Attach Images, and Actions. The last column contains two buttons for editing and

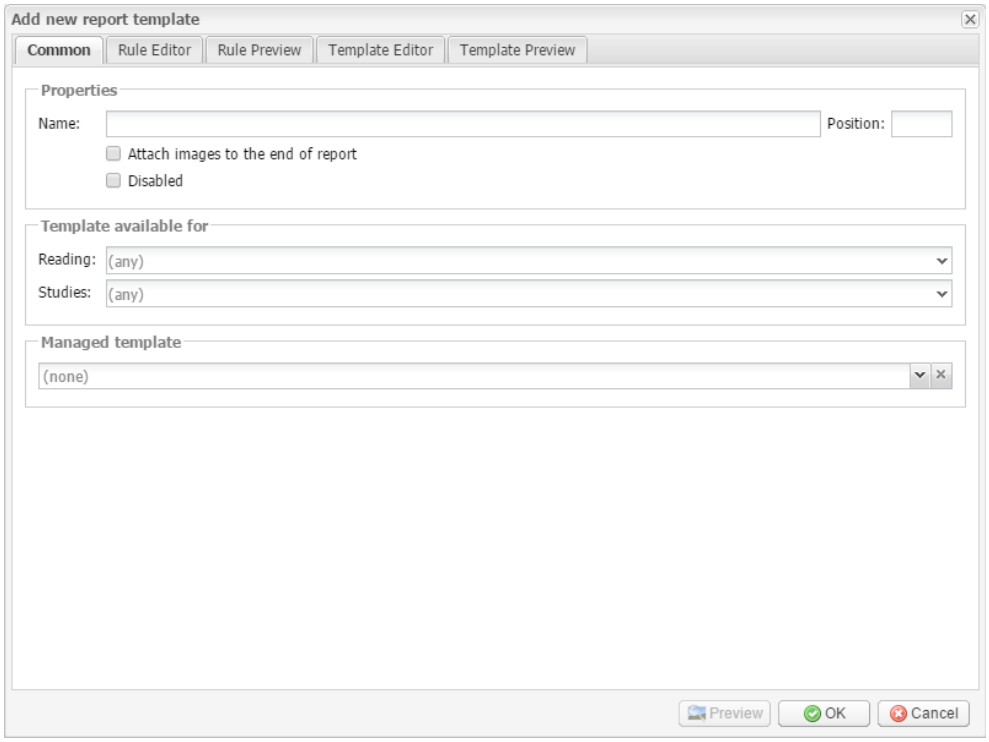
removing a report template and also contains the arrow buttons for changing the priority of report templates.

Above the list of report templates you can see the toolbar:



Add new – click this button to add a new report template. As the result, the **Add new report template** window appears:

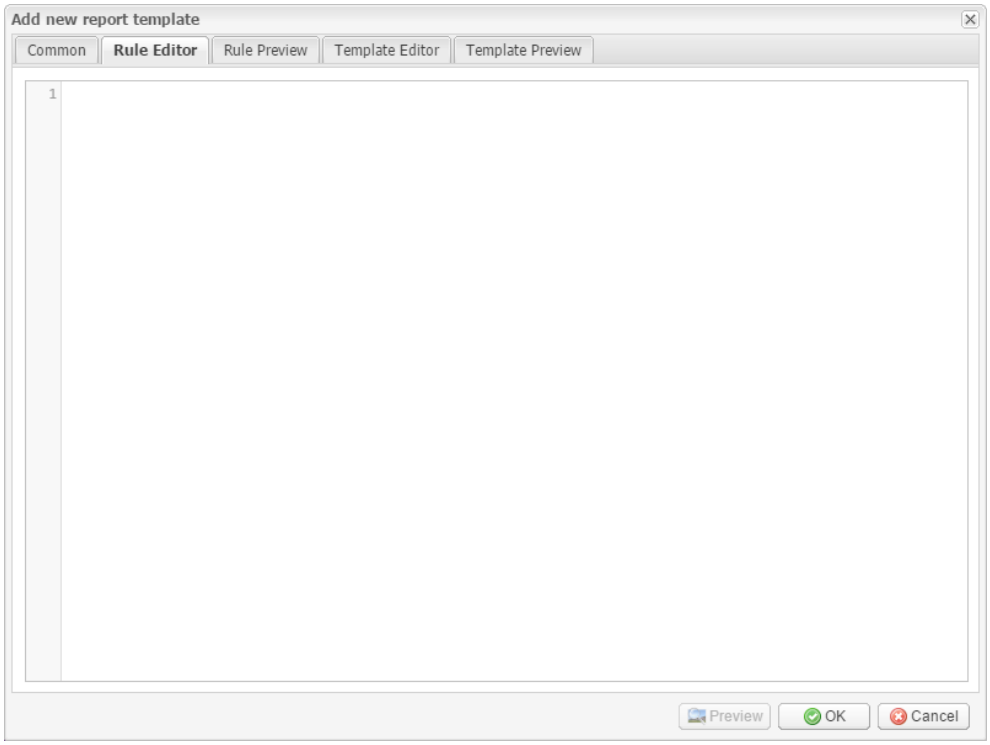
On the **Common** tab in the **Properties** section, you can add a name for the new report template in the **Name** field. In the **Position** field, you can set the position of the report template. If you need to attach images (non-DICOM) to the end of the report, click the corresponding checkbox. Click the **Disabled** checkbox to make the report template unavailable for use.



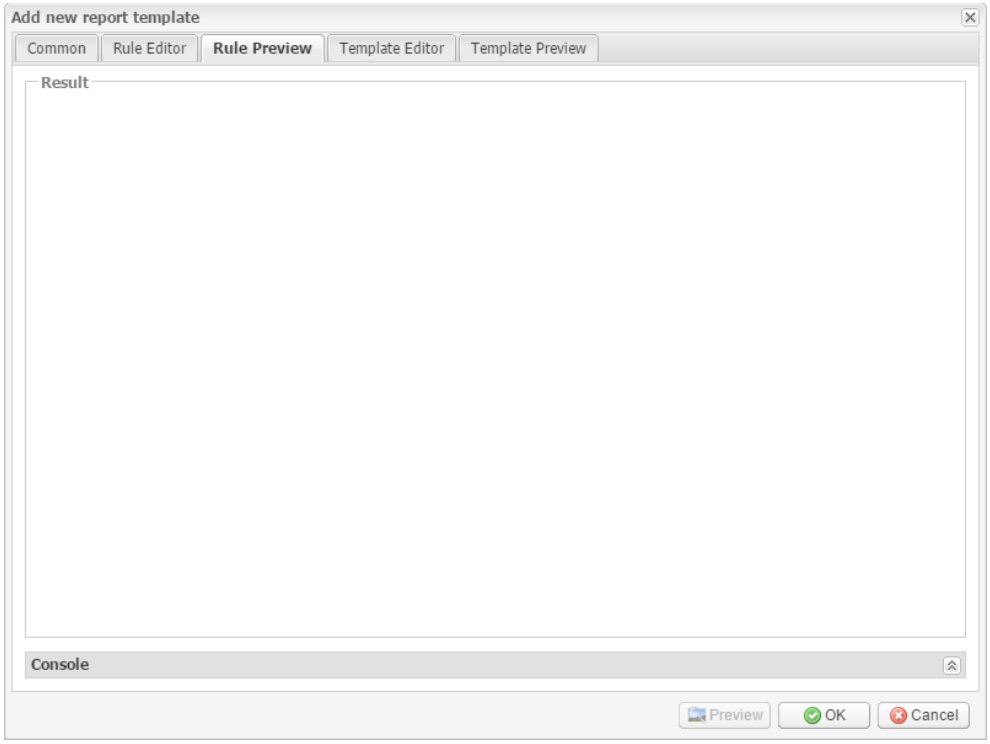
The **Template available for** section allows you to set reading doctors and studies for which the template will be available.

In the **Managed template** section you can link the new template to one of the available managed templates. The managed templates are default templates maintained by Universal Software.

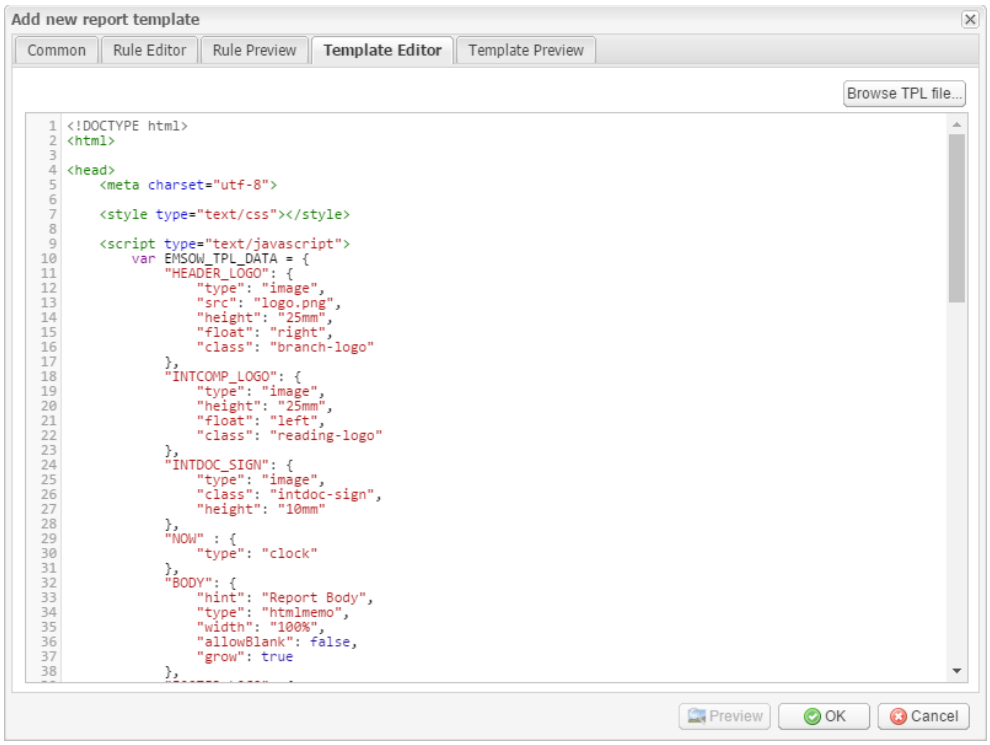
The **Rule Editor** tab allows you to set a rule that provides data import from DICOM images to the report:



To set the rule, you must enter a JavaScript code. On the next tab – **Rule Preview** – you can see the preview of the rule entered on the previous tab:

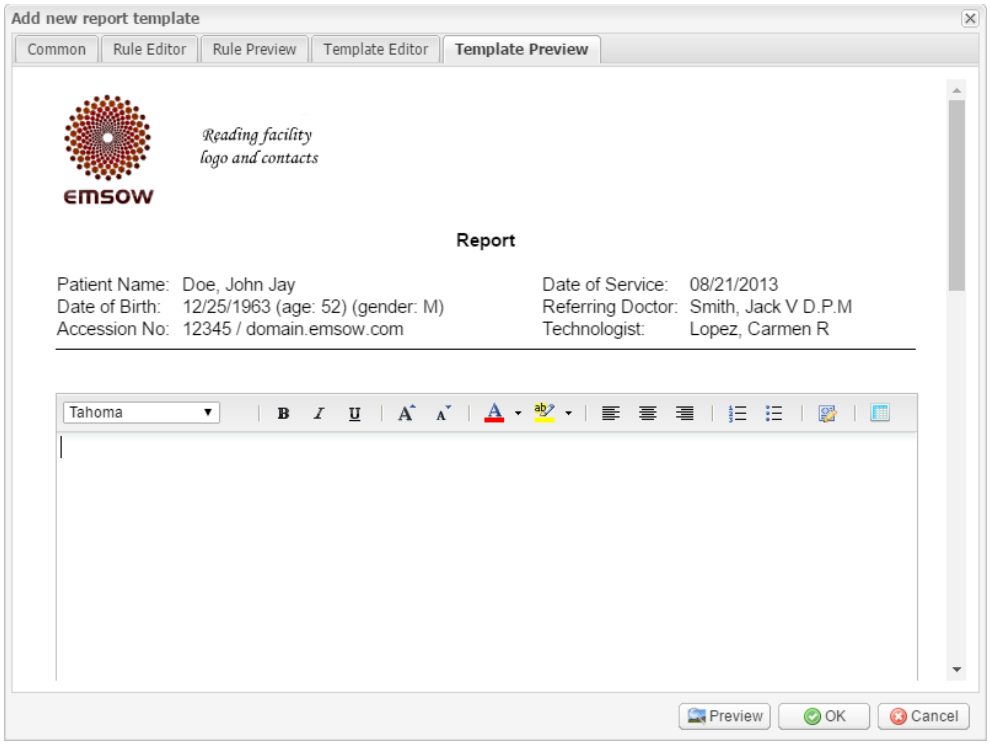


On the **Template Editor** tab you can edit the representation of the new template using HTML, CSS, and JavaScript:



To upload an external template file (*.tpl), click the **Browse TPL file…** button.

On the next tab – **Template Preview** – you can see the preview of the new template:

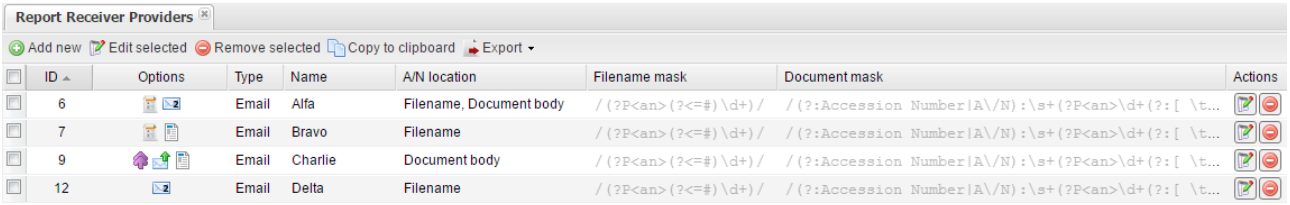


The **Preview** button allows you to generate a PDF file with the new template.

Click **OK** to add the new template or **Cancel** to close the window without saving.

To edit an existing report template, click the **Edit selected** button on the toolbar or double-click the report template. You can also click the edit button in the **Actions** column. As the result, the **Edit report template** window will appear. This window is identical to the **Add new report template** window described above.

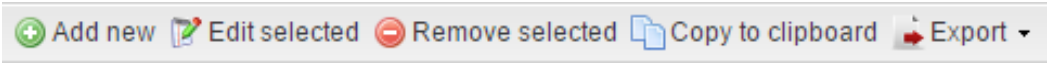
Managing report receiver providers



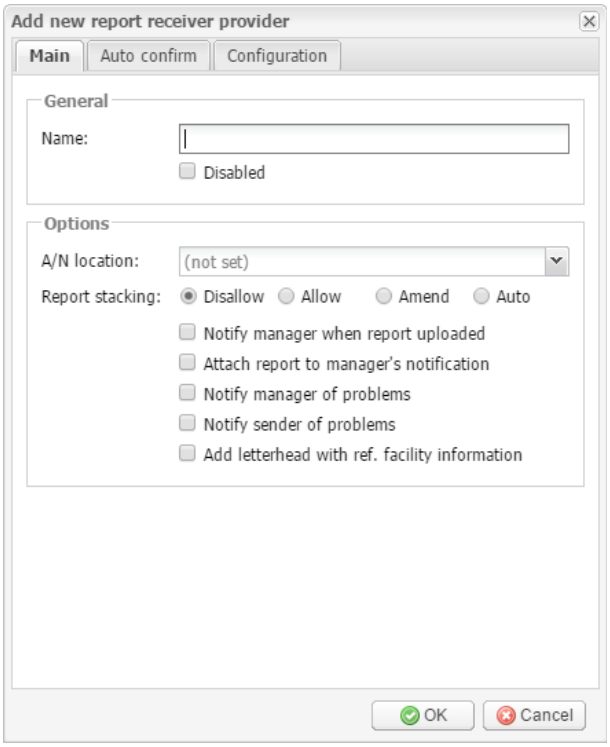
Follow the path **SETUP → READING → REPORT RECEIVER PROVIDERS** to open the **Report Receiver Providers** tab:

Here you can see the list of report receiver providers arranged in the columns: ID, Options, Type, Name, A/N location, Filename mask, Document mask, and the Actions. The last column contains two buttons for editing and deleting a report receiving provider.

Above the list of report receiver providers you can see the toolbar:



To add a new report receiving provider, click the **Add new** button. As the result, the **Add new report receiver provider** window appears:



Enter the name of the new report receiving provider in the **Name** field. Click the **Disabled** checkbox to make the report receiving provider unavailable for use.

In the **A/N location** field, select where to search for an accession number: in the file name, in the document body, or both.

The **Report stacking** field has four radio buttons that determine how the system handles the situation when a user attempts to add a report to a study that already has a report:

- **Disallow** – an additional report cannot be attached, and the following error appears when the user attempts to attach an additional report: ”Unable to attach report to the service and study with already attached report”.
- **Allow** – an additional report will be attached as ”report“; the previous report will stay as ”report”.
- **Amend** – an additional report will be attached as ”report“; the previous report will be marked as ”archived report”.
- **Auto** – settings are set automatically.

There are also five checkboxes:

Notify manager when report uploaded – the manager will get an e-mail message notifying that a report was uploaded (if the **Auto confirm received reports** option is enabled).

Attach report to manager's notification – when the manager gets an e-mail message that notifies about an uploaded report or asks for confirmation, the report will be attached to the e-mail message.

Notify manager of problems – if the report was not attached for some reason, the manager will get an e-mail message with the reason why report was not attached.

Notify sender of problems – if the report was not attached for some reason, the sender (reply address) will get an e-mail message with the reason why the report was not attached.

Add letterhead with ref. facility information – the manager will get an e-mail with a letterhead that contains referring facility information.

On the **Auto confirm** tab you can set the parameters of automatic confirmation of the reports. If you click the **Disabled** radio button, the report will not be marked as confirmed and the manager will get an e-mail message that asks for confirmation. If you click the **Enabled** radio button, the report will be automatically marked as confirmed. The **Custom** radio button allows you to set custom conditions for the automatic confirmation of the report. The available conditions are: valid patient name, valid date of service, and valid date of birth.

On the **Configuration** tab you can specify e-mail server and user settings. In the **Masks** section you can enter regular expressions for matching an accession number in the subject or sender field or in the file name. Using the **Keep mail for… days** field you can set how long the system will store e-mails before deleting.

After you specify all necessary parameters, click **OK** to save settings or **Cancel** to close the window without saving.

To edit an existing report receiver provider, click the **Edit selected** button on the toolbar, or double-click the report receiver provider. You can also click the edit button in the **Actions** column. As the result, the **Edit report receiver provider** window will appear. This window is identical to the **Add new report receiver provider** window described above.

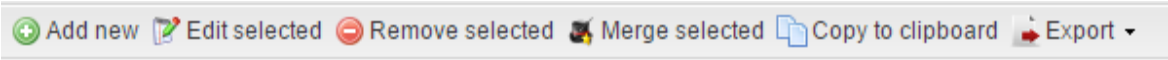
Referring setup

The Referring module allows you to perform a variety of modifications with referring doctors, referring facilities and accounts.

Managing referring doctors

In order to open the Referring doctors module, sign into your account on your EMSOW site, click **SETUP** in the upper navigation bar, click **REFERRING** in the drop-down menu and then click **REFERRING DOCTORS** in the next drop-down menu.

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:

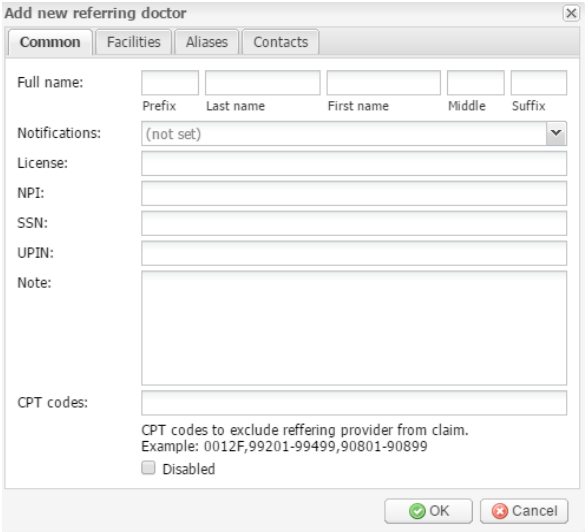


Add new – click this button to add a new referring doctor. In a new window, fill out fields with the doctor's information. On the **Common** tab enter the doctor's full name, license, NPI (it must be a numerical value like 0123456789), SSN, UPIN.

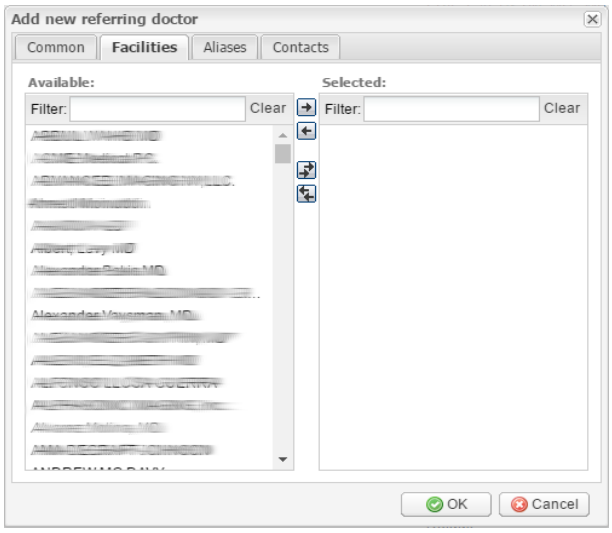
To notify the doctor about new study interpretation reports, select the notification type in the **Notifications** field (Web, E-mail, Fax, Mail or no notification). Note that the appropriate contact information should be entered on the **Contacts** tab (such as the doctor's email address).

In the **CPT codes** field, you can enter CPT codes for which this referring provider should be excluded from claims.

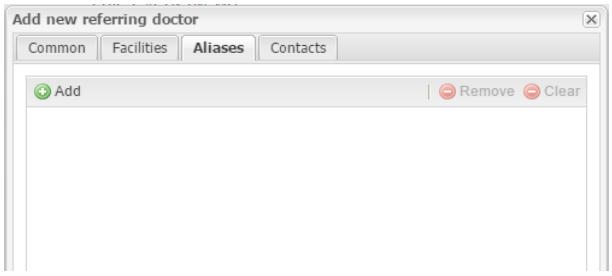
You can add a note if necessary in the **Note** field as well as disable the doctor's record by selecting the **Disabled** checkbox.

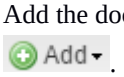


In the **Facilities** section select the doctor's facilities. You can add and remove them using the buttons with arrows.



The **Aliases** section allows you to add aliases which provide a way to recognize alternative spellings of the doctor's name. It can be useful when the doctor's name is spelled differently on your diagnostic equipment. For example, if the name of John Doe is spelled as "JOHNDOEMD" on the equipment, you can add this spelling as an alias.



Add the doctor's phone, fax number or E-mail address on the **Contacts** section by clicking the **Add** button 

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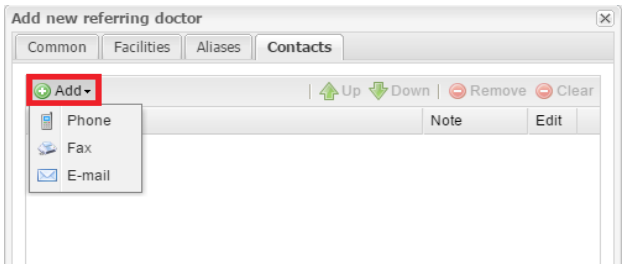
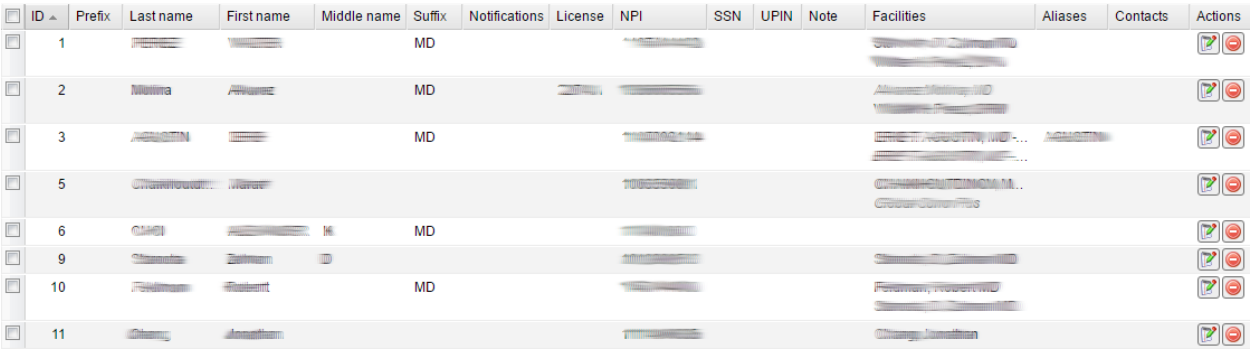


The Referring Doctors module displays a list of referring doctors arranged in several columns: ID, Prefix, Last, First and Middle names, Suffix, Notifications, License, NPI, SSN, UPIN, Note, Facilities, Aliases, Contacts and Actions.



Edit selected – this button opens a referring doctor edit window, which is identical to the **Add new referring doctor** window described above. After editing a doctor's record, click **OK** to save the modifications or **Cancel** to quit without saving.

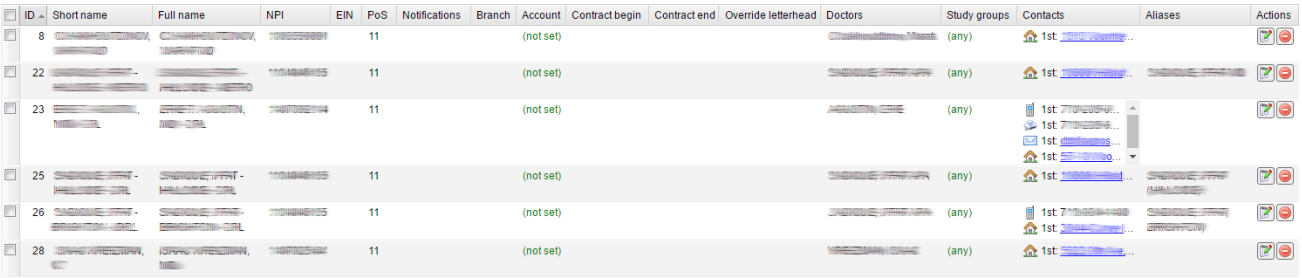
 — For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required doctor account without selecting it in the table.

 — For removing doctors, there is as well another button in the rightmost column **Actions**. It allows you to remove the required doctor account without selecting it in the table. Click this button and then click **OK**.

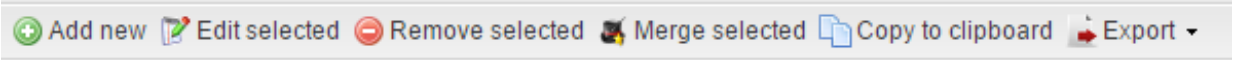
Managing referring facilities

EMSOW supports multiple orders from one referring facility if they are for different ordering facilities.

To open the referring facilities module, follow the path **SETUP → REFERRING → REFERRING FACILITIES**:



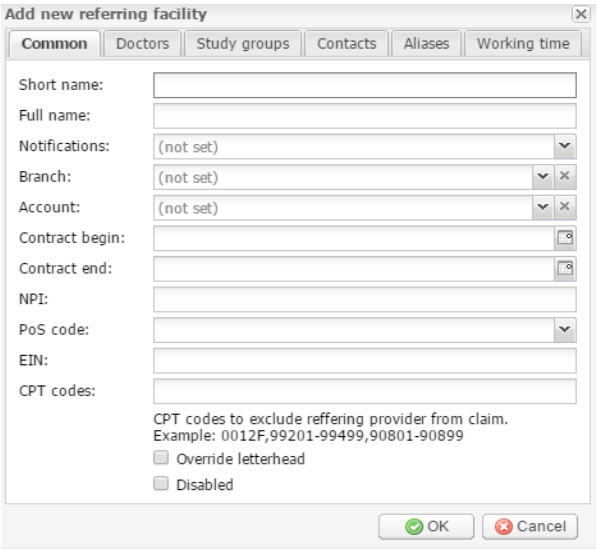
On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new referring facility. In a new window, fill out fields with the facility's information. On the **Common** tab you need to enter its Short and Full names, the appropriate dates in the **Contract begin** and **Contract end** fields, NPI (it must be a numerical value like 0123456789) and EIN.

To notify the doctors of the facility about new study interpretation reports, select the notification type in the **Notifications** field (Web, E-mail, Fax, Mail or no notification). Note that the appropriate contact information should be entered on the **Contacts** tab (such as the facility's email address).

In the **CPT codes** field, you can enter CPT codes for which this referring provider should be excluded from claims.

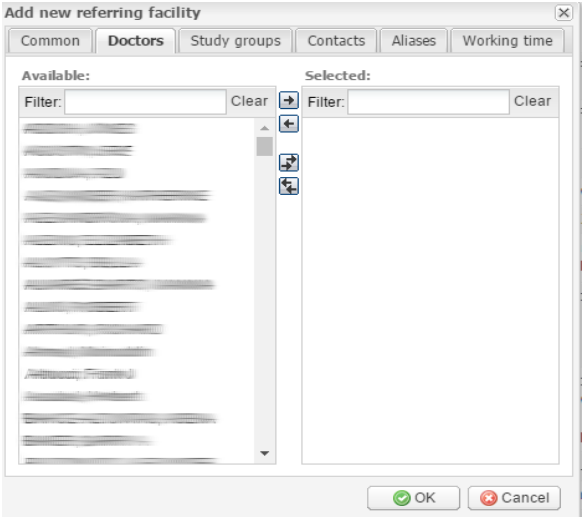


This module allows you to e-mail reports to referring facilities. The report sending method can be set in the Notifications field.

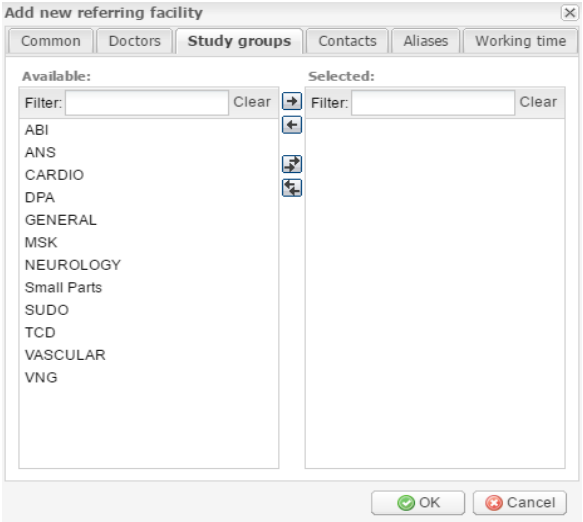
You can select the **Override letterhead** checkbox to override default letterheads.

You can disable the facility's record by selecting the **Disabled** checkbox.

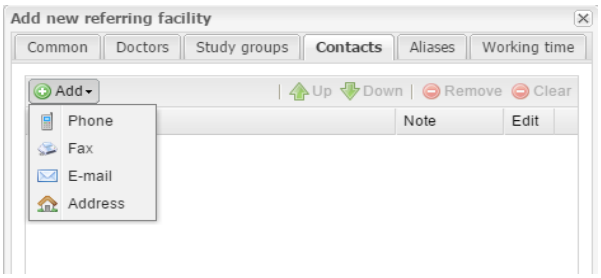
On the **Doctors** tab select the doctors who work in this facility. You can add and remove them using the buttons with arrows.



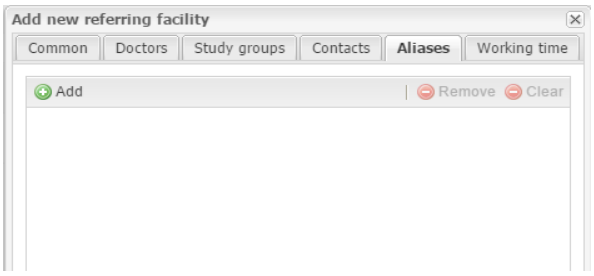
On the **Study groups** tab you can set groups of studies for which the facility refers patients. You can add and remove them using the buttons with arrows.



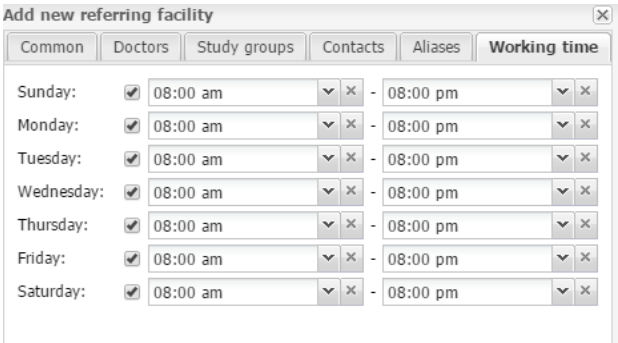
On the **Contacts** tab you can click the **Add** button to select various contacts for the facility in the drop-down menu, such as phone and fax numbers, e-mail and street address. Use the **Up** and **Down** buttons to change the priority of the contact (for example, if the facility has two e-mails, you can set which of them will be primary). To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.



The **Aliases** tab allows you to add alternative names for the facility. This provides a way to recognize different spellings of the facility's name.



You can set the facility's work hours on the **Working time** tab.



Click **OK** to save the new facility or **Cancel** to quit without saving.

Edit selected – this button opens a referring facility edit window, which is identical to the **Add new referring facility** window described above. After editing the required facility, click **OK** to save the changes or **Cancel** to quit without saving.

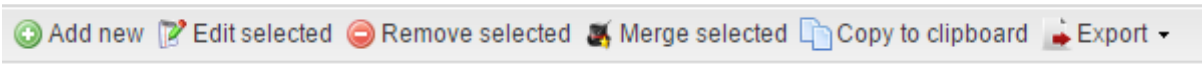
— For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required facility without selecting it in the table.

— For removing referring facilities, there is as well another button in the rightmost column **Actions**. It allows you to remove the required facility without selecting it in the table. Click this button and then click **OK**.

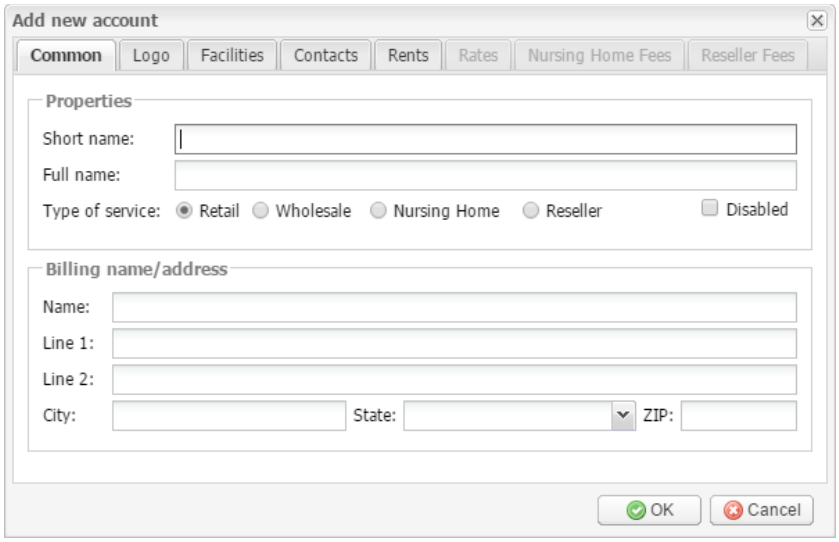
Managing referring accounts

Follow the path **SETUP → REFERRING → ACCOUNTS** to open the accounts managing tab:

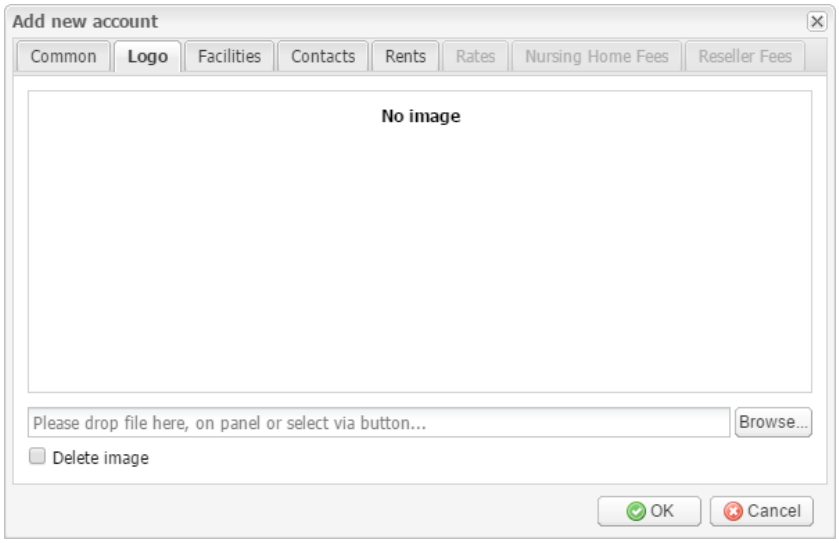
On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new referring account. In a new window, fill out fields with information of the new account. On the **Common** tab, there are such sections as **Properties** and **Billing name/address**. The **Properties** section is required to be filled out; it includes the short and the full name of the account. Select the type of service next to **Type of service:** Retail, Wholesale, Nursing Home or Reseller. You can disable the account record by selecting the **Disabled** checkbox. In the **Billing name/address** section, fill out the following fields: Name, Line 1, Line 2, City, State and ZIP-code.

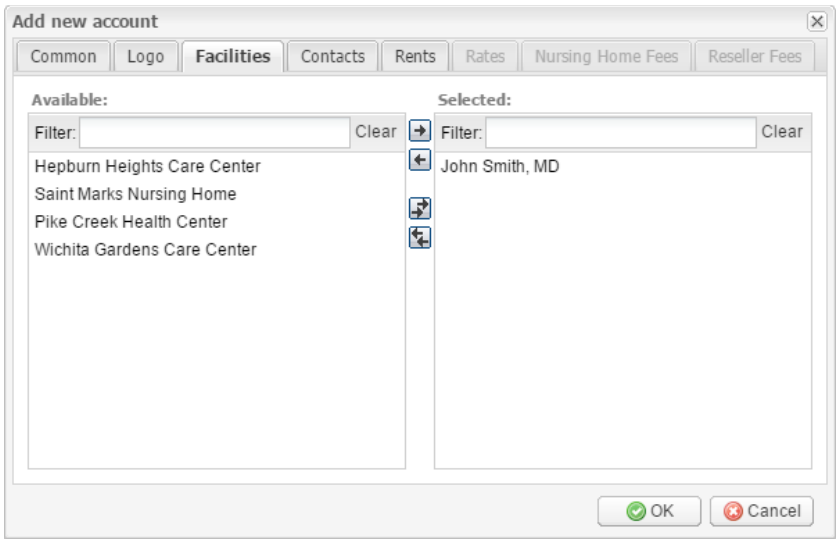


On the **Logo** tab you can upload a logo for the referring account:

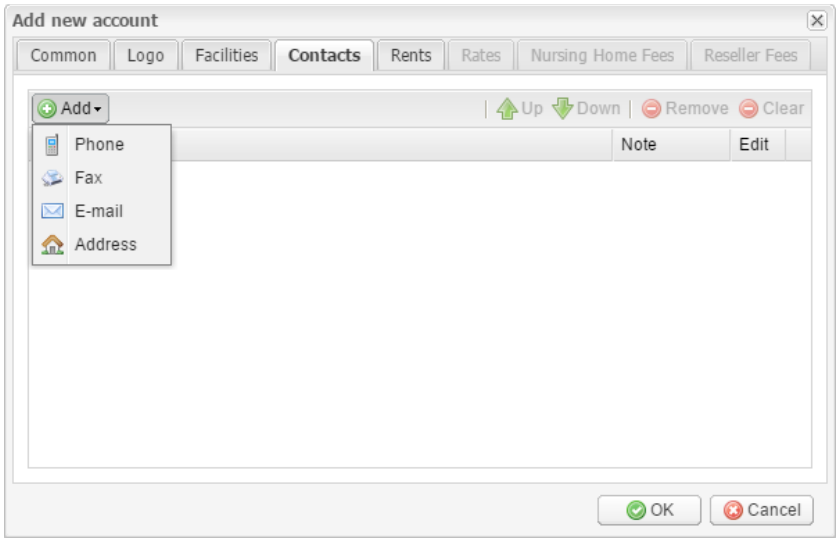


To upload a logo, click the **Browse** button and select the file with the logo. To remove the logo, click the **Delete image** checkbox.

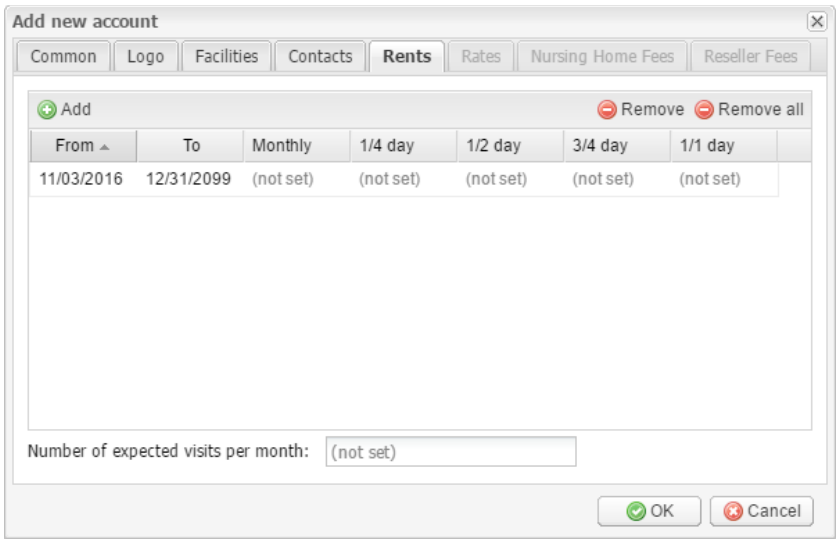
On the **Facilities** tab, select the required facilities to add them to the account. You can add and remove them using the buttons with arrows.



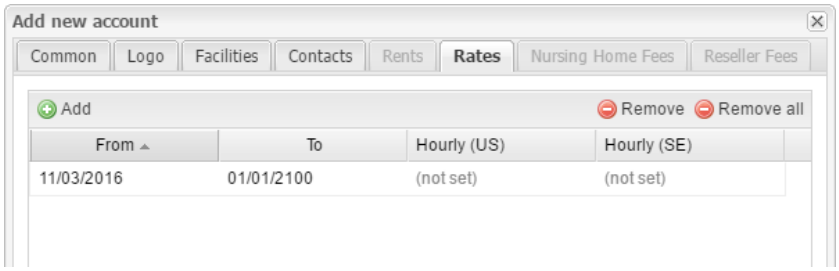
On the **Contacts** tab you can click the **Add** button to select various contacts for the account in the drop-down menu, such as phone and fax numbers, e-mail and street address. Use the **Up** and **Down** buttons to change the priority of the contact (for example, if the account has two e-mails, you can set which of them will be primary). To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.



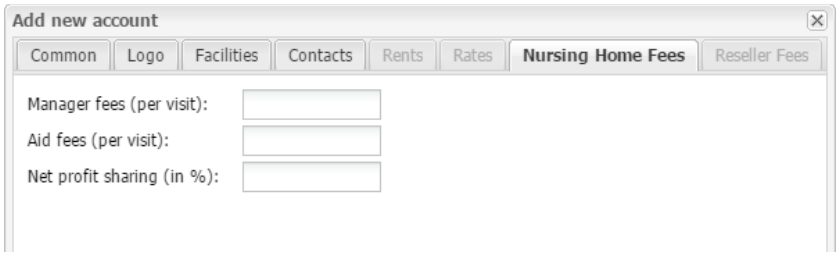
If you are adding a retail referring account, the **Rents** tab is available for you to fill out where you can set the amount of rent to be paid depending on the time a technologist spends in the facility (payment can be made on a monthly basis or per hour). Click the **Add** button, set the required date range, and then set the required time options: Monthly, 1/4 day – 2 hours, 1/2 day – 4 hours, 3/4 day – 6 hours or, 1/1 day – 8 hours. Set the number of expected visits per month in the field below.



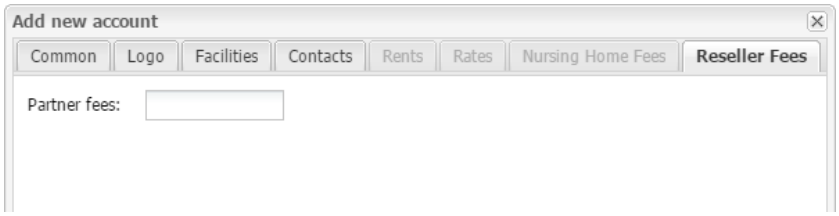
If you are adding a wholesale referring account, the **Rates** tab is available for you to fill out. Click the **Add** button and set the required date range in the **From** and **To** columns. In the **Hourly (US)** and **Hourly (SE)** columns, enter hourly rates to be paid for ultrasound and stress echocardiography respectively. Only these two categories are available in the current version of the system, and at least one category has to be set.



If you are adding a nursing home referring account, the **Nursing Home Fees** tab is available with the following fields to be filled out: manager fees (per visit), aid fees (per visit) and net profit sharing (in %).



If you are adding a reseller referring account, the **Reseller Fees** tab is available with the **Partner fees** field to be filled out.



Click **OK** to save the new account or **Cancel** to quit without saving.

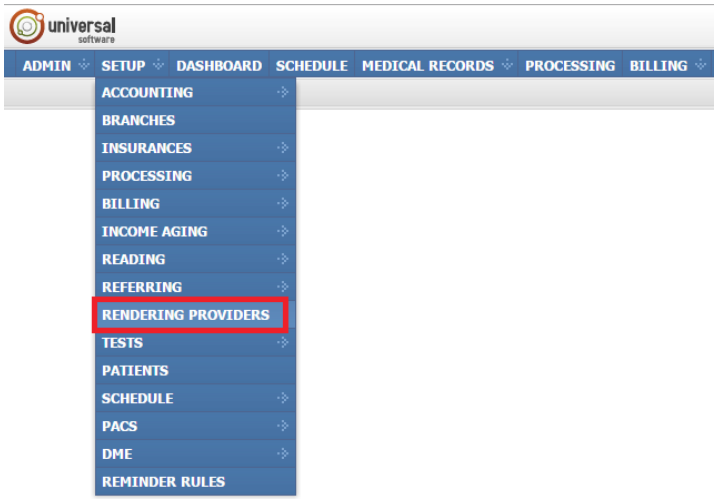
Edit selected – this button opens an account edit window, which is identical to the **Add new account** window described above. After editing an account record, click **OK** to save the changes or **Cancel** to quit without saving.

— For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required account without selecting it in the table.

— For removing accounts, there is as well another button in the rightmost column **Actions**. It allows you to remove the required account without selecting it in the table. Click this button and then click **OK**.

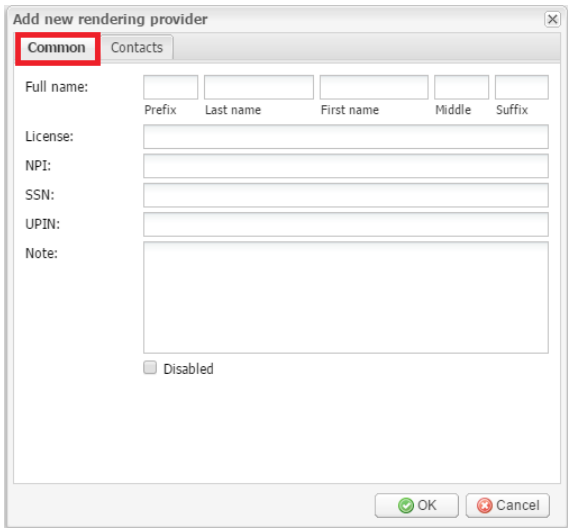
Managing rendering providers

The Rendering Providers module provides ways to manage rendering providers. In this module you can add new rendering providers to the system, remove them, and edit particular information about them. To open the module, sign into your account on your EMSOW site, click **SETUP** in the upper navigation bar and click **RENDERING PROVIDERS** in the drop-down menu.

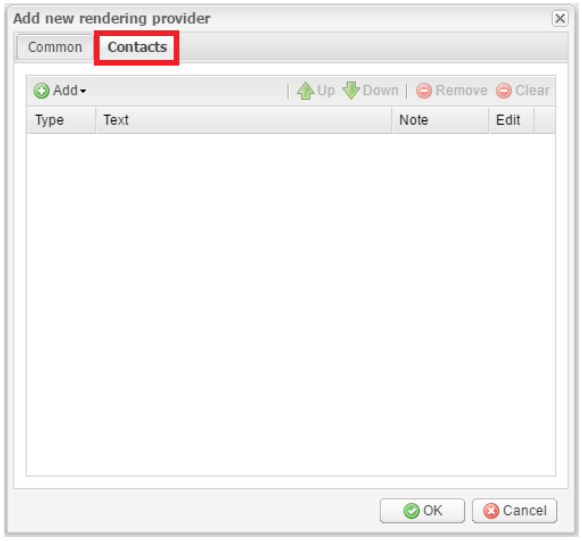


On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:

The **Add new** button is used to add a new rendering provider. It opens the **Add new rendering provider** window with specific information to be added. The **Common** options in the window are: **Full name**, **License**, **NPI**, **SSN**, **UPIN** and **Note.**



The First and Last names are required to be filled in. The License number must be an alphanumerical value from 6 to 20 characters long, the NPI must be a value like 1234567890, the patient SSN must be a value like 123-45-6789, and the UPIN must be a value like A12345. Add a **Note** if you have an annotation to add. The **Disabled** checkbox allows you to disable the rendering provider record.

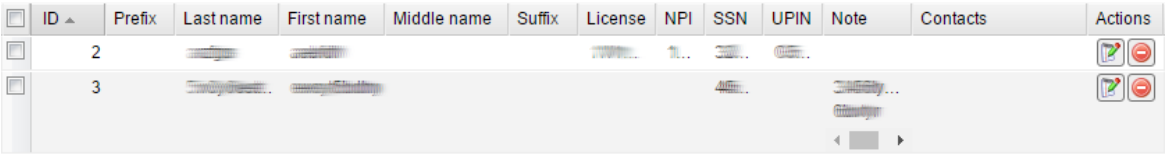


Next, you can add rendering provider contacts. Click the **Contacts** tab and click the **Add** button to add the rendering provider's phone or fax numbers or E-mail.

Use the **Up** and **Down** buttons to change the priority of the contact (for example, if the provider has two e-mails, you can set which of them will be primary). To delete the selected contact, click the **Remove** button. To delete all contacts, click the **Clear** button.

Click **OK** to save the changes or **Cancel** to quit without saving.

After saving the new rendering provider, it appears in the table with the corresponding properties.



The **Edit selected** button opens the rendering provider editing window where you can make changes to the rendering provider record.

Click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. You can click it to edit the required rendering provider account without selecting it in the table.

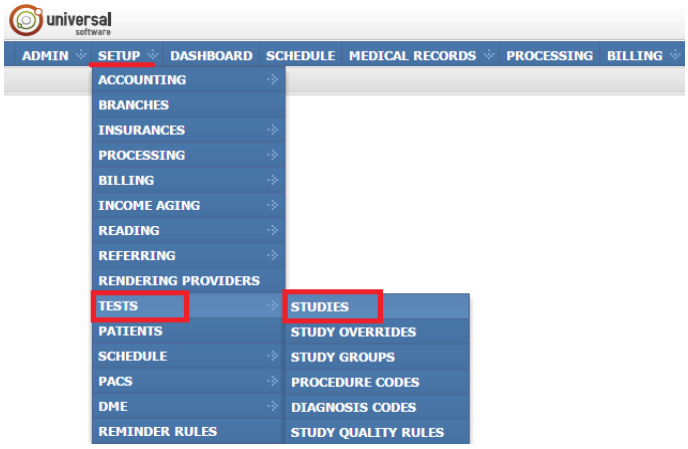
– For removing rendering providers, there is as well another button in the rightmost column **Actions.** You can click it to remove the required rendering provider account without selecting it in the table.

Tests setup

The Tests module provides ways to manage studies, studies overrides, study groups, procedure codes, diagnosis codes, and study quality rules.

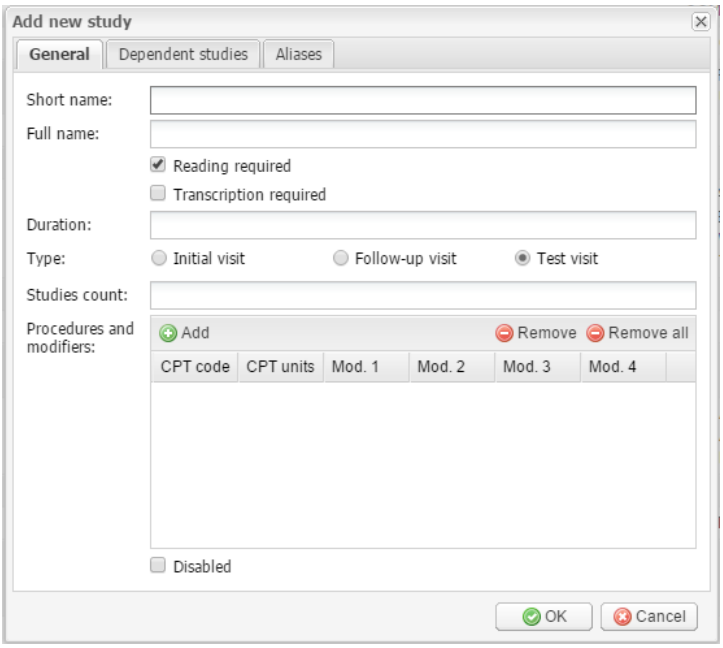
Managing studies

The Studies module allows you to make a variety of modifications on studies. To open the module, sign into your account on your EMSOW site, click **SETUP** in the upper navigation bar, click **TESTS** in the drop-down menu and then click **STUDIES** in the next drop-down menu going to the right.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Merge selected**, **Copy to clipboard** and **Export** are available:

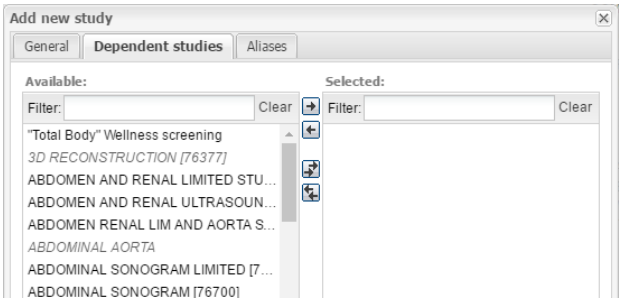
Add new – click this button to add a new study. In a new window, fill out sections with study information. The **General** section includes the required fields to be completed, which are **Short name**, **Full name** and **Studies count**. Fill in the fields, then select if **Reading** and **Transcription** is required for this type of study, enter the **Duration** of the study in minutes, select the type of the patient visit, and add procedure codes and modifiers. You can add several procedure codes. To add or remove them, use the corresponding buttons.



The study duration is relevant in scheduling.

Select the **Disabled** checkbox to make the study unavailable.

The **Dependent studies** section allows you to select studies which are dependent on the study you are creating. To select the studies, you can double-click them in the list, or you can add and remove them by using the arrow buttons.



The **Aliases** section allows you to add alternative names for the study. This provides a way to correctly process studies from external domains.

Click **OK** to save the changes or **Cancel** to quit without saving.

After saving a number of studies they appear in the table with the corresponding information. The table contains short and full names of studies, information about reading and transcription, duration, type and studies count, procedure codes, dependent studies, and aliases.

ID	Short name	Full name	Reading	Transcription	Duration	Studies count	Type	Procedures	Dependent studies	Aliases	Actions
1	ABDOMIN...	ABDOMI...	YES	NO	20	1	Test	Proc: 76700; Uni			
2	ABDOMIN...	ABDOMI...	YES	NO	15	1	Test	Proc: 76705; Uni		ABD... LIMIT... RLQ	
3	ECHOCA...	ECHOC...	YES	NO	20	1	Test	Proc: 93306; Uni			
6	AORTA D...	AORTA...	YES	NO	20	1	Test	Proc: 93978; Uni		A... FU... A...	
7	CAROTID...	CAROTI...	YES	NO	20	1	Test	Proc: 93880; Uni		CAR... DOP... CAR...	

Edit selected – this button opens the study editing window where you can make changes to the selected study. Modify the study's **General** data, **Dependent studies** or **Aliases**. Click **OK** to save changes or **Cancel** to quit without saving.

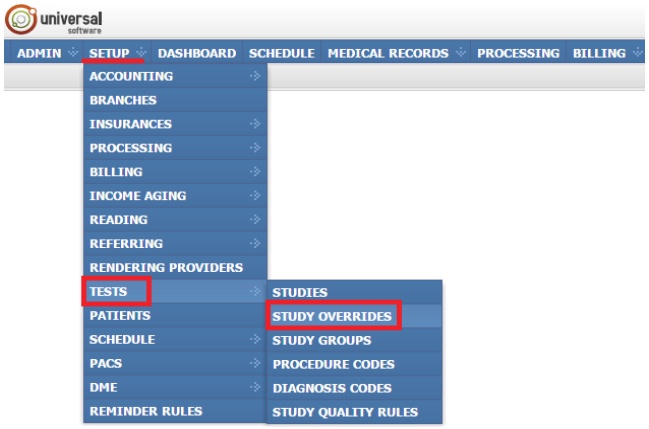
– For editing, there is as well another button in the rightmost column **Actions**. You can click it to edit the required study without selecting it in the table.

– For removing studies, there is as well another button in the rightmost column **Actions.** You can click it to remove the required study without selecting it in the table.

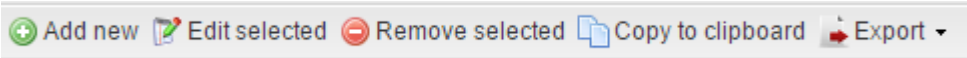
Managing study overrides

The Study Overrides module is useful when you encounter contingencies while assigning billing for certain insurance claims. This module allows you to create study name replacement rules for selected insurances.

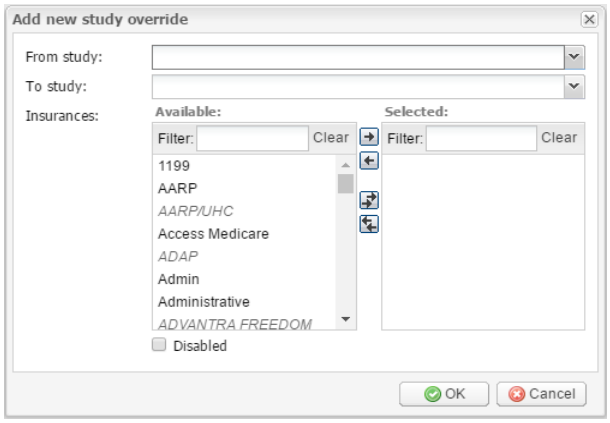
To open the module, sign into your account on your EMSOW site, select the **SETUP** tab in the upper navigation bar, click **TESTS** in the drop-down menu and click **STUDY OVERRIDES** in the next drop-down menu going to the right.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new study override rule. It opens the **Add new study override** window where you should select which study type to which study type will be converted by the rule, using the **From study** and **To study** fields. Under **Insurances**, select the insurances that the rule will be applied to. You can select the insurances by double-clicking, as well as add and remove them by using the arrow buttons.



Click **OK** to save the changes or **Cancel** to quit without saving.

After saving the study override rule it appears in the table that displays the source and target studies as well as the list of insurances to which the rule applies to.

	ID	From study	To study	Insurances	Actions
	1	ABDOMEN AND RENA...	ABDOMEN RENAL LIM...	Key Benefit Administrators	
	2	*ABDOMINAL AORTA*	*VENOUS*	1199 AARP Admin	
	3	VNG STUDY	EKG	UHC	
	4	AORTA DOPPLER ULT...	US PREG UTER EA AD...	ASRM	
	5	CAROTID DUPLEX ULT...	DIGITAL PULSE ANALY...	Anthem	

Edit selected – this button opens the study override editing window where you can make changes to the selected rule. Click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required study override rule without selecting it in the table.

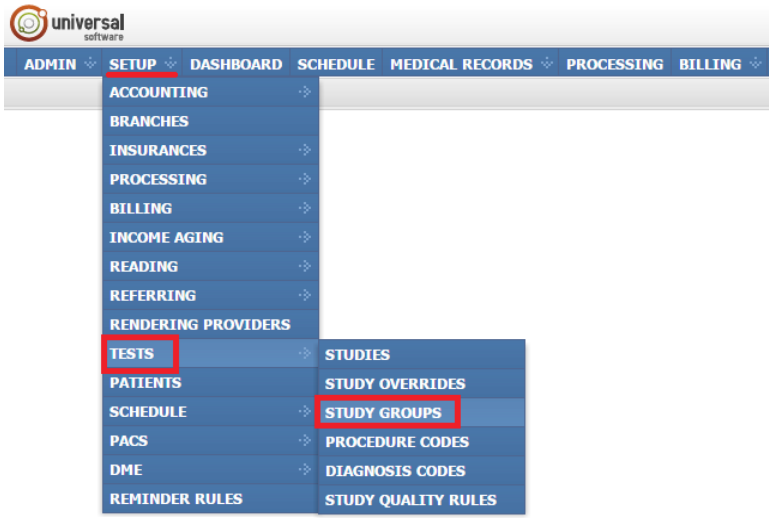
– For removing, there is as well another button in the rightmost column **Actions.** It allows you to remove the required study override rule without selecting it in the table.

Managing study groups

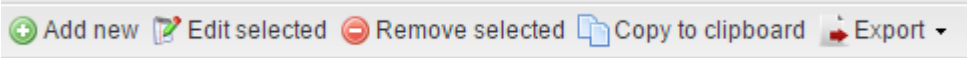
The Study Groups module provides the ability to group studies into related sets. It makes the process of scheduling more user-friendly.

NOTE: Every study you create must be included in a study group. Otherwise the study is unavailable for scheduling and adding to existing services in Processing.

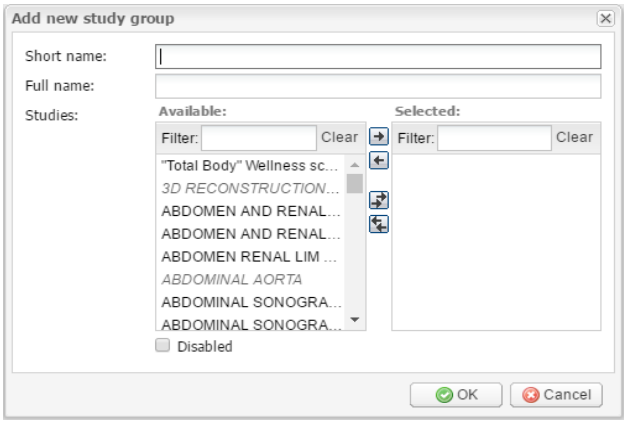
To open the module, sign into your account on your EMSOW site, select the **SETUP** tab in the upper navigation bar, click **TESTS** in the drop-down menu and then click **STUDY GROUPS** in the next drop-down menu going to the right.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new study group. It opens the **Add new study group** window with study group information to be added. Fill in the required fields: **Short name** and **Full name**. Select from the list of available **Studies** those that should be included in the group by double clicking (or you can add and remove them using the arrow buttons).



Click **OK** to save the changes or **Cancel** to quit without saving.

After saving the study group it appears in the table that displays short and full names of groups as well as included studies.

ID	Short name	Full name	Studies	Actions
1	GENERAL	GENERAL	*3D RNDR US/OTH REQ POST PCX* ABDOMEN AND RENAL LIMITED STUDY ABDOMEN AND RENAL ULTRASOUND ABDOMEN RENAL LIM AND AORTA STUI	
2	CARDIO	CARDIO	ECHOCARDIOGRAPHY	
3	VASCULAR	VASCULAR	ABI STUDY EXTREMITY AORTA DOPPLER ULTRASOUND AORTA DOPPLER ULTRASOUND LIMITE ARTERIAL UPPER EXTREMITY	
4	ANS	ANS	AUTONOMIC NERVOUS SYSTEM TEST PARASYMP&SYMP HRT RATE *TESTING AUTONOMIC NERVOUS SYSTEM;*	

Edit selected – this button opens the study group editing window where you can make changes to the study group by adding and removing studies with the arrow buttons. Click **OK** to save the changes or **Cancel** to quit without saving.

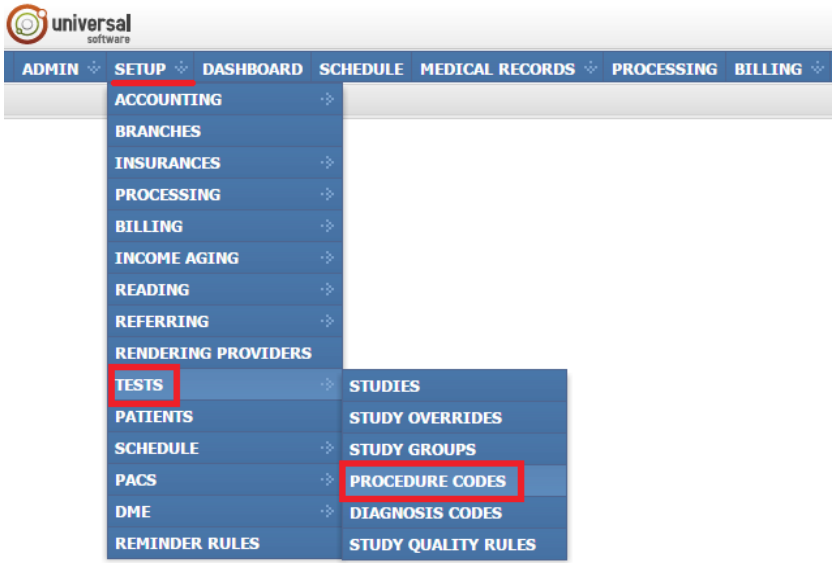
– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required group without selecting it in the table.

– For removing groups, there is as well another button in the rightmost column **Actions.** It allows you to remove the required group without selecting it in the table, just click this button and then **OK**.

Managing procedure codes

Procedure codes are entered to EMSOW according the ICD-10 classification system. A distinct advantage of EMSOW's codes system is that generally you do not need to add, edit or remove anything.

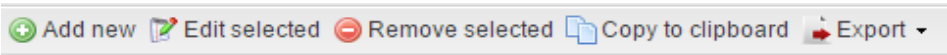
If you need to open the module, sign into your account on your EMSOW site, click **SETUP** in the upper navigation bar, click **TESTS** in the drop-down menu and then click **PROCEDURE CODES** in the next drop-down menu going to the right.



The module contains a table of procedure codes that displays the **Level** and **Name** for each code as well as a **Note** with symptoms.

Code	Level	Name	Note	Actions
0001F	Level 1	HEART FAILURE COMPOSITE	Heart failure assessed (includes assessment of all the following components) (CAD): Blood pressure measured (2000F) Level of activity assessed (1003F) Clinical symptoms of volume overload (excess)	
0005F	Level 1	OSTEOARTHRITIS COMPOSITE	Osteoarthritis assessed (OA) Includes assessment of all the following components: Osteoarthritis symptoms and functional status assessed (1006F) Use of anti-inflammatory or over-the-counter (OTC) analgesic	
00100	Level 1	ANESTH SALIVARY GLAND	Anesthesia for procedures on salivary glands, including biopsy	
00102	Level 1	ANESTH REPAIR OF CLEFT LIP	Anesthesia for procedures involving plastic repair of cleft lip	
00103	Level 1	ANESTH BLEPHAROPLASTY	Anesthesia for reconstructive procedures of eyelid (eg, blepharoplasty, ptosis surgery)	
00104	Level 1	ANESTH ELECTROSHOCK	Anesthesia for electroconvulsive therapy	
00120	Level 1	ANESTH EAR SURGERY	Anesthesia for procedures on external, middle, and inner ear including biopsy; not otherwise specified	
00124	Level 1	ANESTH EAR EXAM	Anesthesia for procedures on external, middle, and inner ear including biopsy; otoscopy	
00126	Level 1	ANESTH TYMPANOTOMY	Anesthesia for procedures on external, middle, and inner ear including biopsy; tympanotomy	

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:

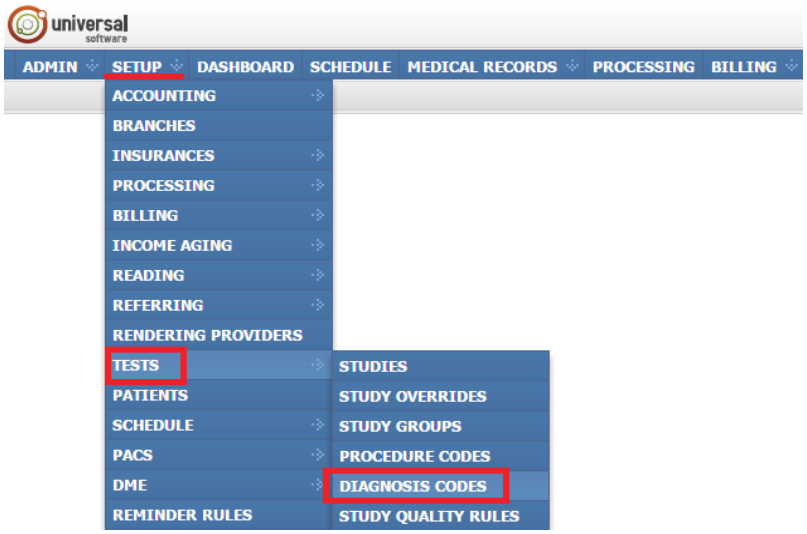


Generally you do not need to add, edit or remove anything in this module.

Managing diagnosis codes

Diagnosis codes are entered to EMSOW according the ICD-10 classification system. ICD-9 codes are entered to the system as well, but they are disabled by default.

If you need to open the module, sign into your account on your EMSOW site, click **SETUP** in the upper navigation bar, click **TESTS** in the drop-down menu and then click **DIAGNOSIS CODES** in the next drop-down menu going to the right.



The module contains a table of codes. Each record displays a **Code**, its **Type**, **Version** as well as **Short** and **Full names**.

ID	Code	Type	Vers...	Short name	Full name	Actions
24158	A00.9	code	ICD10	Cholera, unspecified	Cholera, unspecified	
24161	A01.00	code	ICD10	Typhoid fever, unspecified	Typhoid fever, unspecified	
24162	A01.01	code	ICD10	Typhoid meningitis	Typhoid meningitis	
24163	A01.02	code	ICD10	Typhoid fever with heart involvement	Typhoid fever with heart involvement	
24164	A01.03	code	ICD10	Typhoid pneumonia	Typhoid pneumonia	
24165	A01.04	code	ICD10	Typhoid arthritis	Typhoid arthritis	
24166	A01.05	code	ICD10	Typhoid osteomyelitis	Typhoid osteomyelitis	
24167	A01.09	code	ICD10	Typhoid fever with other complications	Typhoid fever with other complications	
24168	A01.1	code	ICD10	Paratyphoid fever A	Paratyphoid fever A	
24169	A01.2	code	ICD10	Paratyphoid fever B	Paratyphoid fever B	
24170	A01.3	code	ICD10	Paratyphoid fever C	Paratyphoid fever C	
24171	A01.4	code	ICD10	Paratyphoid fever, unspecified	Paratyphoid fever, unspecified	
24173	A02.0	code	ICD10	Salmonella enteritis	Salmonella enteritis	
24174	A02.1	code	ICD10	Salmonella sepsis	Salmonella sepsis	
24176	A02.20	code	ICD10	Localized salmonella infection, unspecified	Localized salmonella infection, unspecified	

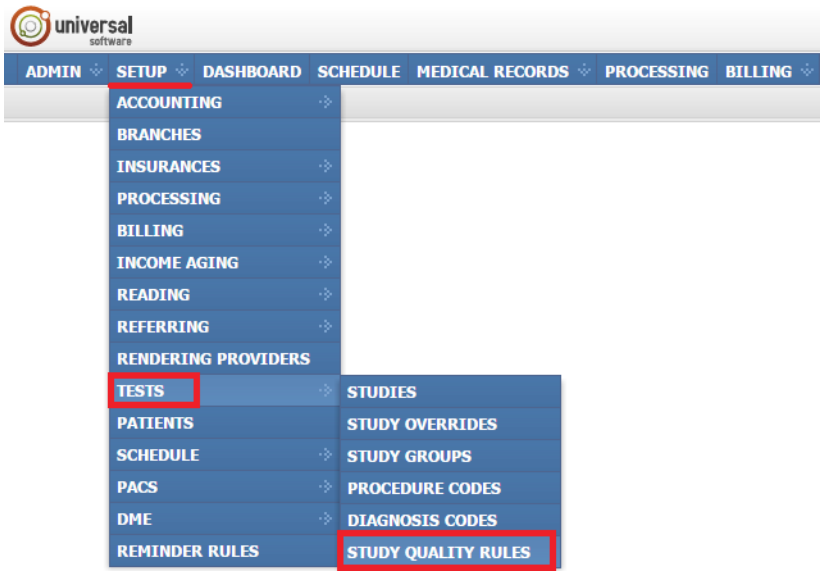
On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:

Generally you do not need to add, edit or remove anything in this module.

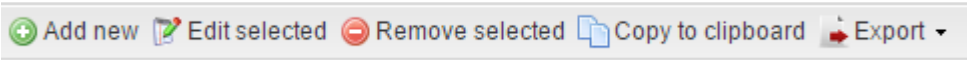
Study quality rules

The Study Quality Rules module provides the way to create restrictions which must be fulfilled before studies are sent for reading. The rules are applied to study groups or studies that are chosen under **Conditions**, and the restrictions are set for image amount, modalities and documents. Therefore, this module prevents such mistakes as an insufficient number of images in a study, the absence of certain DICOM modalities (e.g. structured reports), and the absence of certain documents that should be attached to the study.

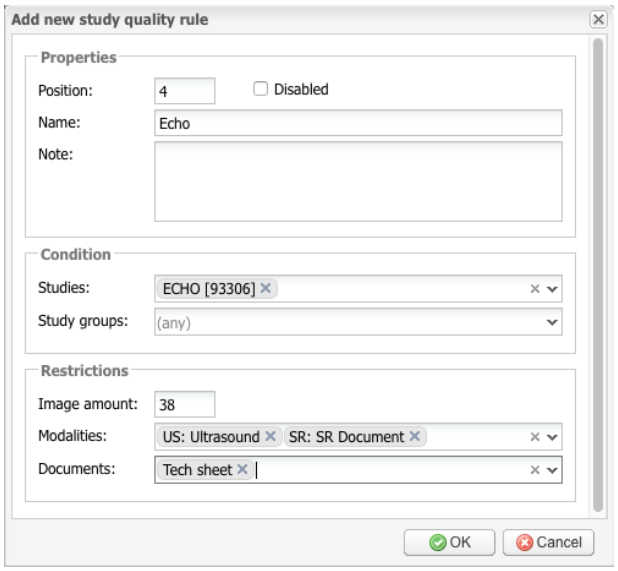
To open the module, sign into your account on your EMSOW site, select the **SETUP** tab in the upper navigation bar, click **TESTS** in the drop-down menu and then click **STUDY QUALITY RULES** in the next drop-down menu going to the right.



On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new study quality rule.



In the window that opens, enter the rule's **Name** and **Position** under **Properties**. The rules are applied in the order from the lowest position to the highest position.

Under **Condition**, select studies or study groups to which the rule applies. For example, in the screenshot on the left the rule applies to ECHO studies.

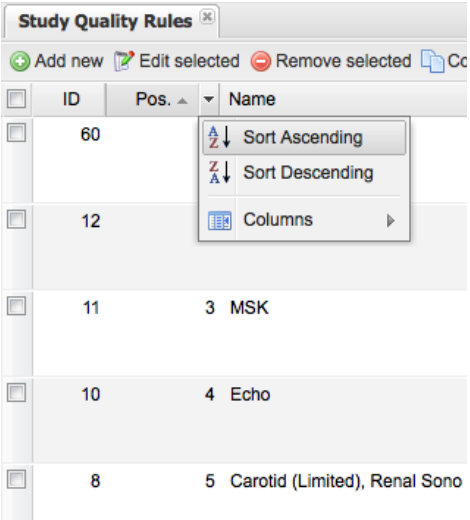
Under **Restrictions**, enter restrictions for **Image amount**, **Modalities**, and **Documents**. In this example, the ECHO studies cannot have fewer than 38 images, must contain ultrasound DICOM files and DICOM structured reports, and must have tech sheets attached.

Click **OK** to save the changes or **Cancel** to quit without saving.

After saving the study quality rule it appears in the table with the corresponding information:

ID	Pos.	Name	Condition	Restrictions	Note	Actions
1	11	Abdominal	Studies: ABD Study groups: (any)	Image amount: **50** Modalities: US Documents: Tech sheet		
2	10	Limited Studies	Studies: ABD LIMITED, Abdominal Limited, AO Limited, ART(Upper Limited),	Image amount: **6** Modalities: US Documents: Tech sheet		
3	9	Aorta & Venous	Studies: AO, VEN Study groups: (any)	Image amount: **9** Modalities: US Documents: Tech sheet		
4	8	Arterial	Studies: ART Study groups: (any)	Image amount: **26** Modalities: US Documents: Tech sheet		
5	7	Arterial (Unilateral), Thyroid	Studies: ART (Unilateral), Head & neck (thyroid etc) Study groups: (any)	Image amount: **13** Modalities: US Documents: Tech sheet		
6	6	Arterial (Upper), Carotid, Re...	Studies: ART(Upper), CAROTID ULTRASOUND, Renal Doppler, Renal Sono, VENUP	Image amount: **20** Modalities: US Documents: Tech sheet		
8	5	Carotid (Limited), Renal Son...	Studies: CAROTID (LIMITED), PELVIC, Renal Sono (Limited), Scrotum Study groups: (any)	Image amount: **14** Modalities: US Documents: Tech sheet		
10	4	Echo	Studies: ECHO Study groups: (any)	Image amount: **38** Modalities: US Documents: Tech sheet		

You may sort the list by position to see the order in which the rules are applied:



Edit selected – this button opens the study quality rule editing window where you can make changes to the selected rule. Click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required rule without selecting it in the table.

– For removing study quality rules, there is as well another button in the rightmost column **Actions.** It allows you to remove the required rule without selecting it in the table. Click this button and then click **OK**.

– The **Move up** and **Move down** buttons in the rightmost column **Actions** allow you to move rules up and down, therefore changing their positions.

Schedule setup

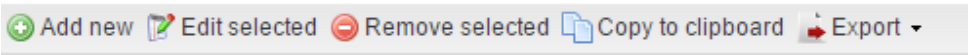
The Schedule setup module provides ways to manage schedule rules, office schedule colors, and time block reasons.

Schedule Rules

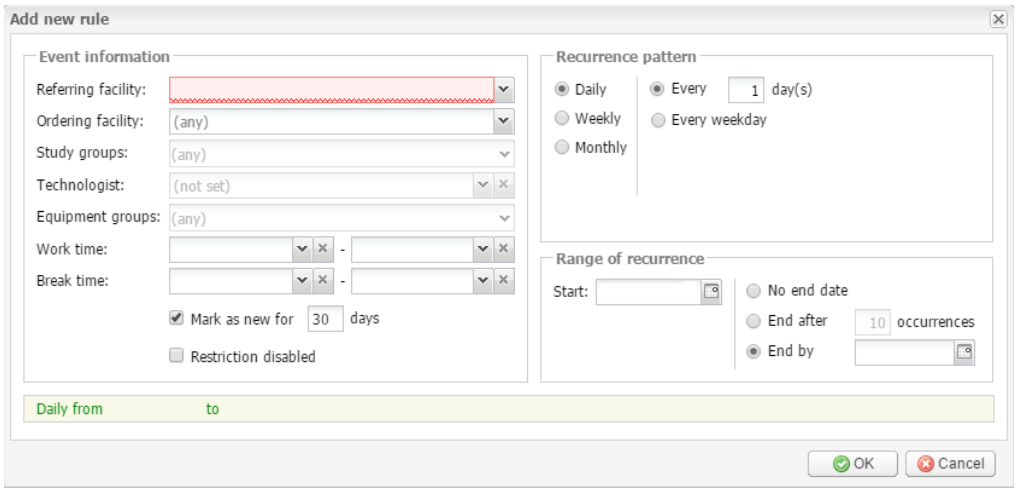
The Schedule Rules module allows you to create rules for event scheduling. After adding a rule, you can see the appropriate event on the Office schedule tab in the Schedule module. The event is scheduled according to the recurrence pattern and range of recurrence that you define. To open the **Schedule Rules** tab, follow the path **SETUP → SCHEDULE → SCHEDULE RULES**.

NOTE: You can only schedule recurring events using the schedule rules. To create a single event, please use the Schedule module.

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



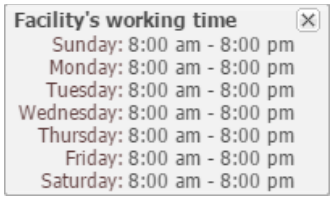
Add new – click this button to add a new schedule rule. After you click this button, the **Add new rule** window appears:



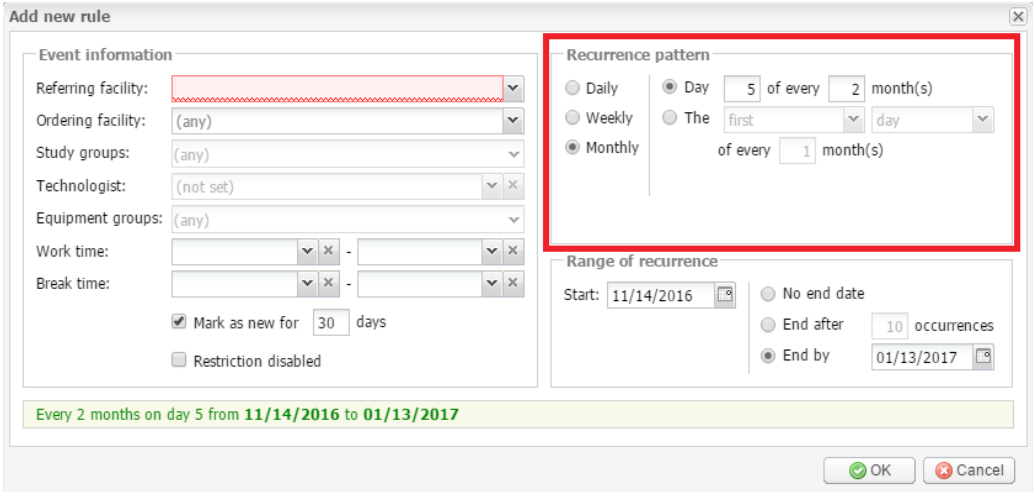
It consists of three sections: **Event information**, **Recurrence pattern**, and **Range of recurrence**.

In the **Event information** section, you can select the **Referring facility** to be visited and the technologist to perform scans, as well as the **Ordering facility**. In the **Study groups** field, select what groups of studies the technologist will be able to perform. You can also select **Equipment groups** if you use the Inventory module to track the use of equipment. Select **Work time** and **Break time** to specify the work and break hours of the technologist. The **Referring facility** field is the only field that is mandatory to be filled out, and the other fields can be blank. You can also select the **Mark as new** checkbox and set the number of days the rule will display as new. The **Restriction disabled** checkbox allows you to disable all restrictions regarding the connection between the following fields: the referring facility, study groups, technologist and equipment groups.

After you select a referring facility, a window with the facility's working time appears for your convenience.



In the **Recurrence pattern** section, you can specify how often you want the event to occur. The available recurrence patterns are **Daily**, **Weekly**, and **Monthly**. When you select **Daily**, you need to choose either **Every [1] day(s)** or **Every Weekday**. Use **Daily** with the **Every [1] day(s)** option when you want the event to occur every day. Alternatively you can set an interval (for example, the interval of 2 with the daily pattern means every other day). Use **Weekly** when you want the event to occur every week, or you can also set an interval (for example, the interval of 2 with the weekly pattern means every other week) and then select days of the week the event should occur on. Use **Monthly** when you want the event to occur every month. You can also set an interval – for example, the interval of 2 with the monthly pattern means every other month – and select a particular day. You can also select the first (second, third, fourth, second to last or last) day (weekday, weekend day or one of the days of the week) of every month (every other month, every third month etc.) in the fields below.



In the **Range of recurrence** section, you can set the period of time during which the event should occur. By default, the start date is the current date and the period of time is 2 months (see the **End by** option). Use the calendar to change these parameters. You can also select **No end date** or **End after 10 occurrences** (10 – by default). The **Recurrence pattern** and **Range of recurrence** sections are interrelated, so be careful specifying them.

At the bottom of the window you can see the frequency and the period of time (highlighted in green) for the event to occur according to the settings you have just created.

Click **OK** to save the changes or **Cancel** to quit without saving.

The Schedule Rules module displays a list of schedule rules arranged in several columns: ID, Disabled, Facility name, Technologist, Time, Recurrence pattern, Range of recurrence, Equipment groups, Study groups, Mark as new, Restrictions, and Actions.

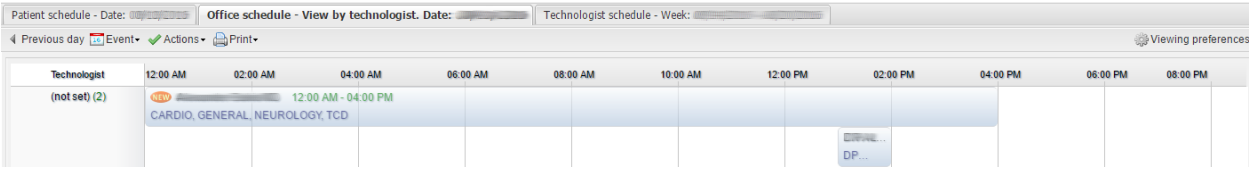
ID	Disabled	Facility name	Technologist	Time	Recurrence pattern	Range of recurrence	Equipment groups	Study groups	Mark as new	Restrictions	Actions
4	NO	[illegible]	(not set)	Work: 12:00 AM -... Break: 12:00 PM ...	Daily	From: [illegible] To: [illegible]	(any)	CARDIO, GENE...	30 days	YES	
6	NO	[illegible]	(not set)	Work: (not set)	Monthly on day 1	From: [illegible] To: [illegible]	(any)	GENERAL	30 days	YES	
8	NO	[illegible]	(not set)	Work: 01:00 PM -...	Weekly on WE,TH	From: [illegible] End after 10 occurre...	(any)	DPA, VASCULAR	NO	NO	

Edit selected – this button opens a schedule rule edit window, which is identical to the **Add new rule** window described above. You can also double-click the rules to edit them.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required rule without selecting it in the table.

– For removing rules, there is as well another button in the rightmost column **Actions**. It allows you to remove the required rule without selecting it in the table. Click this button and then click **OK**.

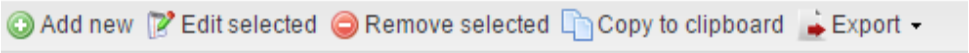
Added rules will appear on the **Office schedule** tab in the **SCHEDULE** module on the appropriate days according to the settings you have created.



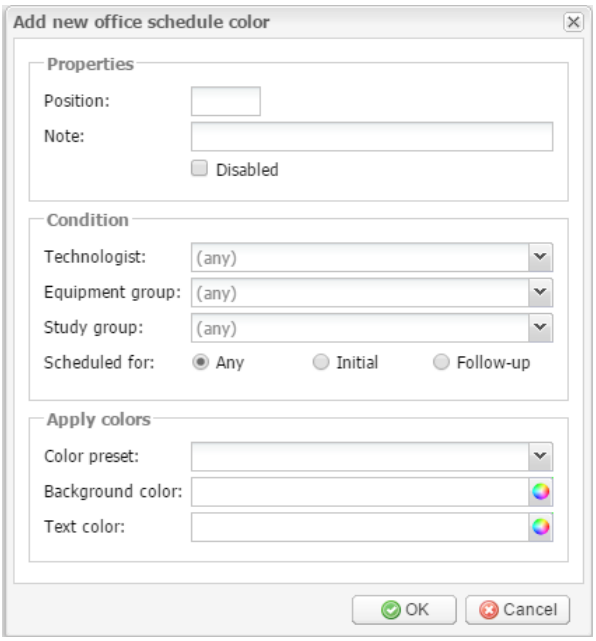
Office Schedule Colors

This module allows you to manage colors in which events are highlighted on the office schedule. Follow the path **SETUP → SCHEDULE → OFFICE SCHEDULE COLORS** to open the module.

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



Add new – click this button to add a new office schedule color. After you click this button, the **Add new office schedule color** window appears:

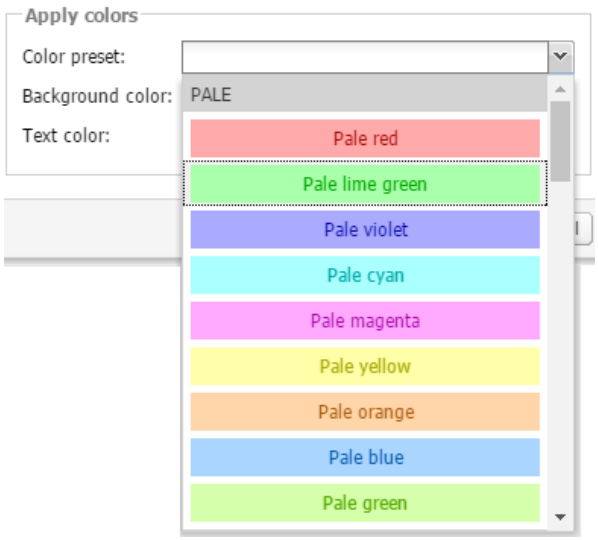


It consists of three sections: **Properties**, **Condition**, and **Apply colors**.

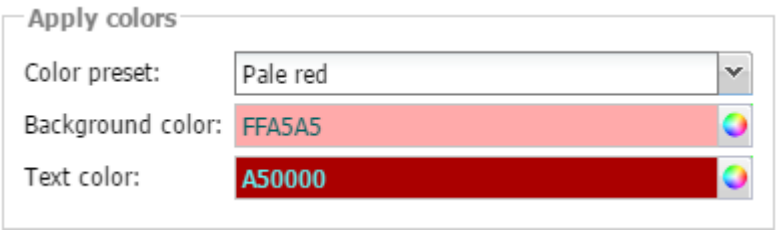
In the **Properties** section in the **Position** field, enter the position of the office schedule color. The position determines the priority of the color. The lower the number, the higher the priority. In the **Note** field you can type an annotation for the color. Select the **Disabled** checkbox not to use the office schedule color rule.

In the **Condition** section, you can select conditions that will trigger the use of this color for events on the schedule. The available conditions are technologists, equipment groups, and study groups. In the **Scheduled for** field, select **Any**, **Initial** or **Follow-up** to use the office schedule color for particular appointment types.

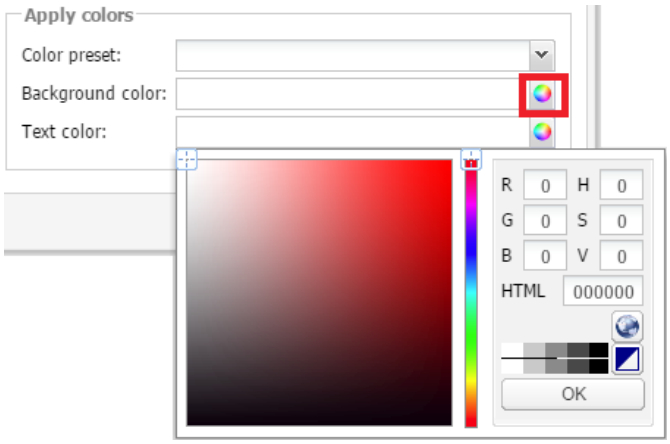
In the **Apply colors** section, select the color that should be applied to the events when the specified conditions are met. The **Color preset** field allows you to select the desired color from an advanced list of presets (pale, soft, very light, very pale, very soft colors):



When you select a preset in the **Color preset** field, the background and text colors are set automatically according to the selected tone.



You can change the colors using the small color wheel buttons to the right of the **Background color** and **Text color** fields. Click the button and pick the required tone from the palette.



Click **OK** to save the office schedule color or **Cancel** to quit without saving.

After saving a new office schedule color, it appears in the table with the corresponding information:

ID	Pos.	Condition	Colors	Note	Actions
1	2	Study group: CARDIO Scheduled for: Initial	Example of text		
2	3	Study group: VASCULAR	Example of text		
3	4	Study group: GENERAL	Example of text		
4	5	Study group: DPA	Example of text		

Events that satisfy the listed conditions will be highlighted in the appropriate color in the Schedule module.

Edit selected – this button opens the office schedule color edit window, which is identical to the **Add new schedule color** window described above. After editing the required color, click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required color without selecting it in the table.

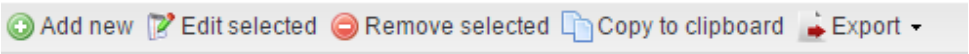
– For removing office schedule colors, there is as well another button in the rightmost column **Actions.** It allows you to remove the required color without selecting it in the table. Click this button and then click **OK**.

– There are as well the **Move up** and **Move down** buttons in the rightmost column **Actions.** They allow you to move colors up and down, therefore changing their positions.

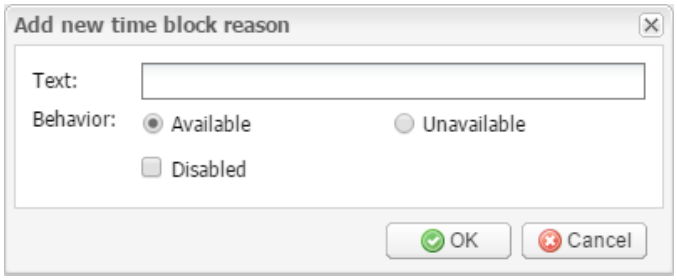
Time Block Reasons

This module allows users to create time block reasons to make particular times available or unavailable for scheduling on the **Patient schedule** tab in the **Schedule module**. Follow the path **SETUP → SCHEDULE → TIME BLOCK REASONS** to open the module.

On the top toolbar such buttons as **Add new**, **Edit selected**, **Remove selected**, **Copy to clipboard** and **Export** are available:



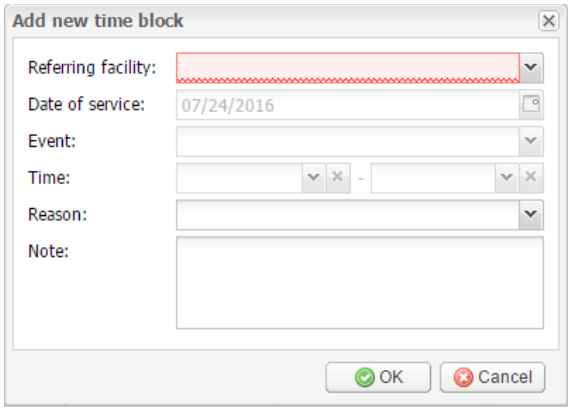
Add new – click this button to add a new time block reason. After you click this button, the **Add new time block reason** window appears:



Type a reason in the **Text** field, and select a **Behavior** type (available or unavailable) to set if this time block will be available or unavailable for scheduling. Select the **Disabled** checkbox to make the time block reason unavailable for use. Click **OK** to save the time block reason or **Cancel** to quit without saving.

You can also add, edit or remove time block reasons on the **Patient schedule** tab in the **Schedule module**. To do so, select **Add**, **Edit** or **Remove** in the **Time block** drop-down menu.

To add a new time block in the **Schedule module**, specify the following fields: **Referring facility**, **Date of service**, **Event**, **Time**, **Reason** and **Note**. The **Referring facility** field is the only field that is mandatory to be filled out, and the other fields can be blank. Click **OK** to save the changes or **Cancel** to quit without saving.



After saving the reason in the **Time Block Reasons** module, it appears in the table with the corresponding information:

	X	ID	Text	Schedule behavior	Actions
	✔	1	Lounch-hour	Available	
	✔	2	The equipment is not available	Unavailable	
	✘	3	The patient is out	Unavailable	

The **Edit selected** button opens the edit window, which is identical to the **Add new time block reason** window described above. After editing a time block reason, click **OK** to save the changes or **Cancel** to quit without saving.

– For editing, there is as well another button in the rightmost column **Actions**. It allows you to edit the required reason without selecting it in the table.

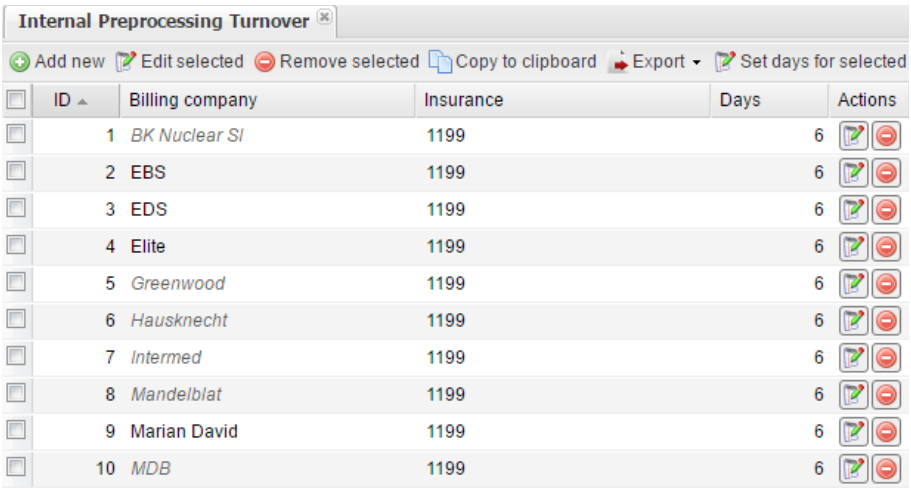
– For removing time block reasons, there is as well another button in the rightmost column **Actions**. It allows you to remove a reason without selecting it in the table.

Income aging setup

Internal preprocessing turnover setup

This module allows you to set turnover periods (in days), during which billing is assigned and claims are sent to billing companies.

Follow the path **SETUP → INCOME AGING → INTERNAL PREPROCESSING TURNOVER** to open the **Internal Preprocessing Turnover** tab:



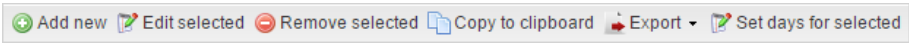
Internal Preprocessing Turnover

Add new | Edit selected | Remove selected | Copy to clipboard | Export | Set days for selected

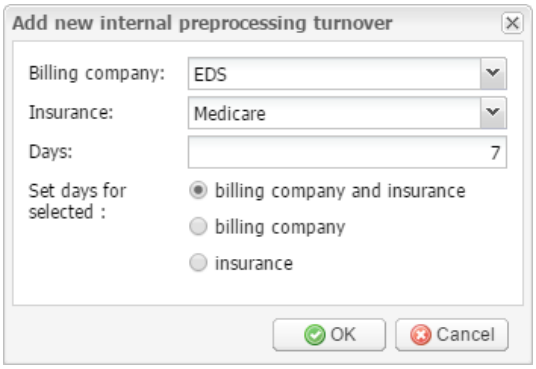
ID	Billing company	Insurance	Days	Actions
1	*BK Nuclear SI*	1199	6	
2	EBS	1199	6	
3	EDS	1199	6	
4	Elite	1199	6	
5	*Greenwood*	1199	6	
6	*Hausknecht*	1199	6	
7	*Intermed*	1199	6	
8	*Mandelblat*	1199	6	
9	Marian David	1199	6	
10	*MDB*	1199	6	

Here you can see a list of internal preprocessing turnover records arranged in five columns: ID, Billing company, Insurance, Days, and Actions. The last column contains two buttons to quickly edit or remove the records.

Above the list of internal preprocessing turnover records, you can see the toolbar:



To add a new internal preprocessing turnover period, click the **Add new** button. The following pop-up window will appear:



In this window, select the **Billing company** and **Insurance** for which you need to set the turnover period. If you leave the **Insurance** field empty, self-payment is assumed. In the **Days** field, enter the duration of the turnover period in days.

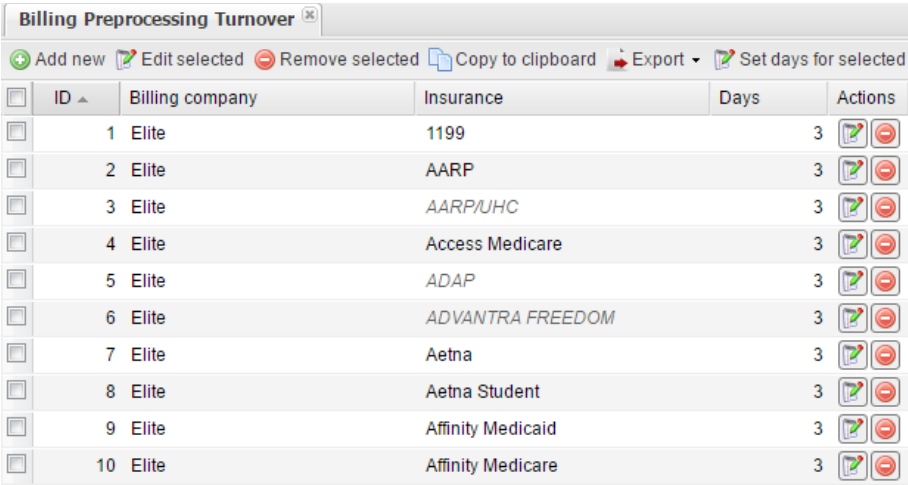
The **Set days for selected** option allows you to set the same turnover period for all identical billing companies or insurances automatically. Its default value is **billing company and insurance** which sets the turnover period only for the current internal preprocessing turnover record. The other two values – **billing company** and **insurance** – allow to set the turnover period for all matching billing companies or insurances, respectively.

You can also use the **Set days for selected** button on the toolbar to assign a turnover period for selected internal preprocessing turnover records.

Billing preprocessing turnover setup

This module allows you to set turnover periods (in days) for billing processing that is done by third-party billing companies.

Follow the path **SETUP → INCOME AGING → BILLING PREPROCESSING TURNOVER** to open the **Billing Preprocessing Turnover** tab:

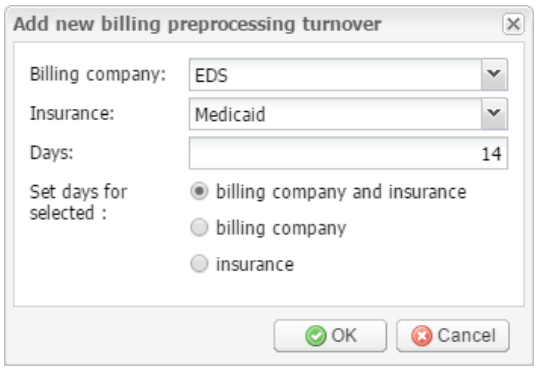


ID	Billing company	Insurance	Days	Actions
1	Elite	1199	3	
2	Elite	AARP	3	
3	Elite	AARP/UHC	3	
4	Elite	Access Medicare	3	
5	Elite	ADAP	3	
6	Elite	ADVANTRA FREEDOM	3	
7	Elite	Aetna	3	
8	Elite	Aetna Student	3	
9	Elite	Affinity Medicaid	3	
10	Elite	Affinity Medicare	3	

Here you can see a list of billing preprocessing turnover records arranged in five columns: ID, Billing company, Insurance, Days, and Actions. The last column contains two buttons to quickly edit or remove the records.

Above the list of billing preprocessing turnover records, you can see the toolbar:

To add a new billing preprocessing turnover period, click the **Add new** button. The following pop-up window will appear:



In this window, select the **Billing company** and **Insurance** for which you need to set the turnover period. If you leave the **Insurance** field empty, self-payment is assumed. In the **Days** field, enter the duration of the turnover period in days.

The **Set days for selected** option allows you to set the same turnover period for all identical billing companies or insurances automatically. Its default value is **billing company and insurance** which sets the turnover period only for the current billing preprocessing turnover record. The other two values – **billing**

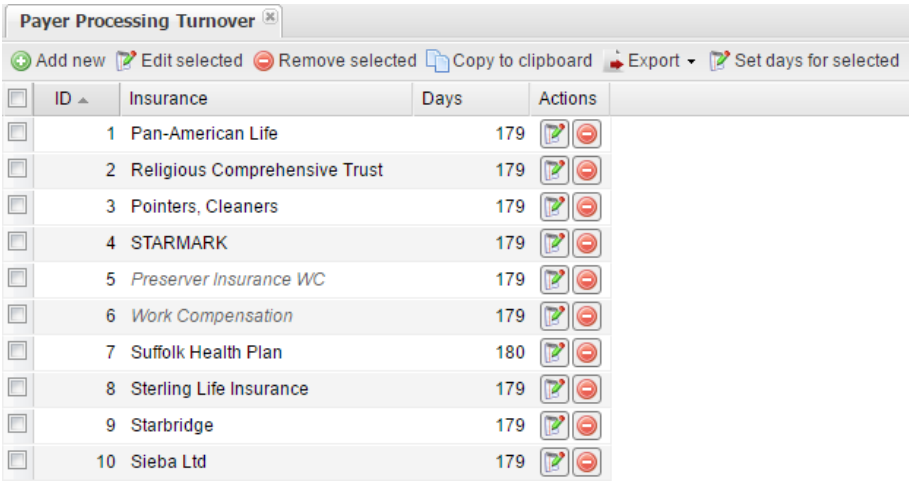
company and **insurance** – allow to set the turnover period for all matching billing companies or insurances, respectively.

You can also use the **Set days for selected** button on the toolbar to assign a turnover period for selected billing preprocessing turnover records.

Payer processing turnover setup

This module allows you to set turnover periods (in days) for processing claims by insurance companies and receiving reimbursements or self-payments.

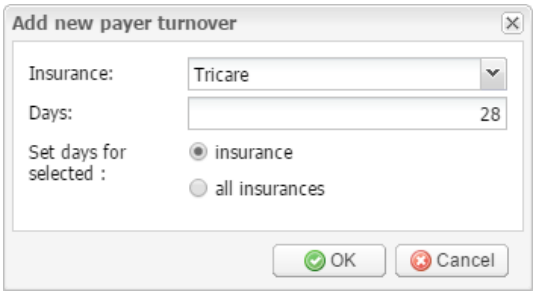
Follow the path **SETUP → INCOME AGING → PAYER PROCESSING TURNOVER** to open the **Payer Processing Turnover** tab:



Here you can see a list of payer turnover records arranged in four columns: ID, Insurance, Days, and Actions. The last column contains two buttons to quickly edit or remove the records.

Above the list of payer turnover records, you can see the toolbar:

To add a new payer turnover period, click the **Add new** button. The following pop-up window will appear:



In this window, select the **Insurance** for which you need to set the turnover period. If you leave the **Insurance** field empty, self-payment is assumed. In the **Days** field, enter the duration of the turnover period in days.

The **Set days for selected** field allows you to set the same turnover period for all identical insurances automatically. Its default value is **insurance** which sets the turnover period only for the current payer

turnover record. The other value – **all insurances** – allows to set the turnover period for all matching insurances.

You can also use the **Set days for selected** button on the toolbar to assign a turnover period for selected payer turnover records.

Billing processing turnover setup

This module allows you to set turnover periods (in days) for returning processed billing data from billing companies.

Follow the path **SETUP → INCOME AGING → BILLING PROCESSING TURNOVER** to open the **Billing Processing Turnover** tab:

Billing Processing Turnover

Add new | Edit selected | Remove selected | Copy to clipboard | Export | Set days for selected

ID	Billing company	Insurance	Days	Actions
1	Decima Billing	1199	30	
2	Decima Billing	AARP	30	
3	Decima Billing	*AARP/UHC*	30	
4	Decima Billing	Access Medicare	30	
5	Decima Billing	*ADAP*	30	
6	Decima Billing	*ADVANTRA FREEDOM*	30	
7	Decima Billing	Aetna	30	
8	Decima Billing	Aetna Student	30	
9	Decima Billing	Affinity Medicaid	30	
10	Decima Billing	Affinity Medicare	30	

Here you can see a list of billing processing turnover records arranged in five columns: ID, Billing company, Insurance, Days, and Actions. The last column contains two buttons to quickly edit or remove the records.

Above the list of billing return processing records you can see the toolbar:

Add new | Edit selected | Remove selected | Copy to clipboard | Export | Set days for selected

To add a new billing processing turnover period, click the **Add new** button. The following pop-up window will appear:

Add new billing processing turnover

Billing company: Enterprise

Insurance: Allianz

Days: 10

Set days for selected : billing company and insurance / billing company / insurance

OK | Cancel

In this window, select the **Billing company** and **Insurance** for which you need to set the turnover period. If you leave the **Insurance** field empty, self-payment is assumed. In the **Days** field, enter the duration of the turnover period in days.

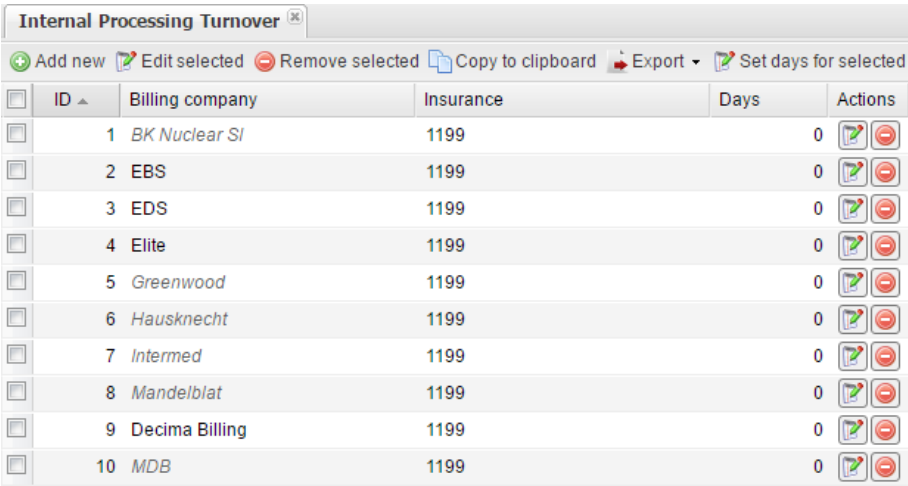
The **Set days for selected** field allows you to set the same turnover period for all identical billing companies or insurances automatically. Its default value is **billing company and insurance** which sets the turnover period only for the current billing processing turnover record. The other two values – **billing company** and **insurance** – allow to set the turnover period for all matching billing companies or insurances, respectively.

You can also use the **Set days for selected** button on the toolbar to assign a turnover period for selected billing processing turnover records.

Internal processing turnover setup

This module allows you to set turnover periods (in days) for the processing of billing results and the closing of billing operations.

Follow the path **SETUP → INCOME AGING → INTERNAL PROCESSING TURNOVER** to open the **Internal Processing Turnover** tab:

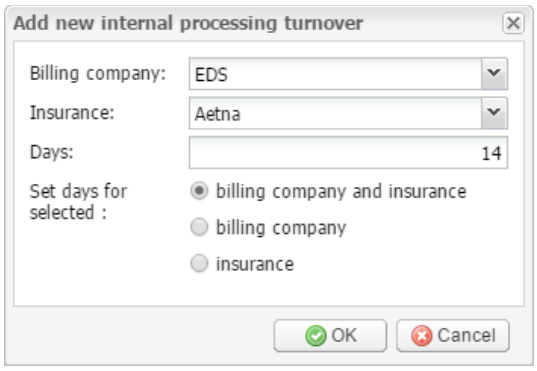


ID	Billing company	Insurance	Days	Actions
1	*BK Nuclear SI*	1199	0	
2	EBS	1199	0	
3	EDS	1199	0	
4	Elite	1199	0	
5	*Greenwood*	1199	0	
6	*Hausknecht*	1199	0	
7	*Intermed*	1199	0	
8	*Mandelblat*	1199	0	
9	Decima Billing	1199	0	
10	*MDB*	1199	0	

Here you can see a list of internal processing turnover records arranged in five columns: ID, Billing company, Insurance, Days, and Actions. The last column contains two buttons to quickly edit or remove the records.

Above the list of internal processing turnover records, you can see the toolbar:

To add a new internal processing turnover period, click the **Add new** button. The following pop-up window will appear:



In this window, select the **Billing company** and **Insurance** for which you need to set the turnover period. If you leave the **Insurance** field empty, self-payment is assumed. In the **Days** field, enter the duration of the turnover period in days.

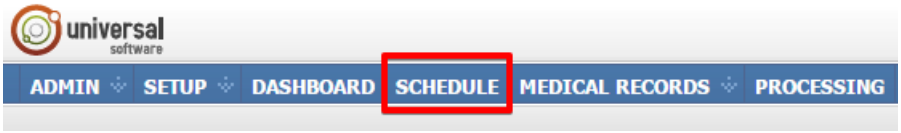
The **Set days for selected** field allows you to set the same turnover period for all identical billing companies or insurances automatically. Its default value is **billing company and insurance** which sets the turnover period only for the current internal processing turnover record. The other two values – **billing company** and **insurance** – allow to set the turnover period for all matching billing companies or insurances, respectively.

You can also use the **Set days for selected** button on the toolbar to assign a turnover period for selected internal processing turnover records.

Scheduling

Accessing the Schedule module

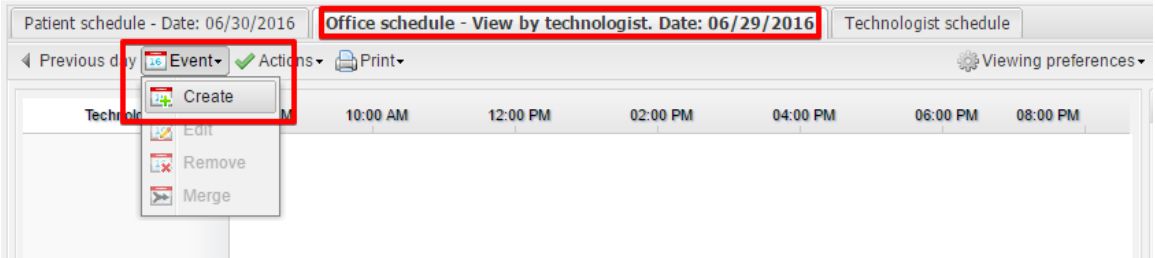
The Schedule module allows you to schedule radiologic technologists' work hours as well as patient appointments. To open the module, sign into your account on your EMSOW site and click **SCHEDULE** in the upper navigation bar:



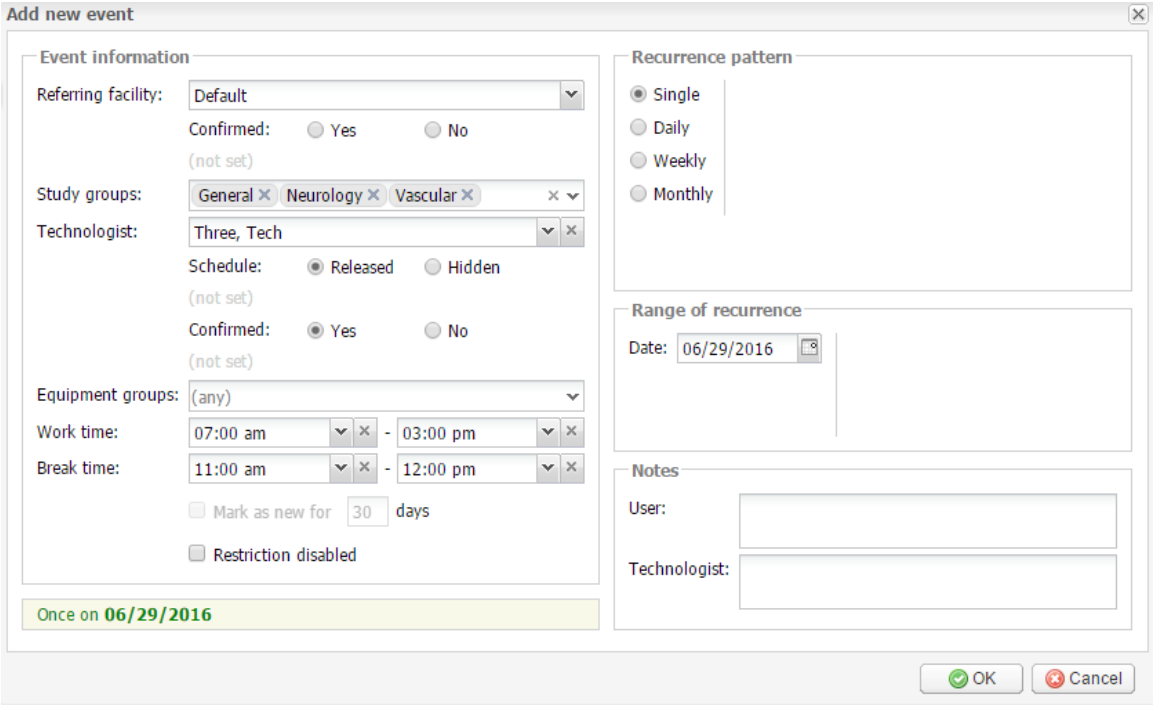
If the module is not available, please ask your system administrator to give you the appropriate permissions.

How to schedule work hours for a technologist

To add a time slot for a technologist, please select the **Office schedule** tab and click **Event → Create:**



The **Add new event** window will open:



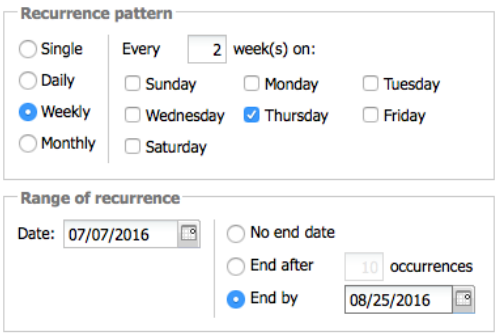
The basic options in this window are the following:

In the **Referring facility** field select the facility to be visited by the technologist. Administrators can modify the facility list by going to **SETUP → REFERRING → REFERRING FACILITIES**.

In the **Study groups** field select what groups of studies the technologist will be able to perform. Administrators can modify the study group list by going to **SETUP → TESTS → STUDY GROUPS**, as well as the list of available studies by going to **SETUP → TESTS → STUDIES**.

The **Work time** and **Break time** drop-down lists allow you to specify the work and break hours of the technologist.

Under **Recurrence pattern**, you can select options to make the event repeating. For example, with the options below the event is scheduled to occur bi-weekly on Thursdays from the 7th of July 2016 to the 25th of August 2016:

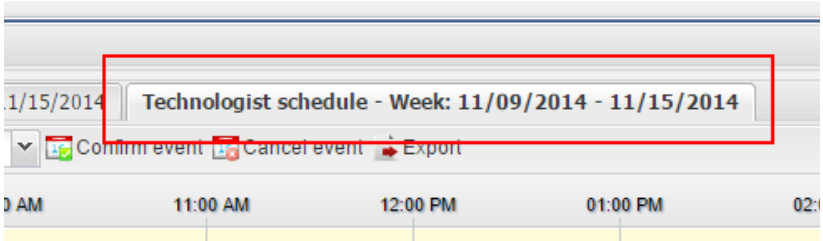


Another way to add a new event is from the **Schedule Rules** module by clicking the **Add new** button. In the **Schedule Rules** module you can add only a recurring event while in the **Schedule** module you can also add a single event. For more information please refer to the **Schedule Rules** module.

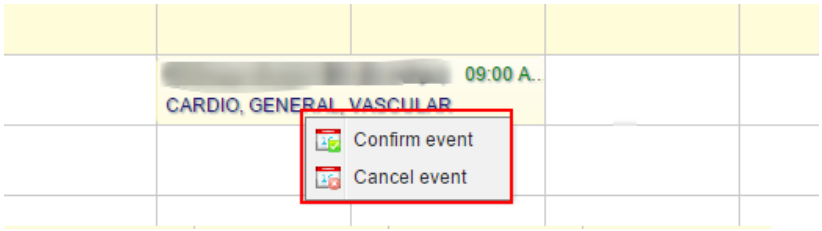
How to check a technologist's schedule

Radiologic technologists can check their work schedule by following the instruction below:

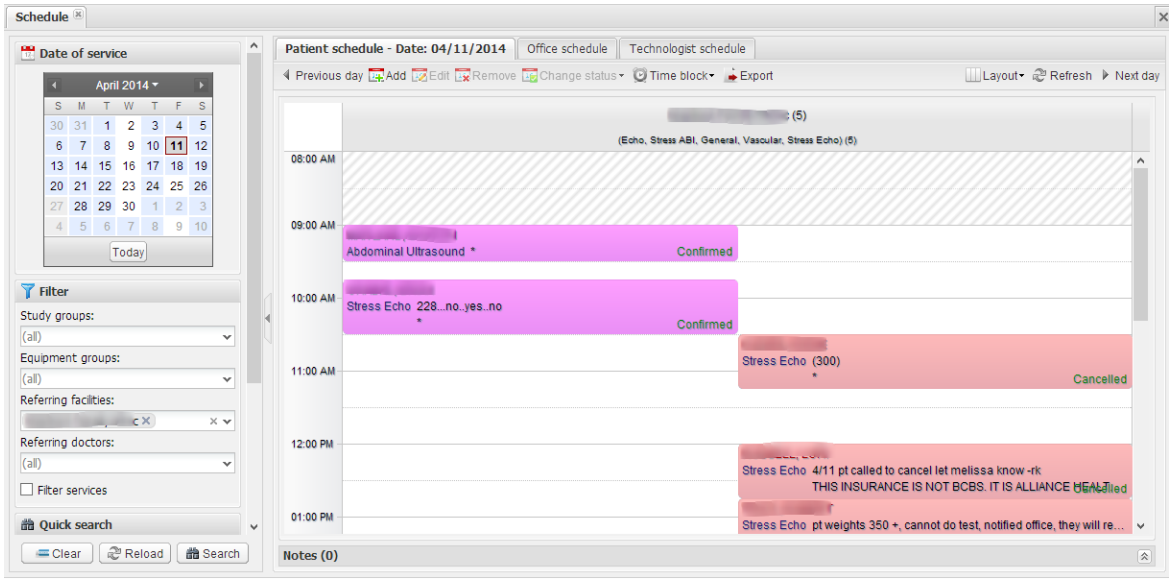
1. Sign into your account on your EMSOW site.
2. Click **SCHEDULE** in the upper navigation bar.
3. Click **Technologist schedule** and select the required date of service in the calendar. The schedule will display the corresponding week with referring facilities to be visited.



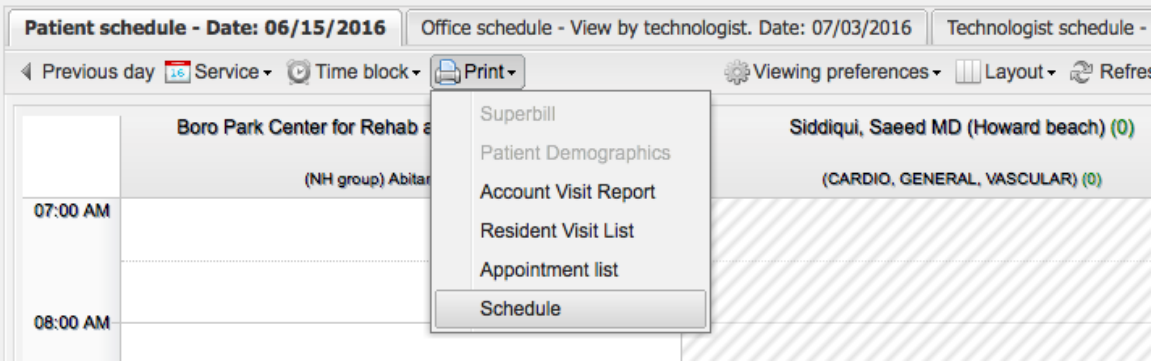
4. Right-click the required facility's name and select **Confirm event** or **Cancel event**.



5. Select the **Patient schedule** subtab to see the patient schedule.

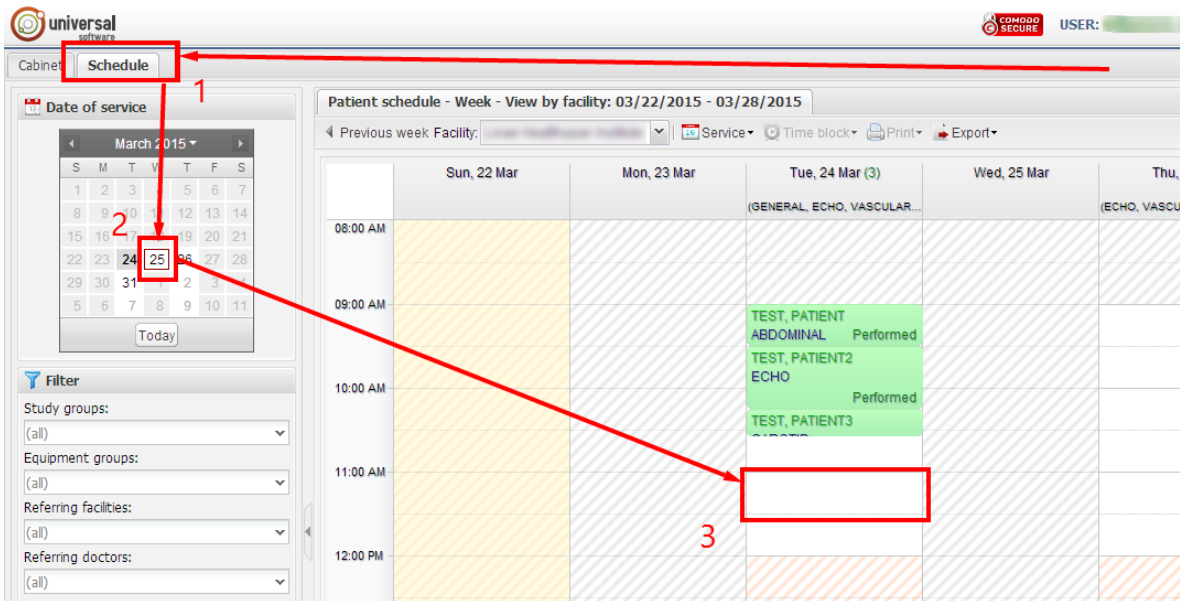


6. If you wish to print the patient schedule, please click **Print → Schedule**. A PDF file ready for printing will be downloaded to your computer.

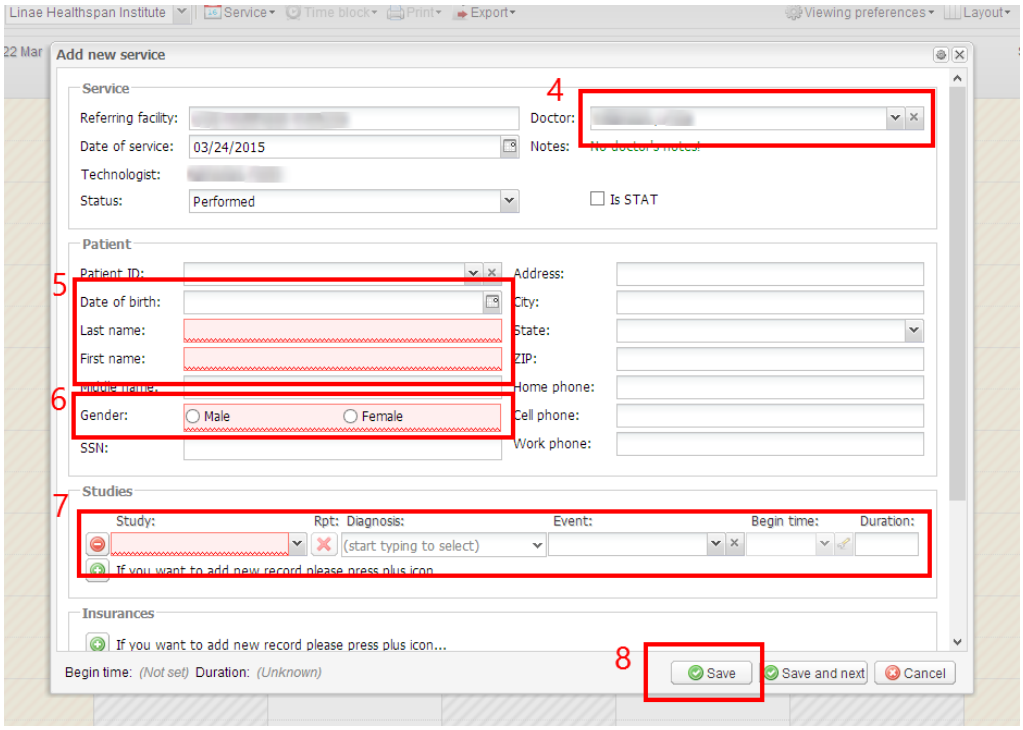


How to add an appointment

1. Open the Schedule module.
2. Select the required day in the calendar.
3. Double-click an empty slot to add an appointment.

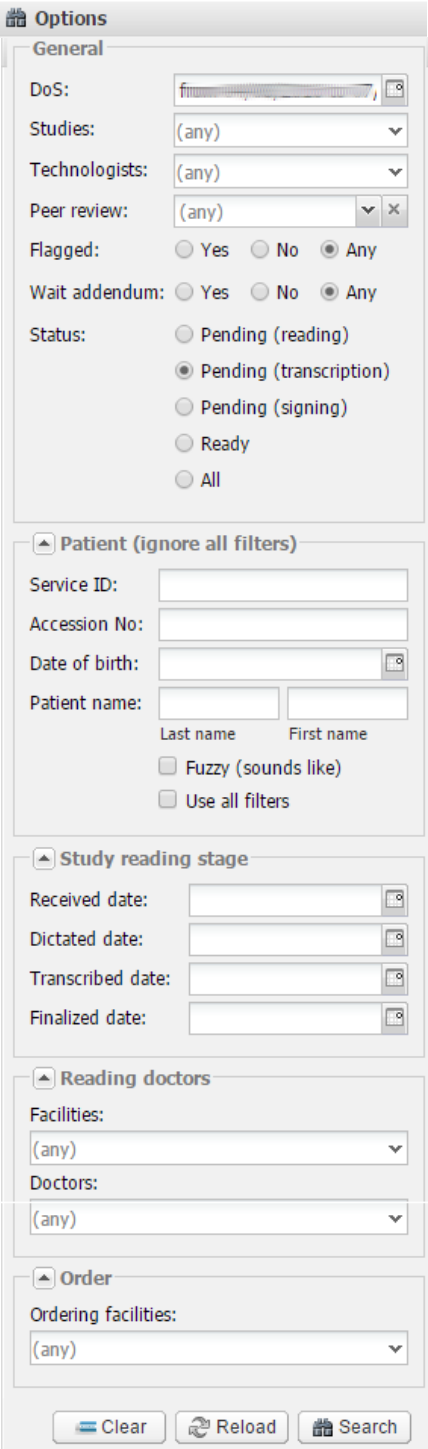


The **Add new service** window will open:



4. Select the **Referring doctor** if there is more than one doctor in practice.
5. Fill out the **Date of birth**, the **Last name** and the **First name** of the patient.
6. Select the **Gender**.
7. Select the **Study** from the list of studies. Other fields, such as **SSN**, **Address**, **Phone**, **Insurances** and **Notes** are not necessary to fill out.
8. Save the service when you have filled out the fields.

Instructions for radiologists and referring physicians



How to access radiological images and reports via the Cabinet module

Radiologists can use the **CABINET** module to access studies that have been assigned to them for interpretation. Referring physicians can use this module to obtain study interpretation reports.

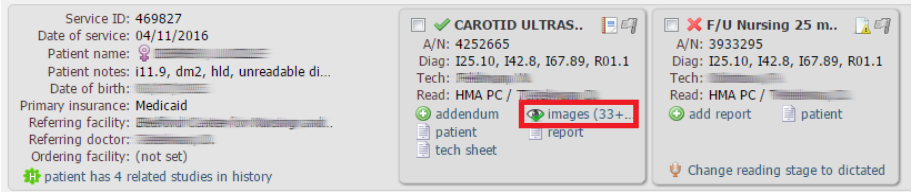
To search for studies, please use the instruction below:

1. Sign into your account on your EMSOW site.
2. Click **CABINET** in the upper navigation bar
3. In the **Options** panel on the left sidebar, specify the search parameters as necessary.

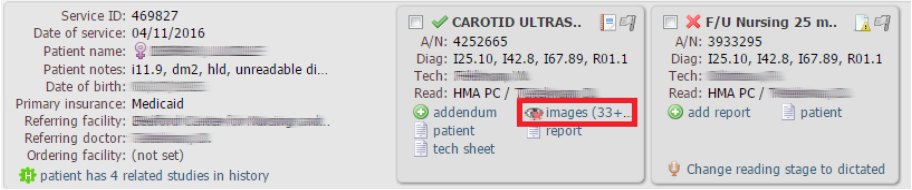
   Various search options are available. The most common options are the following:
   • Date of service (DoS)
   • Status: Pending (Reading), Pending (Transcription), Pending (Signing), Ready, or All
   • Date of birth (DoB)
   • Patient name
   There are other filters available such as:
   • Studies
   • Technologists
   • Peer review (available or not)
   • Flagged: Yes, No or Any
   • Wait addendum: Yes, No or Any
   • Service ID
   • Accession number
   • Reading doctors
   • Ordering facilities

Under **Study reading stage** you can search by the following dates:
Received date – when the study was received
Dictated date – when the interpretation report was dictated
Transcribed date – when the report was transcribed
Finalized date – when the report was finalized by the doctor

In order to view DICOM images, click the **images** link in the corresponding study box:

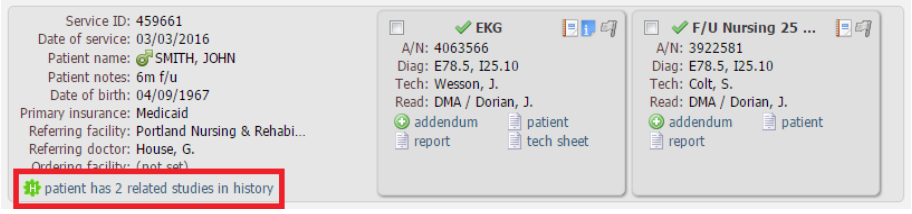


NOTE: Old patient images are automatically archived and are not available for instant viewing. Archived studies have the following icon next to **images**:

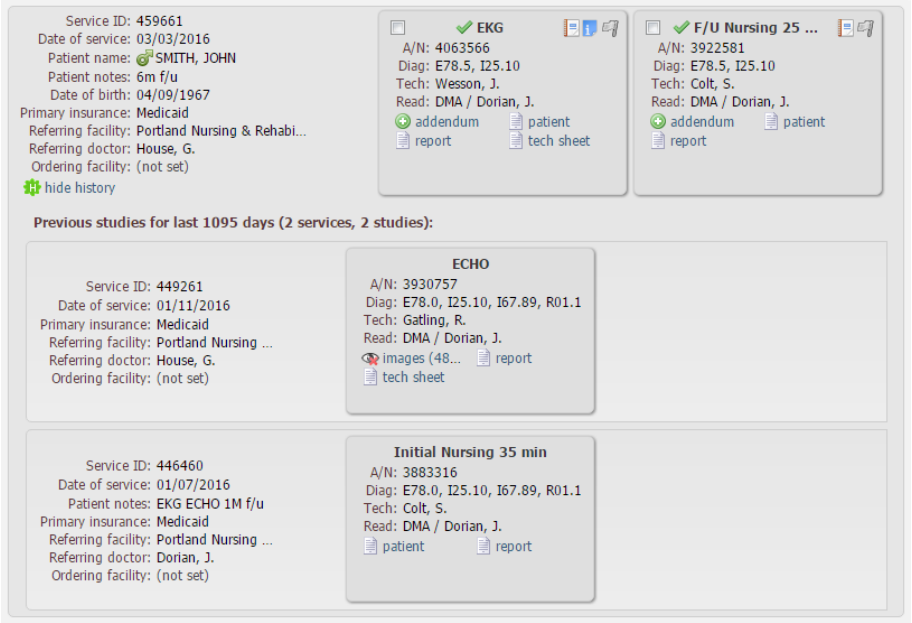


To view the archived images, just single-click the **Images** link in the same way as to view a regular study. It may take 1–10 minutes to retrieve the complete study from the archive depending on the study size. When it is complete the icon will change to  and the images will be available for viewing. In order to obtain a report for a study that has been read by a radiologist, click **report** in the corresponding study box.

To view patient's previous studies for last 1095 days, click the **patient has 2 related studies in history** link:



As the result, service box unfolds. Previous services and studies appear:

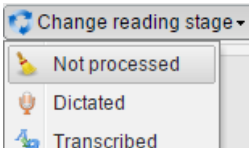


To have access to this function, your user group must have the permission “Doctors cabinet - show patient previous studies with documents” (please ask your system administrator to grant you this permission).

On the upper toolbar such buttons as **Create cache**, **Pack**, **Change reading stage**, **Mark as**, **Select all** and **Deselect all** are available:

Click the **Create cache** button to make archived images available for viewing (it is done automatically when you click the **images** link to view the archived images).

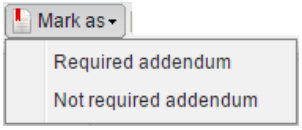
For application of the **Pack** button see the section “How to record images to a CD/DVD or a USB flash drive”.



The **Change reading stage** button makes it possible to select the required stage as it is shown in the picture on the left:

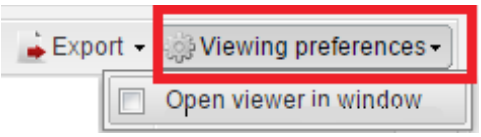
- Not processed (studies are not processed)
- Dictated (the report has been dictated)
- Transcribed (the report has been transcribed)

Click **Mark as** and select if an addendum report is required for selected studies.



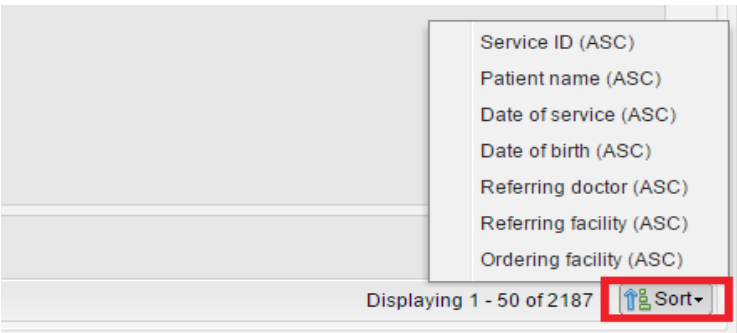
Click **Select all** or **Deselect all** to select or deselect all studies shown on the page.

The **Viewing preferences** button provides an option to open the DICOM viewer in a separate window which can be more convenient for a reading doctor.



To export the list of studies as an Excel, CSV, PDF or HTML document, click the **Export** button on the right side of the toolbar.

On the bottom toolbar there is the **Sort** button that permits you to select how the studies are arranged (ASC stands for ascending).



Studyboxes have different icons that inform you about the state of studies when you hover the mouse pointer over them.

 – contains the information about who and when dictated the report and who and when received it.

 – contains the information about who and when received the report and who and when finalized it.

 – contains the information only about who and when received the study, means that the study is not finalized.

 – shows that the study was checked and who saved it.

 – click this icon to flag the study.

How to use the DICOM Viewer to view radiological images

The DICOM Viewer's user interface consists of the following:

1. Images panel
2. Viewer toolbar
3. Main window

The images panel is a large panel on the left sidebar that has thumbnails of the current study. You can jump to any image in the study either by double-clicking a thumbnail or by dragging it to the main window.

The viewer toolbar contains buttons that help you view the images:

 – the arrow buttons allow you to jump to the next or the previous image in the study. You can also use the mouse wheel to scroll back or forward, or press the space bar to see the next page.

 – the pan tool allows you to move the image in the viewer (useful when the image is zoomed in).

 – the reset button (Ctrl+R) resets the view to the original mode, as if it was opened for the first time.

 – the window/level tool allows you to change the brightness/contrast of the image. Select this tool, hold the left mouse button on the image, and move the mouse either vertically or horizontally in order to change the brightness/contrast.

 – the point tool (Ctrl+~) allows you to measure the number of Hounsfield units in a particular point.

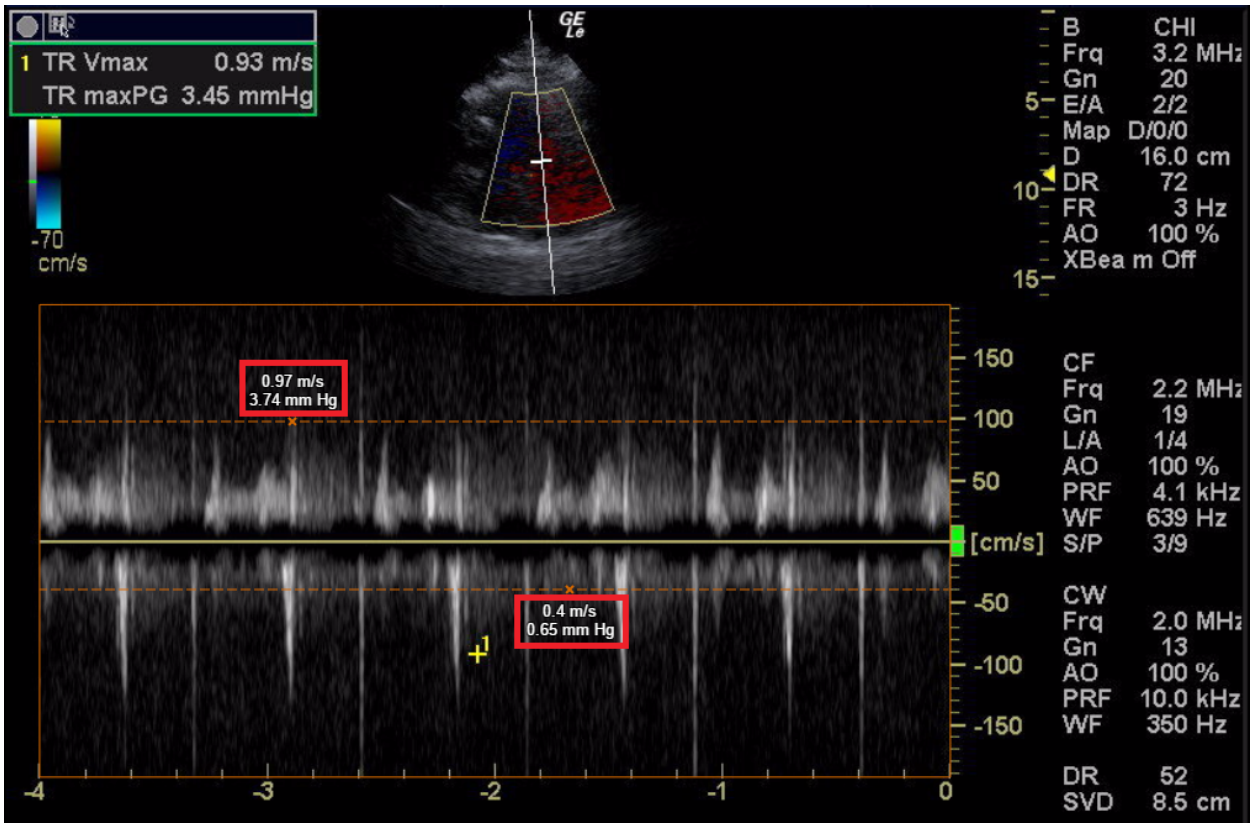
 – the distance measurement tool (Ctrl+1) is used to measure the distance between two points.

 – the angle measurement tool (Ctrl+2) allows you to draw two lines and measure the angle between them.

 – the rectangle / square tool (Ctrl+3) allows you to draw a rectangle or a square and display its area and perimeter. To draw a square, hold the Shift key while using this tool.

 – the ellipse / circle tool (Ctrl+4) allows you to draw an ellipse or a circle and display its area and circumference. To draw a circle, hold the Shift key while using this tool.

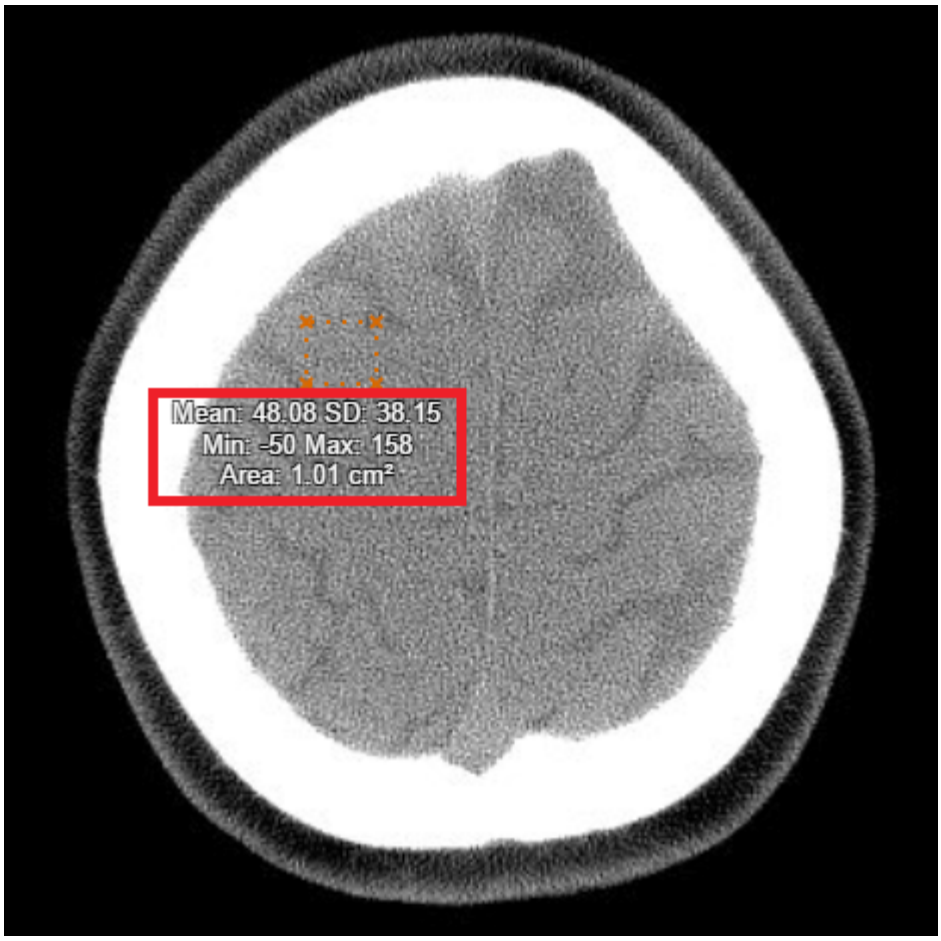
 – the peak velocity / gradient tool (Ctrl+5) is used to read velocity and gradient values from plots.



 – the freehand drawing tool (Ctrl+6) allows you to draw figures by placing points on the image. To finish drawing, click the initial point.

 – the area / circumference tool (Ctrl+7) allows you to draw arbitrary closed shapes.

 – you can use these tools to determine the mean number of Hounsfield units in a particular area. When you select an area using them the system shows the mean value.



 – the calibration tool (Ctrl+8) is used to calibrate the distance measurements by entering a correction value.

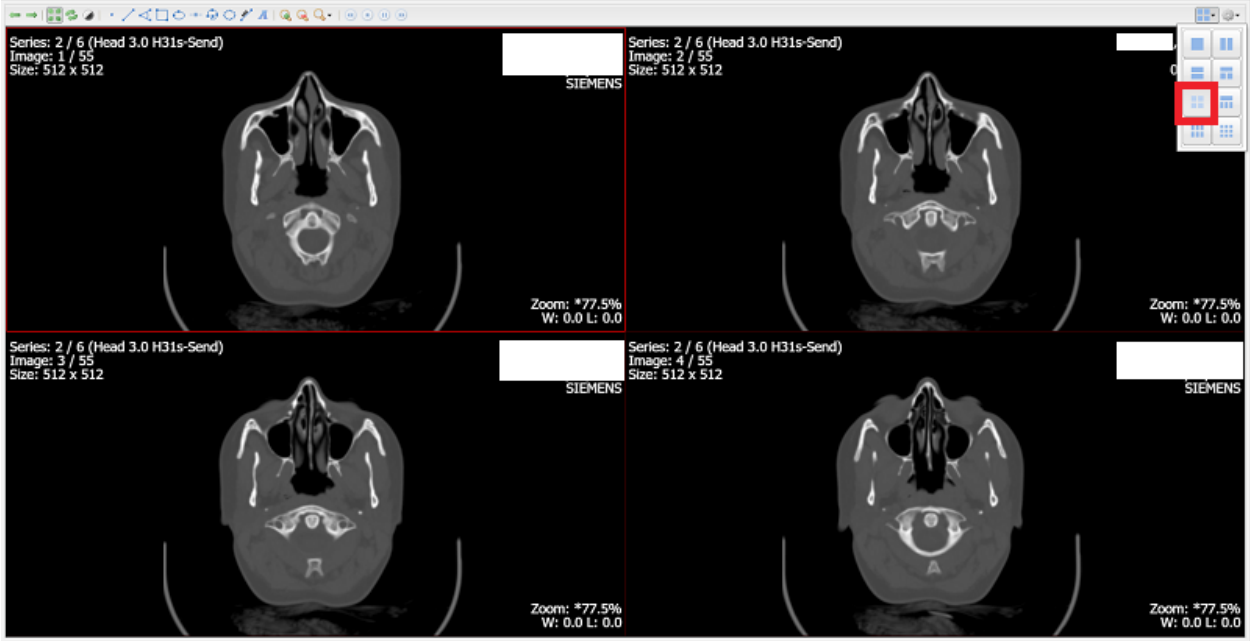
 – the annotation tool (Ctrl+9) allows you to add text labels to the image.

 – zoom in (Ctrl +), zoom out (Ctrl -) and custom zoom tools. Alternatively you can hold the Shift key and use the mouse wheel to zoom in or out.

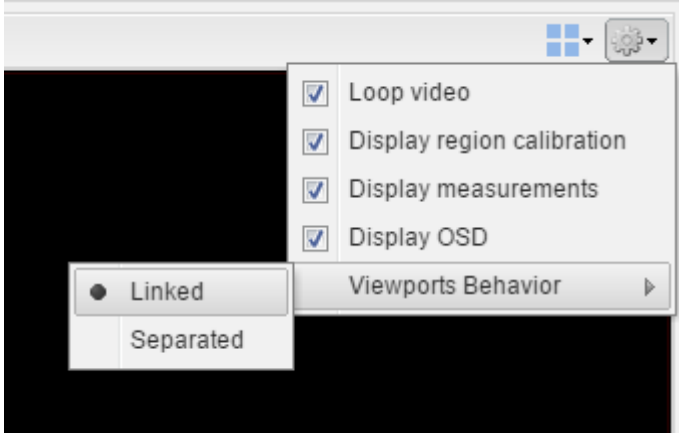
 – the multiframe video tools allow you to pause a video clip (e.g. a moving image sequence typical in echocardiology studies) and view it frame-by-frame.

 – the **Layout** and **Options** buttons are in the right upper corner.

 – the **Layout** button allows you to view multiple images side by side.



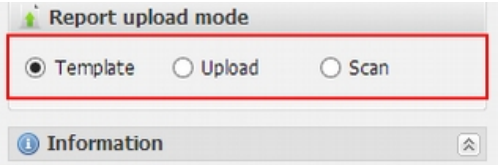
 – the **Options** button is used to specify how the data will look when it is viewed.



1. Loop video: check the loop video box and the video will be repeated continuously. When the box is unchecked you need to click **Play / Pause Video** button to play the video again.
2. Display region calibration.
3. Display measurements: this check box controls whether measurements are displayed or not.
4. Display OSD: this check box controls whether image information is displayed or not.
5. Viewports Behavior (Linked / Separated) is helpful when using different layout views to customize how the images are displayed.
6. Linked – images are displayed in the particular order as they are on the left sidebar.
7. Separated – allows you to choose what image to be displayed in each section.

How to add a study interpretation report

1. In order to add a study interpretation report, select **Template**, **Upload** or **Scan** on the bottom of the left sidebar:



These three options allow you to add a report in one of the three following ways:

- By using EMSOW's built-in report templates
- By uploading a report in the PDF or DOCX format
- By using EMSOW's built-in document scanning capabilities

2. Then click the **add report** link in the study box:

Using EMSOW's built-in report editor

If **Template** has been selected as the report upload mode, a report editor tab will open where you can select an appropriate template (such as "Echo" for echocardiology studies):

Structured reporting (SR) in templates

Most templates have tables with measurements that are prepopulated from equipment if the equipment supports structured reporting. The measurements that come over from the equipment are highlighted in green color and the ones that are modified by the user are highlighted in blue. If there are no measurements in the table, the SR data was not received from the equipment.

Dimensions		Normal	Dimensions		Normal
Aortic Root	3.5 cm	2.0-3.7 cm	Left Atrium	2.6 cm	1.9-4.0 cm
Left Ventricle			Right Ventricle		
LVID (D)	5.0 cm	3.7-5.6 cm	RVID (D)	0.0 cm	1.9-3.8 cm
LVID (S)	3.0 cm	1.8-4.2 cm			
LVPW (D)	1.0 cm	0.6-1.1 cm	IVS (D)	1.0 cm	0.6-1.1 cm
LVPW (S)	n/a	0.8-2.0 cm	IVS (S)	n/a	0.8-2.0 cm
LVEF (est)	65 %	>50%			

How to fill out findings and conclusions

Depending on the template, it may have some prepopulated findings/conclusions according to the measurements. Some templates are fully manual; then the findings have to be entered manually.

- Some reports may have two rows of checkboxes indicated by two icons:

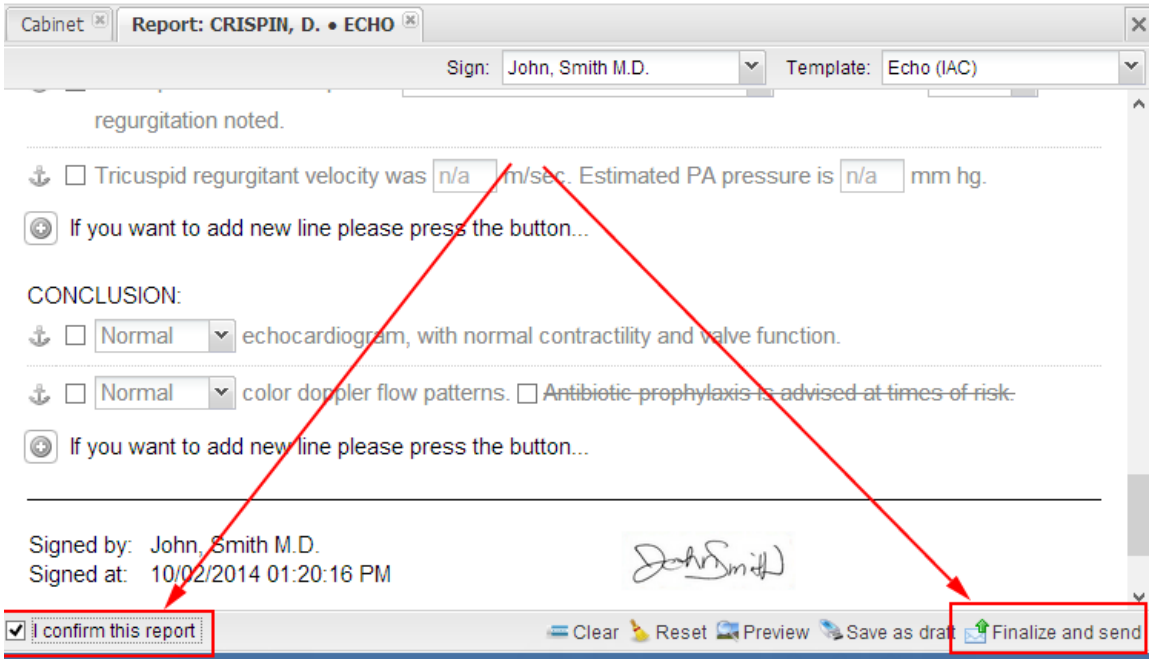
  If the checkbox in the “eye” column is selected, this part of the text will go to the findings section. If the checkbox under the “report” icon is selected, this part of the text will go to the conclusion. If both of the checkboxes are selected, the text will go in both the findings and the conclusion sections.
- Some templates don’t have a prepopulated finding/conclusion section, instead there is the gear button:

  This button allows you to select findings from the list of findings.
- To add a free text, please use the **plus** button at the end of each section.

Report finalization

After the report is filled out and ready to be finalized, click **I confirm this report** in the bottom left corner of the screen and then click **Finalize and send** in the bottom right corner of the screen. The report will be attached to the patient’s record.



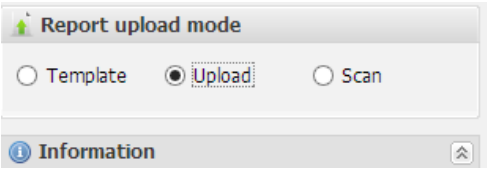
Other buttons available in the report editor perform the following actions:

1. Clear – reverts all changes to the original values as if the template was opened for the first time.
2. Reset – resets all changes to the draft version or to the original values as if the report was opened for the first time.
3. Preview – creates a preview of the final report in the PDF format.
4. Save as draft – saves the report with all the changes and selections as a draft version.

Uploading report files

If you have prepared a report using third-party software (e.g. Microsoft Word), you can use the upload feature instead of EMSOW’s reporting capabilities. To upload your report, select **Upload** on the **Report**

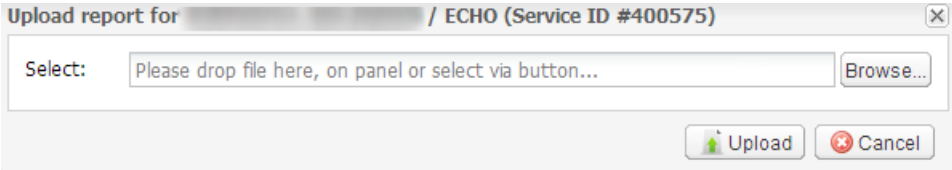
upload mode pane:



Then click the **Add report** link in a study box:

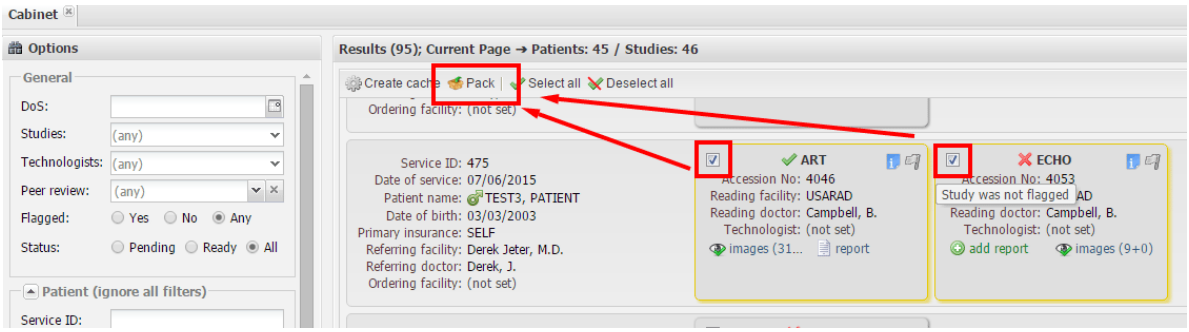
If a study was read, it is possible to add an addendum report which can be signed by another doctor. The "addendum" option is available for every study including those with finalized reports (using this option on those studies will result in moving the existing reports to the archive).

Drag and drop your report file onto the window or browse for it. The supported formats are DOCX and PDF. Then click **Upload**.



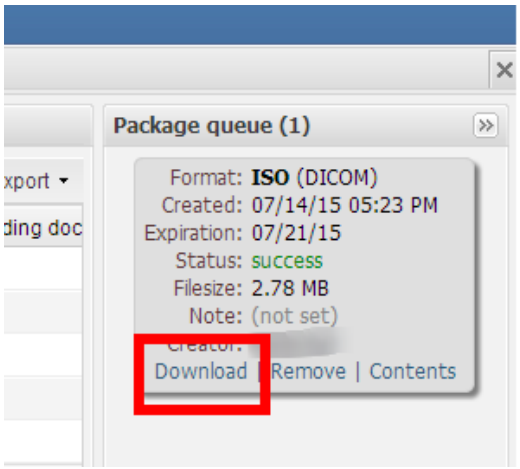
How to record images to a CD/DVD or a USB flash drive

1. Open the Cabinet module.
2. Select the studies you would like to record to a CD/DVD or a USB flash drive, and click **Pack**.



3. Select **ISO** to burn a CD/DVD or **ZIP** to copy the study to a USB flash drive.

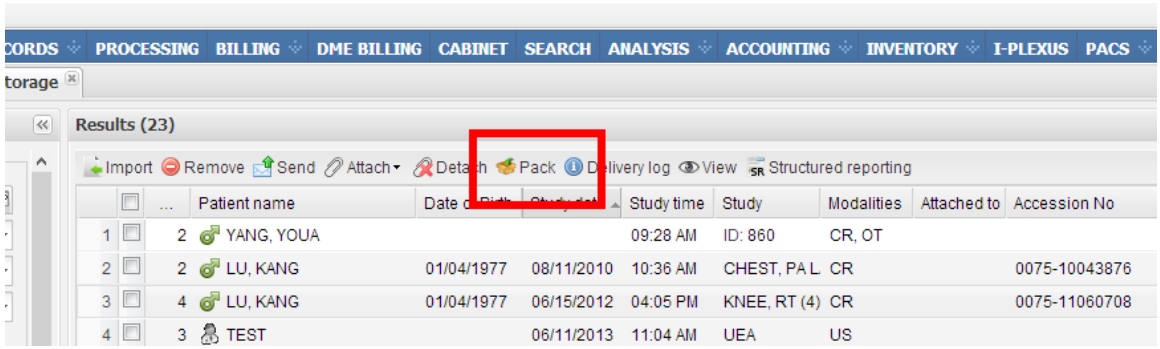
4. Select **Store original dicom images (DCM)** to save original DICOM files. You can also select **Store preview for DICOM images (JPEG/AVI/TXT)** to save image previews. Then click **OK**.
5. Download the file:



To burn the ISO file to a disk, you may need to use CD/DVD burning software. In Windows 7 and Windows 10 you only need to double-click the file as these operating systems have built-in disk burning software.

If you have selected the ZIP format and wish to copy the DICOM images onto a USB flash drive, please extract the images from the archive and copy them to the drive.

Alternatively, you can find the required studies in the PACS STORAGE module, if you have access to it.



The **Pack** button in the PACS STORAGE module works the same way.

Data entry and processing

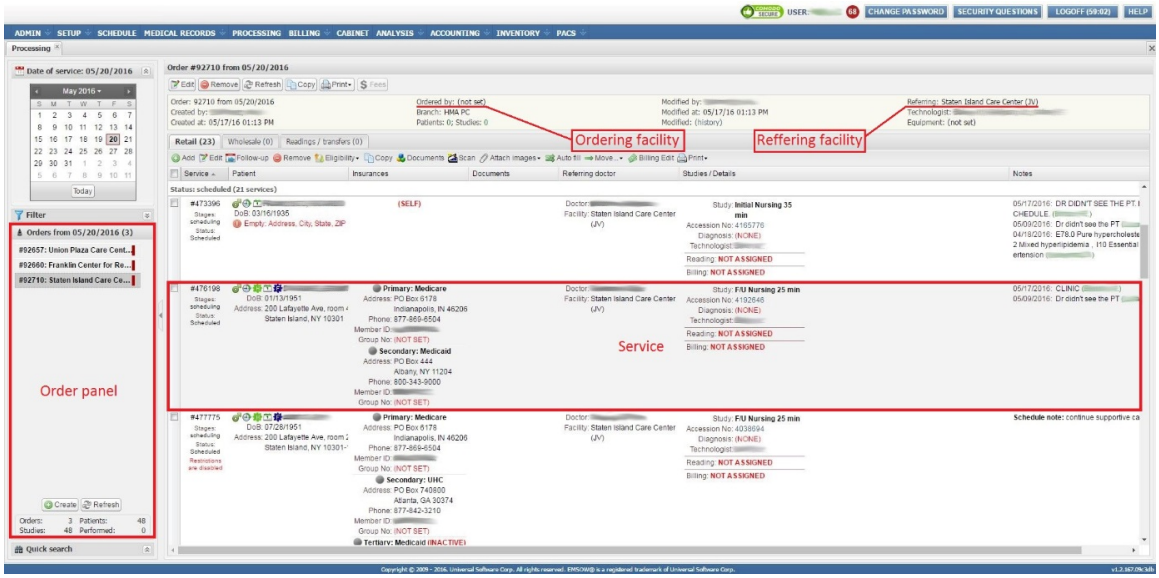
The Processing module

EMSOW's Processing module offers your tools that provide an end-to-end coverage of the typical workflow followed by most diagnostics businesses. The workflow begins when technologists obtain medical *images*, such as ultrasound ones, from radiological equipment. Then the images are attached to *studies* which have Current Procedural Terminology (CPT®) codes to define the purposes of patient examination. Every study may include several procedures and accordingly have several procedure codes. The code list is compiled according to the American Medical Association's codebook and is defined during the installation of EMSOW.

Every study is linked to a *referring doctor*, which is the physician who has referred a patient for the examination. The referring doctors are typically assigned on the equipment. EMSOW groups the referring doctors by *referring facility*.

The main item of the processing routine is a service, which is a collection of studies performed on the patient on a certain date. It is necessary to assign two things to every service — a *reading doctor* who will interpret the medical images (if there is more than one study in the service, each may have its own reading doctor), as well as a billing company that will provide payment for the service.

The services are grouped into *orders* according to *the ordering facility*. In case your company has several operating units, the orders may belong to different branches that should be set up during the system installation.

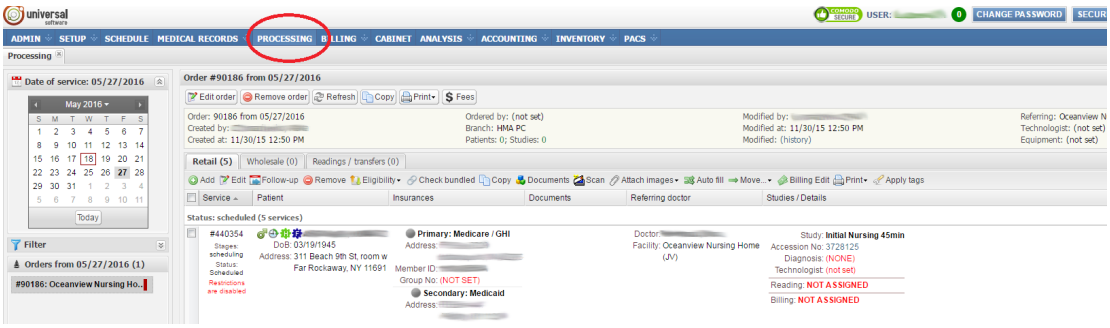


The intention of the Processing module is to properly process all received data for the services (including the medical images and the associated documents such as tech sheets), and send it to the reading doctors and the billing companies. It must be done correctly and quickly so that your company gets the images interpreted and the services billed in time.

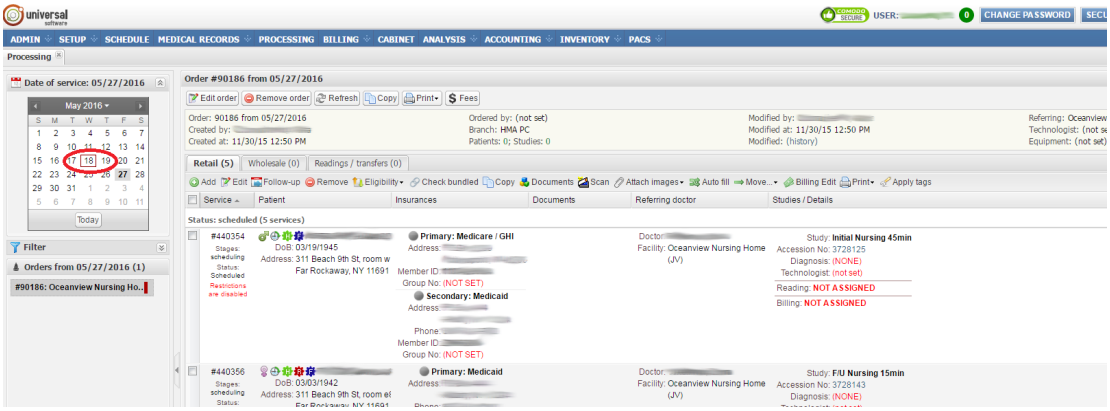
How to find patients from a log sheet

In order to start processing a service, find the patients to edit.

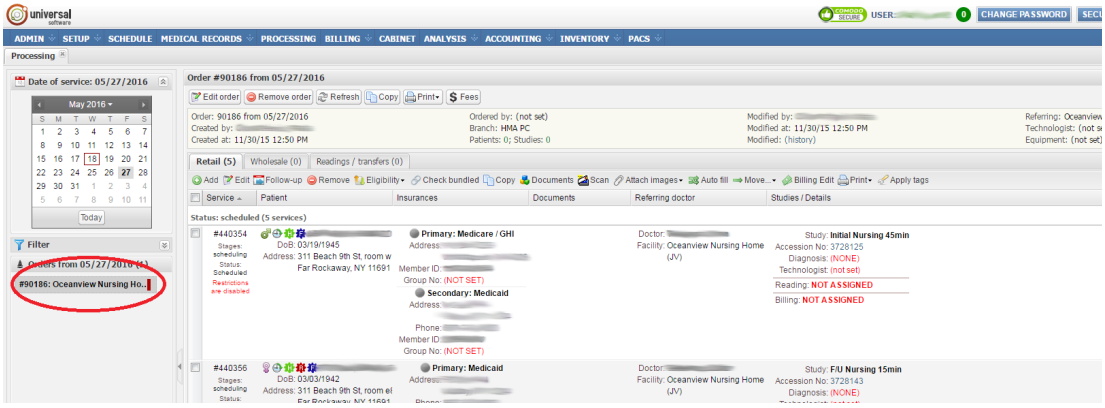
1. Sign into EMSOW account.
2. Click **PROCESSING** in the upper navigation bar:



3. Select the **Date of service** by finding the date when exams were performed in the calendar:

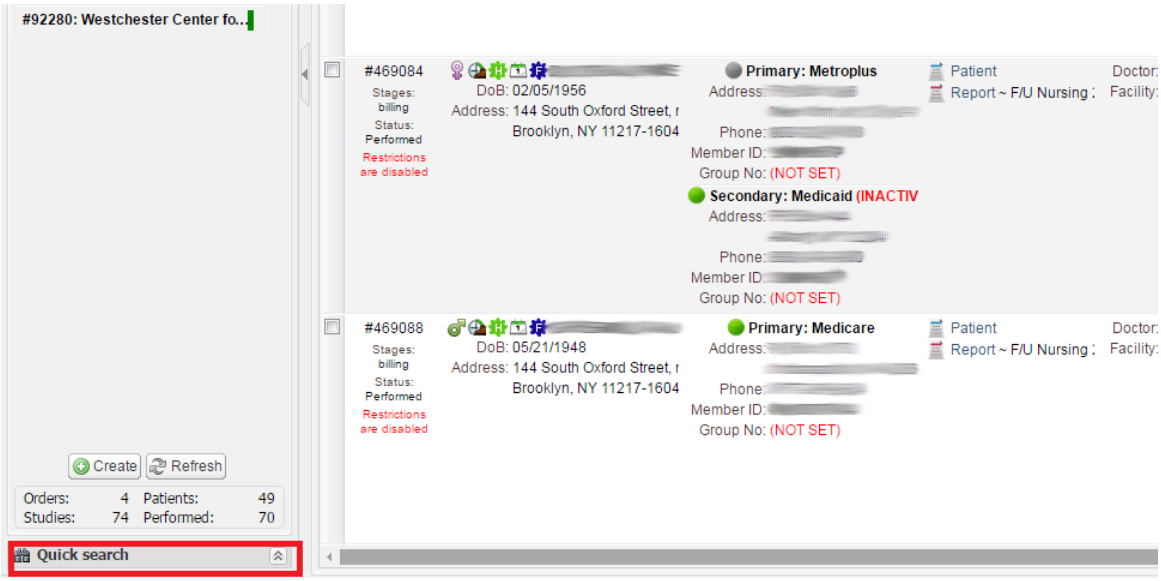


4. Find the facility in the **Orders from** section and select it:

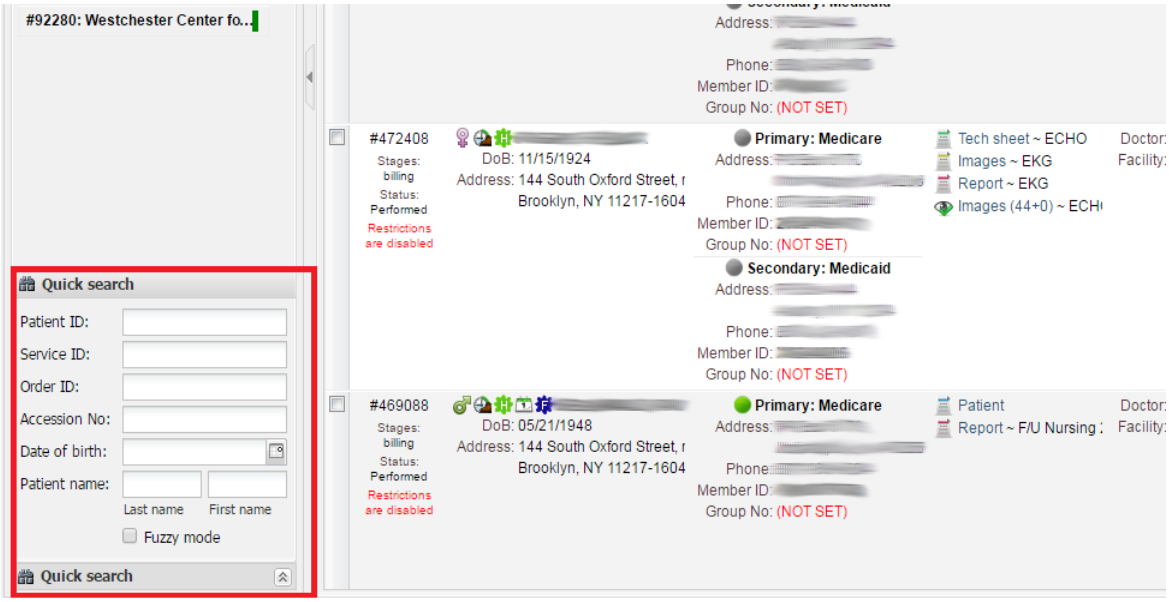


The required order will appear.

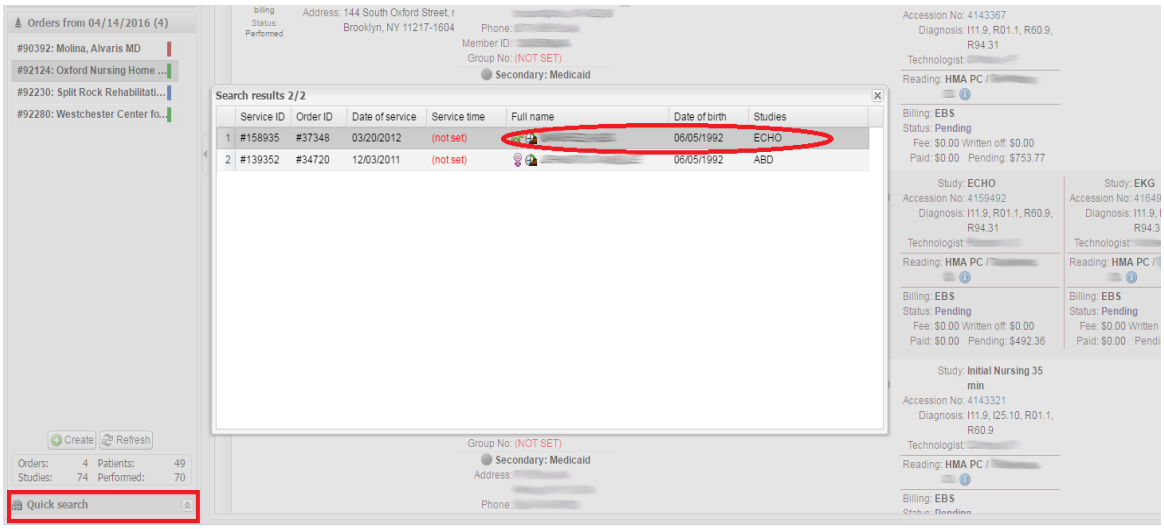
You can also use the **Quick search** box to find services.



1. Click **Quick search** in the bottom-left corner of the screen to open the search box.
2. Fill out fields in the box with any information you have about the service. It can be the patient's date of birth or name, the patient's or the service's ID in the database, or the accession number of a study that is contained in the service.



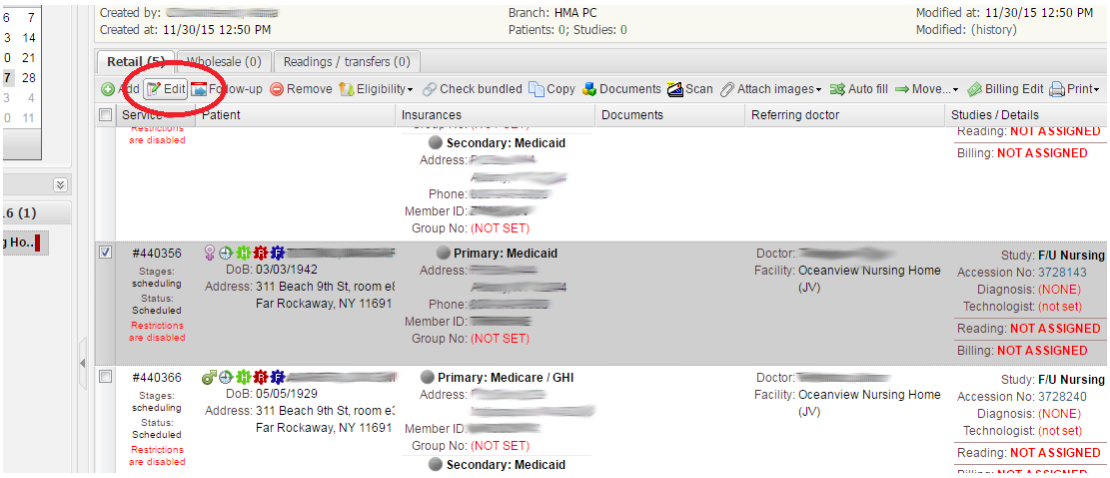
3. If the system finds multiple services in the database that satisfy your query, it will present you with possible matches:



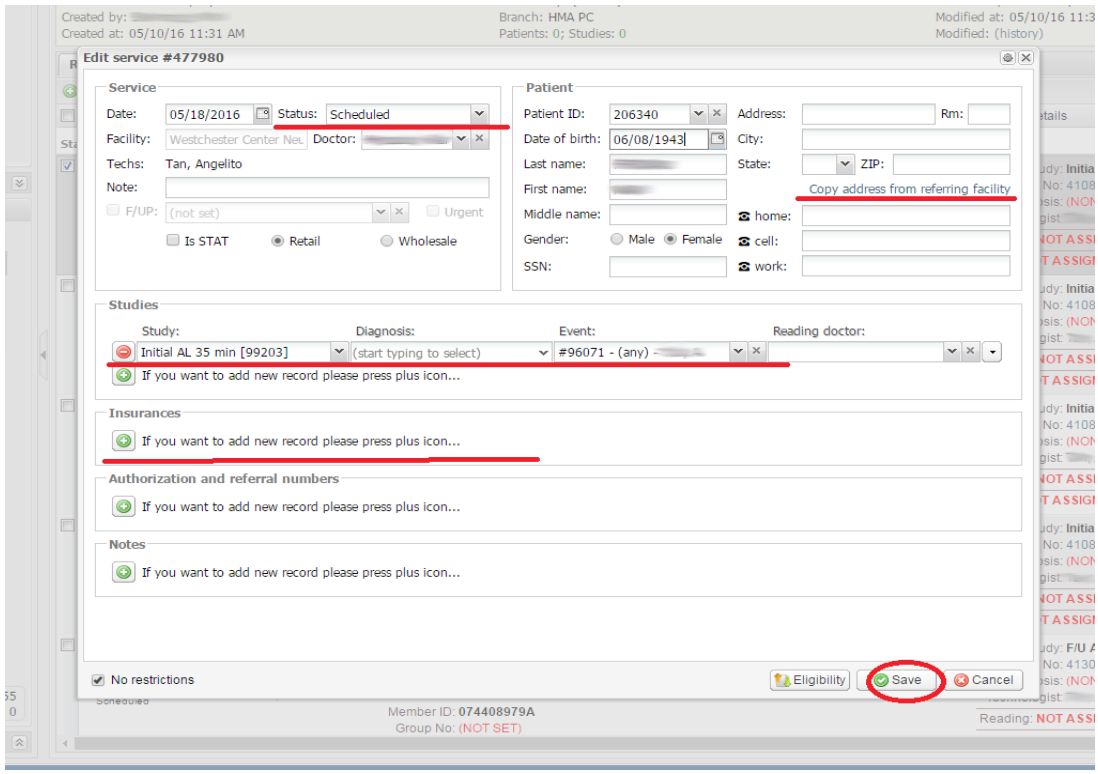
How to edit services

In order to edit a service please do the following:

1. Find and select the required patient or study in the order.
2. Click the **Edit** button:



3. Fill out, select or edit the fields you need to change, such as **Status**, **Doctor**, **Facility address**, **Studies**, **Diagnoses**, **Event**, and **Insurances**:

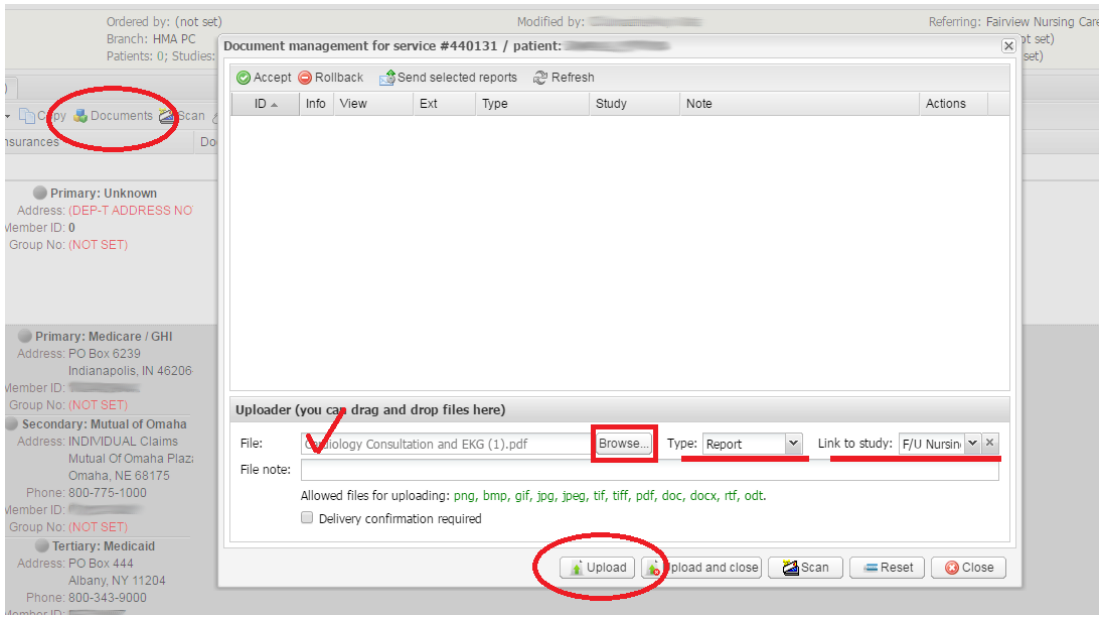


4. **Save** the service after you have made the changes.

How to upload associated files

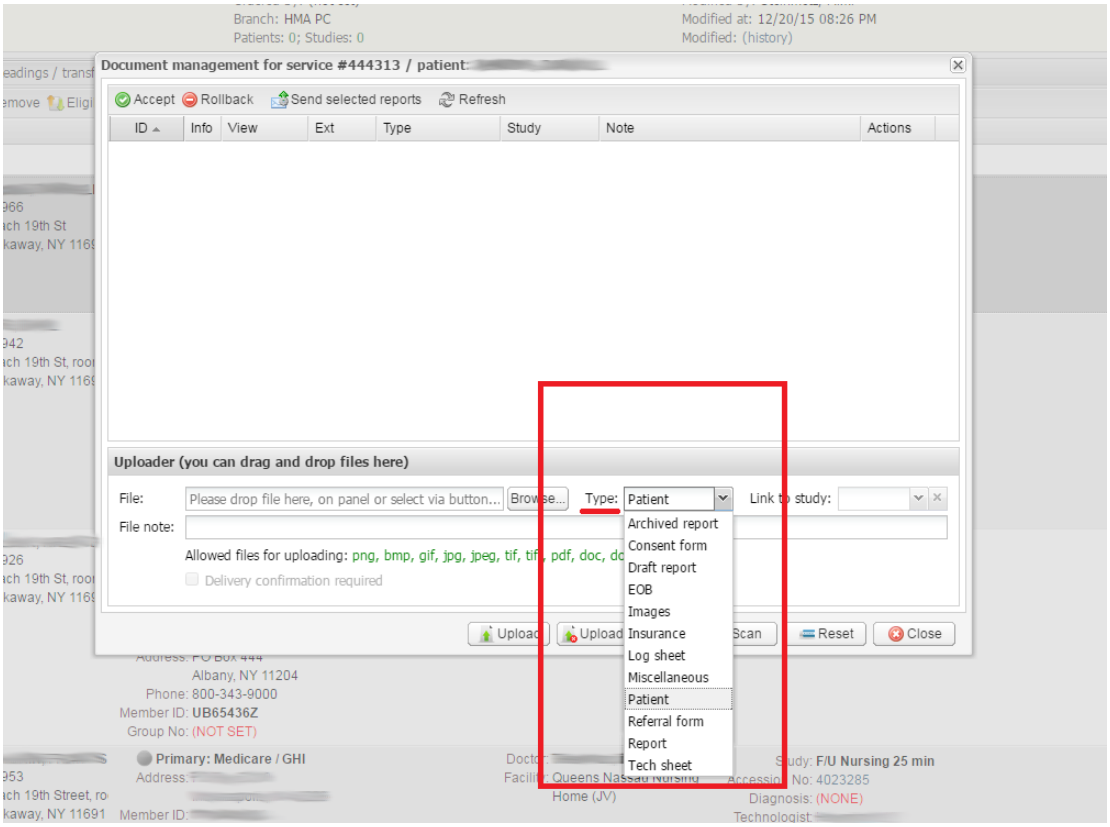
In order to upload files associated with the service, please do the following:

1. Select the required service.
2. Click the **Documents** button.



3. In the window that opens, click **Browse** to select a file to upload from your computer, select its **Type** and use the **Link to study** drop-down box to link the file to the corresponding study in the service. For instance, in the picture above a report is linked to an “F/U Nursing” study.

There are different types of uploaded documents, such as Patient, Images, Report, Tech sheet, Insurance, Log sheet, EOB, Archived report, Draft report, and Miscellaneous. Choose the required type according to the kind of the document being uploaded; for instance, upload radiological images as *Images* or an exam worksheet as a *Tech sheet*.

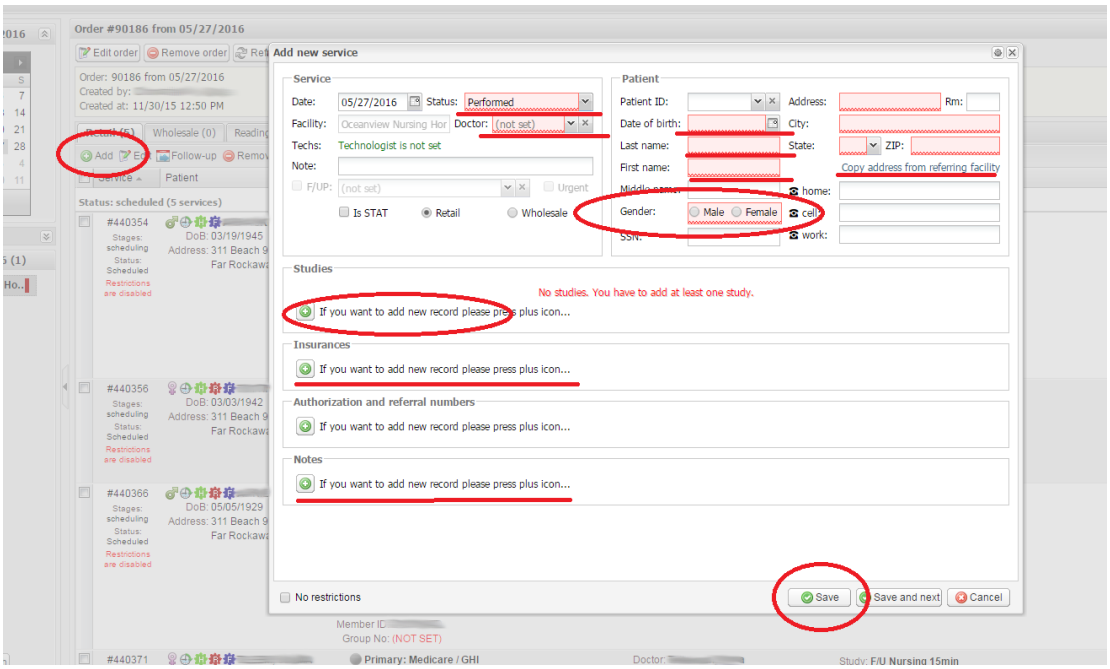


4. Upload the files by clicking the **Upload** button.

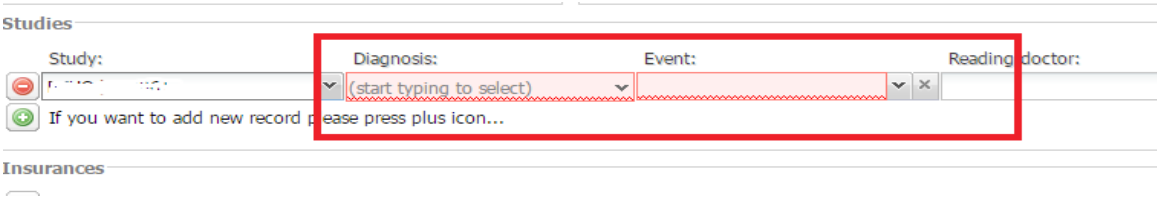
How to add a new service

If a log sheet contains a patient or some studies that are not present in EMSOW, add a new service.

1. Click the **Add** button.
2. In the new window fill out the **Date of Birth**, the **Last name** and the **First name** of the patient.
3. Select the **Status** and the **Referring Doctor** according to the data in the log sheet.
4. Select the **Gender.**



5. Click the plus button to add a new study and select its type.
6. After adding the study start typing an ICD code to add a **Diagnosis**.
7. Select the **Event** for the study.

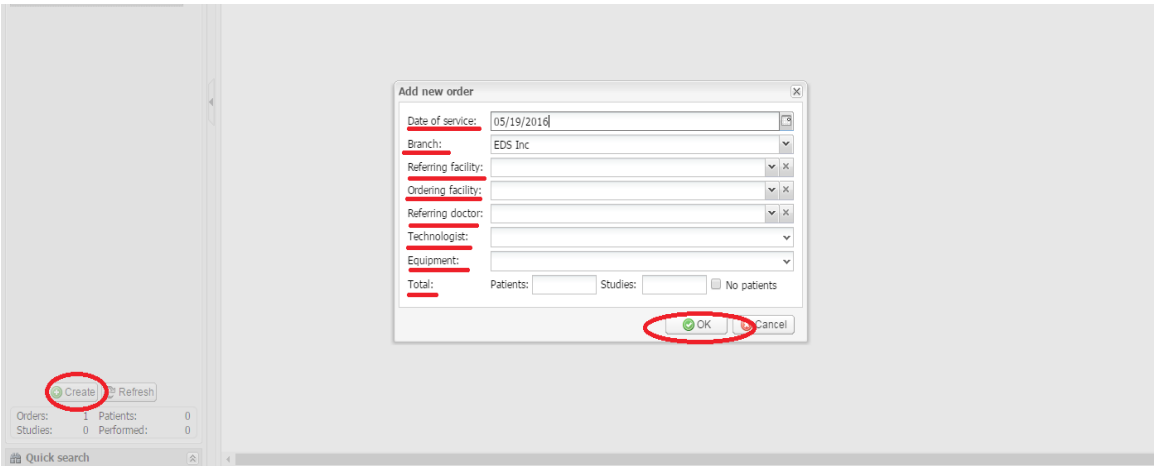


8. Fill out the required fields such as **Status**, **Doctor**, **Facility address** and **Insurances**.
9. Fill out **Notes** if you have something to note.
10. **Save** the service after you have filled out the fields.
11. Upload the required documents.

How to add a new order

If you need to add a new order, please do the following:

1. Click the **Create** button.
2. In the new window fill out the fields as necessary: the **Date of service**, the **Branch**, the **Referring facility**, the **Ordering facility**, the **Referring doctor**, the **Technologist**, the **Equipment**, and the **Total** number of patients and studies.
3. Click **OK** to save the order after you have filled out the fields.



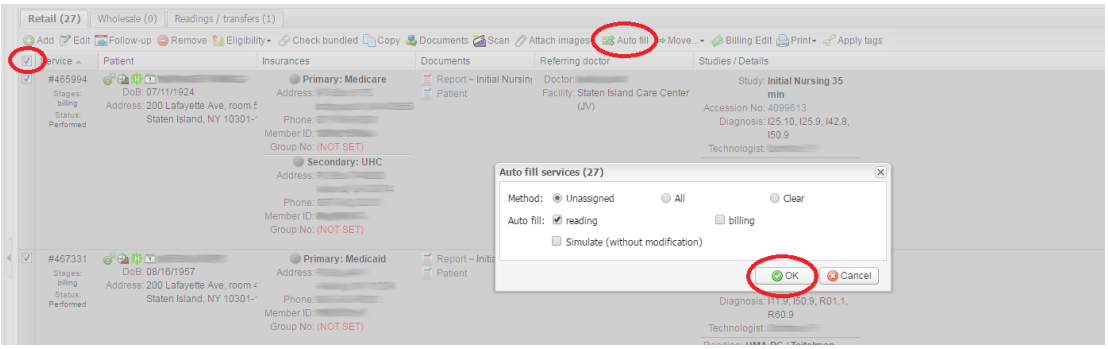
The new order will appear.

How to assign reading doctors to performed studies

Before sending the order to reading you need to assign reading doctors to studies. It can be done automatically or manually, depending on the presence of the appropriate *reading rule*. The reading rules allow the system to know what reading doctor to assign to what type of study while also considering such conditions as the referring facility.

a. Automatically:

1. Tick the required services.
2. Click **Auto fill.**



In the pop-up window select an auto-fill method:

- *Unassigned* – the system inserts values only into empty fields;
- *All* – the system fills out all fields and overwrites existing values;
- *Clear* – the system removes all values.

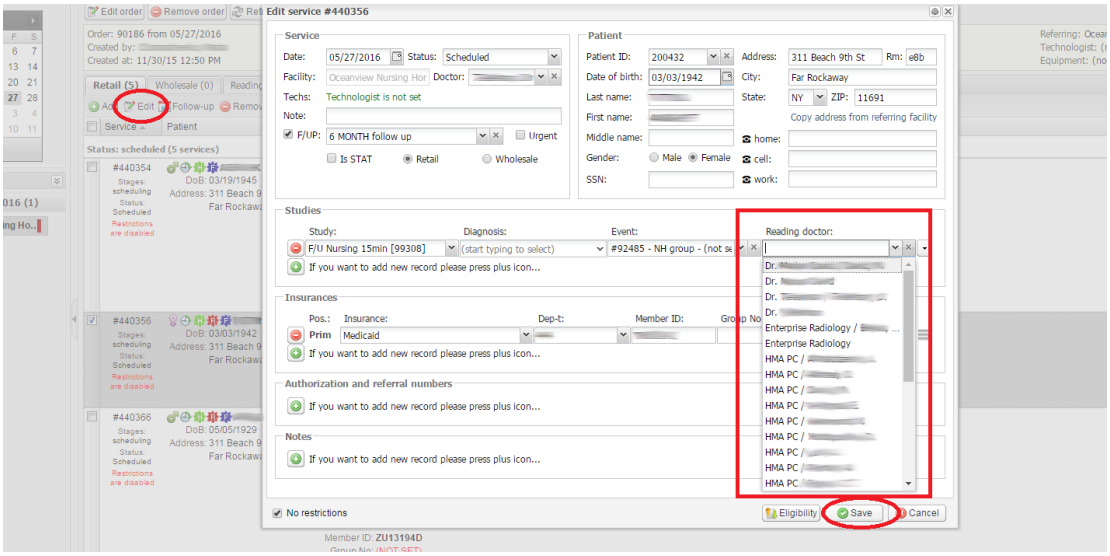
If you select the *Simulate (without modification)* checkbox, the system demonstrates the reading rule to be applied and shows what will be assigned. In most cases it is recommended to use the *Unassigned* method.

3. Make sure that **reading** is checked and click **OK**.

The reading doctor will be assigned automatically. However, you should verify that every service has a reading doctor assigned.

b. Manually:

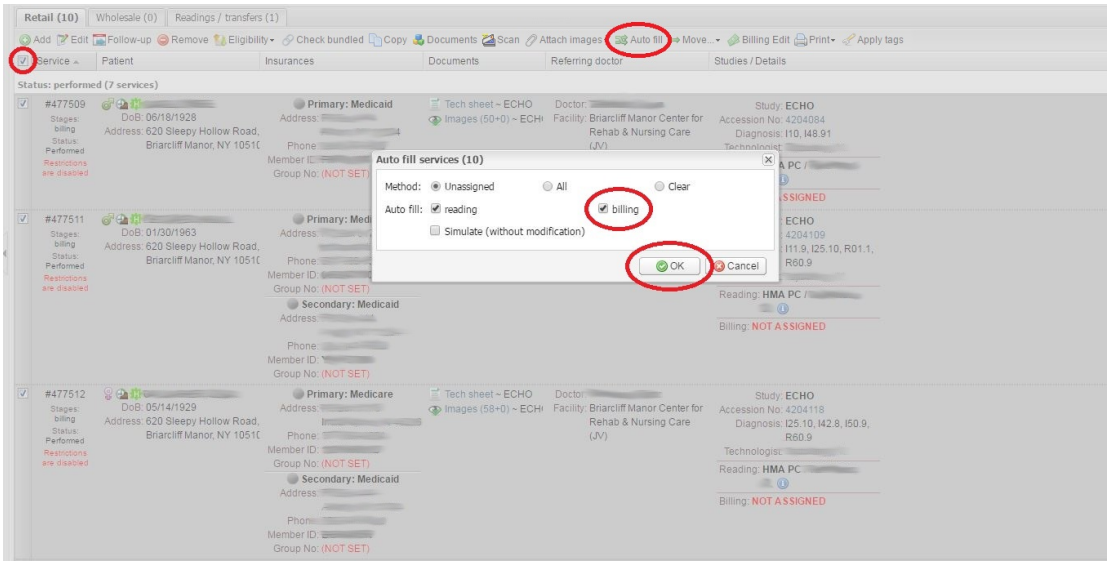
1. Select the service and click **Edit**.
2. Find the required study and select the **Reading Doctor** if there is more than one doctor in practice.
3. Click **Save**.



How to assign a billing company to performed studies

A billing company can be assigned to performed studies automatically:

1. Tick the required services.
2. Click **Auto fill**.



In the pop-up window select an auto-fill method:

3. *Unassigned* – the system inserts values only into empty fields;
4. *All* – the system fills out all fields and overwrites existing values;
5. *Clear* – the system removes all values.

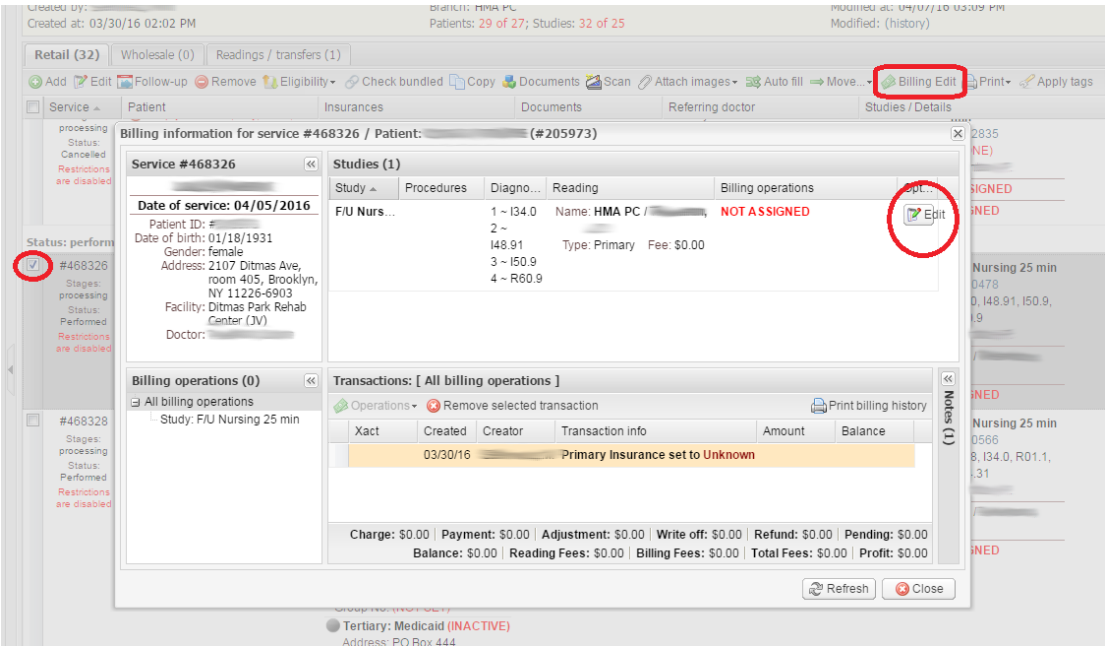
If you select the *Simulate (without modification)* checkbox, the system demonstrates the billing rule to be applied and shows what will be assigned. In most cases it is recommended to use the *Unassigned* method.

6. Make sure that **billing** is checked and click **OK**.

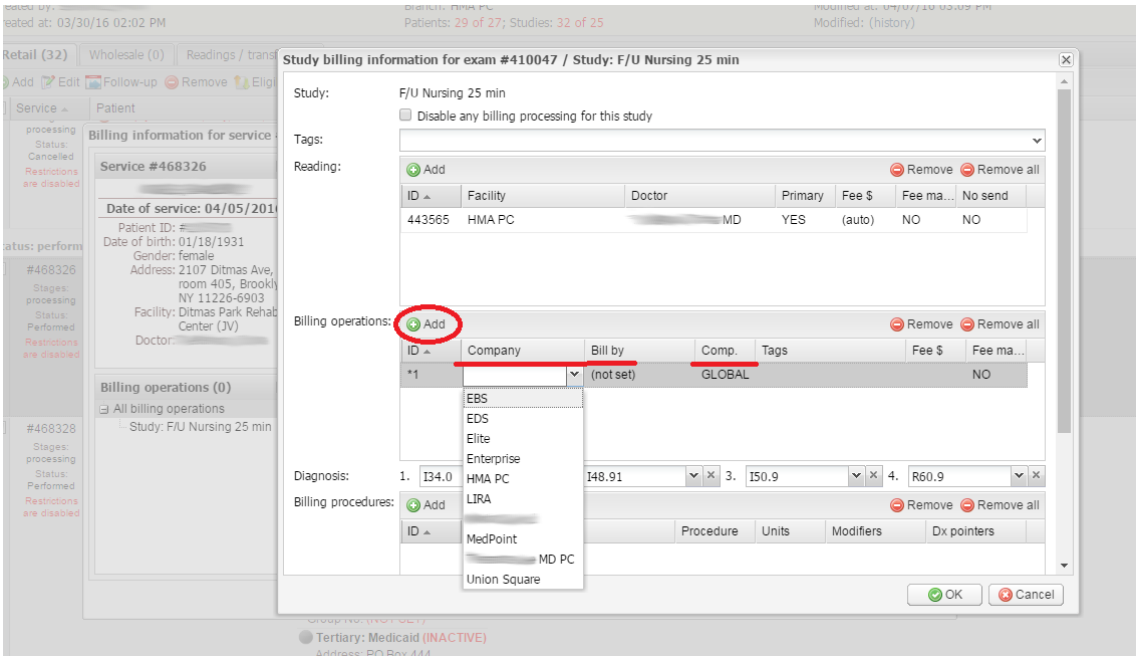
Billing will be assigned automatically. However, you should verify that every service has a billing company assigned.

For manual assignment do the following:

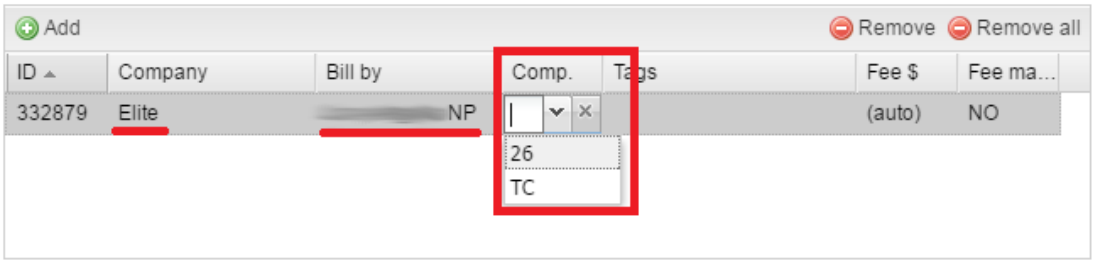
1. Select the services to which you need to assign a billing company.
2. Click the **Billing Edit** button.
3. In the new window click the **Edit** button to continue.



4. In the pop-up window click **Add** to set up *billing operations.*
5. Choose the **Company** and the doctor to **Bill by**.



6. Choose the **Component**: TC or 26.

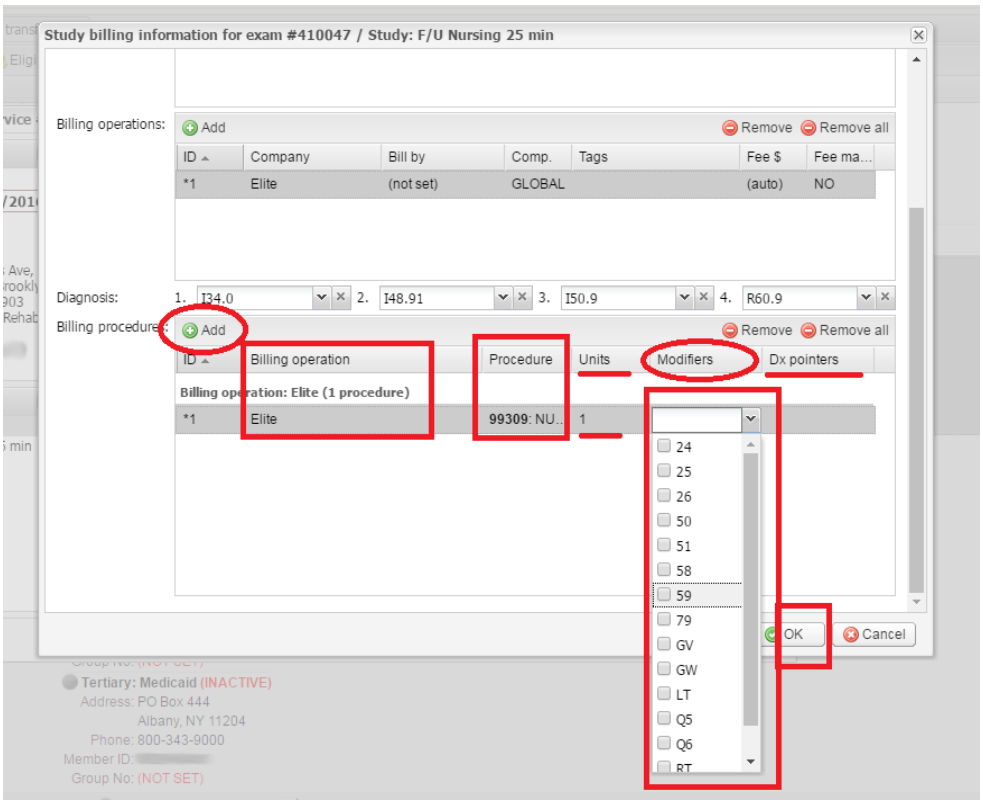


TC – technical component – is a payment for the technologist's work,

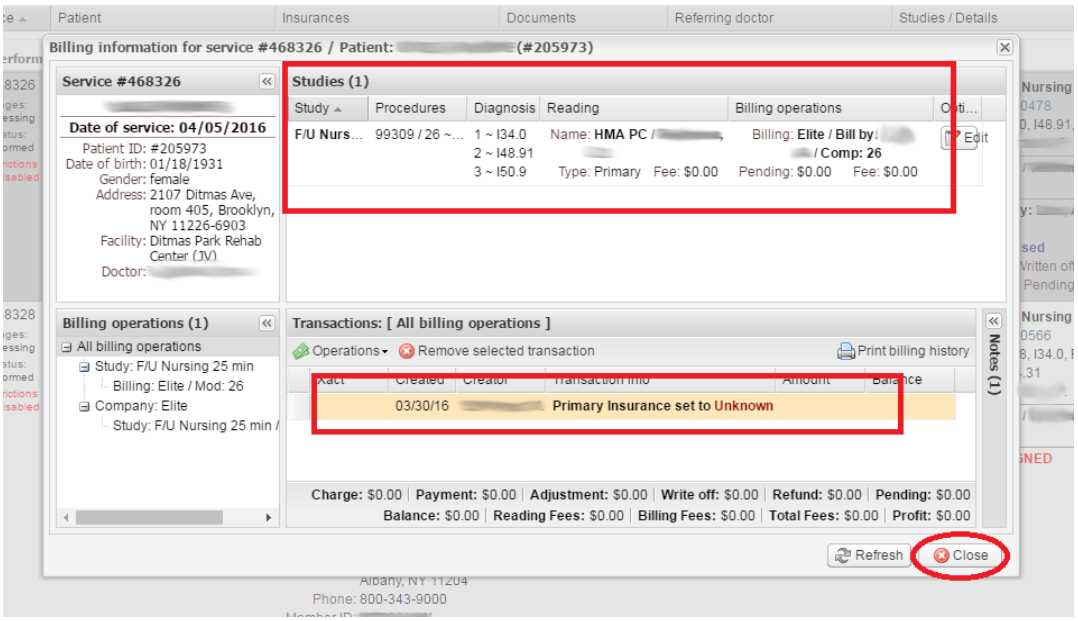
26 – is a component for reading the exam.

If neither is selected, the component is assigned as *GLOBAL*.

7. Fill out other fields such as **Tags**, **Fee** and **Fee management** if you need it.
8. Then click the **Add** button to set up *billing procedures*:



9. Select the **Billing operation** and the **Procedure** you have.
10. Select **Units**, **Modifiers** and **Dx pointers** if you need it.
11. Click OK to save changes.
12. In the **Billing information** window verify that all data about the assigned billing company is correct.



13. Click **Close** to close the window.

How to send performed studies to the reading doctor

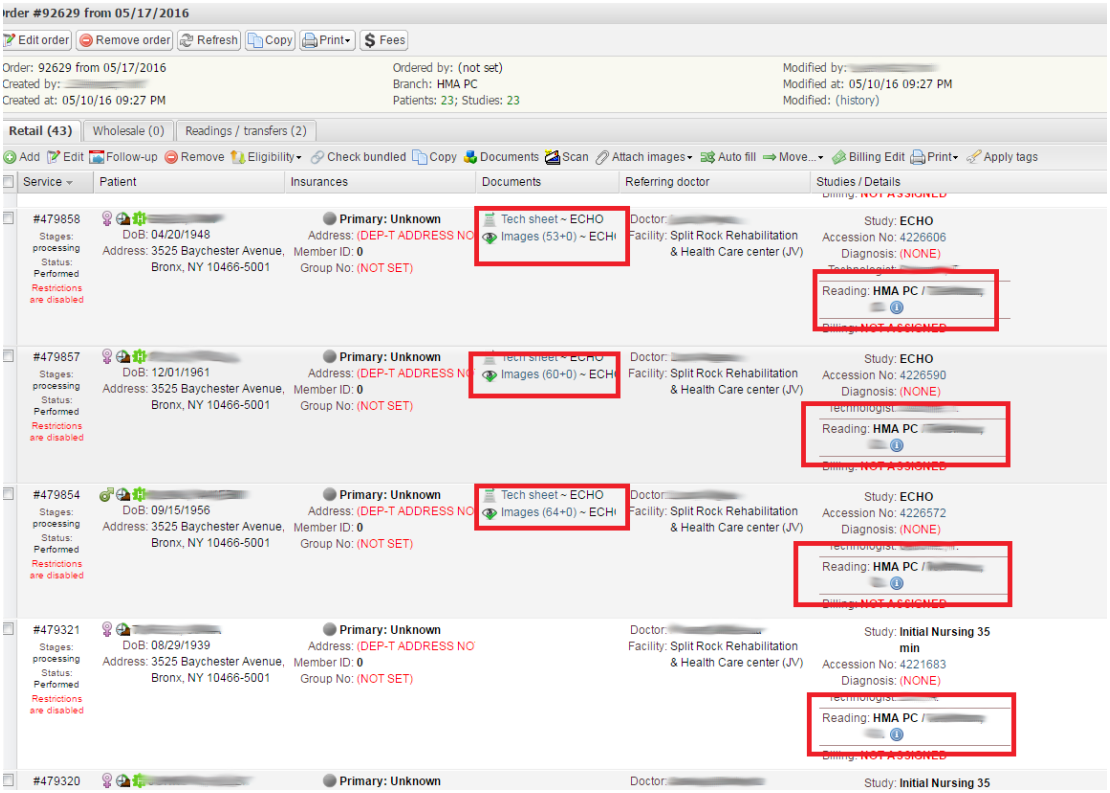
There are three ways to send performed studies to the reading doctor:

- Cabinet: the reading doctor logs into EMSOW's CABINET module with their account and uses the built-in features to view images and make reports.
- E-mail: the reading doctor receives images via e-mail.
- PACS: images are sent to an external PACS system via a secure internet connection.

You can choose the preferable way when adding a reading doctor or a reading facility account to EMSOW.

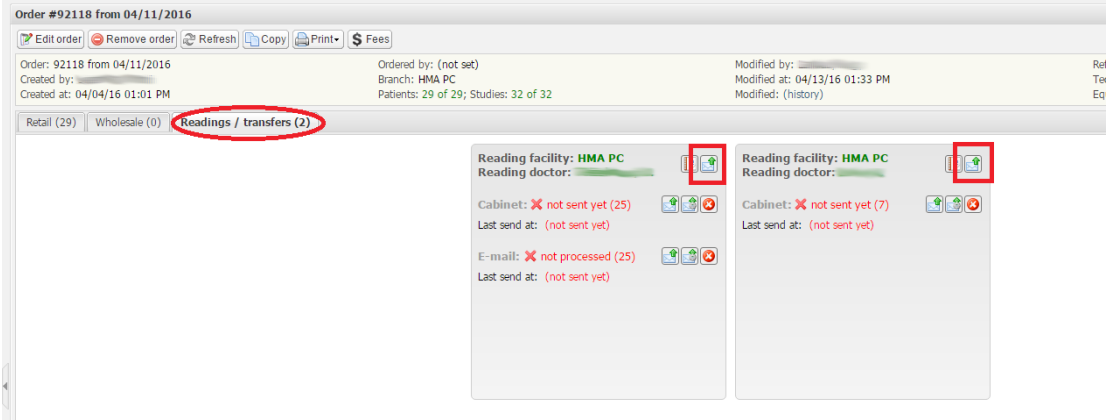
Before sending the performed studies to the reading doctors, make sure that all images and documents are attached and the reading doctors are properly assigned. To do this, open the Processing module and check the following:

1. The Images and the associated documents are attached in the **Documents** column.
2. A **Reading doctor** is assigned to every study.

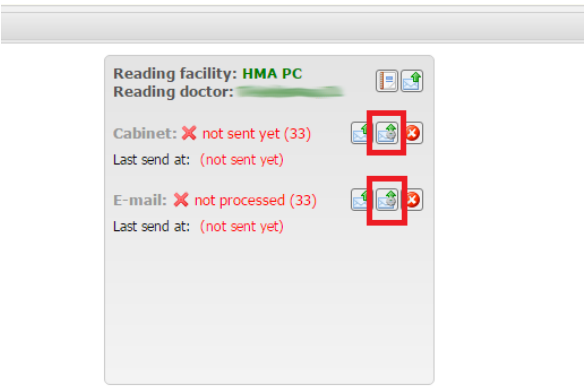


If all the documents are attached and the reading doctors are assigned:

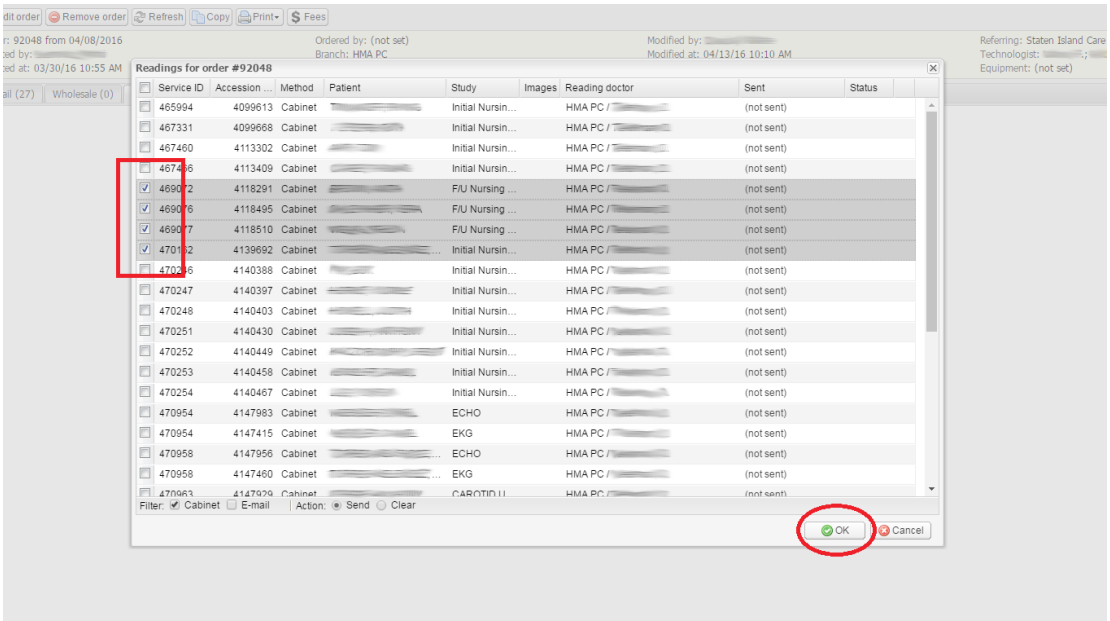
1. Select the **Reading / Transfers** tab.
2. Click the **Send all** button in every box:



3. If you need to send only some of the performed studies you can click the **Send custom** button next to the appropriate sending method, such as *Cabinet*.



In the window that opens, choose the studies to be sent for reading:



4. Click **OK.**

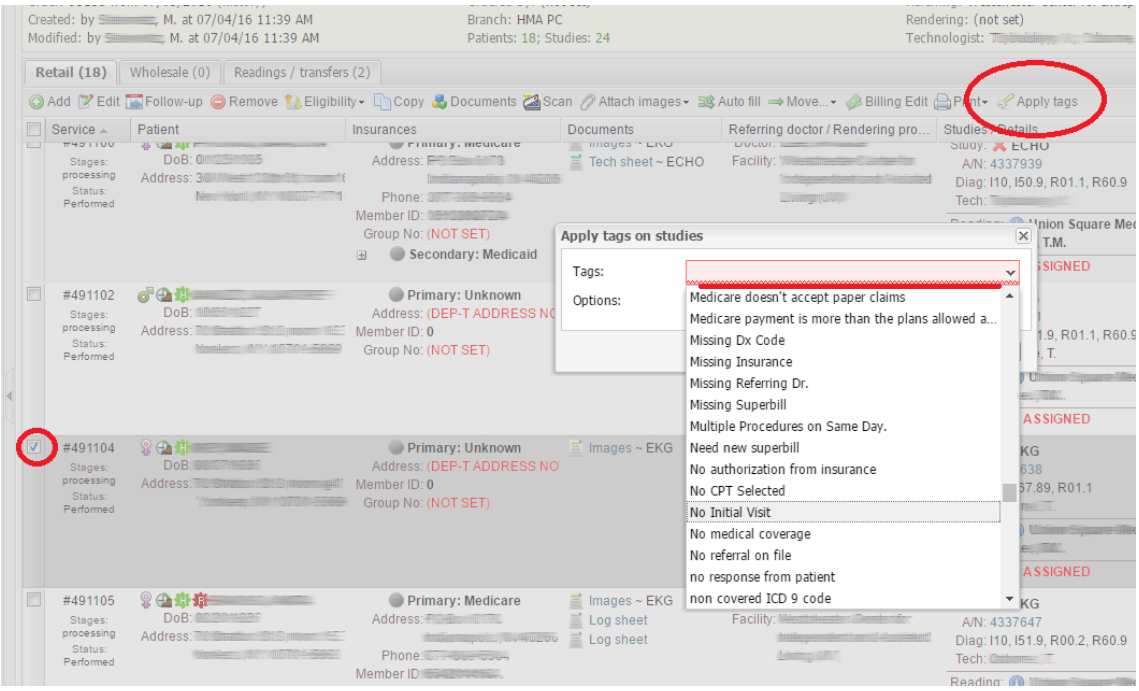
How to apply tags to studies

Tags are short textual labels that can be attached to studies in order to mark them as having certain properties that are important in billing. For example, you can add a tag to studies that are missing a referring doctor or a diagnosis code. Then you can find the studies that have specific tags using the Billing module.

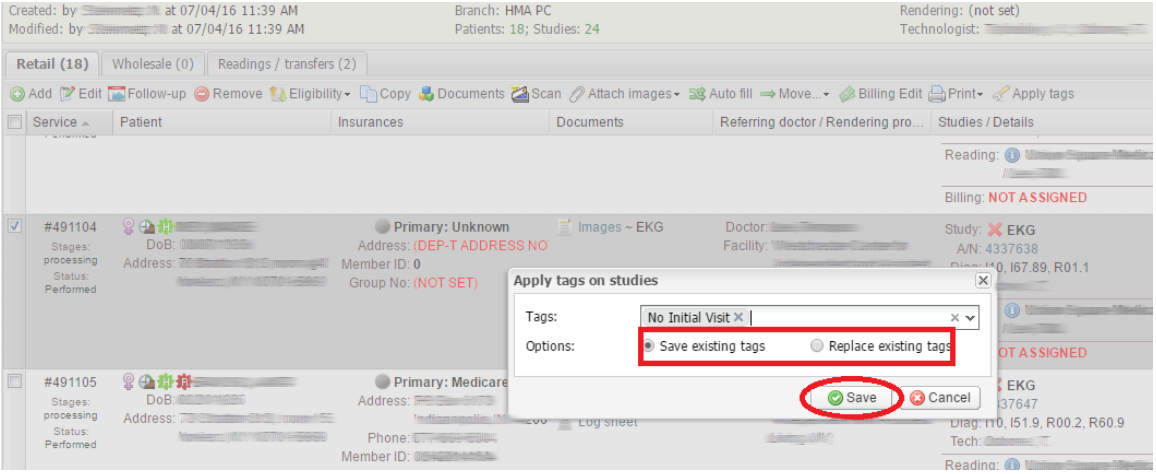
The Processing module allows you to add tags to studies contained in selected services by using the **Apply tags** button:

1. Select one or more services.
2. Click the **Apply tags** button.
3. Choose the tags you need to add from the drop-down list. You can select multiple tags.

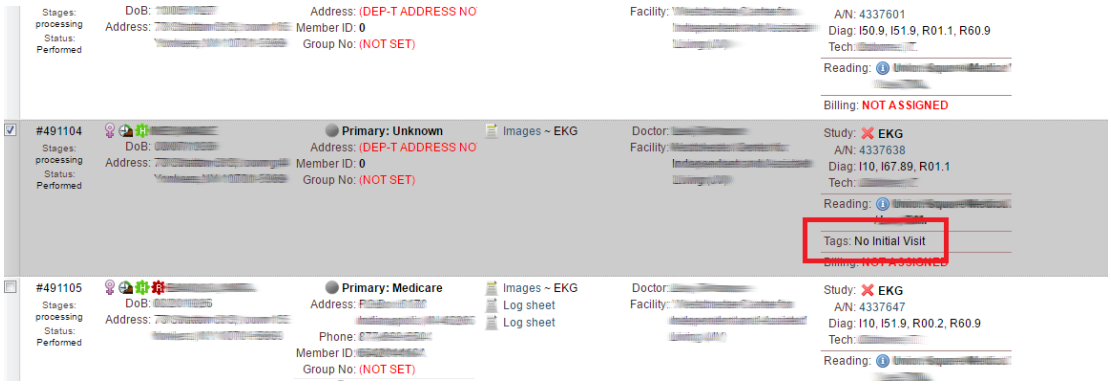
   NOTE: Administrators can modify the list of available tags by going to **SETUP → BILLING → TAGS**.



4. Choose **Save existing tags** to preserve tags that were previously added to the studies, if any. Choose **Replace existing tags** to overwrite the existing tags.
5. Click **Save**.



The required tags appear:

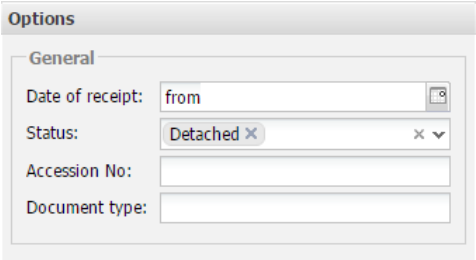


Mobile Documents

The Mobile Documents module allows users to track documents received from the mobile application EmsowMobile and attach them to studies or services.

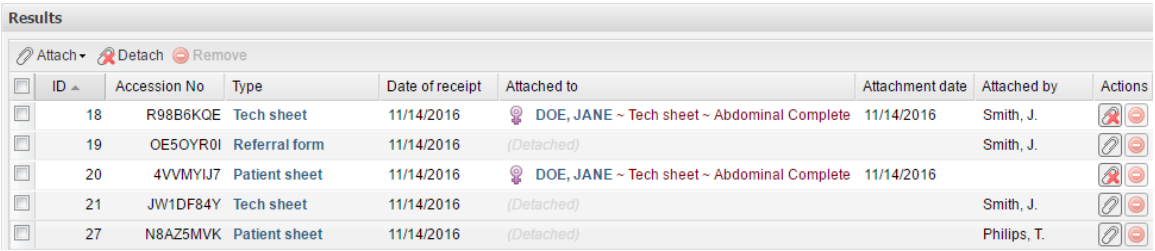
Note: It depends on the document type whether the document should be attached to a study or a service. For example, consent forms are attached to services whereas tech sheets are attached to studies.

In the **Options** panel on the left sidebar, specify the search parameters as necessary:



- **Date of receipt** (use the calendar to select a date or a date range)
- **Status** (*attached* or *detached* to a study/service)
- **Accession number** assigned by the mobile app
- **Document type** (consent form, insurance card, log sheet, miscellaneous, patient sheet, referral form, tech sheet)

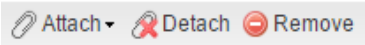
The search results appear in the main window:



Here you can see the list of documents arranged in several columns: **ID**, **Accession No**, **Type**, **Date of receipt**, **Attached to**, **Attachment date**, **Attached by**, and **Actions**. The last column, **Actions**, contains two buttons for attaching and removing documents: .

You can click on a document type in the **Type** column to open the file preview.

Above the list of documents you can see the toolbar:



The **Attach** button allows users to attach documents to studies/services. In the drop-down menu, you can choose to automatically attach selected or all documents, or you can attach documents manually. To detach documents, select a record and click the **Detach** button. Use the **Remove** button to remove documents.

The **Attach/manual** button (in the drop-down) opens a window that allows users to attach a document to a particular service or study. The search panel on the left sidebar allows users to find the required service or study. To perform the search, specify the search parameters as necessary:

You can search services/studies by patient information: **Last name, First name, Date of Birth** or **Patient ID**.

Search by service information is also available: **Date**, **Service ID** or **Accession number**.

The last section allows users to search services and studies by **Referring doctor** or **Facility**.

Click **Attach** to attach the documents or **Close** to quit without saving.

Select service/study to attach file

Search

Patient

Last name:

First name:

Date of birth:

Patient ID:

Service

Date:

Service ID:

Accession No:

Referring doctor

Doctor: (any)

Facility: (any)

Clear Reload Search

Services/Studies

Patient ID:
Patient Name:
Date of Birth:
Study:
Date of Service:
Service ID:
Accession No:
Referring Doctor:
Referring Facility:
Reading Doctor: (not set)
Reading Facility: (not set)

Page of Page size: 50 Displaying 1 - 50 Sort

Attach Close

Billing

The Billing module

Medical billing is the process of submitting and following up on claims with health insurance companies in order to receive payment for services rendered by a healthcare provider.

EMSOW's Billing module allows you to add transactions using electronic claims, paper statements and superbills.

An electronic claim is a detailed invoice that a health care provider (such as a doctor, clinic, or hospital) sends electronically to a health insurer.

Paper statements are used when there is no possibility to send the claim electronically.

A superbill is an itemized form used by healthcare providers for reflecting rendered services. The superbill is the main data source for creation of a healthcare claim, which will be submitted to payers (insurances, funds, programs) for reimbursement.

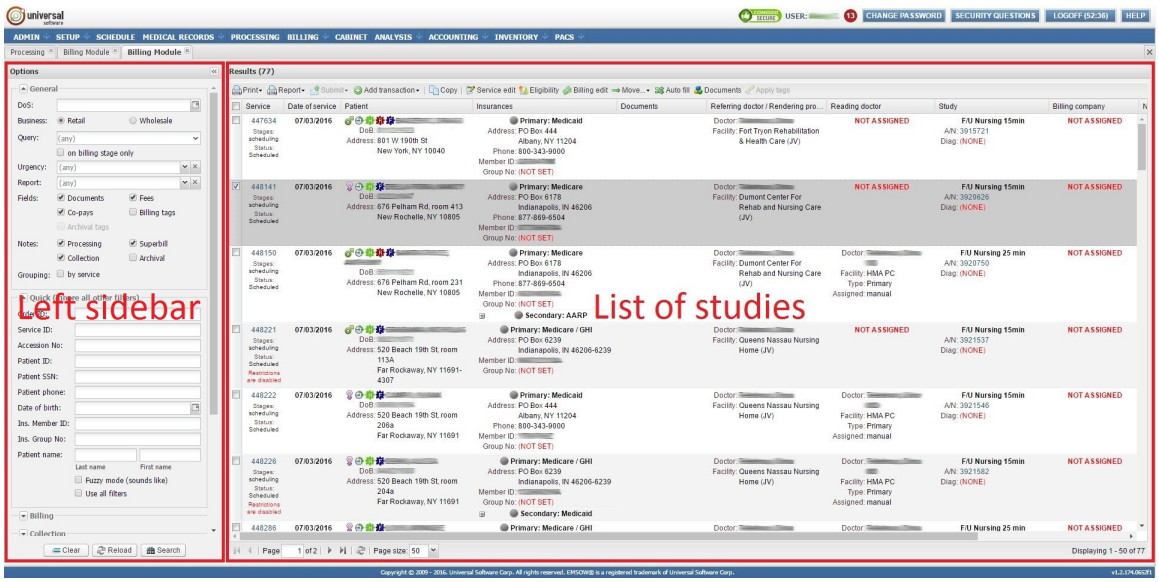
Accessing the Billing module

To open the module, sign into your account on your EMSOW site, click **BILLING** in the upper navigation bar, and then select **BILLING** in the drop-down menu:

If the module is not available, please ask your system administrator to give you the appropriate permissions. You can also view and edit billing information from the Processing module by clicking the **Billing Edit** button or double-clicking the required service.

Using the Billing module

The user interface of the Billing module consists of the left sidebar with search options and the list of studies on the right.



The left sidebar provides a search filter with numerous search options. You can use various search parameters, such as the date of service (specific date or date range), order ID, service ID, patient name or date of birth, tags, referring doctors and many others.

There is also a **Query** list on the left sidebar in the Billing module. Using this list you can add up to four additional queries to the primary query that you set in the **General** section. These queries are joined using the logical operator AND, while conditions within one query are joined using OR. The available queries are:

Query	**Description**
All cancelled	All cancelled studies.
All performed	All performed studies.
All scheduled	All scheduled studies.
Approved claims	The claim was accepted and approved by the payer, and posting is required.
Cancelled	Studies with service status “Cancelled”.
Claims approved by clearing house	Claim was approved by clearing house based on Claim Acknowledgement (277CA).
Claims on hold	Claims on hold.
Claims rejected by clearing house	Claim was rejected by clearing house based on Claim Acknowledgement (277CA).
Closed	Closed billing operations.
Confirmed	Studies with service status “Confirmed”.
Courtesy	Not billed and never will be billed (no operations), or the operation exists, but it has no charge and no payments, or it is closed.
Elg not checked	Studies with service status “Eligibility is not checked”.
Follow-up	All studies that are related to follow-up patient visits.
Left Msg For Pt	Studies with service status “Left Message For Patient”.

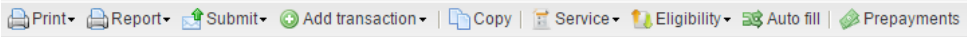
Missing charge	Missing charge.
No bill	Operation is marked as “No bill”.
No read	Operation is marked as “No read”.
No show	Studies with service status “No show”.
Not assigned billing	Not assigned billing.
Not closed with zero balance	Not closed with zero balance.
Not moved to billing	Studies that are still on the processing/scheduling stage.
Not processed	Not processed studies.
Not sent claims	Claim was not sent.
Over payment	Operation has overpayment.
Paid in full	Operation paid in full and closed.
Partially paid	Operation partially paid and not closed.
Pastdue self payments (collection)	Pastdue self payments (collection).
Pastdue self payments (resend)	Pastdue self payments (resend).
Pastdue self statements (30-60)	Pastdue self statements 30-60 days.
Pastdue self statements (61-90)	Pastdue self statements 61-90 days.
Pastdue self statements (>90)	Pastdue self statements >90 days.
Pending	Action required.
Pending claims	Operations require adding of a claim.
Pending payments	Operations are not closed and have a positive pending amount.
Pending payments (0-30)	Operations are not closed and have had a pending amount for 0-30 days from the date of service.
Pending payments (31-60)	Operations are not closed and have had a pending amount for 31-60 days from the date of service.
Pending payments (61-90)	Operations are not closed and have had a pending amount for 61-90 days from the date of service.
Pending payments (91-180)	Operations are not closed and have had a pending amount for 91-180 days from the date of service.
Pending payments (>180)	Operations are not closed and have had a pending amount for more than 180 days from the date of service.
Pending statements	Pending statements.
Pending superbills	Pending superbills.
Pending with deductibles.	Pending with deductibles.
Performed	Studies with service status “Performed”.
Rejected claims	Claim was rejected at any level of processing.
Review required	Transaction needs to be reviewed.
Scheduled	Studies with service status “Scheduled”.
Submitted claims	Claim was sent.

Unconfirmed superbills	Unconfirmed superbills.
Walk in	Studies with service status “Walk in”.
Write off	Operations have a “write off” tag and are closed.

After you have specified the necessary fields, click the **Search** button to find the appropriate studies. To reset all fields, click the **Clear** button. The **Reload** button allows you to reload the search results. It can be useful after you have changed some of the search fields.

On the top of the list of studies, you can see the status bar which displays how many studies, services, patients, bills etc. were found:

Below the status bar, you can see the toolbar:



Print – use this button to generate PDF files of patient lists, superbills, eligibility forms, superbill packages, account statements, patient demographics, HCFA-0805 and HCFA-0212 forms, Medicaid forms.

Report – use this button to generate various reports, such as payment analyses, referring doctor reports, reimbursement analysis reports, write off analyses, insurance breakdown reports, summary aging reports, summary billing reports, monthly reconciliation reports, cash collection reports, end of month (EOM) reports, submission logs, reports of repeated studies, invoice reports, pending reports, write off reports.

Submit – use this button to submit electronic claims, superbill packages, paper statements, and invoices.

Add transaction – use this button to add transactions, such as superbills and patient statements.

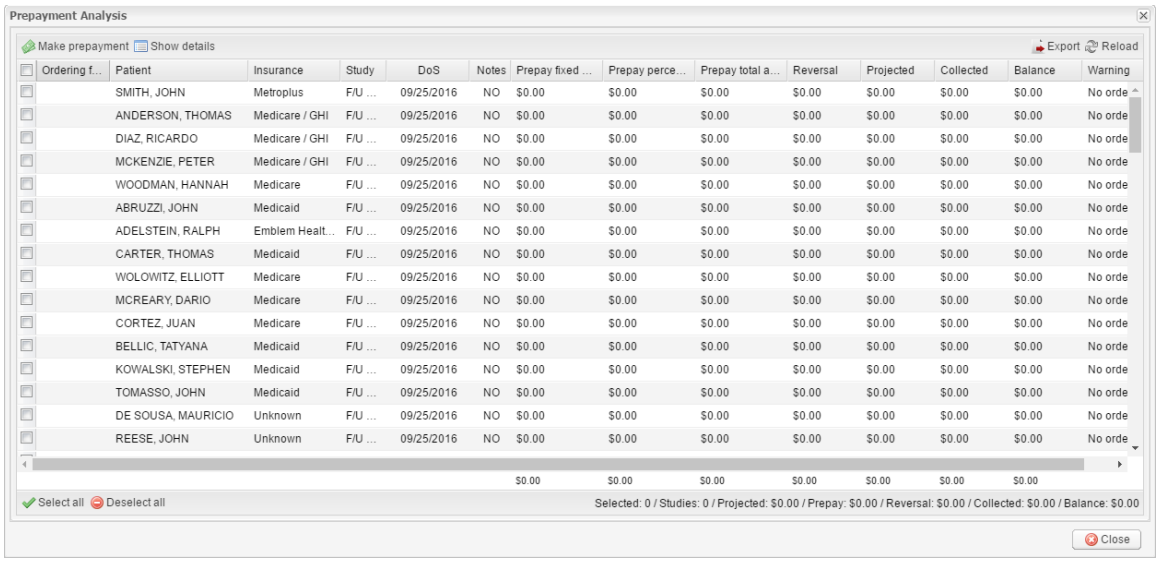
Copy – use this button to copy text information displayed in the study’s record. Then you can paste it into any text editor.

Service – this button opens a drop-down list of service operations for the study: Service edit, Billing edit, Move, Documents, and Apply tags. Click **Service edit** to open the service editing window, where you can change the type of study, diagnoses, the referring doctor etc., like in the Processing module. Click **Billing edit** to view and edit billing information (see more details below). Click **Move** to move a study to the processing stage or to the billing stage. Click **Documents** for viewing, uploading, and deleting documents attached to a study. Click **Apply tags** for tagging studies.

Eligibility – this button allows you to check whether the insurance is valid or expired.

Auto fill – use this button to assign the reading doctor and billing company automatically for the selected studies.

Prepayments – click this button to open the **Prepayment Analysis** window:



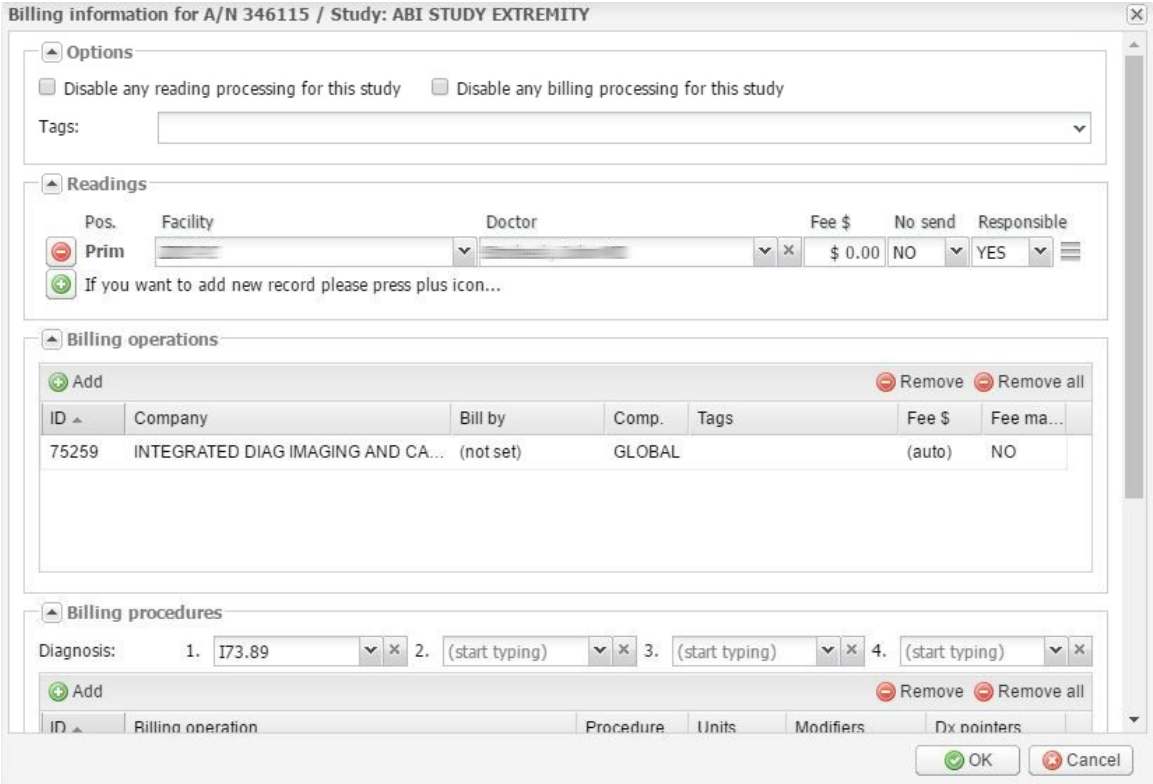
Ordering f...	Patient	Insurance	Study	DoS	Notes	Prepay fixed ...	Prepay perce...	Prepay total a...	Reversal	Projected	Collected	Balance	Warning
	SMITH, JOHN	Metroplus	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	ANDERSON, THOMAS	Medicare / GHI	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	DIAZ, RICARDO	Medicare / GHI	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	MCKENZIE, PETER	Medicare / GHI	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	WOODMAN, HANNAH	Medicare	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	ABRUZZI, JOHN	Medicaid	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	ADELSTEIN, RALPH	Emblem Healt...	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	CARTER, THOMAS	Medicaid	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	WOLOWITZ, ELLIOTT	Medicare	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	MCREARY, DARIO	Medicare	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	CORTEZ, JUAN	Medicare	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	BELLIC, TATYANA	Medicaid	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	KOWALSKI, STEPHEN	Medicaid	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	TOMASSO, JOHN	Medicaid	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	DE SOUSA, MAURICIO	Unknown	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
	REESE, JOHN	Unknown	F/U ...	09/25/2016	NO	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	No orde
						$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	

In this window you can see the list of prepayments. Double-click a payment or select it and click the **Show details** button to see its details. To make a prepayment, click the corresponding button. The **Export** button allows you to export the list of prepayment to an Excel 2007 file. To refresh the list of prepayments, click the **Reload** button.

How to view and edit billing information

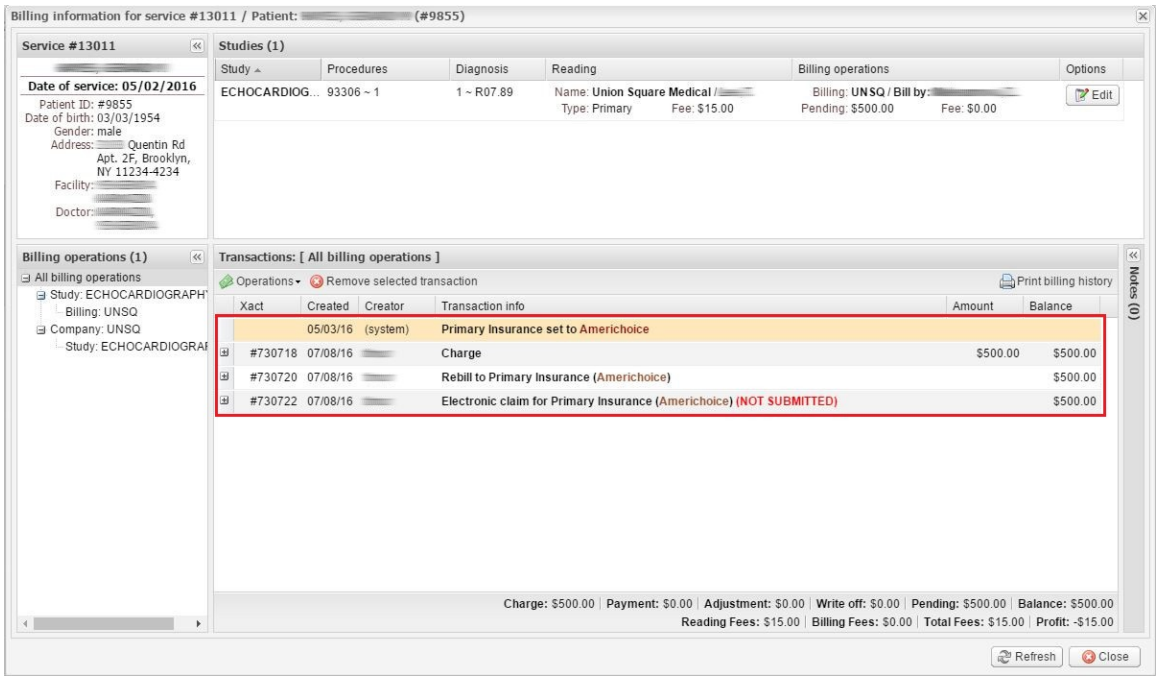
To view and edit billing information, tick the required study and click the **Service** button and select **Billing Edit** or just double-click the required study. As the result, the Billing information window will open. This window consists of five sections: patient information, the list of studies included in the same service, Billing operations, Transactions, and Notes.

Choose the required study and click the **Edit** button. As the result, the pop-up window will open:



It consists of four sections: Options, Readings, Billing operations, Billing procedures. In the **Options** section, you can add and remove tags. You can also disable any reading or billing processing for the study by selecting the “Disable any reading processing for this study” or “Disable any billing processing for this study” checkbox. You can also use this checkboxes to run a report on the attributes **No read** or **No bill**. You will see these attributes in the Invoice report. The **No read** attribute will be displayed in the **Reading doctor** and **Reading facility** columns and the **No bill** attribute in the **No bill** column. In the **Readings** section you can select the reading facility and the reading doctor, as well as set up the amount of fees payable to the reading doctor. In the **Billing operations** section you can add and remove billing operations, set up the billing company, the doctor, tags, and fees. In the **Billing procedures** section you can add and remove billing procedures, set up diagnoses, units, modifiers and Dx pointers (diagnosis pointers). After the changes are made, click **OK** to save the information or **Cancel** to quit without saving.

In the **Transactions** section you can add transactions by clicking the **Operations** button and selecting the required operation in the drop-down menu. The available operations are: to charge an amount, rebill (to a patient/insurance), add a superbill (for a billing company), add an electronic claim (for an insurance), add a paper statement (for a patient/insurance), post a payment (from a patient/insurance), post a denial, write off an amount, close billing, and reopen billing. After you have added the transaction, it will be displayed in the window:

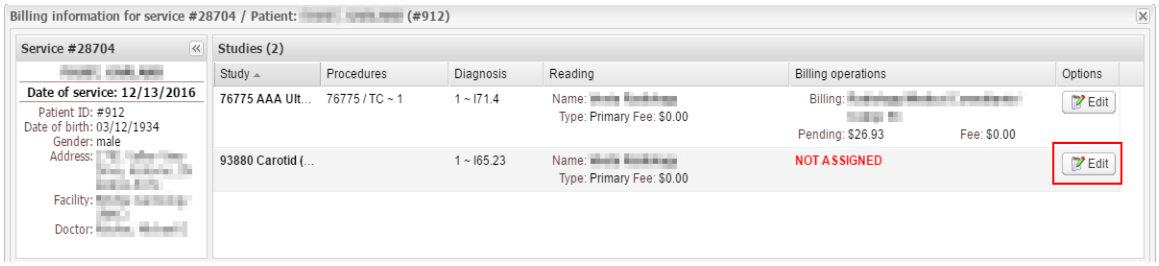


To remove a transaction, use the **Remove selected transaction** button. The **Print billing history** button allows you to generate a PDF file with billing history.

In the **Notes** section, click the **Add** button to add a note. In the pop-up window you can link the note to a service or study, select the type and the subject of the note, and enter the text of the note. To edit an existing note, click the **Edit** button. To delete a note, click the **Remove** button.

How to assign billing and send electronic claims

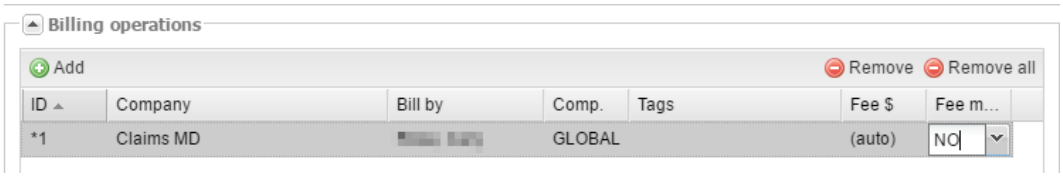
1. Double-click the required service in Billing or Processing to open the billing information window. Click **Edit** for the study you need to bill for:



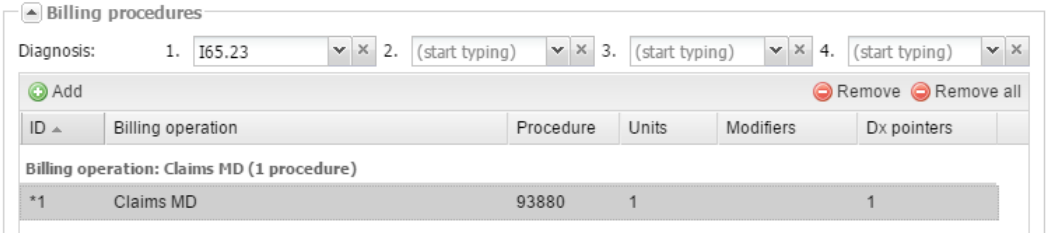
2. Click **Add** under **Billing operations** and fill out the following fields:

- **Company** – select the billing company you are going to bill through (see **SETUP → BILLING → BILLING COMPANIES**).
- **Bill by** – this field is only required if the provider that must be on the claim is different from the reading provider;
- **Comp.** is the component you are billing for. You can select 26 (professional component), TC (technical component) or leave it blank for GLOBAL. If you are billing for multiple components, create a billing operation for each of them.
- **Tags** are billing tags that you would like to add to this operation (see **SETUP → BILLING → TAGS**).

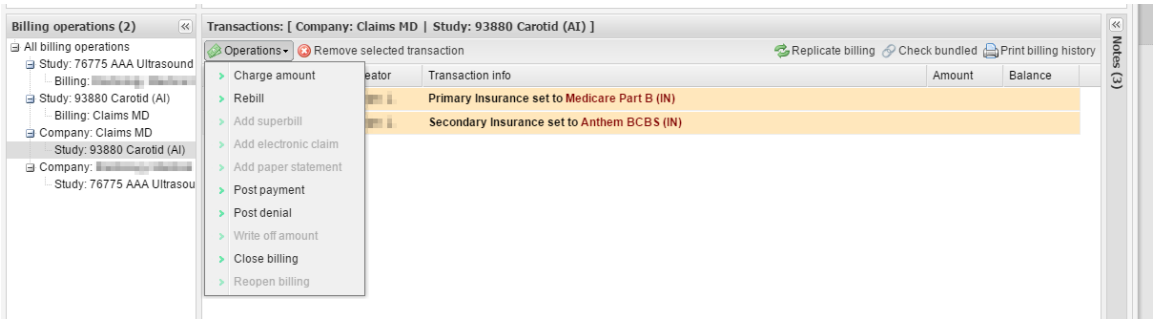
- **Fee $** and **Fee man.** – these fields specify the fee you will be paying to the billing company for this operation. If you want to manually assign it, select **yes** under **Fee man.** and enter the fee amount under **Fee $**. Alternatively, you can set the fee in the billing company options (**SETUP → BILLING → BILLING COMPANIES**) and select **no** under **Fee man.**; then the fee amount will be assigned automatically.



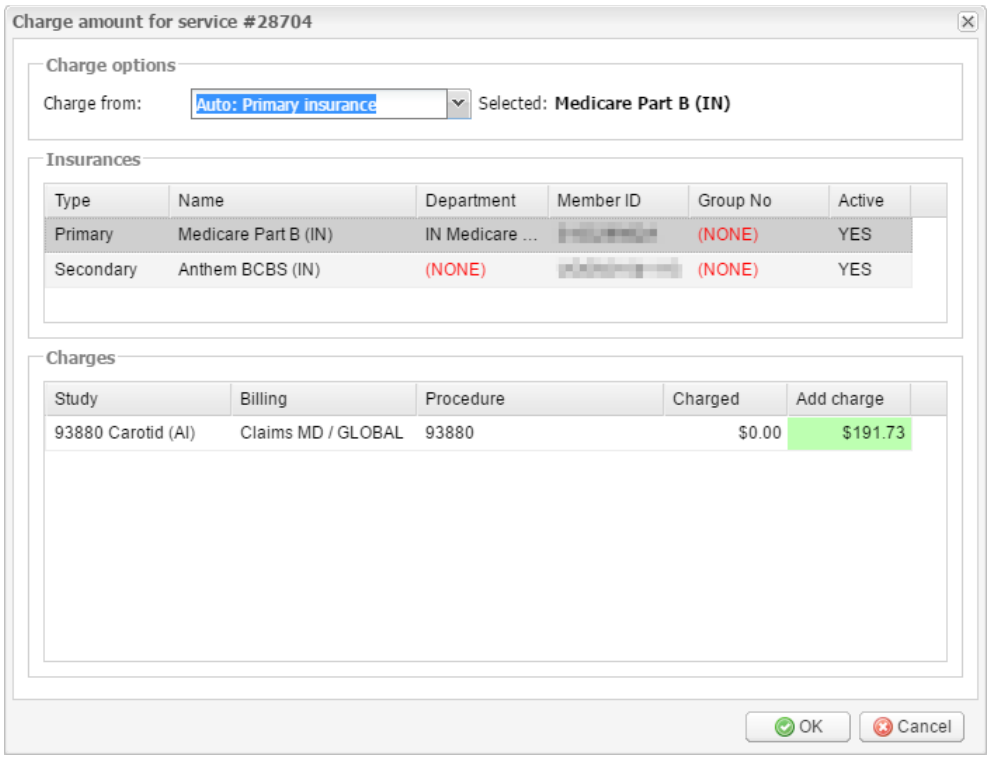
3. Then click **Add** under **Billing procedures**, select the billing operation that you added earlier, fill out the procedure and the number of units for this procedure, add modifiers to the procedure if required, and put diagnosis codes in the correct order for this study (note the **Dx pointers** column). When finished, click **OK**.



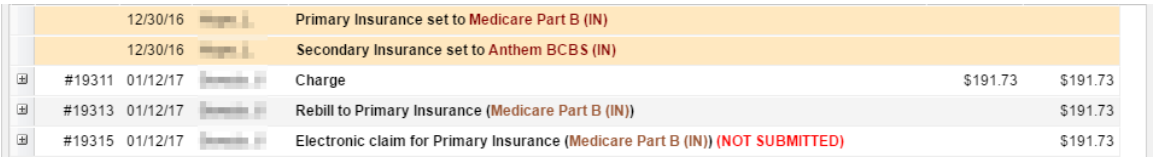
4. Now, in the billing information window for the service, add a charge to the study record by clicking **Operations → Charge amount** (the study should be selected under **Billing operations** in the bottom-left corner of the window).



5. A new window will appear. Select the payer you want to add the charge for and check the amount you are charging. Edit it if required. Click **OK**.

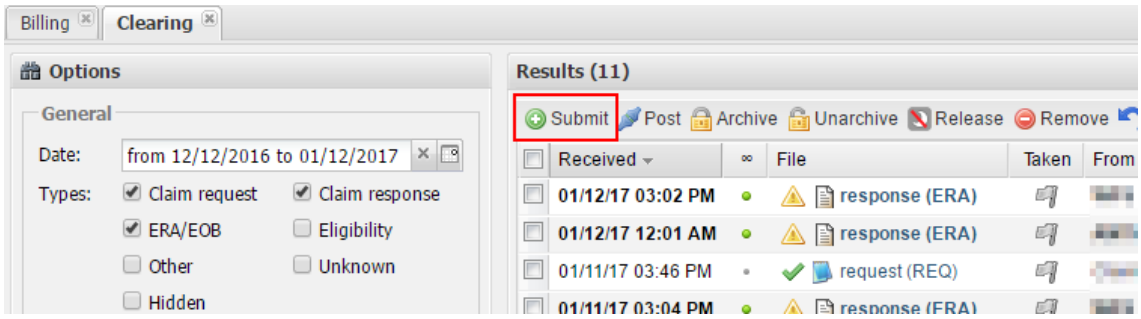


6. The system will automatically add a “rebill” transaction for the payer as well as an electronic claim.

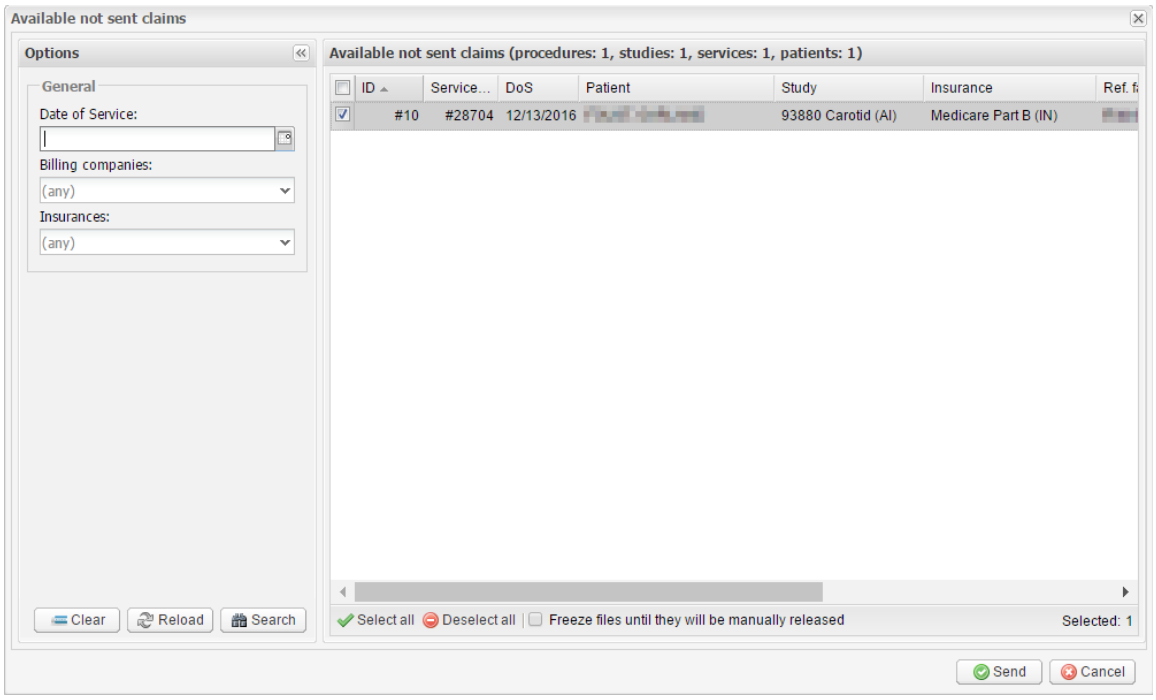


Repeat steps 1 to 6 for every study you need to bill for.

7. To submit claims, go to **BILLING → CLEARING** and click the **Submit** button.



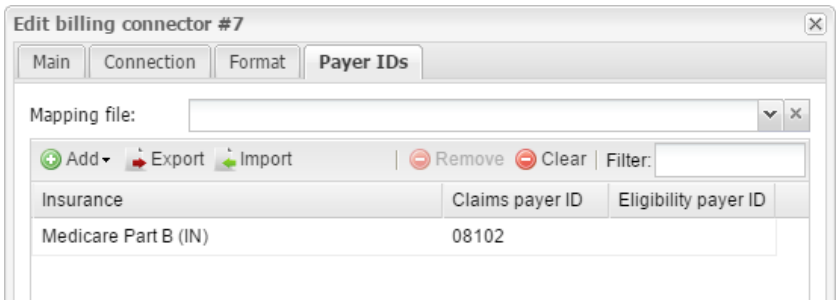
8. In the **Available not sent claims** window, select the claims you want to submit, and send them by clicking the **Send** button. The system will take some time to process the claims, after which you will see a new request (REQ) file.



If you use the Claim.MD clearing house, a few additional things need to be mentioned:

1. For every insurance you bill through Claim.MD, you need to add a claims payer ID to the billing connector. Here is how to do this:

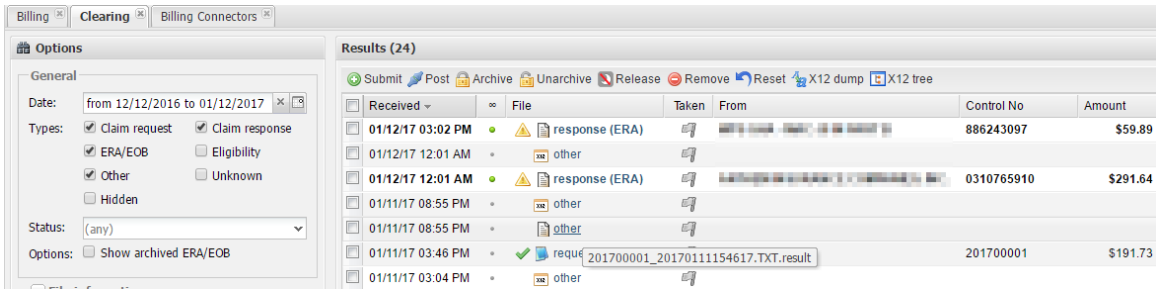
1.1 Go to **SETUP → BILLING → BILLING CONNECTORS**. Double-click the **Claim.MD** connector. In the billing connector settings, switch to the **Payer IDs** tab. Click **Add → Manual**.



1.2 Select the insurance you would like to add a claims payer ID to, and enter their ID in the **Claims payer ID** field. The payer ID list is available from https://www.claim.md/payer/. When finished, click **OK**.

2. After you submit a claim, you may want to reach our support team and ask them to see the *.result* file to make sure that the claim has been received by Claim.MD. Here is how to do this:

2.1 In the **Clearing** module, add the **Other** type under **General** and run a search. The result file must follow the REQ file.



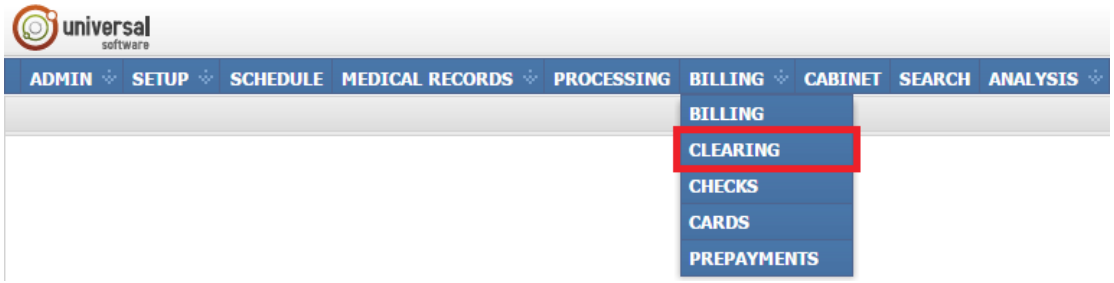
If you have any questions, feel free to contact the support team over email or over the phone.

The Clearing module

The Clearing module allows you to track checks incoming from clearing houses and to post them to the EMSOW database.

Accessing the Clearing module

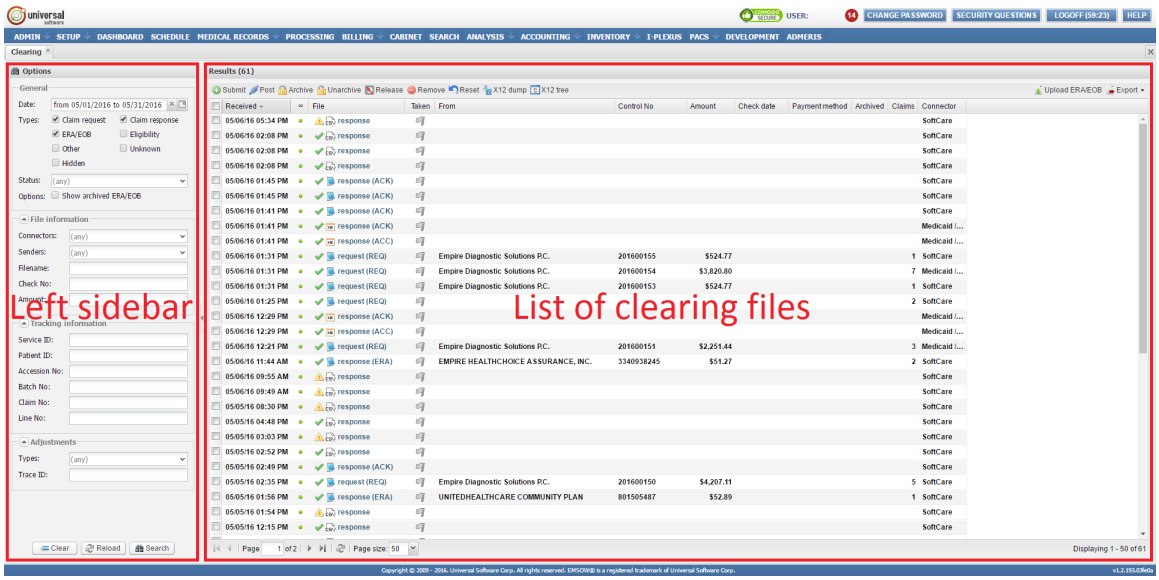
To open the module, sign into your account on your EMSOW site, click **BILLING** in the upper navigation bar, and select **CLEARING** in the drop-down menu:



If the module is not available, please ask your system administrator to give you the appropriate permissions.

Using the Clearing module

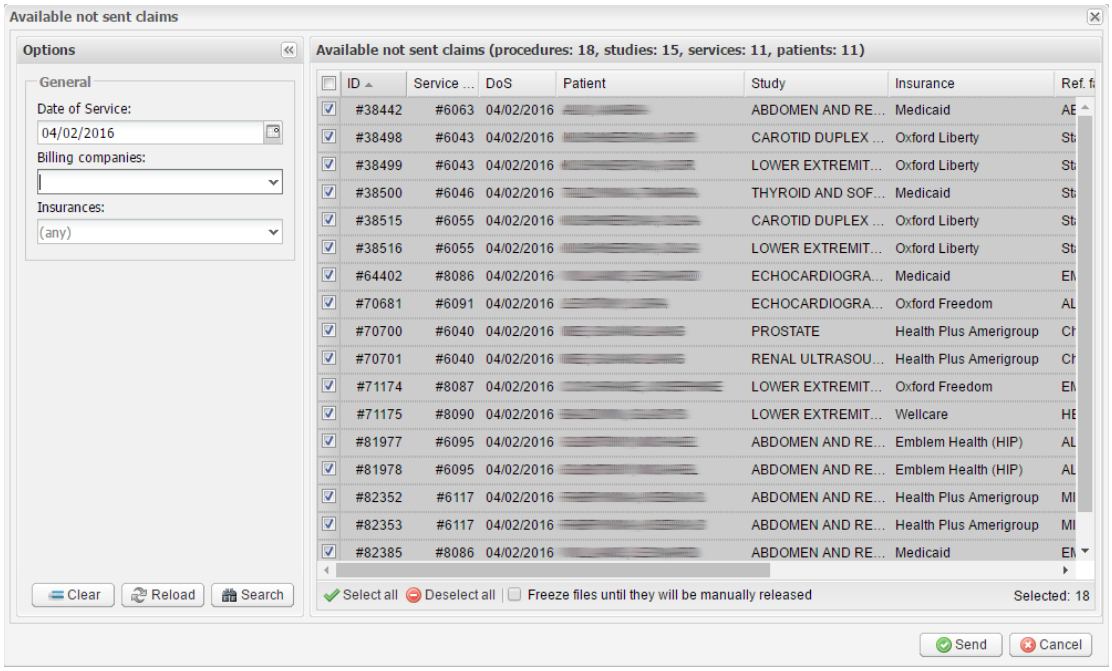
Similar to the Billing module, the Clearing module's user interface consists of the left sidebar with search options and the list of clearing files on the right:



The left sidebar provides a search filter with numerous search options. You can use various search parameters, such as the date (specific date or date range), file types (claim request, claim response, ERA/EOB, eligibility, other, unknown, and hidden), and status. You can also specify file information and tracking information. After you have filled out the necessary fields, click the **Search** button to find the appropriate clearing files. To reset all fields, click the **Clear** button. The **Reload** button allows you to reload the search results. It can be useful after you have changed some of the search fields.

On the top of the list of clearing files, you can see the status bar which displays how many results were found. Below it you can see the toolbar:

Submit – use this button to send claims. After you click the button, the pop-up window will open:

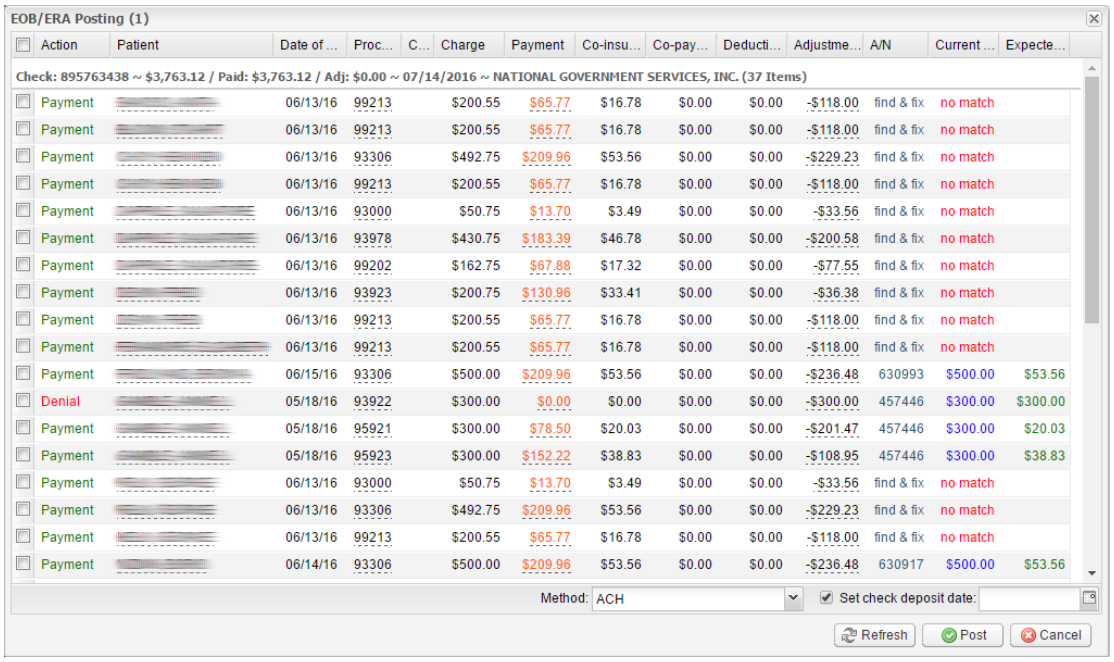


In the left part of the window, you can see the search filter that contains various options such as the date of service, billing companies, and insurances. Click the **Search** button to find the appropriate claims. To reset all fields, click the **Clear** button. The **Reload** button allows you to reload the search results. It can be useful after you have changed some of the search fields.

In the right part of the window, you can see available claims that have not been sent. You can select or deselect them by clicking the checkboxes as well as clicking the buttons **Select all** or **Deselect all**. The **Freeze files until they will be manually released** checkbox allows you to postpone sending the selected claims (to send these claims you will need to click the **Release** button on the toolbar).

After you have selected the required claims, click **Send** to send them or **Cancel** to quit without saving.

Post – use this button for posting ERA/EOB files. After you click this button, the pop-up window will open:



Action	Patient	Date of ...	Proc...	C...	Charge	Payment	Co-insu...	Co-pay...	Deducti...	Adjustme...	A/N	Current ...	Expecte...
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/13/16	93306		$492.75	$209.96	$53.56	$0.00	$0.00	-$229.23	find & fix	no match	
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/13/16	93000		$50.75	$13.70	$3.49	$0.00	$0.00	-$33.56	find & fix	no match	
Payment		06/13/16	93978		$430.75	$183.39	$46.78	$0.00	$0.00	-$200.58	find & fix	no match	
Payment		06/13/16	99202		$162.75	$67.88	$17.32	$0.00	$0.00	-$77.55	find & fix	no match	
Payment		06/13/16	93923		$200.75	$130.96	$33.41	$0.00	$0.00	-$36.38	find & fix	no match	
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/15/16	93306		$500.00	$209.96	$53.56	$0.00	$0.00	-$236.48	630993	$500.00	$53.56
Denial		05/18/16	93922		$300.00	$0.00	$0.00	$0.00	$0.00	-$300.00	457446	$300.00	$300.00
Payment		05/18/16	95921		$300.00	$78.50	$20.03	$0.00	$0.00	-$201.47	457446	$300.00	$20.03
Payment		05/18/16	95923		$300.00	$152.22	$38.83	$0.00	$0.00	-$108.95	457446	$300.00	$38.83
Payment		06/13/16	93000		$50.75	$13.70	$3.49	$0.00	$0.00	-$33.56	find & fix	no match	
Payment		06/13/16	93306		$492.75	$209.96	$53.56	$0.00	$0.00	-$229.23	find & fix	no match	
Payment		06/13/16	99213		$200.55	$65.77	$16.78	$0.00	$0.00	-$118.00	find & fix	no match	
Payment		06/14/16	93306		$500.00	$209.96	$53.56	$0.00	$0.00	-$236.48	630917	$500.00	$53.56

Select the required services and payment method, set the check's deposit date (optionally) by clicking the checkbox and selecting the date, and then click **Post** to post the ERA/EOB file.

Archive – use this button to archive the ERA/EOB file and hide it from the results window of the Clearing module. To have access to this function, your user group must have the permission "Claims clearing - archive/unarchive ERA/EOB file(s)" (please ask your system administrator to grant you this permission).

Unarchive – use this button to unarchive ERA/EOB file.

Release – use this button to send claims which were postponed by using the **Freeze files until they will be manually released** checkbox in the **Available not sent claims** window.

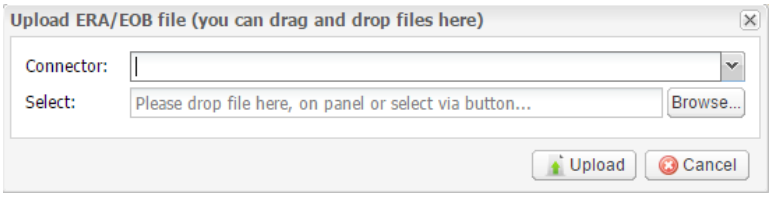
Reset – click this button to reset the processing status for the selected files.

X12 dump – click this button to display the content of the selected X12 document as a text file.

X12 tree – click this button to display the content of the selected X12 document as a tree structure.

Furthermore, there are two buttons to the right of the toolbar:

Upload ERA/EOB – use this button for uploading ERA/EOB files. After you click this button, the pop-up window will open:

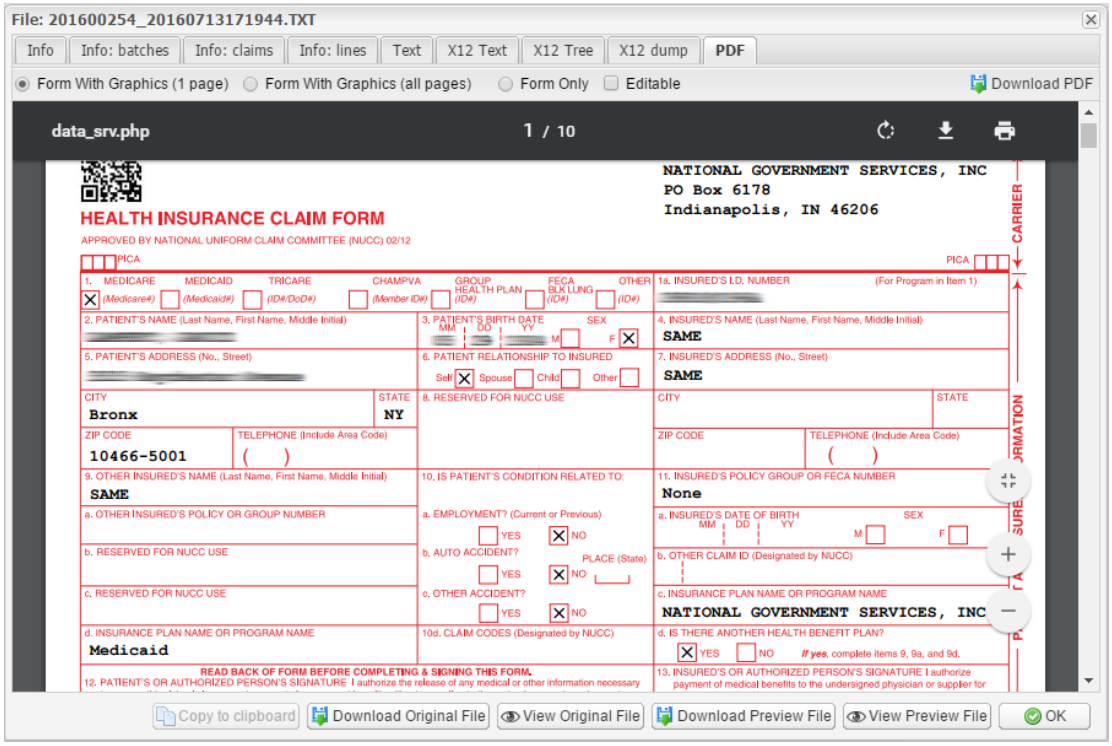


Select the connector and the path to the file, and then click **Upload**.

Export – this button allows you to export the search results to an Excel, Excel 2007, CSV, PDF, or HTML file.

In the list of clearing files, you can mark a clearing file as read or unread by clicking the green circle next to it. Click the flag icon to mark the file as taken into work.

Click on a clearing file to view it. As the result, the pop-up window will open:



You can switch between tabs to view the file information, batches, claims, and lines, as well as to view the file in various representations, such as text, X12 text, X12 tree, X12 dump, and PDF. When you select the **PDF** tab, you can select **Form with graphics (1 page)** or **Form with graphics (all pages)** to view the file as if it was printed on a health insurance claim form. Select **Form only** to display only the file's contents so that you can print the file on a paper claim form. Click the **Editable** checkbox to have an editable PDF file. If you need to download it, click the **Download PDF** button. At the bottom of the window you can see several buttons:

Copy to clipboard – this button allows you to copy all the text displayed in the window to the clipboard. This is available only in the **Info**, **Text**, and **X12 dump** tabs.

Download Original File – click this button to download the original clearing file that you can see in the **Text** tab.

View Original File – click this button to open the original clearing file in a new browser tab.

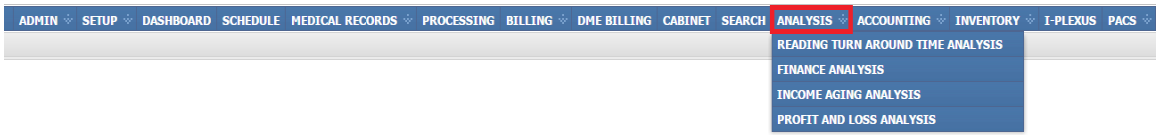
Download Preview File – click this button to download the PDF file.

View Preview File – click this button to open the PDF file in a new browser tab.

OK – click this button to close the window.

Analysis

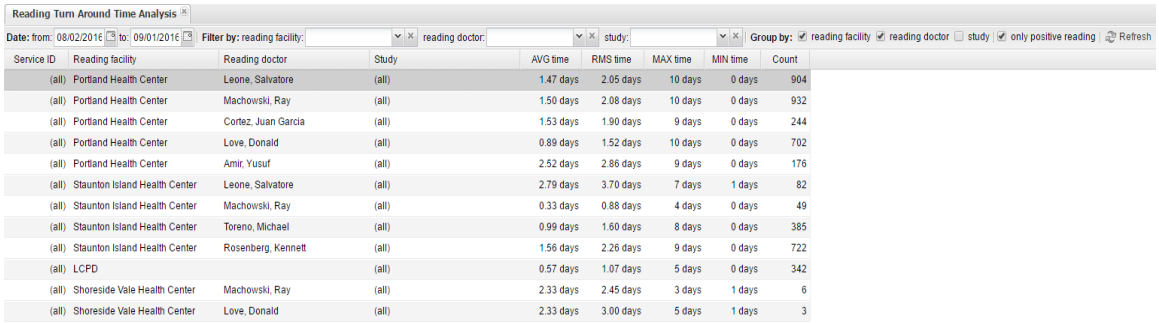
The **Analysis** module allows you to see your business's key financial performance data. To open the module, sign into your account on your EMSOW site and click **ANALYSIS** in the upper navigation bar, then select the required section in the drop-down menu:



Below is the description of the **Analysis** module's sections.

Reading turn around time analysis

In this section of the **Analysis** module, you can view the statistics for the reading turnaround time (the period of completing a reading cycle). To open it, click **ANALYSIS** on the upper navigation bar, then select **READING TURN AROUND TIME ANALYSIS** in the drop-down menu. The **Reading Turn Around Time Analysis** tab will open:

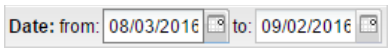


Service ID	Reading facility	Reading doctor	Study	AVG time	RMS time	MAX time	MIN time	Count
(all)	Portland Health Center	Leone, Salvatore	(all)	1.47 days	2.05 days	10 days	0 days	904
(all)	Portland Health Center	Machowski, Ray	(all)	1.50 days	2.08 days	10 days	0 days	932
(all)	Portland Health Center	Cortez, Juan Garcia	(all)	1.53 days	1.90 days	9 days	0 days	244
(all)	Portland Health Center	Love, Donald	(all)	0.89 days	1.52 days	10 days	0 days	702
(all)	Portland Health Center	Amir, Yusuf	(all)	2.52 days	2.86 days	9 days	0 days	176
(all)	Staunton Island Health Center	Leone, Salvatore	(all)	2.79 days	3.70 days	7 days	1 days	82
(all)	Staunton Island Health Center	Machowski, Ray	(all)	0.33 days	0.88 days	4 days	0 days	49
(all)	Staunton Island Health Center	Toreno, Michael	(all)	0.99 days	1.60 days	8 days	0 days	385
(all)	Staunton Island Health Center	Rosenberg, Kennett	(all)	1.56 days	2.26 days	9 days	0 days	722
(all)	LCPD		(all)	0.57 days	1.07 days	5 days	0 days	342
(all)	Shoreside Vale Health Center	Machowski, Ray	(all)	2.33 days	2.45 days	3 days	1 days	6
(all)	Shoreside Vale Health Center	Love, Donald	(all)	2.33 days	3.00 days	5 days	1 days	3

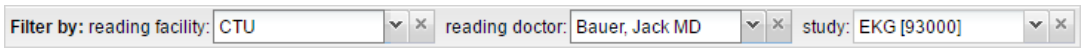
Here you can see the reading turnaround time statistics arranged in the following columns: Service ID, Reading facility, Reading doctor, Study, AVG time (average time), RMS time (root mean square time), MAX time (maximal time), MIN time (minimal time), and Count (displays how many studies were read).

Above the reading turnaround time statistics there are several fields which allow you to change the representation of the data:

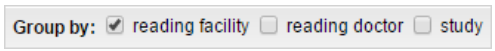
Date – in these fields, you can select a date range for the reading turnaround time statistics. Select the start date in the **from** field and the end date in the **to** field:



Filter by – in these fields, you can filter the turnaround time statistics by reading facility, reading doctor, and study:



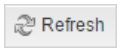
Group by – these checkboxes let you change the way how the reading turnaround time statistics is grouped: by reading facility, reading doctor, or study:



You can deselect all checkboxes to disable grouping.

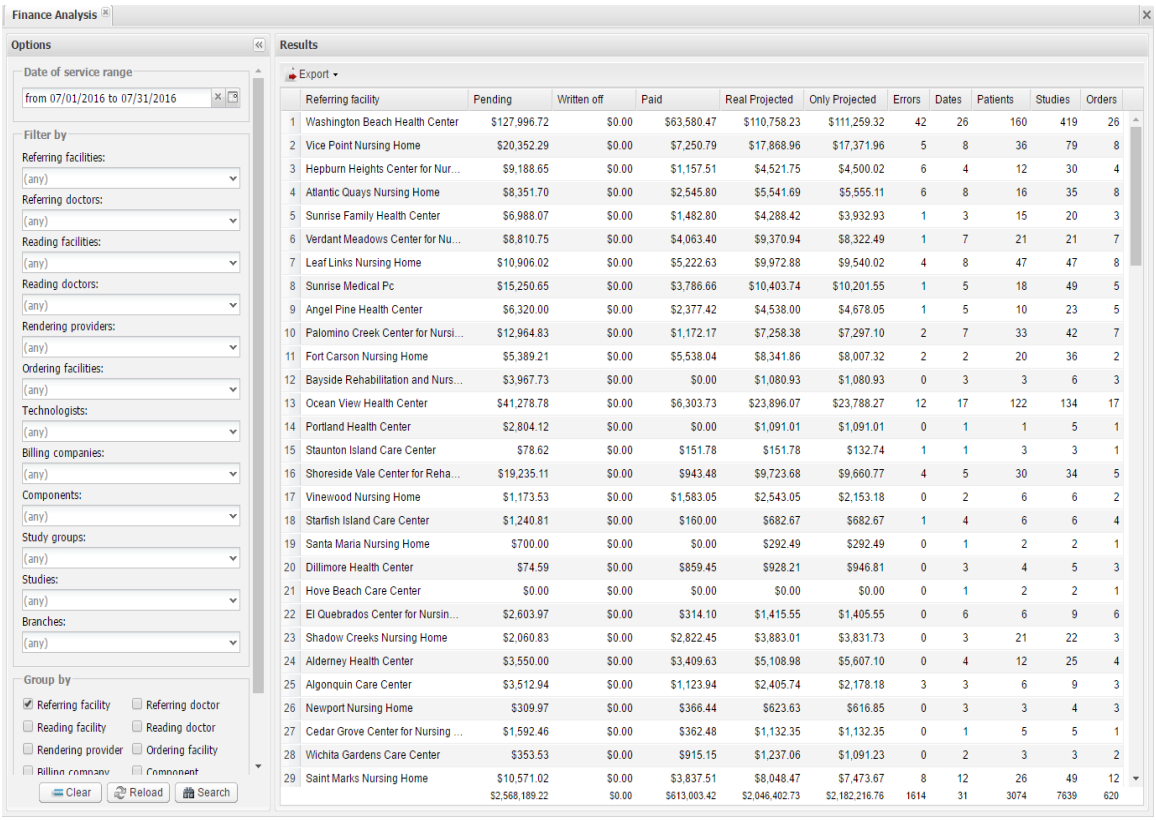
Only positive reading – click this checkbox to disregard negative values of reading turnaround time:

Refresh – click this button to refresh displayed data:



Finance analysis

In this section of the **Analysis** module, you can view the revenue data based on actual reimbursement postings from insurance carriers. This data is updated and leveraged in real time for maximum accuracy. To open it, click **ANALYSIS** on the upper navigation bar, then select **FINANCE ANALYSIS** in the drop-down menu. The **Finance Analysis** tab will open:



	Referring facility	Pending	Written off	Paid	Real Projected	Only Projected	Errors	Dates	Patients	Studies	Orders
1	Washington Beach Health Center	$127,996.72	$0.00	$63,580.47	$110,758.23	$111,259.32	42	26	160	419	26
2	Vice Point Nursing Home	$20,352.29	$0.00	$7,250.79	$17,868.96	$17,371.96	5	8	36	79	8
3	Hepburn Heights Center for Nur...	$9,188.65	$0.00	$1,157.51	$4,521.75	$4,500.02	6	4	12	30	4
4	Atlantic Quays Nursing Home	$8,351.70	$0.00	$2,545.80	$5,541.69	$5,555.11	6	8	16	35	8
5	Sunrise Family Health Center	$6,988.07	$0.00	$1,482.80	$4,288.42	$3,932.93	1	3	15	20	3
6	Verdant Meadows Center for Nu...	$8,810.75	$0.00	$4,063.40	$9,370.94	$8,322.49	1	7	21	21	7
7	Leaf Links Nursing Home	$10,906.02	$0.00	$5,222.63	$9,972.88	$9,540.02	4	8	47	47	8
8	Sunrise Medical Pc	$15,250.65	$0.00	$3,786.66	$10,403.74	$10,201.55	1	5	18	49	5
9	Angel Pine Health Center	$6,320.00	$0.00	$2,377.42	$4,538.00	$4,678.05	1	5	10	23	5
10	Palomino Creek Center for Nursi...	$12,964.83	$0.00	$1,172.17	$7,258.38	$7,297.10	2	7	33	42	7
11	Fort Carson Nursing Home	$5,389.21	$0.00	$5,538.04	$8,341.86	$8,007.32	2	2	20	36	2
12	Bayside Rehabilitation and Nurs...	$3,967.73	$0.00	$0.00	$1,080.93	$1,080.93	0	3	3	6	3
13	Ocean View Health Center	$41,278.78	$0.00	$6,303.73	$23,896.07	$23,788.27	12	17	122	134	17
14	Portland Health Center	$2,804.12	$0.00	$0.00	$1,091.01	$1,091.01	0	1	1	5	1
15	Staunton Island Care Center	$78.62	$0.00	$151.78	$151.78	$132.74	1	1	3	3	1
16	Shoreside Vale Center for Reha...	$19,235.11	$0.00	$943.48	$9,723.68	$9,660.77	4	5	30	34	5
17	Vinewood Nursing Home	$1,173.53	$0.00	$1,583.05	$2,543.05	$2,153.18	0	2	6	6	2
18	Starfish Island Care Center	$1,240.81	$0.00	$160.00	$682.67	$682.67	1	4	6	6	4
19	Santa Maria Nursing Home	$700.00	$0.00	$0.00	$292.49	$292.49	0	1	2	2	1
20	Dillimore Health Center	$74.59	$0.00	$859.45	$928.21	$946.81	0	3	4	5	3
21	Hove Beach Care Center	$0.00	$0.00	$0.00	$0.00	$0.00	0	1	2	2	1
22	El Quebrados Center for Nursin...	$2,603.97	$0.00	$314.10	$1,415.55	$1,405.55	0	6	6	9	6
23	Shadow Creeks Nursing Home	$2,060.83	$0.00	$2,822.45	$3,883.01	$3,831.73	0	3	21	22	3
24	Alderney Health Center	$3,550.00	$0.00	$3,409.63	$5,108.98	$5,607.10	0	4	12	25	4
25	Algonquin Care Center	$3,512.94	$0.00	$1,123.94	$2,405.74	$2,178.18	3	3	6	9	3
26	Newport Nursing Home	$309.97	$0.00	$366.44	$623.63	$616.85	0	3	3	4	3
27	Cedar Grove Center for Nursing ...	$1,592.46	$0.00	$362.48	$1,132.35	$1,132.35	0	1	5	5	1
28	Wichita Gardens Care Center	$353.53	$0.00	$915.15	$1,237.06	$1,091.23	0	2	3	3	2
29	Saint Marks Nursing Home	$10,571.02	$0.00	$3,837.51	$8,048.47	$7,473.67	8	12	26	49	12
		$2,568,189.22	$0.00	$613,003.42	$2,046,402.73	$2,182,216.76	1614	31	3074	7639	620

Here you can see the left sidebar and the list of search results (finance analysis data) on the right.

The left sidebar provides a search filter with numerous search options. It allows you to specify the date of service range (specific date or date range), referring facilities, referring doctors, reading facilities, reading doctors, rendering providers, ordering facilities, technologists, billing companies, components, study groups, studies, and branches. You can also select the way how the search results are grouped: by referring facility, reading facility, rendering provider, billing company, technologist, branch, referring doctor, reading doctor, ordering facility, component, and year/month.

After you specify the necessary fields, click the **Search** button to display the required finance analysis data. To reset all fields, click the **Clear** button. The **Reload** button allows you to reload the search results. It can be useful after you have changed some of the search fields.

Finance analysis data is arranged in columns. The first columns represent the selected way of data grouping (**Referring facility**, **Reading facility**, and so on). To the right of them, you can see the **Pending**, **Written off**, **Paid**, **Real Projected**, **Only Projected**, **Errors**, **Dates**, **Patients**, **Studies**, and **Orders** columns. Right above the Finance analysis data there is the **Export** button. It allows you to export the finance analysis data to an Excel, Excel 2007, CSV, PDF, or HTML file.

The **Pending** column displays the amount that is pending insurance payment.

The **Written off** column displays the write-off amount which is the difference between a provider's fee for healthcare services and the amount that an insurance company is willing to pay for those services that a patient is not responsible for. The write-off amount may be categorized as a "not covered" amount for billing purposes.

The **Paid** column displays the amount that has been paid.

The **Real Projected** column displays the projected amount that must be paid.

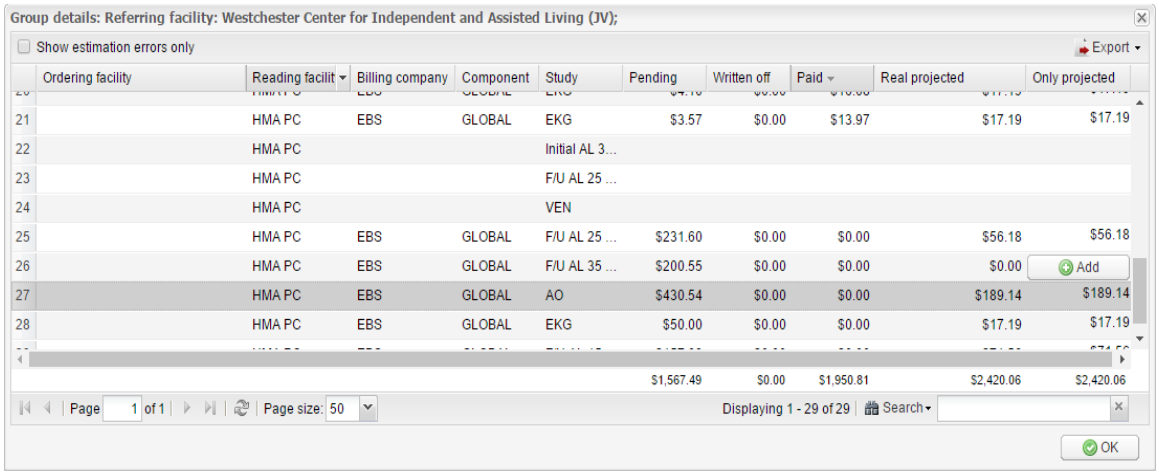
The **Only Projected** column also displays the projected amount to be paid, but this amount is based on the billing projected settings (to access them, follow the path: **SETUP → BILLING → BILLING PROJECTED**).

The **Errors** column displays the number of estimation errors.

The **Dates** column displays the number of days within the date of service range when services were rendered.

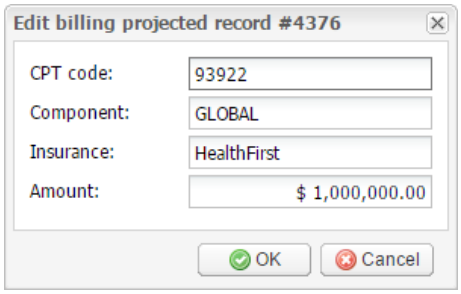
The **Patients**, **Studies**, and **Order** columns display the number of patients, studies, and orders respectively.

To view more detailed information about each group, double-click the required row. The **Group details** window will appear:



Here you can see the detailed information about each rendered service and study. All data is arranged in the following columns: Ordering facility, Branch, Referring doctor, Reading facility, Reading doctor, Rendering provider, Billing company, Technologist, Component, Study, CPT, Units, Submission date, Closed, Order ID, DoS, Service ID, Patient, Primary insurance, Pending, Written off, Paid, Real projected, and Only projected.

The last column contains the **Add** button that lets you change the real projected amount. When you click this button, the **Edit billing projected record** window appears:



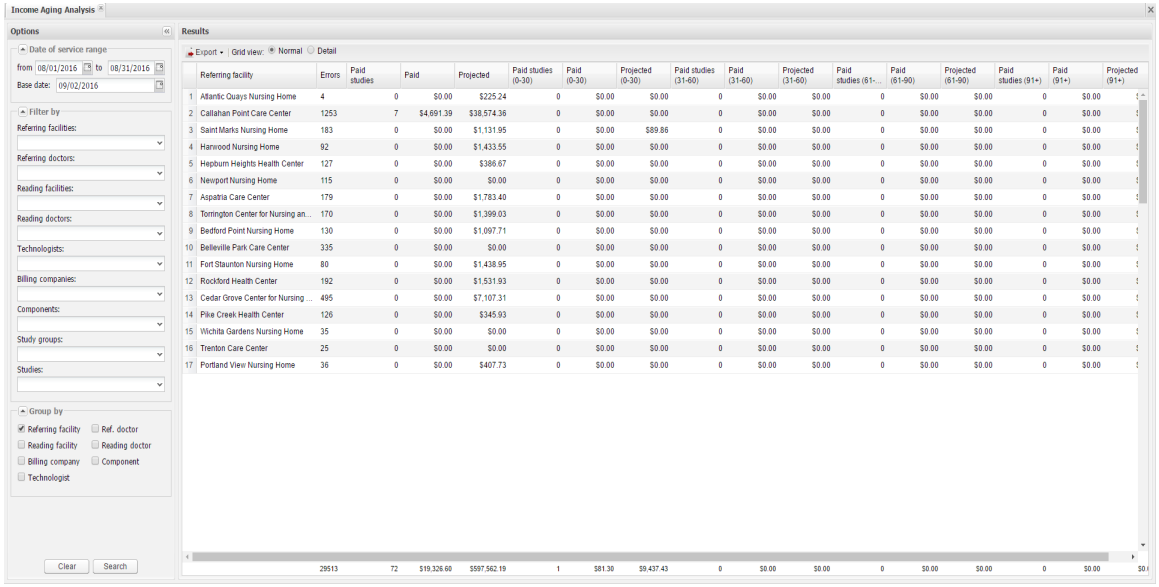
In the **Amount** field, enter the new real projected amount. Then click **OK** to update the real projected amount or click **Cancel** to close the window without saving.

The **Group details** window has the **Show estimation errors only** checkbox in the upper left corner. Click this checkbox to display estimation errors only.

The **Export** button in the upper right corner of the window allows you to export the group details to an Excel, Excel 2007, CSV, PDF, or HTML file.

Income aging analysis

In this section of the **Analysis** module, you can view the income distribution over a specific period of upcoming months. To open the section, click **ANALYSIS** on the upper navigation bar, then select **INCOME AGING ANALYSIS** in the drop-down menu. The **Income Aging Analysis** tab will appear:



Here you can see the left sidebar and the list of search results (income aging analysis data) on the right.

The left sidebar provides a search filter with numerous search options. It allows you to specify the date of service range (specific date or date range), referring facilities, referring doctors, reading facilities, reading doctors, rendering providers, ordering facilities, technologists, billing companies, components, study groups, studies, and branches. You can also select the way how the search results are grouped: by referring facility, reading facility, rendering provider, billing company, technologist, branch, referring doctor, reading doctor, ordering facility, component, and year/month.

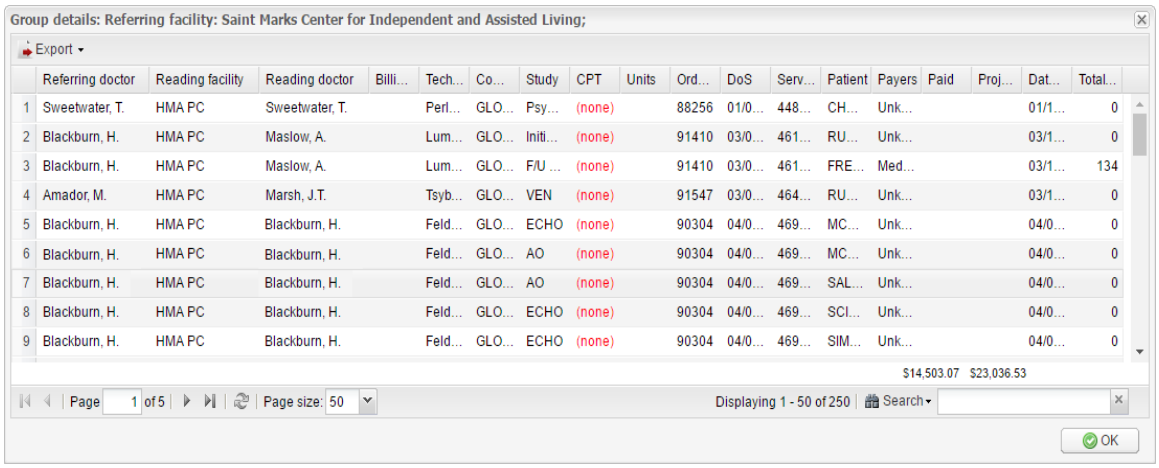
After you specify the necessary fields, click the **Search** button to display the required finance analysis data. To reset all fields, click the **Clear** button.

Income aging analysis data is arranged in columns. The first columns represent the selected way of data grouping (**Referring facility**, **Reading facility**, and so on). To the right of them, you can see the **Errors**, **Paid studies**, **Paid**, and **Projected** columns. The last three columns are repeated for several time intervals (0-30 days, 31-60 days, 61-90 days, 91 and over days).

Right above the finance analysis data grid there is the **Export** button. It allows you to export the finance analysis data to an Excel, Excel 2007, CSV, PDF, or HTML file.

Next to the **Export** button there is the **Grid view** control that has two options: **Normal** (selected by default) and **Detail**. Click the **Detail** option to see more columns: **Studies**, **Projected studies**, **Written off studies**, **Overdue studies**, and **Overdue**.

To view more detailed information about each group, double-click the required row. The **Group details** window will appear:



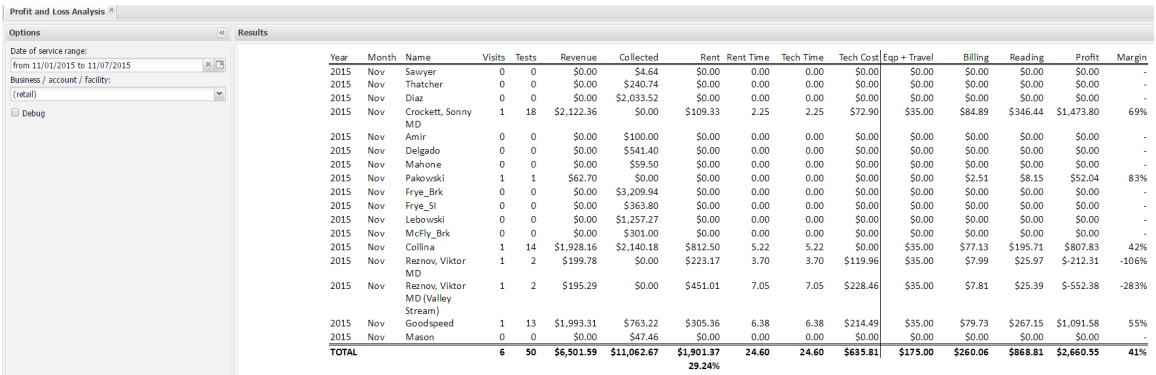
	Referring doctor	Reading facility	Reading doctor	Billi...	Tech...	Co...	Study	CPT	Units	Ord...	DoS	Serv...	Patient	Payers	Paid	Proj...	Dat...	Total...
1	Sweetwater, T.	HMA PC	Sweetwater, T.		Perl...	GLO...	Psy...	(none)		88256	01/0...	448...	CH...	Unk...			01/1...	0
2	Blackburn, H.	HMA PC	Maslow, A.		Lum...	GLO...	Initi...	(none)		91410	03/0...	461...	RU...	Unk...			03/1...	0
3	Blackburn, H.	HMA PC	Maslow, A.		Lum...	GLO...	F/U ...	(none)		91410	03/0...	461...	FRE...	Med...			03/1...	134
4	Amador, M.	HMA PC	Marsh, J.T.		Tsyb...	GLO...	VEN	(none)		91547	03/0...	464...	RU...	Unk...			03/1...	0
5	Blackburn, H.	HMA PC	Blackburn, H.		Feld...	GLO...	ECHO	(none)		90304	04/0...	469...	MC...	Unk...			04/0...	0
6	Blackburn, H.	HMA PC	Blackburn, H.		Feld...	GLO...	AO	(none)		90304	04/0...	469...	MC...	Unk...			04/0...	0
7	Blackburn, H.	HMA PC	Blackburn, H.		Feld...	GLO...	AO	(none)		90304	04/0...	469...	SAL...	Unk...			04/0...	0
8	Blackburn, H.	HMA PC	Blackburn, H.		Feld...	GLO...	ECHO	(none)		90304	04/0...	469...	SCI...	Unk...			04/0...	0
9	Blackburn, H.	HMA PC	Blackburn, H.		Feld...	GLO...	ECHO	(none)		90304	04/0...	469...	SIM...	Unk...			04/0...	0
														$14,503.07	$23,036.53			

Here you can see the detailed information about each rendered service and study. All data is arranged in the following columns: Referring doctor, Reading facility, Reading doctor, Billing company, Technologist, Component, Study, CPT, Units, Order ID, DoS, Service ID, Patient, Payers, Paid, Projected, Date sent on reading, and Total turnover days.

The **Export** button in the upper left corner of the window allows you to export the group details to an Excel, Excel 2007, CSV, PDF, or HTML file.

Profit and loss analysis

In this section of the **Analysis** module, you can view revenues, costs and expenses for a given time range. To open it, click **ANALYSIS** on the upper navigation bar, then select **PROFIT AND LOSS ANALYSIS** in the drop-down menu. The **Profit and Loss Analysis** tab will appear:



Year	Month	Name	Visits	Tests	Revenue	Collected	Rent	Rent Time	Tech Time	Tech Cost	Eqp + Travel	Billing	Reading	Profit	Margin
2015	Nov	Sawyer	0	0	$0.00	$4.64	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Thatcher	0	0	$0.00	$240.74	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Diaz	0	0	$0.00	$2,033.52	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Crockett, Sonny MD	1	18	$2,122.36	$0.00	$109.33	2.25	2.25	$72.90	$35.00	$84.89	$346.44	$1,473.80	69%
2015	Nov	Amir	0	0	$0.00	$100.00	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Delgado	0	0	$0.00	$541.40	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Mahone	0	0	$0.00	$59.50	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Pakowski	1	1	$62.70	$0.00	$0.00	0.00	0.00	$0.00	$0.00	$2.51	$8.15	$52.04	83%
2015	Nov	Frye_Brk	0	0	$0.00	$3,209.94	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Frye_Sl	0	0	$0.00	$363.80	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Lebowski	0	0	$0.00	$1,257.27	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	McFly_Brk	0	0	$0.00	$301.00	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
2015	Nov	Collina	1	14	$1,928.16	$2,140.18	$812.50	5.22	5.22	$0.00	$35.00	$77.13	$195.71	$807.83	42%
2015	Nov	Reznov, Viktor MD	1	2	$199.78	$0.00	$223.17	3.70	3.70	$119.96	$35.00	$7.99	$25.97	$-212.31	-106%
2015	Nov	Reznov, Viktor MD (Valley Stream)	1	2	$195.29	$0.00	$451.01	7.05	7.05	$228.46	$35.00	$7.81	$25.39	$-552.38	-283%
2015	Nov	Goodspeed	1	13	$1,993.31	$763.22	$305.36	6.38	6.38	$214.49	$35.00	$79.73	$267.15	$1,091.58	55%
2015	Nov	Mason	0	0	$0.00	$47.46	$0.00	0.00	0.00	$0.00	$0.00	$0.00	$0.00	$0.00	-
TOTAL			**6**	**50**	**$6,501.59**	**$11,062.67**	**$1,901.37**	**24.60**	**24.60**	**$635.81**	**$175.00**	**$260.06**	**$868.81**	**$2,660.55**	**41%**
							29.24%								

Here you can see the left sidebar and the list of search results (profit and loss analysis data) on the right.

The left sidebar provides a search filter with search options. It allows you to specify the date of service range and select the business type, account or facility. You can also select the **Debug** checkbox to display referring facilities that are not included in any referring account.

After you specify the necessary fields, click the **Search** button to display the required profit and loss analysis data. The **Reload** button allows you to reload the search results. It can be useful after you have changed some of the search fields.

Click the **Export** button to export the profit and loss analysis data to an Excel file.

The profit and loss analysis data is arranged in the following columns: Year, Month, Name, Visits, Tests, Revenue, Collected, Rent, Rent time, Tech Time, Tech Cost, Eqp + Travel, Billing, Reading, Profit, and Margin. At the bottom, you can see the **TOTAL** row which summarizes the profit and loss analysis data.