



Dental Information System

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Introduction

The designing of the user interface and XDENT philosophy make this software ready to use immediately. Reading this guide is not necessary to start using XDENT. The software can be used by trying all the different operational modes. In order to get some essential operational information the QUICK GUIDE contains the essential operating procedures.

XDENT features all the management tools of a dental practice. This guide was created to examine all those features that are not noticeable in the software at first glance, and also to understand all the potentialities provided by this software in order to manage a practice's information-based system.

The first part of this document deals with hardware & software platforms compatible with XDENT. Platforms indicate minimum compatibility requirements. XDENT is constantly updated so that it guarantees compatibility with evolving operating systems and hardware platforms; in order to use all its features, it is recommended to get the latest operating system releases. Using XDENT on compatible though obsolete software & hardware platforms may result in limited use of the software in terms of speed and/or functionality.

The second part of this section deals with configuration settings. Using XDENT in a regular way does not need any specific change of default settings. Further knowledge of these characteristics may be necessary in order to customise this software and to take advantage of all management- and cost & income-related features provided by XDENT.

In the remaining part of the document detailed explanations of XDENT features, which may enhance a practice's management, are provided.

The document may be read in a non-progressive way, thus referring to any desired section.

The sections marked by **TIP** explain operational modes that may simplify the use of this software.

Some functions are specifically designed for the Italian version: other functions are meant for the international version(s) of the software. This distinction is always specified in this document.

Software platforms

XDENT is a multi-platform application compatible with different operating systems and its relating versions. This section indicates software platforms compatible with the software.

For hardware-related information please refer to the section "Hardware Platform".

Windows

XDENT for Windows is compatible with the following Windows versions:

- Windows XP SP2 and following *
- Windows Server 2003 *
- Windows Vista SP1 and following (32-bit, 64-bit) *
- Windows 7 (32-bit, 64-bit)
- Windows Server 2008
- Windows 8.x (64-bit)
- Windows 10.x (64-bit)

Linux

XDENT for Linux OS needs the following requirements:

- 32-bit distribution, or a 64-bit distribution with full compatibility with a 32-bit layer
- Kernel 2.4.x or following
- X11R5 Xserver locally executed on a 24-bit display
- glibc 2.3.2 or following
- gtk/gdk/glib
- pango/xft
- lcms
- gksu

Mac OS X

XDENT for Mac is compatible with the following MacOS X versions:

- 10.6.x (Snow Leopard) on Intel *
- 10.7.x (Lion) on Intel *
- 10.8.x (Mountain Lion) on Intel *
- 10.9.x (Mavericks) on Intel
- 10.10.x (Yosemite) on Intel
- 10.11.x (El capitan) on Intel
- 10.12.x (Sierra) on Intel

*System versions no longer maintained and supported by their respective manufacturers. The XDENT compatibility with such systems is therefore not guaranteed for the gradual obsolescence of the system libraries.

Hardware Platforms

Since XDENT uses graphics primitives and manages multimedia elements of various kinds (videos, animation resources) it is recommended that the hardware used is *up-to-date* to take full advantage of the technology implemented in XDENT.

XDENT may also be run on old machine, but one should be aware that this may result in response times which are consistent with out-to-date hardware specifications, the latter being obsolete and no longer supported by their manufacturers.

Efficiency and speed are two essential characteristics of any IT system, as they contribute to enhance work quality by saving time and optimising management costs: for this reason, these basic recommendations are useful to **set the practice IT system correctly**. These tasks are usually solved by IT consultants: nevertheless, having received many requests about these issues, the following information is really important.

The first distinction to be made deals with *Server vs. Client* workstations.

In any client-server environment, a server workstation responds to data queries: all XDENT applications are interfaced with it in order to retrieve information (iPad, iPhone, XDENT client). For this reason, a server must be a machine equipped with suitable *fault tolerance* properties: any IT consultant may provide appropriate advice in this sense (external backup disk, RAID technology, redundancy modules, etc.).

In XDENT the server workstation can be used as a client workstation, too: XDENT does not require additional conditions compared to the conditions usually required when setting an IT system.

The same observations concerning all client-server environments can be applied to XDENT: therefore, using XDENT both as a server & client workstation on the same machine is **not recommended**. No more than 3 workstations should be used as client workstation when using the same machine as a server workstation.

Server workstations do not need server operating systems (Mac OS X Server, Windows server 2008, Linux Enterprise distributions). Nevertheless, the installation of a SQL DBMS is required. Compatible DBMSs are the following: MySQL, PostgreSQL, MariaDB and any other management system with available ODBC drivers.

No specific hardware is required in order to run XDENT as a server or client workstation: any standard commercial product on the market can be used.

Recommended hardware

Processor: 5th-generation Intel Core i3 or better

RAM: 4 GB or higher

Monitor: minimum supported resolution 1024x768,
recommended resolution 1280x1024 or higher

For server workstations, for optimum performance it is recommended a CPU Intel Core i5 fifth generation, a RAM of at least 8GB, and SSD drives.

Any Apple device meets the recommended requirements (with the exception of Macbook Air - 11" edition due to its limited view size). As for Windows and Linux environments netbooks, thin clients or Atom-/Celeron-based machines are not recommended, as these are usually designed for Internet browsing and terminal servers, therefore they have not the necessary requirements for

desktop applications.

XDENT for Linux is suggested only for server installation. With particular reference to Linux platforms, when XDENT is used in client workstations (or server workstations used as client workstations) a powerful hardware setting is recommended, as graphics libraries are poorly optimised and integrated with hardware components.

XDENT functionalities on Linux platforms may be available upon the kind of distribution used. Therefore, some features may not be available on specific distributions.

In Linux-based systems data servers should be set up (MySQL would be the most appropriate solution as it is pre-installed in Linux distributions). When not pre-installed, the data server has to be installed independently. Some additional fonts have to be installed in the system.

XDENT does not provide technical support for this kind of operations.

TIP

Using Linux-based platforms is recommended for users with adequate support that can intervene in case of problems and issues which are more likely to be found in Linux environments. Please note that XDENT does not provide technical support for hardware and/or software-related issues. Technical support is limited to XDENT application.

It is recommended to **disable power management settings** so that both client and server workstations will not enter stand-by mode when trying to access network connections. In case of network connections being interrupted XDENT has to be rebooted.

It is always recommended to choose a wired connection over a wireless one, if possible. Wired connections can guarantee a 10x to 100x higher performance when compared to wireless connections.

Difference in terms of performance is more evident as network traffic increases, thus increasing the number of clients and the kind of transmitted data (with particular reference to the number and kind of images and videos stored in the multimedia archive).

TCP/IP addressing of network servers must be **static (fixed)**. A non-static addressing (e.g., a DHCP service) will force clients to change the relating settings in order to connect to the server. **It is recommended to set all static network IPs (server and client).**

Configuration Settings

In XDENT preferences may be set according to the specific needs of any practice. Settings are divided into two main categories: *General settings and Clinical settings*

General settings

Hours

In this section scheduling views can be set. There are three scheduling categories: Practitioner, Grouped Practitioners and Practices.

Schedule view

Each scheduling may be displayed using 5, 10, 15 and 30 minute intervals. This choice depends on the minimum duration of appointments scheduled by each practice. The default interval is 15 minutes.

The schedule view can be set on a daily basis; furthermore, Sundays may be included in or excluded from the weekly view.

TIP

Choose an interval so that all potential hours for appointments are displayed, even though closing hours may be included in this view. Closing hours will be displayed with a grey background, even though appointment scheduling are enabled on these hours.

Practitioner availability

Practitioners' working hours can be customised, setting a default duration of appointments. A business day is split into morning hours (from 00:00 to 14:00) and afternoon hours (from 14:00 to 00:00)

TIP

The last appointment in the morning and the first one in the afternoon depend on the scheduling interval view. In case of 15-minute intervals the last appointment in the morning is at 13:45, while the first afternoon appointment is at 14:00.

The button *Availability* shows or hides available practitioners in daily morning or afternoon sessions. Multiple availability intervals for morning and afternoon sessions can be set. This option may be useful if there are practitioners who are available in specific time intervals only.

The button *Time frequency* is used to indicate definite intervals of a given practitioner (e.g., a practitioner available on Mondays only).

TIP

Use this option in case of practitioners who are available in defined time intervals (some specific days, for instance).

Scheduling

In this section the default practitioners and the scheduling sessions to be displayed can be set. Settings can be defined for each workstation and are stored locally and independently. Each workstation can have different settings: therefore, in case of similar settings in different workstations, each configuration has to be repeated.

Default practitioner

A default practitioner is chosen among practice practitioners, displaying:

- a single practitioner's scheduling displayed by default;
- the practitioner of the diagnosis set by default when a treatment is added in a treatment plan.

TIP

Regardless of this setting, the default practitioner can be changed during the same operational session by clicking on the corresponding button in the menu bar.

Practitioner Groups and Group Practices

In case of practices with many practitioners, grouped scheduling views can be defined both for practitioner groups and group practices.

This option allows a rapid view of both grouped practitioners and group practices weekly scheduling.

TIP

Only one appointment per single practitioner time availability can be scheduled. If a practitioner is involved in multiple treatments with more than one patient, virtual practitioners can be defined (e.g., a practitioner called John may have "virtual" practitioners named John 1, John2, etc.) (see *Practitioners* section) In this case the creation of a group including all virtual scheduling of a given practitioner would be recommended: in this case, a single click would display all treatments performed by a single practitioner.

SQL Server

This section is usually set only in the installation phase or when technical assistance is needed. Some information can be retrieved automatically such as the IP address of any workstation or the kind of workstation used (server, client or cloud).

When a DBMS connection cannot be established, some useful tools may be used.

Tick the option *Remote client* if XDENT was installed on a client with no direct connection to the practice LAN. The software will enable a protocol that will prevent connection failures to occur, these being typical in remote connections.

Client workstations require the server IP address. This information is required during the installation process and it can be edited using this setting in case of network addressing change.

Fields *External IP* and *Refresh interval* are used to implement remote services that require external access to the practice server:

- XDent iPad edition
- XDent Android edition
- XDent iPhone edition
- Xinfo

An external IP address is used to indicate the WAN IP used to access the server in case of multiple static addresses. The IP address used to connect to the server workstation has to be indicated.

The Refresh interval is useful when a practice does not have an Internet connection with static network addressing. In this case XDENT provides a server with the current address and repeats the same communication with a given frequency (in minutes) set in this parameter.

Accounting settings

In this section invoicing and output analyses settings can be defined.

Invoicing preference

(Italian version only) Treatment-related invoices can be issued indicating a *synthetic description* or *detailed description*. In case of detailed descriptions, invoices will be issued automatically indicating each performed treatment with its corresponding price. In case of synthetic descriptions, the resulting invoice will show a single, synthetic item with all the performed treatments.

The checkbox *summary invoice* allows similar treatments on different dental elements to be gathered in a single item (e.g. Filling - Tooth 11, Filling - Tooth 12 are gathered into a single item, Filling - Teeth 11 and 12).

Invoicing type

(Italian version only) The system can indicate:

- if the invoicing is indicated as an INVOICE or RECEIPT;
- if treatment-related invoice lines are visible in the printable form;
- if non-treatment-related invoices can be issued.

In addition, in case of multiple invoicing details (e.g., practices with different practitioners issue separate invoices), the default invoice issuer can be defined.

The invoicing system indicates the first available invoice number in a sequential order. In a specific field some characters can be defined after the invoice number.

TIP

The system manages the sequential numbering for each alphanumeric string. These additional characters are useful if the invoicing has to be differentiated, for instance in case of practices having the same company name.

Elements to be included in invoices

The invoice print model is set by default.

Information of a issuer practice is retrieved from license data and cannot be edited by users. A logo and/or additional text can be added as an image: this information will be added on the top right part of the print model.

To print a customised practice logo, select an image (extensions allowed: Jpeg, Gif, Png). The logo must have a maximum size of 110x250 pixels (height x width) In case of bigger sizes, the image will be shrank.

(Italian version only) In the field *notes* a customised text can be included: this text will be placed in the bottom left part of the print module. The checkbox *stamp duty paid using the virtual system* allows this caption to be included in the invoice when the stamp duty has been paid using this payment method.

Profit calculation

This feature is one of the most complex included in the software but it may also be a very useful tool to perform practice cost & income analyses. If all parameters are set properly, the system can help to calculate treatment prices.

When the initial parameters are correctly set, some important information dealing with practice costs and outputs may be retrieved.

The involved parameters are the following:

- total cost (or the total sum of established costs in the treatment record)
- practitioner cost (or the time-related cost of a given treatment)
- profit margin
- risk management

Profit margin and risk management are fixed or percent values established by practices according to their expectations about gross profit and net profit on each treatment. Net profit is calculated from a given gross profit without a tax-related percentage set in each treatment field.

Once these parameters are set, whenever a price is associated with a treatment, the treatment record will show both net profit and gross profit values (see *Treatment* section)

TIP

The recommended price of a given treatment can be found in the treatment record by clicking on the button placed below the line indicating prices.

Cost and times of any treatment added to treatment plans are set according to the default values indicated in the treatment record. In case a verification of these values for any specific treatment is performed, the checkbox *Alert for Time and cost record: not completed* should be ticked. In this case treatments in the treatment plan with no customised cost & time-related values will be marked in red.

TIP

The output report considers the values set in this setting.

Memo

In this section it is possible to set up the printing process of appointment memos for patients.

One can indicate if pre-printed or standard memos are used and the exact location of the form in the print area.

Communications

In this section general settings of XDENT Communication Centre are defined. These settings are independent in any workstations: they can be set differently in each workstation, as they are locally stored in each machine running XDENT.

Enabling Communications

There are two checkboxes:

- Workstation with Automatic Communications to be sent

- Workstation with Automatic Birthday Check

When enabled, XDENT will check at startup if there are recalls to be sent and if that workstation has to create communications in case of patients' birthday.

TIP

It is recommended to enable this check in a practice workstation (e.g., the administration office) that will be used to send birthday messages and to manage practice-related communications (recalls, reminders, messages, etc.)

Independently of these checks being enabled, these communications may be sent anytime from any workstation by selecting *Communication centre*.

VoIP

XDENT manages incoming and outgoing VoIP-based communications.

If the practice communication system has a VoIP switchboard, it is possible to make calls without dialling the recipient number manually.

To make a call, connection settings in the VoIP switchboard have to be defined: these parameters depend on the kind of switchboard and on the network configuration.

Asterisk and Dextgate are two certified switchboards by XDENT.

(Italian version only) XDENT has certified its VoIP system with two VoIP switchboard manufacturers. Here, a specific communication protocol has been implemented so that in case of incoming calls in a given extension a popup message will be displayed in the software. Managing incoming calls proved to be a useful tool, because one may be aware of who is calling before answering, but also because the corresponding patient record with his/her data (appointments, accounting information, etc.) may be accessed.

There are two checkboxes about incoming VoIP calls. The checkbox *Enable caller ID* enables the popup message with the caller identification to be displayed on a workstation. The checkbox *Identify calls from numbers not in the archive* allows the popup not to be displayed in case of incoming calls from numbers not included in the database.

Multimedia

In this section patient-related multimedia archive settings can be defined.

Acquiring medical images from radiographic tools

XDENT can interact with imaging devices provided by Rx tools manufacturers.

The following data has to be entered:

- the command line of the application to be run;
- the image save folder and the name of the temporary image files created by the imaging device.

The menu allows two options to choose:

- single image: in this case, XDENT will expect a single image to be acquired from the imaging device;

- multiple images: in this case, XDENT will expect a series of images to be acquired from the imaging device;

When an external software is called, some specific parameters can be defined. Here is the tag list:

<SURNAME>
<NAME>
<BIRTHPLACE>
<DISTRICT>
<DD>
<MM>
<YYYY>
<AA>
<GENDER>
(Italian version only) <CF>
(Italian version only) <ID>
(International version only) <DRN>
(International version only) <MYKAD>

CAT management and acquisition

In case of XDENT being installed with DICOMRx, the software is able to manage the patients' CAT archive saved on DICOMRx's PAC server.

In this case the imaging device path and the CAT management device path should be entered. They are both provided together with DICOMRx (see DICOMRx guide for further information)

Medical imaging management (external software)

In case of digital images management being directly carried out by radiographic tools, in this section the exact path of the software to be run has to be entered.

The association of an external software for radiographic image management is enabled in the patient record, by clicking on the *Medical imaging* button, choosing *External software*.

On-the-fly acquisition

XDENT allows WiFi imaging devices such as WiFi SD Cards to acquire medical imaging. To make sure XDENT can acquire images from a WiFi device, thus waiting for data to be transferred on a destination folder, the image save folder has to be specified as well as a confirmation of the images to be deleted after being acquired.

Image editing

Images managed in the patient multimedia archive can be edited using XDENT internal editor that features some basic tools. An external editor or some other image editing tools may be used.

In the field *Image processing software* enter the path of the desired image editing software.

TIP

If no external editing software is selected, when in the image editing screen the button *external editor* is clicked, the default image editor will be opened (e.g., Preview in both OS X and Windows).

XDENT acquires images in the same original format (1:1 ratio). Some compression algorithms that reduce the image space on disk may be used. Use the check *Apply compression algorithms to reduce space* to enable this option.

This option is useful in case of cloud-based configurations and if images are acquired from remote workstations. In this case acquisition time depends on the image upload time in the remote server.

TIP

Compression algorithms are efficient: for this reason, high compression rates are used in order to get proportionally smaller images. A text field placed near the slider indicates the resulting size in comparison with the original size and the selected compression rate. The resulting size and the selected compression rate obviously depend on the acquired image; therefore, these may be approximate values.

Patients

In this section patient list and patient record settings are defined.

Mandatory fields and fields that make a record incomplete

Here some specific fields in the patient record are indicated as mandatory and other fields activate the alert indicating a non-complete record.

By default, mandatory fields are: code and surname. Mandatory fields are marked by a red arrow in the patient list.

Patient record: tabular view

In the patient list, columns in the tabular view may be customised. For each column, ascending or decreasing order may be selected by clicking on the column header.

Information displayed in the tabular view of this list affects search keys that can be used. If code, name and mobile number are chosen, these keys will be available in the search filter.

Video Control

If the practice is provided with IP video cameras (e.g., video control system in waiting rooms or operating rooms) they can be controlled using XDENT. Enter the video camera resolutions and their IP addresses.

Compatible resolutions are: 160x120, 320x240, 640x480, 800x600, 1024x768, 1280x960

Up to 4 video cameras can be defined. A customised arrangement of the different windows within the general view can be defined.

TIP

Higher resolutions will result in increased space in terms of the selected window view. It is recommended to use low resolutions unless different monitors are used for this feature.

Various

In this section general settings can be defined.

Positioning & Resizing software windows

Any window position and size is automatically stored during each working session. In the following sessions, XDENT displays the same position and size of any opened window.

Choose a desired window position so that every XDENT session will be like the previous one in terms of window size and position.

TIP

If the screen resolution is modified or the default window size and position (at the centre of the screen) has to be restored, choose the option *Default window position and size*. This option is useful in case a window position is accidentally moved and the repositioning of a window cannot be done easily.

Daily output

A daily output both for practices or single practitioners can be defined.

The value indicated in this setting implies the activation of an alert on practitioners' scheduling. If a given output is defined and the appointment-related treatments do not match the minimum output threshold, the header of that day will be displayed in red.

Daily outputs depend on the kind of treatments scheduled for a given day. In order to get this computation each appointment should be associated with the expected treatment(s); these treatments are selected from a patient's treatment plan.

If *practice output* is selected, the overall output (a single value for all scheduling) will be displayed.

If a practitioner's output is chosen, the resulting output will be related to a single practitioner. This option is defined in the practitioner's database record.

TIP

This option could be useful in establishing the minimum output of a dental hygienist or a consultant, so that the administration office can receive an alert depending on the appointments scheduled on a given day.

Default sorting for treatment list

This parameter is used to set the expected type of view for treatments included in the treatment database. A treatment list can be sorted according to two criteria:

- *alphabetically* or
- *by type and order number* within a type

The order number is set by a user for each treatment and it is used to provide a sorting order within all treatments of the same kind.

Update mode

By means of this setting, XDENT update mode can be defined. If the option *Manual* is selected, updates will be downloaded manually as soon as they are available.

Even in case of manual updates, XDENT will check and notify the user with new updates of the installed version.

In case of automatic updates, the updating process will be carried out in *Live Update* mode. At (customisable) regular intervals, the server workstation will check for updates and will download them when available.

Updates may be checked at specific hours. The option *Live Update* is usually chosen in workstation always on and updates are typically installed at night, during a practice closing hours. The server workstation must be connected to the Internet and it downloads and runs the update, as well as it provides all client workstations with the downloaded update.

TIP

In automatic mode, a connection to the Internet is not mandatory for all client workstations, as they can install the update by accessing the server workstation.

Medical History risk

With some risk factors being associated with a patient's medical history, this software is provided with some alerts that display the risk type, its degree, etc.

This setting imposes an alert message to be explicitly closed by a user. This option is used to reduce the possibility that an alert is not seen by a user. If this setting is not enabled, the alert will be automatically closed by the software, even though an alert icon will be always visible.

There are some additional checkboxes:

- (Italian version only) *Use patient codes*: if not selected, patients will not be encoded by users, though an internal encoding will be provided by the software.
- *Disable drag & drop in scheduling*: if selected, drag and drop operations (e.g. moving appointments) will not be allowed in the scheduling. In some cases this option should be enabled (thus disabling this kind of operations) in order to reduce the possibility to move appointments accidentally.
- *enable window scrolling*: if selected, windows can be repositioned on the screen by using horizontal or vertical touches with a pointing device.
- (Italian version only) *target path of exported archives*: the default target path for the files generated during archive exporting operations can be selected.

Clinical settings

Treatment plan

This section is used to define settings of data included in the "Treatment plan" window, with particular reference to the colour of icons associated with the dental chart and the sorting order(s) of treatment plans.

Status colours:

Up to 6 different colours can be defined to differentiate the treatment-related operating status. The default colours are:

Status: in progress GREEN

Status: to be performed BLUE

Status: Performed RED

In the dental chart, the status-related colour can be showed or hidden.

Treatment symbol colours:

Symbols in the dental chart may be coloured according to two modes:

- their treatment status (default)
- the colour associated with the relating treatment type.

Colours will be showed both in full dental chart mode and in archived dental charts.

Default sorting of treatment plans:

The list of treatments in any treatment plan can be sorted according to any of the listed columns. The kind of default sorting can be set (with additional default sorting by descending or ascending order). If the checkbox *Store last sorting used* is ticked, when a window in the treatment plan is re-opened, the last sorting order used will be displayed.

Treatment plans from physical examination:

If the option *show this choice when a single treatment is associated* is selected, when a pathology or a status is associated with a dental element during the physical examination, a treatment to be associated to that pathology will be requested, even if only one associated treatment can be selected. This choice will be used when an a treatment plan from a physical examination will be automatically created.

Treatment list:

In a treatment list the amount and cost of each treatment included in the treatment plan is not showed. This is due to the fact that users with no accounting-related privileges will not be able to access this information. (dental records can be displayed only if clinical-related privileges are held).

The checkbox *Show amounts and time* shows this information for all users.

Conservative/Endodontic/Implant record

This setting is similar for all these clinical record types: it is an important feature because it allows full customisation of the related clinical record.

There are several fields that will be used in a clinical record when enabled.

There are two field types:

- a single-value field which can be selected;
- a multivalued field.

As for multivalued fields, the associated values can be fully defined by users by clicking on the corresponding button, *Values*.

For each field a specific action that fills in a field in clinical records can be indicated.

- If the checkbox *Treatment Diary* is ticked, filling in this field will result in a note to be included in a treatment diary.

- if the checkbox *Notes on teeth and Treatment diary* is ticked, the associated note will be inserted in a dental element-related note (this information can be retrieved in the dental chart) and in the treatment diary.

Periodontal record

A periodontal record can be customised according to the number of probes to carry out for each dental element and according to the values and the order to insert in the periodontal chart.

A periodontal chart is divided into arches and each arch has two parts (palatal/lingual for lower arch, vestibular/lingual for upper arch).

Elements to be included in the periodontal record and the editing mode(s) can be selected. To set the default sorting, click on the button *Default sorting*.

Probing sites are associated to the associated index(es).

As for PPD, REC and CAL indexes, the number of sites in the corresponding record will be variable: therefore, the number of available fields to input data will depend on the number of sites. For instance, six probing sites will result in three values for the palatal arch and three for the lingual arch both for lower and upper arch.

Bleeding and plaque indexes are displayed in the dental chart with description icons and not with number-based fields.

For the accepted values please refer to the legend included in the periodontal record.

Ortho. record

This setting allows the values in *Data Analysis*, *Orthodontic Scheduling Document* and *Cephalometric values* to be customised.

Data analysis:

A series of data can be sorted (using arrow-like buttons) and edited; new elements can be added, others can be deleted (using buttons + and -). For each data a corresponding value can be defined using the button *Values*, the latter being a single-value or a list of values (customisable as well).

Orthodontic Scheduling Document:

This section is used to define a model to be instantiated for all orthodontic scheduling documents. The model can contain both fixed and variable entries: they can be selected in the menus on the left sidebar.

Cephalometric values:

This section is used to create a detection model of the desired cephalometric data according to one's needs and personal methods.

By default, some standard and widespread analyses are included:

- Ricketts
- Steiner
- McNamara
- McLaughing
- Tweed
- Biork – Jarabak

- Sassouni
- Wits

Other analyses can be added by clicking the button "+" next to the view menu.

Each analysis is split into chapters (customisable as for number, nomenclature and sorting). Each chapter includes a series of cephalometric values which can be customised as well.

Each inserted cephalometric value has a default nomenclature according to its reference analysis. Even in this case there is a high degree of flexibility: each value can be inserted, edited and/or deleted.

Treatment diary

In this section the values included automatically by XDENT in the treatment diary are defined. Tick the checks belonging to the desired data to be included in the diary.

Usually, each information that deals with a patient's medical history should be transferred. By default, all checks are enabled (ticked).

Menu bar

All operations in XDENT can be enabled using the categories in the menu bar. In Windows and Linux Operating Systems there is an independent window which is located in the upper part of the screen and which can be repositioned as needed. In OS X operating systems the menu bar is located in the default position set by the system. Quick buttons on the menu bar enable the most frequent operations.

The menu bar for OS X operating systems is compliant with the new standard introduced by Apple. In detail, by typing the first letter(s) of a given query in the menu *Help*, search functions are automatically enabled.

Help menu has a submenu used to contact technical support via VoIP (if VoIP settings are defined) or via email.

The bar has a menu called *Services* that gathers all exclusive XDENT's services: *Xsync*, *Xbackup*, *Xinfo*, *Xprint* and *Xchat* (some of these features are not included in all XDENT versions).

Collapsing and scrolling

Quick buttons in the XDENT menu has two additional buttons used to reduce the bar space and to scroll the list of buttons when video resolution does not allow all buttons to be displayed at once, as showed in the following figure:



Use *Collapse and Expand* to increase or decrease the horizontal menu. In the following figure the collapsed menu bar is showed:



TIP

Windows can be moved **without dragging them** in the title bar (in the modes provided for by each Operating System).

To enable the dragging procedure, click on *mouse vertical scrolling*. (if Apple's Magic Mouse or a Trackpad is used, scrolling can be enabled by using finger gestures on the device)

TIP

If the scrolling button is used on a list containing a scrollbar, the list is scrolled. To enable window vertical scrolling when a a list is included, use the scrolling button with the mouse cursor being not on that list.

Practitioners

In XDENT, practitioners are the users who perform treatments. The *Active practitioner* is showed in the menu bar (on the left) All operations that require the association of a practitioner ID show the active practitioner by default. To change the active practitioner, click on the corresponding button in the menu bar, then select another practitioner in the list.

Practitioners' data are defined in the *Practitioner management* archive. For each practitioner the following information can be defined:

Default practice

For each practitioner, a *default practice* can be defined.

When an appointment is defined, XDENT associates the default practice. A practice can be changed by using the menu in the *Appointments* window. If a practitioner has no default practice, when a new appointment is created the practice room will be *undefined*.

Virtual practitioner Management

For each practitioner, a *reference practitioner* can be defined.

When a practitioner is associated with a reference practitioner, the latter is considered a "virtual" practitioner, that is a user defined in some operations such as **assigning more than one appointment to the same practitioner**.

For example, if the practitioner called USER has 3 simultaneous appointments, the main scheduling will have one appointment, while the remaining appointments will be associated with two "virtual" practitioners.

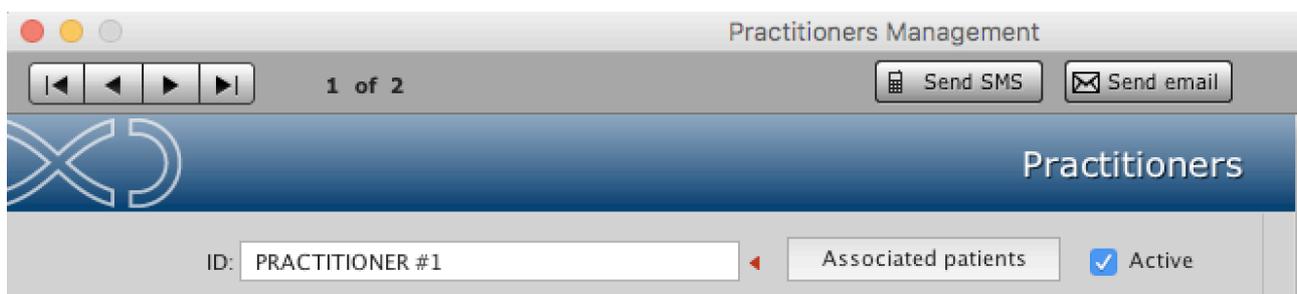
These practitioners can be named with any desired variation (USER1, USER2, 1USER, 2USER) or with any desired name (JOHN, JACK). There is no direct association between the name of the main practitioner and his/her related virtual practitioner(s).

Obviously, the main practitioner cannot have *reference practitioner(s)*: for this reason, XDENT does not allow any other practitioner to be selected.

In this version of XDENT, the software automatically creates a group for any main practitioner with virtual practitioners. This group will be listed in the groups of *Grouped Practitioners Schedule*, and it will be managed as a single practitioner in the *Accounting reports*.

Non-active practitioners

A practitioner can be disabled by ticking the corresponding checkbox in a *practitioner record*:



This option is useful when a practitioner no longer works for a practice; if his/her record is meant to be kept in the archive it can be disabled rather than being deleted, thus keeping his/her associated data.

Disabling a practitioner is an operation that aims at keeping clinical and management-related data of any disabled practitioner: what is more, a disabled practitioner can be reactivated in the *practitioner record*.

Practitioners' payment quotas

For each treatment in the list, a payment quota to a practitioner can be defined. This feature is now used in general situations: in the previous release, it could be associated with treatment types. In this way, practitioners' quotas can be diversified for different treatments of the same type.

In the payment quotas definition window, the same fixed or percent quota for all treatments can be defined.

The resulting reporting activities has been updated in order to consider this new scenario.

The creation of a new (price) list has a direct consequence in this new XDENT feature. When treatments are created from a given list, the system asks if practitioner-related quota should be included in the list as well. When lists are updated, treatment-related quotas may be updated too, thus saving time in this management operations.

Supervisor

A supervisor can be defined: he/she can have a quota (fixed or percent) associated with any treatment type performed by an active practitioner.

Associated patients

The list of all associated patients can be displayed using the corresponding button: associated patients are those who have the active practitioner as *reference practitioner* in the section "other data" of a patient record. If a practitioner is associated with a user and the privilege *view all patients* is disabled, only his/her associated patients will be visible in the patient list.

Hourly cost and daily output

A practitioner's hourly cost and his/her related daily output can be defined.

The first option is used to consider a given cost when a treatment-related profit in a practice is calculated: this value can be viewed in the *accounting record* clicking the corresponding button, with reference to each treatment plan and accounting reports.

The second option is used to keep scheduling activities under control and to highlight any underused practitioner as compared with the expected practice output: to enable this option, when an appointment is scheduled it is necessary that treatments are reserved in a treatment plan, so that a comparison with the overall set of treatments can be carried out. In this way, an appointment can be scheduled according to a practitioner's daily output; if this value is lower than the expected output, the name of a practitioner in the *Scheduling - Grouped practitioners* view or the weekday in single practitioners' scheduling will be displayed in red.

Treatments

A treatment archive allows treatments carried out by practices to be fully customised. For each list, a group of treatments can be defined.

Each treatment is identified by some information such as:

- a *type*, marked by a specific colour when a treatment is reserved;
- an *order number*, which allows a treatment-related sorting within a given type (irrespective of the alphabetical order);
- a *symbol*, which is included in the corresponding treatment in the dental chart. If the checkbox "show symbol in the dental chart" is not ticked, the corresponding treatment will not be showed in the treatment bar of the dental chart (it can be included in any treatment plan using the "Add treatment"); conversely, a treatment can be added to a patient's treatment plan by dragging the associated symbol, superimposing the corresponding dental element showed in the dental chart.
- using the checkbox *Account record* the selected treatment can be inserted in accounting.

TIP

Each symbol can be associated with one or more treatments. To view the available symbols and the association treatments/symbols made, click on the *Print symbols* button.

The screenshot displays the 'Treatments - new price list' application. The main window is divided into two main sections: a detailed form on the left for the selected treatment and a list of all treatments on the right.

Selected Treatment Details (Left Panel):

- Description:** Periapical/ Bitewing
- Type:** Diagnostic
- Code:** D3
- Order no.:** 3
- Symbol:** R (with a plus sign button)
- Checkboxes:**
 - Show symbol in the dental record
 - Account record
 - Debit when in progress
- Costs:** 36.00
- Time:** 15
- Default treatment notes:** (empty text area)
- Prices:**

	Price	Gross Profit	Net Profit
Basis:	36.00	0.00	0.00
% disc.: 8 Red. am.: 3.00 Silver:	33.00	-3.00	0.00
% disc.: 17 Red. am.: 6.00 Gold:	30.00	-6.00	0.00
- Phases:** (empty list)
- Recalls:** Associated recall: Third-party payer

Treatment List (Right Panel):

Type	No.	Description
Diagnostic	1	Consultation (Simple)
Diagnostic	2	Consultation (Complex)
Diagnostic	3	Periapical/ Bitewing
Diagnostic	4	Cephalogram
Diagnostic	5	Occlusal View
Diagnostic	6	Dental Panoramic
Endodontics	1	pulpotomy
Endodontics	2	anterior root canal therapy
Endodontics	3	premolar root canal therapy
Endodontics	4	molar root canal therapy
Endodontics	5	surgical endodontics
General Dentistry	1	acrylic base partial denture
General Dentistry	2	cast base partial denture
General Dentistry	3	each additional tooth
General Dentistry	4	complete denture acrylic each jaw
General Dentistry	5	complete denture acrylic both jaw
General Dentistry	6	cast full per jaw
General Dentistry	7	relining
General Dentistry	8	rebasing
General Dentistry	9	addition to existing denture per tooth
General Dentistry	10	repair denture or clasp
General Dentistry	11	temporary prosthesis
General Dentistry	12	sports mouth guard
General Dentistry	13	night guard
General Dentistry	14	desenitisation
General Dentistry	15	tooth whitening single tooth
General Dentistry	16	tooth whitening home
General Dentistry	17	tooth whitening in office
General Dentistry	18	house calls
General Dentistry	19	court attendace fees
General Dentistry	20	nonexpert witness
General Dentistry	21	expert witness
General Dentistry	22	attending dentist statement
Medication	23	Amoxicillin
Medication	24	ibuprofen
Medication	25	paracetamol
Oral Surgery	1	single tooth extraction (anterior)
Oral Surgery	2	single tooth extraction (posterior)
Oral Surgery	3	complicated tooth extraction
Oral Surgery	4	single tooth extraction (primary anterior)
Oral Surgery	5	single tooth extraction (primary posterior)
Oral Surgery	6	surgical removal of impacted tooth
Oral Surgery	7	biopsy and report

- Costs

In this version a treatment-related cost can be a total sum or the overall amount from **four** cost items: cost for disposable material, cost for specific material, cost for implants and practice-related cost. To define cost details open the detail tab as showed:

Costs: ▼ Time: ▶

Costs detail

Disposable material:	<input type="text" value="0.00"/>	Specific material:	<input type="text" value="0.00"/>
Practice:	<input type="text" value="0.00"/>	Implant:	<input type="text" value="0.00"/>

- Time

Treatment time can have four different items: reorder point, execution time, communication time and time for any hindrance.

Costs: ▶ Time: ▼

Time Detail (in min.)

Re-ordering:	<input type="text" value="0"/>	Performance:	<input type="text" value="0"/>
Hindrance:	<input type="text" value="0"/>	Communication:	<input type="text" value="0"/>

- Notes

Here, information of any kind can be included. This information is automatically proposed as standard text to insert in the clinic diary when the treatment is performed.

Default treatment notes:

- Prices

There are three prices for any treatment: Initial price, Silver price and Gold price. Silver and Gold price can be calculated by reducing the initial price. In this way for each patient a specific list can be determined with the corresponding reductions.

Prices

			Price	Gross Profit	Net Profit		
		Basis:	<input type="text" value="36.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>		
% disc.:	<input type="text" value="8"/>	Red. am.:	<input type="text" value="3.00"/>	Silver:	<input type="text" value="33.00"/>	<input type="text" value="-3.00"/>	<input type="text" value="0.00"/>
% disc.:	<input type="text" value="17"/>	Red. am.:	<input type="text" value="6.00"/>	Gold:	<input type="text" value="30.00"/>	<input type="text" value="-6.00"/>	<input type="text" value="0.00"/>
Phases				Rate VAT-inclusive price:	<input type="text" value="0"/>		

For each list gross profit and net profit can be displayed. These values are determined according to costs and parameters set in the accounting options.

A **recommended price for treatments** can be determined according to four parameters: *total cost*, *practitioner cost*, *profit margin* and *risk management*. Total cost is defined in the treatment record; practitioner cost is defined in the practitioner record; profit margin and risk management are defined in the accounting record in *Settings*.

- *Recall to be associated with a treatment* indicates the recall and the date in which a recall is automatically created when a treatment is carried out.

In case of treatments of a third-party payer list, an additional section will be showed: here, the official name of a treatment as required by a third-party payer will be indicated, as well the payer's quota and its corresponding rate.

TIP

The official name indicated by a third-party payer will be used for treatments and invoices. The resulting documents will be sent to that third-party payer, while the treatment description used by the practice will be used to manage the treatment.

Treatment time & cost assessment

In order to set a business accounting to check treatment time & cost-related data in a practice, three steps are required:

- Setting parameters
- Defining expected time & cost for any given treatment
- Inserting actual time & cost for any given treatment.

Setting parameters for treatment profitability

The relating parameters can be set in the *Profit calculation* section in the *Accounting settings* tab in XDENT's settings. Here is the list of the fields in this section:

- Profit margin (percent)
- Risk management (fixed or percent value)
- Taxation (fixed or percent value), used to calculate net profit
- Checkbox that can be ticked: "Alert for Time and cost record: NOT COMPLETED"

These parameters are available for all treatments.

Inserting expected treatment time & cost

In order to assess time & cost of a given treatment a prior assessment is required: for this reason, each treatment in a list must have a pre-filled assessment.

From the menu *Archive*, open the list of treatments; in the desired list and for each treatment indicate expected time & costs:

- Treatment execution time
- Reorder time spent to prepare a given practice
- Communication time (with a patient)
- Hindrance
- Cost for disposable material
- Cost for specific material
- Practice-related cost

- Implant cost

A **practitioner cost** must be indicated as well. This assessment will be carried out considering the total time spent for a single treatment and its relating hourly cost. These factors will determine the total cost.

In the practitioners' window, a **practitioner hourly cost** can be defined.

In the treatment window there will always be a calculation of an expected amount of **gross profit** (the difference of the treatment cost and the total cost, including a practitioner's cost) and **net profit** (the difference of gross profit and the indicated taxation-related fees).

Inserting actual time & cost for any given treatment

When a treatment is performed, actual time & cost will be inserted. This data can be provided both in the accounting record or in the treatment plan. By selecting a single treatment and opening the editing window, a user with accounting-related privileges can edit actual time & cost (when they do not match the expected values) and tick the *Time and cost assessment done* checkbox.

In order to identify **performed** treatments with no time & cost assessment, these treatments will be marked in **red**.

These features are enabled if the checkbox ***Alert for Time and cost record: NOT COMPLETED*** is ticked in the tab *Setting parameters*.

When a user aims at assessing time and cost in comparison with the expected values, he/she can compare these values according to three variables:

- Assessment of a single Treatment plan;
- Assessment of all treatments performed in a given period;
- Average assessment of all treatments performed in a given period, gathered by treatment.

Assessment of a single Treatment plan

From the accounting record, for each Treatment plan a comparison between the expected treatments to be performed and the performed treatments can be carried out.

To compare these elements, select the corresponding icon in the treatment plan. A window will appear; a table shows time, costs, amount and the relating profits of each treatment, as well as a summary with total amounts.

The button *Details* shows detailed information about time & cost values for any desired treatment.

Assessment of all treatments performed in a given period;

In order to get a general overview of practice assessment, a desired report can be generated. This accounting report can be accessed by clicking on the *Output* tab and on the item *Time & Cost assessment*.

Clicking on *Average treatment assessment* will result in the creation of a report that shows all treatments performed in a given period gathered by treatment; for each treatment expected time is provided, and the average time spent to perform treatments. Similarly, expected costs and the average cost incurred can be showed.

Selecting the other item, a similar report will be created with treatments not being gathered by treatment.

Treatment phases

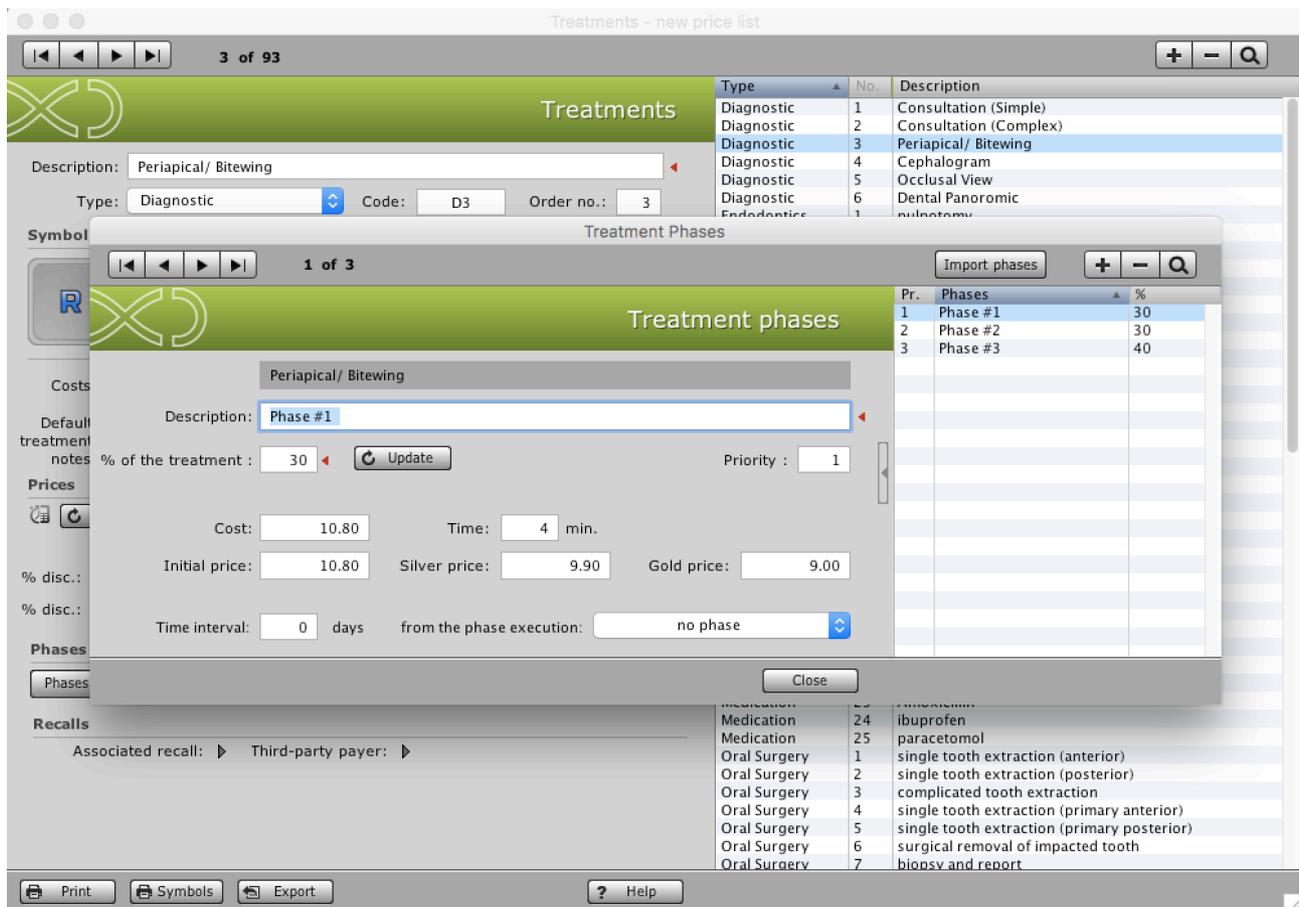
For each treatment, treatment phases can be defined and managed. In this version **phase priorities of a treatment can be defined**. Phase management allows treatments to be split in treatment phases, each one with its own cost and income.

By splitting treatments in different phases, a more detailed representation of practitioners' daily output can be done, as well as an accurate accounting statement of patients.

Setting phases

In order to set the treatments of the different lists, open treatment archive. Each treatment record displays the button **Phases** through which each treatment can be associated to the corresponding phases.

You can set phases by entering manually each phase or importing the phases that have been already set for any other treatment. In this context, you can set phase **priority**, the **percentage** of the treatment, the **price** (base, silver and gold) compared to the total price of the treatment, the **cost** and **time** scheduled for completing the phase.



Once the phases of a treatment have been set, these will be available to be imported to another treatment, by clicking the button **Import phases**.

TIPS

If more treatments share the same division into phases, select the function *Import phases*. Be sure to modify the percentages and the costs related to each imported phase.

The priority of each phase will be highlighted when you reserve the appointments.

The button recalculate allows to assign price, time, and cost values according to the corresponding treatment values and to the percentage related to the phase compared to the total amount of the treatment.

Phases Timing

If there are several treatment phases, XDENT allows not only to set phases priority, but also phases timing. Users can specify if the execution of a phase is related to the execution of another phase and how much time - expressed in days - must elapse between the two phases.

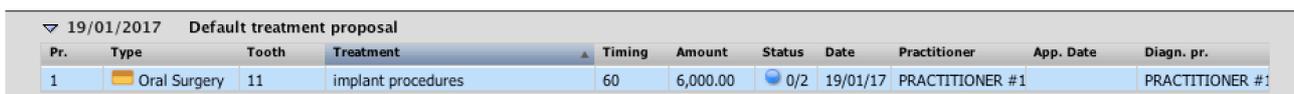
During the reservation of the scheduled phases, the system checks that priority-mode phases have been completed and calculates if the related time interval has elapsed. For example, this function can be very useful in situations where you know in advance the time required by the laboratory or any other external provider of services and/or products.

TIPS

In the phases reservation window, all the phases that cannot be reserved, because the related time interval has not elapsed yet, will be displayed in red rows. In any case the system warning can be ignored and the selected phase can be associated to the appointment, even if this phase does not respect the above mentioned time limitations.

Inserting a new treatment in the treatment plan

When a treatment divided into several phases is inserted, the corresponding treatment phases must be inserted, too. If the treatment plan includes a treatment divided into several phases, this is indicated both by a numerical information (n/m) placed next to the status icon and by a tooltip. For example 0/2 indicates that the treatment is still to be performed, that it has two phases, none of which has been performed.



Pr.	Type	Tooth	Treatment	Timing	Amount	Status	Date	Practitioner	App. Date	Diagn. pr.
1	Oral Surgery	11	implant procedures	60	6,000.00	0/2	19/01/17	PRACTITIONER #1		PRACTITIONER #1

By pointing your mouse to the treatment row, a tooltip will display the detail of the phases related to the treatment, indicating the phase date, status, and its name.

The status of a treatment divided into phases **depends** on the status of the single phases of the treatment. The treatment status is set automatically by XDENT according to the status of the phase: if all the phases are *to be performed* the treatment will be *to be performed*, if all the phases have been *performed* then the treatment is *performed*; in all other cases the treatment is *in progress*.

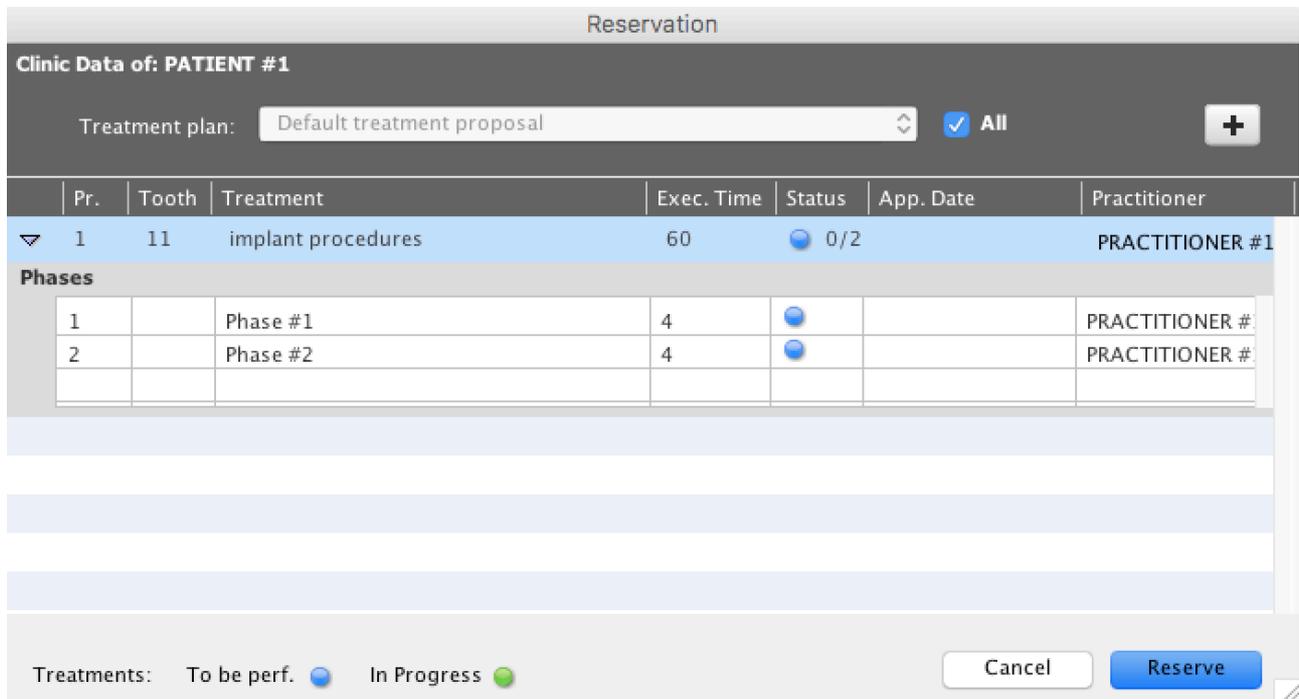
To see the detail of the phases of a treatment, click on the edit button, which allows to add, cancel, or import new phases and edit their execution status.

All the fields of each phase can be edited from the treatment detail record: date, description, status, practitioner, amount, time, and cost. The date of the phase changes automatically when

the status changes. Similarly, the date of the treatment reports all the changes of the date of the phases.

Phases reservation

While reserving an appointment, both a single treatment and one or more phases for each treatment can be associated to the selected appointment. Reservation may include one or more phases and one or more treatments.



TIPS

For multiple selections on Mac, use cmd.

Phases accounting

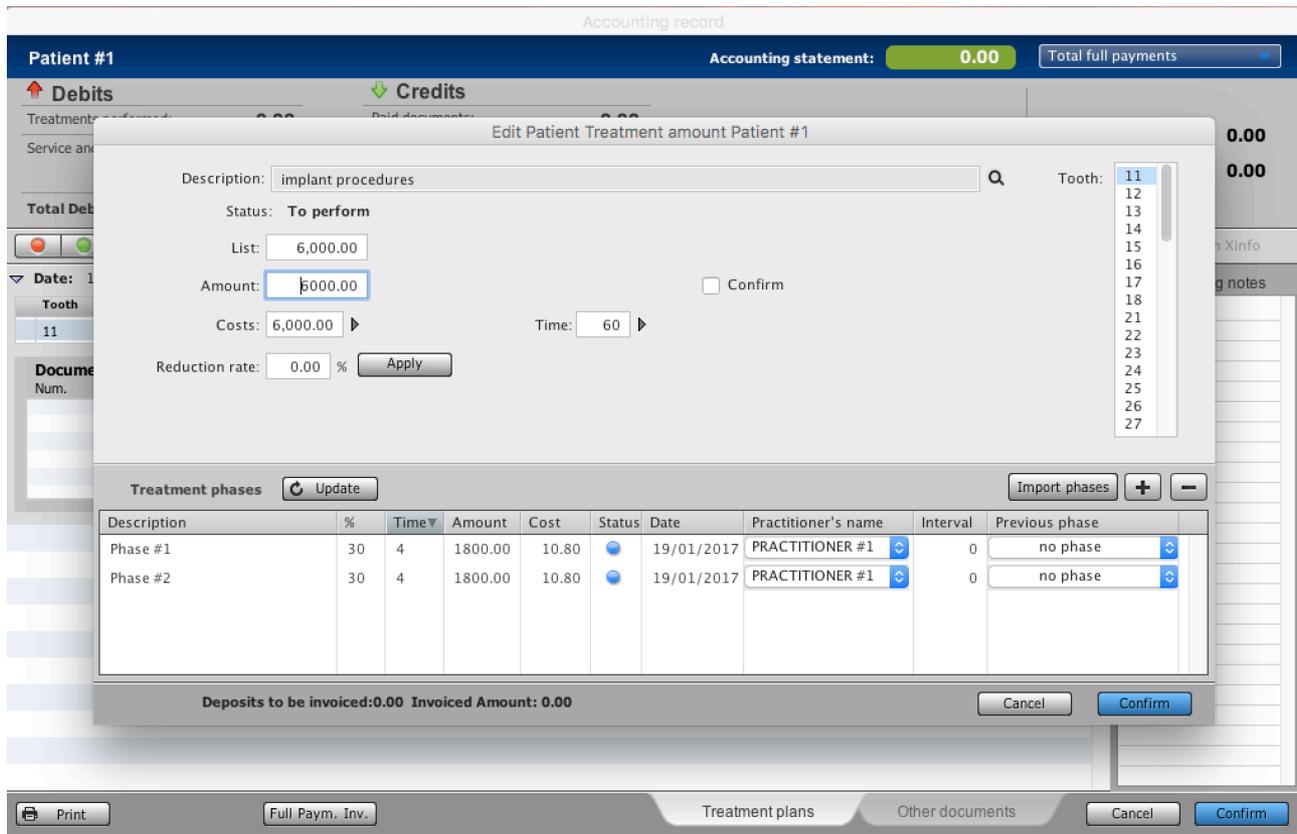
The accounting situation of a patient takes into account the status of each treatment, but also the status of the phases.

The debt is the sum of the amounts of the treatments without any performed phase and the amounts of the phases already performed. (in this way, the calculation of the patients' debt reflects in a more coherent way the real situation. For example, if the practice has already completed two out of three phases of a treatment, the two completed phases represent the patient's funded debt, although the treatment status is still in progress. Thus, if the patient decides not to complete the whole treatment, the practice will be able to properly account for the amount corresponding to that part of the treatment already performed).

The amount of the treatments "in progress" will be given by the sum of the treatments without any "in progress" phases and the "in progress" phases. Similarly, the amount of the treatments to be performed will be given by the sum of the treatments without any "to be performed" status and the phases "to be performed".

Even on the accounting record, if a treatment is divided into several phases, this is highlighted by a tooltip indicating the date, the status, and the description of the single phases of a treatment.

All the operations that can be activated from the accounting record, ranging from the transfer of a treatment to invoicing, obviously take account of the phases associated to the treatments.



Daily output

From phase setting, you can set an output task for each practitioner. The General record of settings contains a check "Calculate daily output" and a field where you can specify the task, expressed in MYR and related to the single day.

Every time an appointment for a selected practitioner is reserved, the practitioner's daily task is calculated according to the treatments and/or phases reserved in the appointment. If the scheduled operations do not allow to complete the daily task, an alert is triggered on that day.

The alert type depends on the scheduling that is displayed:

- on the single practitioner daily scheduling, the alert is indicated by **the date of the day** marked in red.

- on the multi-practitioner day scheduling, the alert is indicated by **the name of the practitioner** selected for the task marked in red.

- on the single practitioner weekly scheduling, the alert is indicated by **red date buttons** related to the days selected for the task.

- on the multi-practitioner weekly scheduling, the alert is indicated by **the name of the practitioner** selected for the task marked in red.

The daily output can be controlled selecting a new accounting record.

In this report, the following data for each day of a given period of time can be calculated:

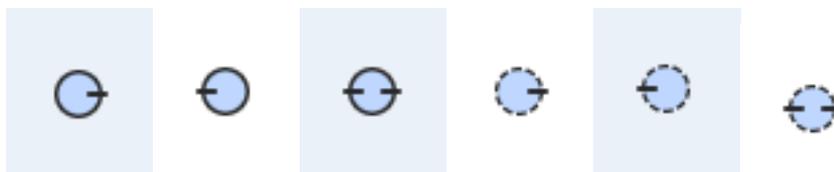
- the total treatments reserved for a selected practitioner
- the difference between the total treatments reserved and the assigned daily task
- the total treatments performed for a selected practitioner
- the difference between the total treatments reserved and the assigned daily task

Graphic symbols associated to treatments

Each treatment can have its related symbol, selected among those available in the symbol library provided by XDENT. The symbol related to the treatment will be displayed in the dental chart every time it will be associated to a treatment plan. (see treatment plans section).

Some graphic symbols represent those treatments that can be performed on mesial/distal and lingual/palatal areas depending on the quadrant of the dental chart. In these cases, the software automatically changes the horizontal/vertical perspective of the symbol.

For example, to indicate the *bridges*, the following graphics are provided, both in the physical examination to indicate the status and in the dental chart of the treatment plans to indicate the treatments:



Their mesial and distal location is automatically managed according to the quadrant where they are located.

TIPS

You are recommended to associate these graphics to the following status/treatments:

- girder bridge
- pillar bridge

Visualizing treatments

The list treatments can be managed from the Treatment entry of the Archive menu.

In addition to the traditional management mode, which allows to add, customize, or insert items in the archive, there is a function to display and search the list treatments.

In the archive menu, the Treatment entry is split in Management and View. By selecting Management you access the archive management. This possibility is subject to the possession of user rights. By selecting View you can browse the list treatments with quick find functions. All users have access to this function.

The button on the menu bar activates the View function for the treatment list.

Practices

Practices are managed from Practices entry from Archive menu and they are useful to manage the resources shared in the clinic. (for instance a dental unit or an x-ray device etc.).

When an item is inserted in this archive, a corresponding scheduling is created; this can be used to view/reserve appointment for the practice from the Practices Scheduling of the Archive menu or when reserving/changing an appointment, in any other scheduling, selecting a pop-up menu in that record.

Types

The types that can be associated to the treatments are managed from the entry Types of the Archive menu.

Note that the colour selected in this case will be used as a background colour of the appointment reserved from the corresponding record and associated to a treatment of the patient's treatment plan; you can modify this colour when you reserve the appointment.

LISTS

Lists are managed from the Lists entry of the Archive menu.

The default list can be set by a check in the record so that it can be automatically applied to the patients when they are created; before confirming, changes are possible.

Supervisors and tutors

They are those who are defined as a reference point for practitioners, for the entire practice or for patients; thus, it is possible to establish a fixed or percentage quota, on the types of treatments provided, defined in the appropriate accounting reports.

People who have recommended the practice

They are those who have recommended the practice to some patients; thus, it is possible to establish a fixed or percentage quota, on the types of treatments provided, and defined in the accounting reports.

Family relationships

It allows to manage family relationships (including any inverse relations), which then can be used in the patient record panels, so as to associate a patient with his family members (who may already be practice patients or external people) and vice versa; it also allows to access, in any moment, from a patient to any member of his family (being a practice patient).

Pathologies and Status

It allows to manage patient's pathologies, that can be used when a physical examination is generated to describe the patient's initial state during his first practice visit. A graphic symbol can be associated to these pathologies; this can be drag&drop on the dental chart when the patient's physical examination is generated. In the same way, with drag&drop, treatments are added to the patient's treatment plan.

Therapeutic indications

This allows to manage therapeutic indications than can be used in the treatment plans. Therapeutic indications can be associated to each treatment plan by clicking on the *editing* button of the treatment indicated in the treatment plan record.

All the therapeutic indications assigned to a treatment plan are available for the patient through **Xinfo service**.

Users and Rights

Users are those who have access to the software from their workstations. Each user has a name and a password that will be required when login. Each user is associated to access licences to the different sections of the software, which are defined in the Users Management archive.

Furthermore, each user can set his/her associated practitioner so as the corresponding practitioner is activated every time the user access XDENT (i.e. a doctor may be the practitioner, but also a system user; in this case he/she can be named DR JOHN as practitioner and JOHN as user) and, consequently, as specified above, he/she can view only his/her associated patients - if these have already been defined and the user is not allowed to "view all the patients".

Users and access rights

You can associate a user to a practitioner from the management record of *users and access rights*. After login, the system will upload the associated practitioner as *active* practitioner. If the user does not have any practitioner associated, the active practitioner will be the one set in the workstation settings.

This association allows to match freely users' names and practitioners' names. For example, a practitioner may be named DR. JOHN and the user JOHN or ALICE without requiring that the names coincide.

If the user is not allowed to view all the patients, he/she will view only those related to the associated practitioner.

In general, each user can view a patient if:

The user is allowed to view all the patients because the function *View all the rights*, which can be selected in the management of *users and access rights*, is activated;

The user is associated to a practitioner, who is the patient's reference practitioner.

The patient has no reference practitioner.

If the user is not allowed to view the scheduling of a reference practitioner (see the section *New function of practitioners' association*), he/she will not be able to view the scheduling of his/her group in the Group Professionals, although he/she can view the scheduling of each practitioner if *All in Group is selected*.

The functions related to the user's rights have been updated and better specified. Some sub-categories for accounting rights and medical records have been added.

The sub-categories of **Accounting** right are:

- View invoices

- Create Invoices
- Edit invoices
- Delete Invoices

Function	Privilege
Access to Preferences	<input checked="" type="checkbox"/> Enabled
User Administration and Management	<input checked="" type="checkbox"/> Enabled
Server Administration	<input checked="" type="checkbox"/> Enabled
Accounting	<input checked="" type="checkbox"/> Enabled
View Invoices	<input checked="" type="checkbox"/> Enabled
Create Invoices	<input checked="" type="checkbox"/> Enabled
Edit Invoice	<input checked="" type="checkbox"/> Enabled
Delete Invoices	<input checked="" type="checkbox"/> Enabled
Advance payments management	<input checked="" type="checkbox"/> Enabled
Patients Document	<input checked="" type="checkbox"/> Enabled
Export / Import Archives	<input checked="" type="checkbox"/> Enabled

The sub-category added to **Medical Records** is:

- Edit medical records

Medical Records	<input checked="" type="checkbox"/> Enabled
Edit Medical Records	<input checked="" type="checkbox"/> Enabled
...	<input checked="" type="checkbox"/> Enabled

A new right related to the scheduling changes has been added. If the user is not granted this right, he/she will have limited view of the scheduling. These new function allow to choose the rights to be activated for each single user, according to the practice needs.

Practice patients

The list of the patients managed by XDENT is accessible through *Patients List* that allows to *find, add, delete, browse, duplicate, print* and *export* patients' data.

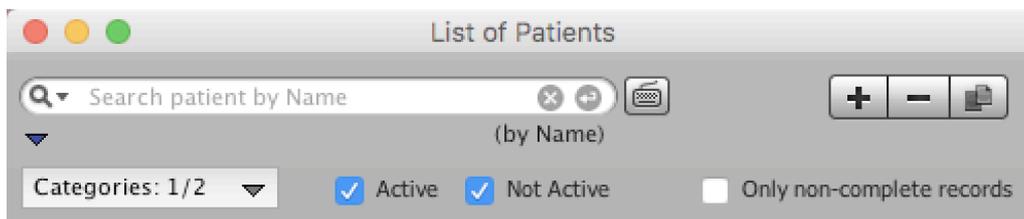
Find function can be activated through "ENTER" or by clicking on the corresponding icon, placed on the right of the Lookup Field. If the Lookup Field is left empty, all the patients are viewed in the personal data field; otherwise the search is filtered through the selected key search and what is written in the Lookup Filed.

The patients list can be viewed both as a table and as a *FORM* displaying also the patient photo and the phone details for instant VoIP call. Select your choice from Settings.

Search filters

Once you have set the search parameters of a working session, these are stored for the next use of XDENT. In this way, the type of search filters (surname, name, text, ...) or interest categories, usually used, do not need to be set again every time XDENT restarts. In addition to the filters through personal data, there is also a filter that narrows the search of patients according to their associated *category*.

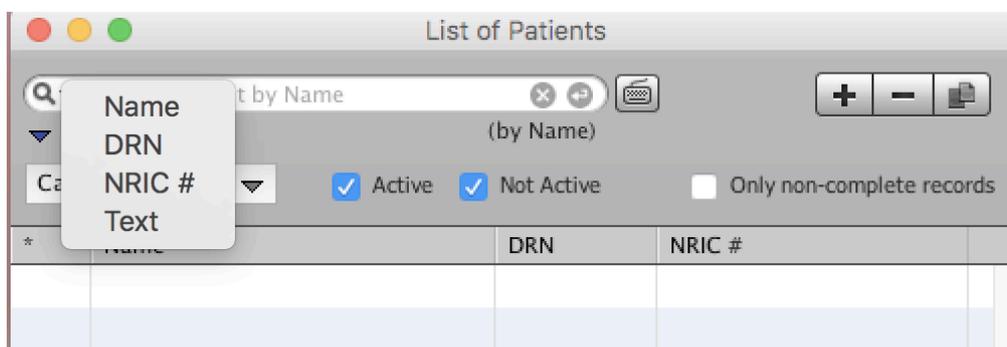
In order to access the *categories filter*, click on the arrow under the Lookup Field in the patient list window. If you click on the filter, you can select one or more categories in order to view all the patients included. The categories filter takes into account all the categories specified in the patients records.



In the table layout (that can be activated from *Settings, Patients* record), where the column displayed in the list can be customized, the window can be set both horizontally and vertically.

Search in the Patients List

The search parameter in the patients list can be set by *surname, name, code, phone number* or *text* as shown in Figure.



The default parameter is set by *surname*, then this can be modified by the user.

archive of patient quotations, the archive of patient-related documents, and recalls to be activated.

-a document form menu where you can select the document including patient data to be generated with templates (see. Document templates)

-The patient appointment list containing a series of information for each appointment, including waiting time. Click on the row to open the corresponding scheduling

Personal data: patient personal data;

Other data: useful information to manage your patient:

Reference contact (referral, other patient, Internet, etc.): the user can insert any value that will be stored and available to be used again for other patients;

Institution/company: to be filled with the description of the institution or company, that will be stored and available to be used again for other patients;

Insurance/Social security: to be filled with the description of the insurance or social security, that will be stored and available to be used again for other patients;

Reference practitioner: he/she is the one your patient is associated to. Your patients' appointments are automatically assigned to the reference practitioner. This function is fundamental for multi-practitioner practices;

New or already registered patient: the user can annotate if the patient is a new customer of the practice, by marking off the flag "new";

Assigned by the practice: this indicates if the reference practitioner has been assigned by the practice or if required by the patient;

Family relationships: to view and manage family relationships, and to define the relations between the current patient and another patient or family member not yet registered in the list. To define a family relation, click on "+" and choose if you want to associate a family member patient or a family member non-patient. Once the association and the associated subject have been chosen, this information will be inserted in the list of patient family relationships.

Double click the patient name to access directly his/her personal record.

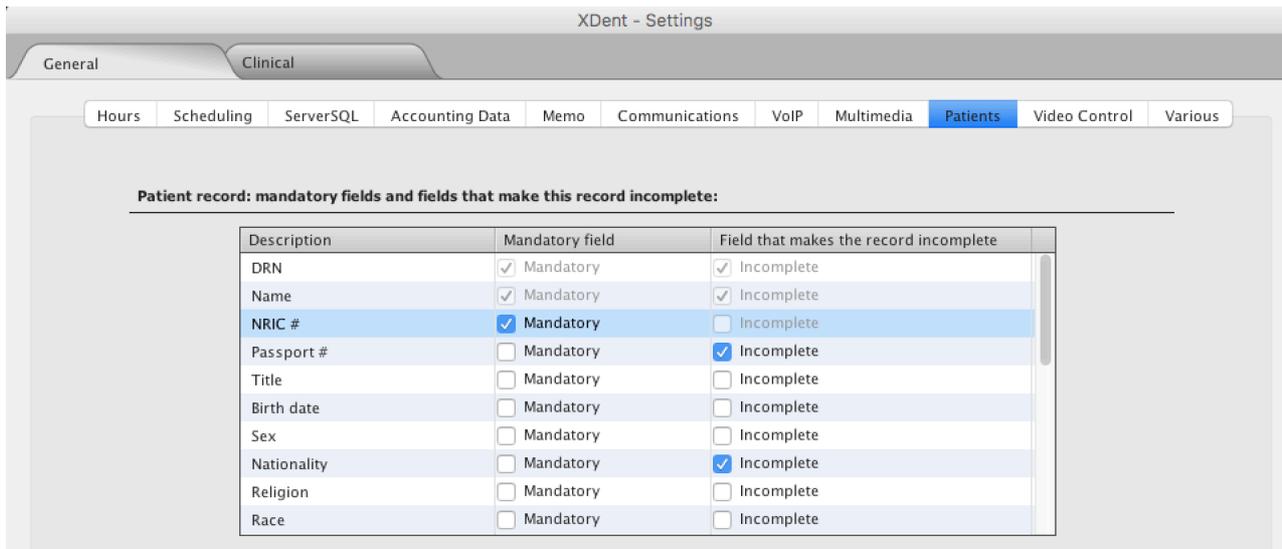
Furthermore, family relationship management on XDENT allows to view the appointment list of the patient and all his/her family members. To activate this function, activate the corresponding flag that you find in the appointment list of the patient record.

Family Relationships Archive: In the archive menu, select *Family Relationships* to fully customise the type of family relationship to be attributed to the patient. Inverse corresponding family relationship can also be set. For example, by setting a relationship as "Parent" and matching its corresponding "Son/Daughter", when for Patient1 you set a relationship as "Parent" of Patient2, automatically Patient2 will be associated a relationship as "Son/Daughter" of Patient1.

Management of mandatory fields

XDENT allows to set the mandatory fields in the Patient record and those alerting that *the Patient record is still incomplete*.

From Setting, in Patient record, you can set both mandatory fields and those defining that the record is incomplete. In the appropriate section, there is a list containing all the fields of the patient record, where you can indicate both the mandatory fields and those defining *an incomplete patient record* with a flag.



A patient record is considered *incomplete* if at least one of the fields flagged in Settings as *incomplete* has not been filled in. When a user modifies a patient record, XDENT does not allow to leave the record until all the mandatory fields have been filled in; an alert warns that the record is *incomplete patient record*.

You can view a list of Patients whose record is incomplete from Patients list by selecting the flag *Only incomplete records*.

Identification of mandatory fields

All the windows of archives management have a graphic symbol that identifies mandatory fields. The field to be compiled is pointed by a red arrow.



Patient association setting

You can set the entitlement of a patient in the *patient record* from *reference practitioner* (section "Other Data").

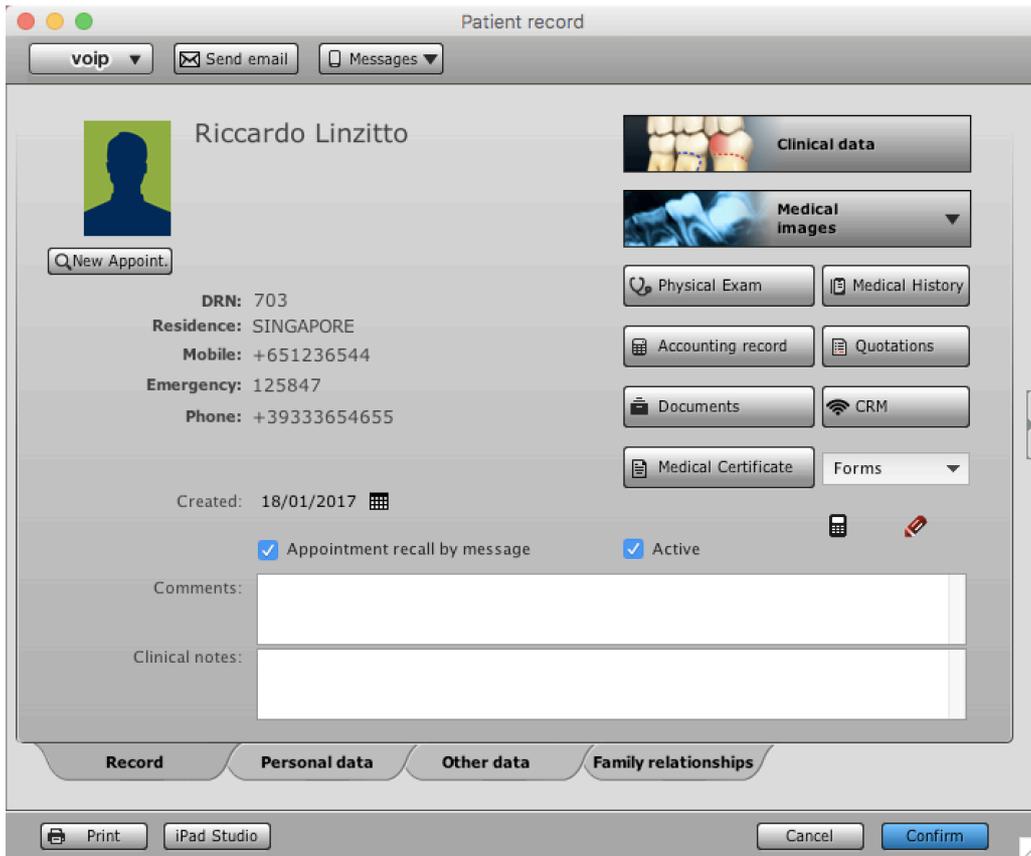
The reference practice can be chosen by selecting a practitioner already existing in XDENT. You cannot select a "virtual" practitioner.

Appointment Scheduling

From Patient Record, in the agenda of the practitioner associated to the patient, you can add a new appointment for the patient. Set the practitioner-patient association from the section *Patient association setting*.

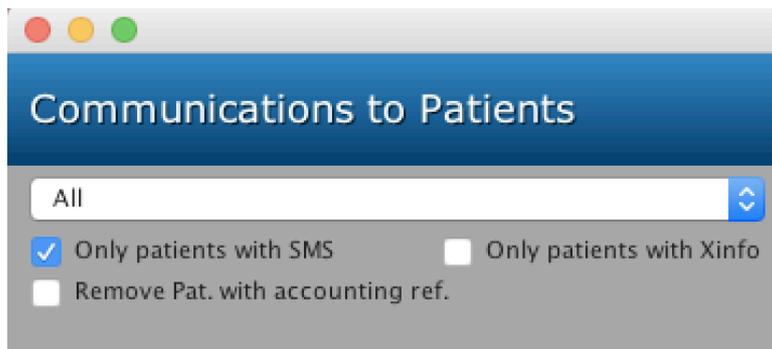
Sending Messages (SMS and Communications) to patients

In the Patient Record, by selecting *Send a SMS message*, XDENT will send SMS messages and Communication from scheduling. For example, by clicking Send SMS message from the daily Scheduling, you will send SMS messages to all those patients with appointments for that day. No message will be sent, if you have not selected Send SMS messages.



TIPS

You find this function also when you send multiple communications from *Communication Centre* section. You can leave out from the list all the patients with unmarked Send SMS messages. This function is very useful if you want to send a communication via SMS messages and exclude those patients for whom in the personal data you have set not to send SMS messages or Communications.



List of patient appointments

You find the list of patient appointments in the Patient Record. In the list, for each appointment, there is a row that indicates the date and time of the appointment, if the patient kept or missed the appointment, and the waiting time. The practitioner and the treatment of the appointment are also indicated.

For future appointments, patient presence is indicated with “-”, instead of “Yes” or “No”.

The list includes also the missed appointments re-assigned to other patients. Thank to this view, you can check at once patient reliability without examining in detail the report of missed appointments. If you want to view the missed appointments in cluster mode, use the sorting order through the order key of the column header.

To optimize the access to patient record, the list of patient appointments is uploaded only when required by the user.

Thus, if you are using the patient record in non-extend mode the appointments will not be uploaded.

To upload, click on the extension button.

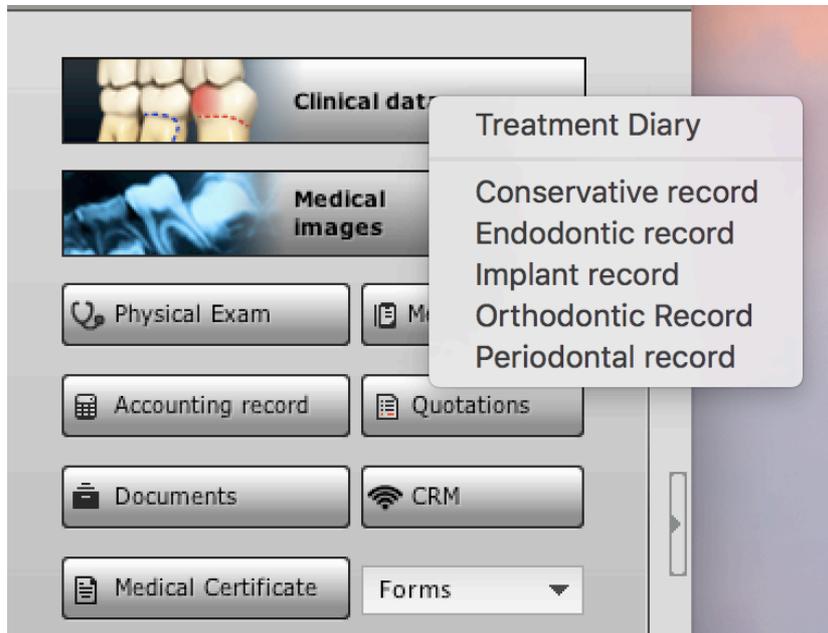
XDENT stores the last settings chosen by the user; thus, when launched, the system will display the same patient record as used the previous time.

Condensed mode is recommended for patients with numberless scheduled appointments.

Quick access to clinical information

From the patient record you can access quickly to his/her treatment diary and conservative, endodontic, implant, orthodontic, and periodontal records.

By right-clicking the mouse on the treatment plan button, you can activate a context menu as shown in figure:



Title field in patient personal data

In the patient personal data you can add a title or a position. As for the other fields, Title field can be set from Settings, by opening entry Patients, as mandatory field or as a field that indicates an incomplete record.

When you compile the Title field from the patient personal data record, this will be automatically reported in the header of the invoice addressee and of the issued credit notes.

Canceling appointments

Each appointment can be cancelled directly from the patient record. Open the appointment list and right-click your mouse on the appointment that you want to cancel.

PATIENTS REFERENCE PERSON

In addition to all the operations provided by “**other data**” section, you can set as patient reference person one of the names already set in Archive - Patients reference person. The reference person can be assigned also to an item already present in the Practitioners or Patients archives.

Thus, the corresponding reference person report that you find in patients report will take into account this association.

Non-active patients

You can access this function from Procedures menu and set as non-active all patients that do not have any scheduled appointment from a specified date. This means that with just a single procedure, you can set as non-active all those patients that do not attend the practice from a specified date, indicated in the procedure setting.

TIPS

This function can be useful if you want to identify in the record of patient personal data all those patients that, after completing their treatments, do not have any scheduled appointments because, for instance, they have changed their practitioner.

Medical History

Several medical history questionnaires are available in order to satisfy all medical evaluation needs. XDENT stores the information of patient medical history and anamnesis alerts take into account their time limit.

The management of medical history consists of two phases:

- preparing the questionnaire
- filling out the questionnaire

Medical history questionnaires

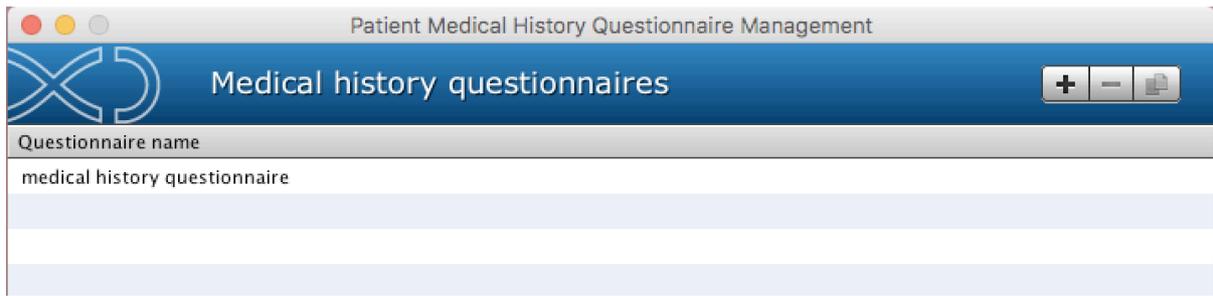
Setting your medical history questionnaires gives you the chance to classify the medical histories by general data and/or by medical specialties of your practice.

To set your practice questionnaire, from Documents menu, open *Medical history Questionnaire*. By following this procedure, you can view the default questionnaires.

You can also edit and delete a questionnaire, as well as set a new one.

Each questionnaire is identified by its unique name.

To edit the questions of a questionnaire, double-click your mouse on the name of the questionnaire in the list.



TIPS

Use duplicate function to start a new questionnaire by starting from a questionnaire already set. Edit the questions you wish to change. This function allows you to update your patient medical history without re-writing all the answers that remain unchanged. In this way, whenever you want to use a medical history record that has been already compiled, click on *duplicate* button in order to edit only the answers you wish to change.

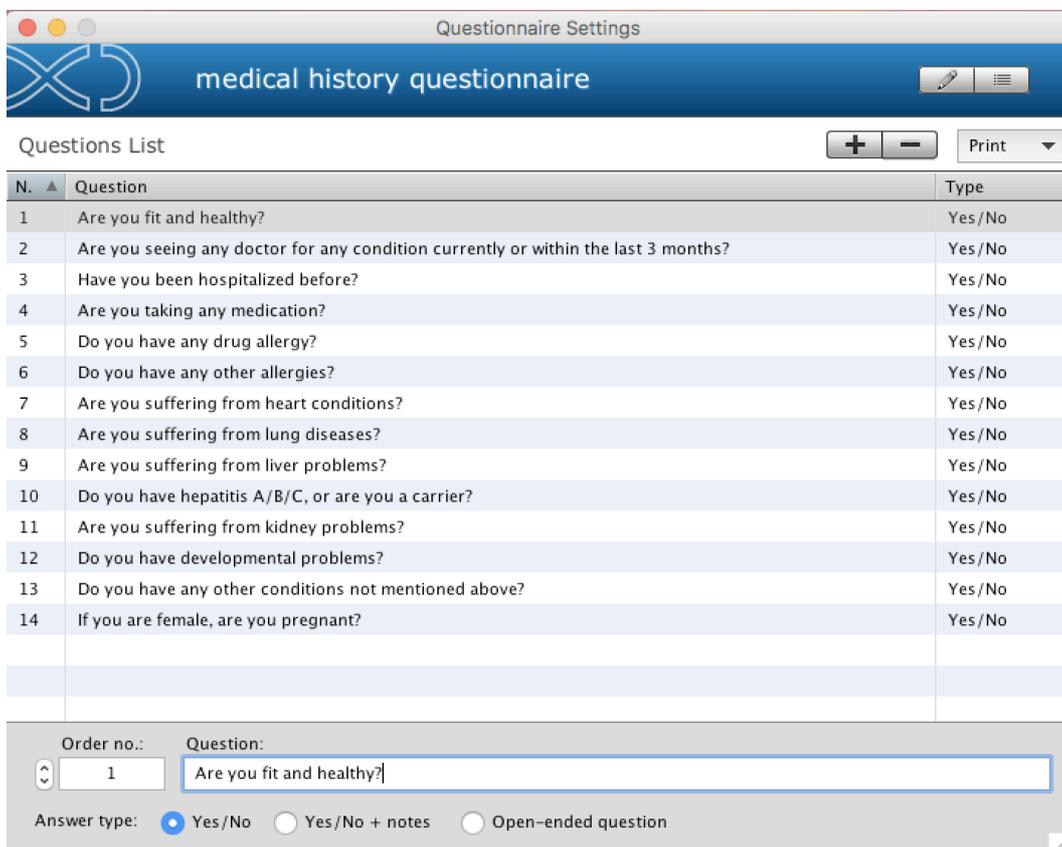
All questions can have only single answers, as follows:

-Yes/No

-Yes/No with notes

-Open questions

Answer type *Yes/No with note* allows to set questions that include your patient single answer or an answer with notes. For example "Do you smoke? How many cigarettes per day?" or ">"Do you take prescribed drugs on a regular basis? Which one?"



The system checks if there are two identical questionnaires with the same date of compilation; however the same questionnaire can be set on different time. The *iPad studio* check indicates those questionnaires that will be displayed in XDENT iPad Studio when a temporary user code will be generated for the patient. To generate the iPad code, click on the button *iPad Studio*.

If you do not use XDENT iPad Studio, your patient will be asked to fill out the paper questionnaire and the administrative staff will insert the answers in the system. The questionnaire compilation is very quick and the graphic interface is very similar to iPad Studio. The list of the answers is displayed in a single window that will be compiled and confirmed only once.

If you use XDENT iPad Studio, the administrative staff will find the medical history questionnaire already compiled with the data inserted by the patient from the iPad. Thus, the administrative staff can insert the alerts and print the document to be finally signed by the patient.

TIPS

If two identical questionnaires are compiled for a patient, the changes of the oldest document will be disabled. This means that the history of the anamnesis questionnaires cannot be changed and the system prevents any possible error.

Alerts

There are two types of alerts, indicating respectively *a general medical risk* and *a periodontal risk*.

Alert management is subject to the following rules:

Any question can be labelled as a risk factor and the text indicating the risk is displayed in the window treatment plan, in the appointment record (the anamnesis alert is displayed in the appointment detail only if the current user has the rights to access clinical information) and in the patient record. If there is a periodontal risk, this is indicated as alert in the periodontal risk. A question can generate a risk factor of both types.

The anamnesis alert is always displayed together with its severity level until the patient compiles another questionnaire of the same typology and the same question is associated to a risk factor.

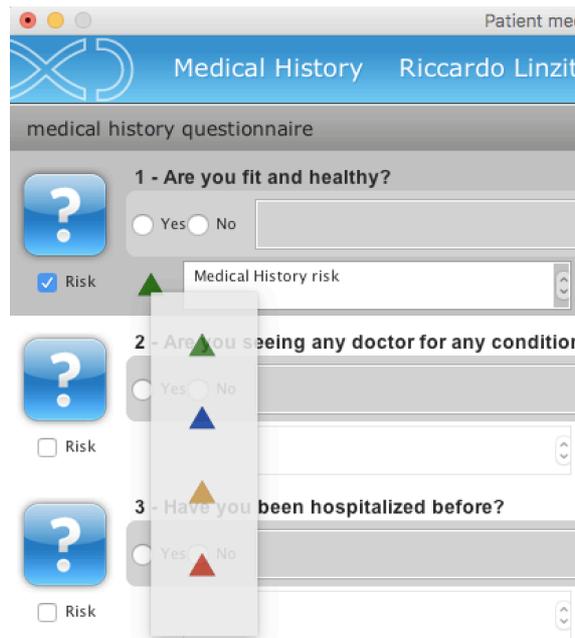
For example, consider a questionnaire with this question: Do you smoke?

The patient is asked this question first on 11/1/2001 and then on 11/1/2011. In the first case, the answer is affirmative and the question is associated to a risk, in the second case the answer is negative and the question is not associated to any risk factor.

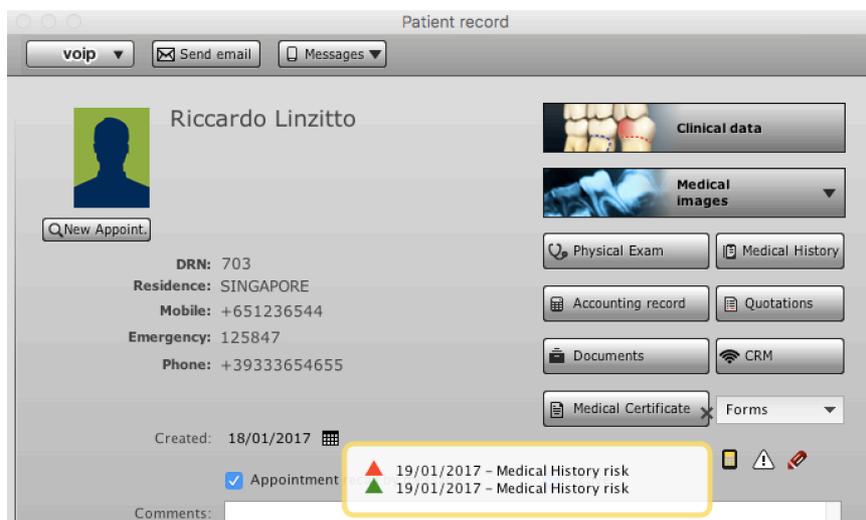
The alert will be automatically displayed in all the clinical contexts that involve the patient between 11/1/2001 and 11/1/2011. Later, since the risk is no longer the same, the alert will not be displayed, although the risk factor information will be displayed in the history of patient anamnesis data.

Risk evaluation

You can associate the risk to an icon and set a colour to represent its corresponding severity grade. When you prepare the questionnaire, first select the "risk" check to associate the anamnesis risk to the selected icon, then choose its colour by clicking on the icon.



To close the window indicating the risks, click on “X” placed top right in the same window. In order to set the automatic closing of the window, from Setting, open "General" and unmark the flag "close message automatically". From now on, in order to view the whole anamnesis questionnaire, double-click on the alert button.



Medical history questionnaire template

You can customise the medical history template by using an external editor.

OpenOffice ODT and Microsoft Office OpenXML formats are supported. As for the other templates, Office versions that use Microsoft new standard format are Office 2003 and later for Windows and Office 2008 and later for Mac.

The default questionnaire template is available in the document templates section and can be edited by using the same procedures of all the other external models.

You can use two different entries in the questionnaire template:

<questionnaire name>

<medical history questionnaire>

The two entries will be set respectively with the questionnaire name and with the list of questionnaires.

The patient's medical history will be printed through this document, compiled both through iPad studio and through XDENT.

If the questionnaire templates have been cancelled, an internal template will be used.

Treatment plan

To activate the management window of Treatment Plan press the corresponding graphic button from patient record and appointment record (after selecting the patient); this is distinguished in three areas:

- a sidebar with the buttons for procedural functions.
- the *dental chart* that displays an instant view of the development of treatment plans.
- the list of *treatments plans*.

The screenshot displays the Xdent software interface for 'Clinic Data of Riccardo Linzitto'. The interface is divided into several sections:

- Diagnostic Sidebar:** Contains buttons for 'Consultation (simple)', 'Consultation (complex)', 'Periapical/ bitewing', 'Cephalogram', 'Occlusal view', and 'Dental panoramic'.
- Dental Chart:** A grid of 32 tooth icons (18-11 and 21-28 in the top row; 48-41 and 31-38 in the bottom row). Teeth 15, 13, and 42 are highlighted with colored circles (blue, green, and blue respectively). An orange crown icon is on tooth 21. A blue 'x' is on tooth 15. A green 'R' is on tooth 42.
- Buttons:** 'Add Treatment' (+), 'Plan treatments', and 'Deselect'.
- Phys. Examination:** A green 'R' icon.
- Default treatment proposal table:**

Pr.	Type	Tooth	Treatment	Timing	Amount	Status	Date	Practitioner	App. Date	Diagn. pr.
3	Endodontics	21	molar root canal therapy	60	1,200.00	●	18/01/17	PRACTITIONER #1		PRACTITIONER #1
2	Diagnostic	15	Occlusal View	15	72.00	●	18/01/17	PRACTITIONER #1		PRACTITIONER #1
1	Diagnostic		Periapical/ Bitewing	15	36.00	●	18/01/17	PRACTITIONER #1	16/01/17	PRACTITIONER #1
5	Oral Surgery	13	stage 1 procedure	60	3,600.00	●	19/01/17	PRACTITIONER #1		PRACTITIONER #1
4	Endodontics	42	surgical endodontics	60	1,440.00	●	18/01/17	PRACTITIONER #1		PRACTITIONER #1
- Bottom Bar:** Includes 'Help', 'Report', 'View treatment plans', a date field '19/01/17', 'Cancel', and 'Confirm' buttons.

TIPS

Xdent displays two different windows according to the current screen resolution. If you are using a video with vertical resolution less than 800 pixels, the sidebar will have a compressed button configuration.

If you want to move a window without clicking on the title bar of the window (default mode of the operating system), use the vertical scroll wheel of your mouse.

You can replace the sidebar with the treatment bar by *clicking on the opening and closing button* that rolls on the vertical border.

The treatment bar is composed of the treatment indications and their corresponding symbols, as aforementioned through the entry 'treatments' from archive menu. Treatments are classified by types.

TIPS

In the treatment bar, you can view only the treatments with their corresponding symbol and for which the check "view the symbol in the treatment bar" has been marked.

Selecting dental elements

You can select the teeth singularly, by clicking on the dental element (deselect the selected tooth with a second click on it) or through the selection tools of the sextants and quadrant (a second click on the sextant or quadrant marker deselects it).

Treatments on the dental chart

To associate a treatment to an element, drag&drop the symbol from the symbol bar on the tooth. Alternatively, you can select the tooth or the teeth and then click on the treatment icon or on the button *Add treatments*.

TIPS

If you select more teeth, by **left-clicking** on the icon related to the treatment you wish to associate to the selected teeth, you will add only one treatment to the 'teeth group' (for example, if you select the quadrant 12-28 and then you click on the symbol of 'Tartar removal' treatment, only the treatment 'Tartar removal' related to the teeth 12-28 will be added to the treatment plan together with the amount fixed by the price list).

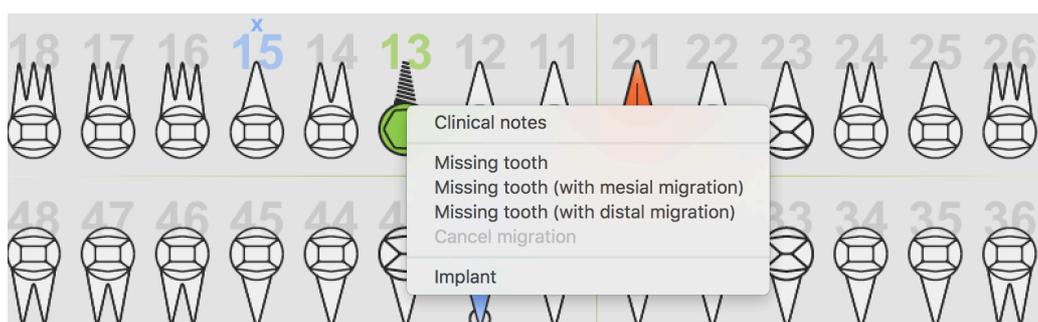
On the other hand, if you **right-click**, you will add so many treatments as the number of selected teeth. (in the above example, a total of 8 'Tartar removal' treatments, each with its corresponding list amount, will be added to the treatment plan).

The same procedure is available by using the button *Add treatments*.

In this case, use the check 'Treatments on single teeth'. If the check is marked, so many treatments as the number of the selected teeth will be added. Conversely, only one treatment related to all the selected teeth will be added.

The symbol of the treatment will be coloured according to the treatment status or according to the colour associated to the treatment type. You can select this choice from **Treatment Plans** section *Clinical Setting*.

The management of missing teeth, mesial and distal migrations is fully similar to the physical examination one.



For more detailed information, see the section of physical examination.

Treatments can be assigned altogether to a sextant, a quadrant, an arch or generally to the whole mouth. These treatments will be indicated in the global area placed under the dental chart.



If a treatment is not referred to the whole mouth, but only to a sextant, a quadrant, or to an arch, the treatment icon will be indicated by a graphical representation of the mouth area to which it is referred.

The graphic symbols related to the oldest treatments are on the left, while the most recent ones are placed on the right.

In the case a treatment is associated to more than one dental element, only one treatment is added to the treatment plan and in correspondence of the tooth, the teeth involved in the treatment are listed with the following syntax:

- single tooth: n (for example 13)
- more teeth in non-consecutive order: n,m (for example 13, 17)
- more teeth in consecutive order: n,m (for example 24-28)

If the treatment involves the whole mouth, there will be no reference to any single tooth.

Pr.	Type	Tooth	Treatment	Timing	Amount	Status	Date	Practitioner	App. Date	Diagn. pr.
15	Diagnostic	44-45	Consultation (Complex)	45	240.00	●	19/01/17	PRACTITIONER #1		PRACTITIONER #1
8	Diagnostic	13	Consultation (Simple)	15	30.00	●	19/01/17	PRACTITIONER #1		PRACTITIONER #1
16	Diagnostic		Consultation (Simple)	15	30.00	●	19/01/17	PRACTITIONER #1		PRACTITIONER #1

Dental elements:

Each dental element has got three sections:



-root section

on the radical part you can view no more that two treatments. If you insert more than two treatments on this section, only the last two will be displayed.

-occlusal section

the occlusal part has a management similar to the physical examination one. By right-clicking, you can zoom on the graphics and annotate an operation on one or more portions.

-extra dental section

Some treatments can be extra dental because for example they refer to the tooth as a whole (ie. an x-ray or a general surgery treatment). No more than two treatments with extra dental symbols can be viewed; if you insert more than two, only the last two will be displayed. If you associate a treatment without any graphic symbol to the dental element, a bullet will be displayed.

-number section

The tooth number is coloured by default with the colour associated to the treatment status or according to the related treatment types.

Colours

All the sections of the tooth are coloured with a specific meaning.

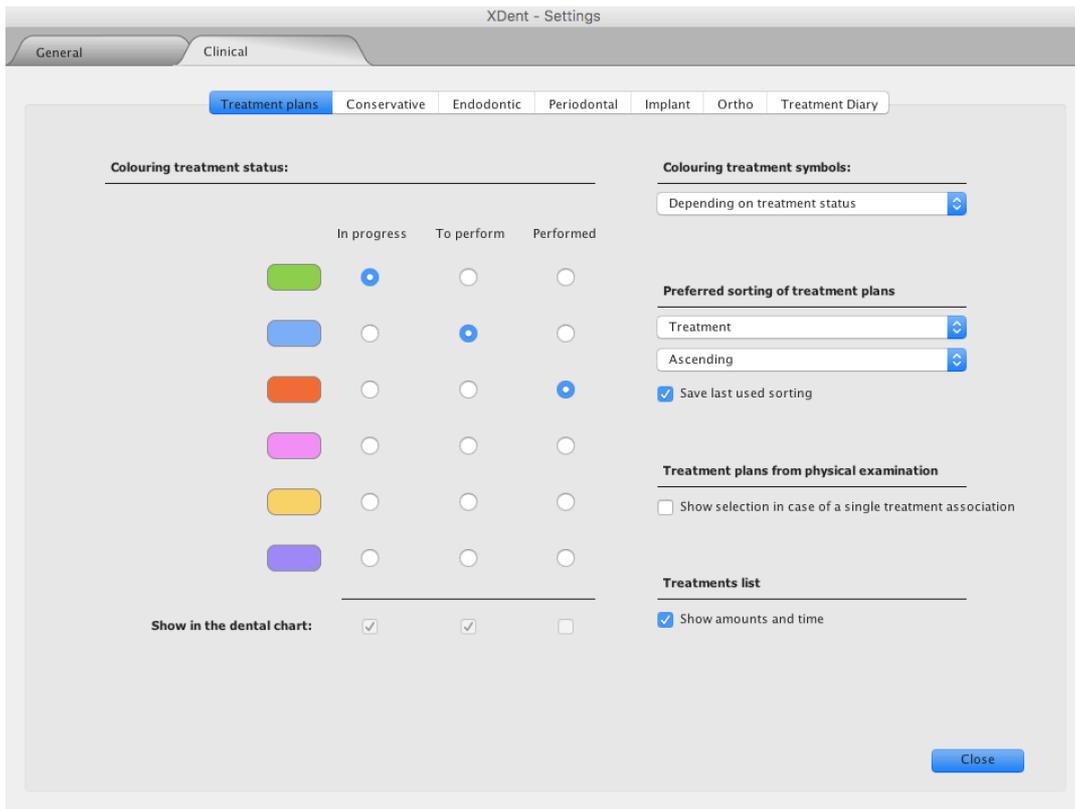
The treatment symbols can be coloured according to their *type* or to their *performance status*: to be performed, in progress or performed.

The colour of the tooth number indicated the status of the treatments associated to the tooth.

For example, if green indicates *in progress* treatments, red is for *to be performed* treatments and blue indicates the *performed* ones, you will have an instant view of the current status of the treatments on each tooth.

If the tooth is under all three-treatment status, the colour of the number will be the one associated to *in progress* treatments. If you have only treatments *to be performed* and treatments that have been *performed*, the colour of the number will be the one associated to the treatments *to be performed*. Finally, if the dental element is associated only to *performed* treatments, the colour of the number will be the one of the *performed* treatments.

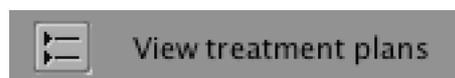
You can customise colours and colouring options for graphic symbols from Settings.



Treatment Plans

The treatment plans gather together a group of treatments and form a treatment cycle that, starting from a diagnosis, has a start and end date. By using treatment plans, you can easily have a history of the treatments performed on a patient. Even Patient's accounting is classified by treatment plans.

On the dental chart, treatments can be viewed by single or global treatment plan, by using the corresponding button



Inserting new treatments in a treatment plan

The function *Add Treatment*, which can be activated from the patient's treatment plan, allows to assign one or more treatments to the selected dental elements. You can also add n treatments of the same type to patient treatment plan.

You can use this function by setting a numeric field with any value starting from 1.

By using this function you can easily add 20 monthly orthodontic check treatments.

When you insert a new treatment in your patient treatment plan, which is associated to more than one dental element, you can choose to multiply the treatment amount by the number of the associated elements.

This function is available in the screen where you can add a treatment; when you disable the flag *treatments on single teeth* and enable the flag *Multiply the treatment amount by the associated elements*.

Add Treatment for Riccardo Linzitto

Associate treatment to the teeth: 35 36

Treatments on single teeth Multiply the amount by the associated element:

Date: Diagnosis pract.: Time:

Diagnosis date: Status: Confirm

Notes:

Type	No.	Description	Amount
Diagnostic	1	Consultation (Simple)	30.00
Diagnostic	2	Consultation (Complex)	120.00
Diagnostic	3	Periapical/ Bitewing	36.00
Diagnostic	4	Cephalogram	120.00
Diagnostic	5	Occlusal View	72.00
Diagnostic	6	Dental Panoromic	120.00
Endodontics	1	pulpectomy	180.00

When you add treatments, you can view also the corresponding amount, together with the type and description. Furthermore, for each selected treatment, you can view its duration in the field “time”. This field allows to modify the duration of the single selected treatment. In case of multiple selections, this edit operation cannot be done.

Add Treatment for Riccardo Linzitto

Associate treatment to the teeth: 35 36

Treatments on single teeth Multiply the amount by the associated element:

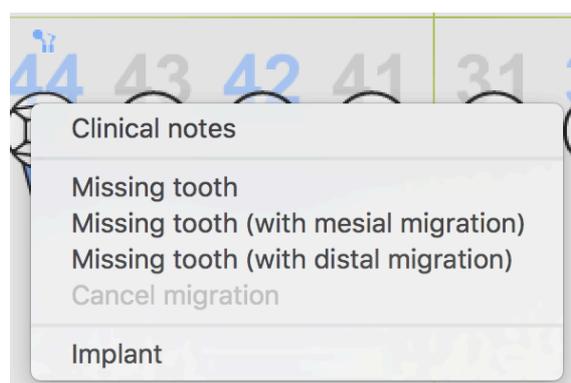
Date: Diagnosis pract.: Time:

Diagnosis date: Status: Confirm

Notes:

Notes on dental elements

Right-clicking on a dental element in the dental chart some information can be added, such as a missing tooth or implant. There are some fields already included that allow the addition of clinical notes or a missing tooth with a mesial or distal migration.



This feature allows pre-existing implants or missing teeth to be included even though a physical examination has not been carried out. When these conditions are found during a physical examination, they are automatically included in the dental chart of a given treatment plan.

Treatment priorities

Treatments in a treatment plan and in the following stages can be provided with priority numbers.

Treatments in a treatment plan can be sorted according to priorities. This sorting can be set by default in *Settings*.

Treatment editing

To edit a treatment select the corresponding line then click on the *edit* button (represented by a pencil). The editing window can be enabled by **double-clicking on the treatment line** (double-click is enabled only if that line is not selected).

When editing a treatment the latter **is changed**, all its related stages will be changed as well.

Reduction on a single treatment

Within a treatment plan, when a single treatment is edited the amount can be edited as well, thus applying a reduction. To apply a reduction insert a reduction rate within the corresponding textbox, then click on *Apply*. Similarly to accounting records, in this version a 100% reduction rate can be applied.

Treatment details of Riccardo Linzitto

Treatment Plan: Default treatment proposal

Description: surgical endodontics

Priority: 4 Status: Perform

Diagnosis date: 18/01/2017 Practitioner of the diagnosis: PRACTITIONER #1

Date: 18/01/2017 Treatment holder: PRACTITIONER #1

List: 1,440.00

Amount: 1,440.00 Reduction: 0.00 %

Costs: 1,440.00 Time: 60

Notes:

Account record Confirm Time and cost assessment done

Apply

Tooth: 18, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 37, 38, 41, 42

Show amounts and time

The detailed view of a treatment plan shows amounts and time of any single treatment.

This option can be enabled using a specific setting. The path is *Settings/clinical settings/treatment plan*.

Redefining treatment priorities

To redefine priorities in all treatments of a treatment plan, a drag&drop procedure has been implemented to simplify this procedure.

Select a treatment plan and click on the editing option (or right-click on the treatment plan name). A window will appear: here a treatment plan name can be changed, notes and therapeutic indications can be added, treatment priorities can be redefined.

Priorities can be redefined in the following modes:

1. Moving treatments with the cursor according to the preferred order using drag&drop procedures;
2. Editing the priority field manually.

Moving treatments among treatment plans

To move treatments among treatment plans select all treatments to be moved in the dental record then edit them (pencil button).

Furthermore, editing a treatment with a quotation, the quotation text can be edited in case of a patient's final consent. This option can be selected using an appropriate checkbox: this setting is stored as a default preference.

Dental chart - archived visual charts

Treatment plans can be managed using a different view mode in order to check progresses on dental elements.

Clicking the central arrow the new view mode is displayed: here, treatment icons are sorted according to their execution time.



In this mode treatment statuses can be edited by right-clicking on the corresponding treatment icon.

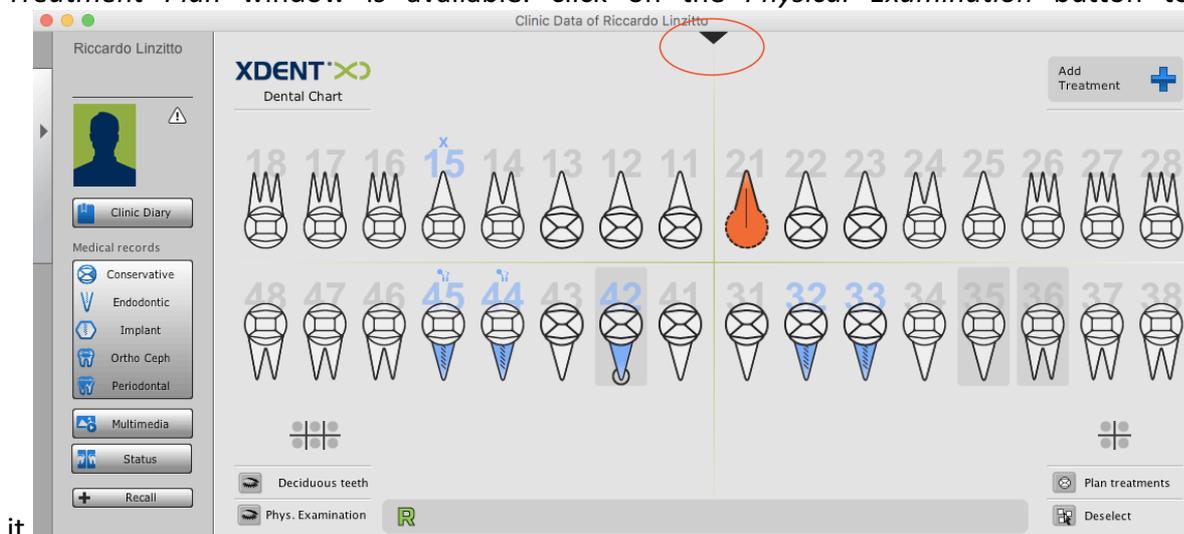
Moving the cursor over a dental element, this view mode is enabled on the left, showing all treatments performed on that element in chronological order.



Treatment-related visual charts are arranged according to the priority given in the treatment plan. Colours represent their status or their type, following the legend set in the *Setting* section. From the *Archive* menu, treatments may be provided with further information. In addition to symbols, a text ID can be given in order to identify a given treatment. Treatment IDs will be included in treatment records within treatment plans when a treatment is tooth-related. This option is available when the view mode enables the ID (with or without the corresponding symbol) to be displayed.

Physical examination view

In order to display physical examinations when a treatment plan is edited, an option in the *Treatment Plan* window is available: click on the *Physical Examination* button to enable

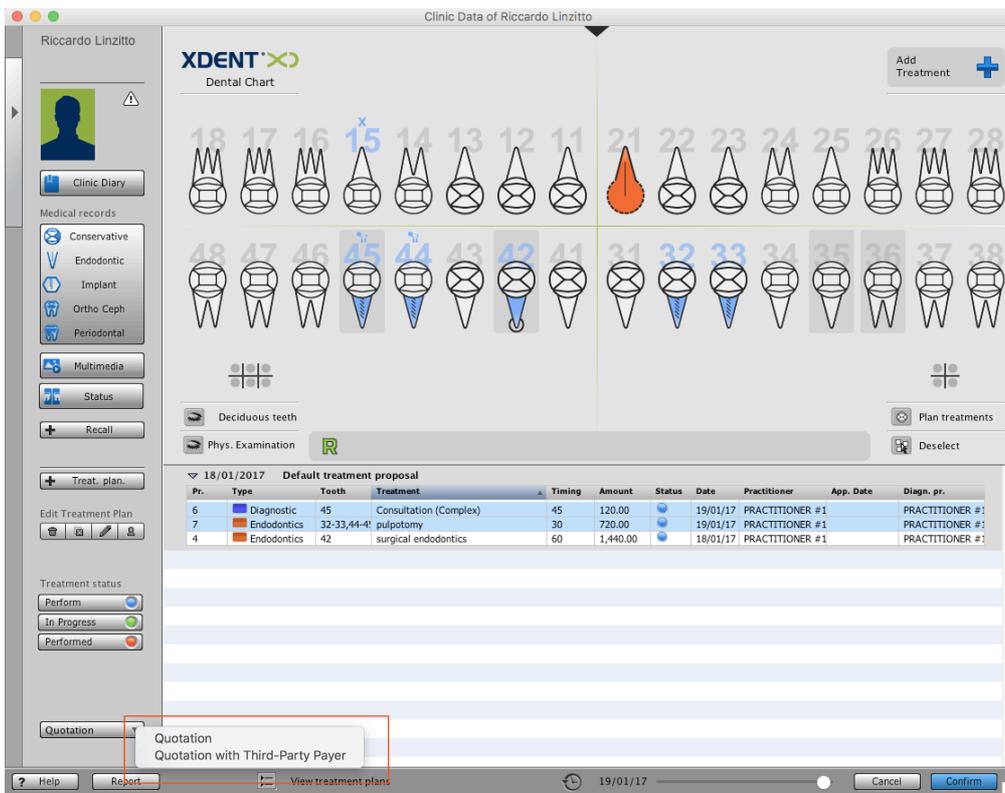


it.

This button displays a physical examination on a treatment plan's dental chart.

Quotations

If estimating the total amount to be charged to the patient for their treatments is desired, access the treatment plan containing the specific treatments to be quoted from the main treatment plan, select the treatments and choose *Quotation* from the pop-up menu, as shown in the picture:



The next screen allows to change each treatment through the "Edit" button, to select a particular reduction rate (Base, Gold, Silver), to enter payment terms, to apply a further fixed or proportional discount to all treatments to be quoted, to directly enter the total amount and reverse calculate the discount to be applied to all treatments, to choose a quotation model which can be either internal or previously created through an external text editor, and to confirm before the final quotation is displayed.

Quotation Calculation

Apply Discounts
Reductions: Initial price

Tooth	Treatment	T.P. payer quota	Patient quota	Reduct.	Reduced patient quota	Total amount
32-33,44-45	Periapical/ Bitewing pulpotomy	0.00	36.00	0.00	36.00	36.00
15	Occlusal View	0.00	72.00	0.00	72.00	72.00
21	molar root canal therapy	0.00	1,200.00	0.00	1,200.00	1,200.00
42	surgical endodontics	0.00	1,440.00	0.00	1,440.00	1,440.00
45	Consultation (Complex)	0.00	120.00	0.00	120.00	120.00
44	Consultation (Complex)	0.00	120.00	0.00	120.00	120.00

Total quotation: 0.00 0.00 0.00 3,708.00 **3,708.00**

Enter payment type: Deposit: 0.00 Instalments no.: 1 Due date: completed treatment Due dates: When treatment plan is completed: 3,708.00

Edit total amount: Treatment amounts can be changed with fixed or proportionally value-related amounts

Proportional reduction Total: 3708.00

 Fixed reduction

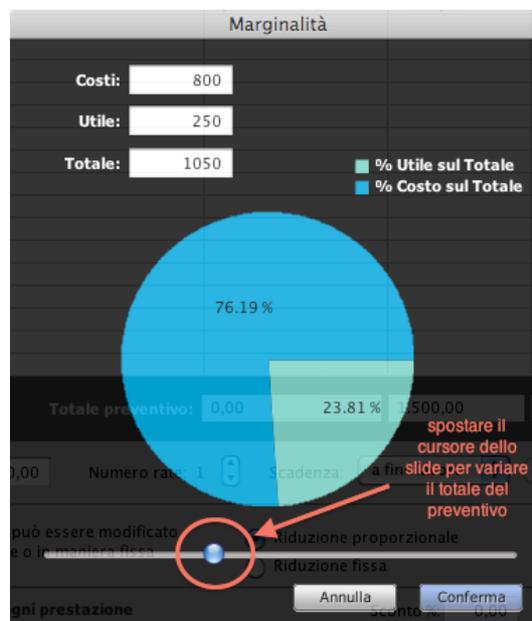
Reduction rate to be applied on each treatment amount Reduction %: 0.00

Quotation Template: Standard Quotation

In this quotation definition phase, by clicking the *Margins* button, margins can be assessed through a tool for graphical analysis assisting in determining the discount percentage to be applied.

XDENT cost-related entry includes the total costs of the quoted treatments given by the sum of general costs (disposable material + specific material + practice + implant) and practitioner-related cost (calculated on an hourly base for the time needed to perform a treatment).

Acting on the *slide* the profit and the total quotation change. After selecting the amount and upon clicking the *Confirm* button, the new total amount is transferred to the quotation and the relevant discount can be determined.



In the next window, where all patient quotations are displayed, deadlines can be changed; besides, since patients often resort to financing solutions for medical therapy-related costs and some practices have met this need through agreements with finance companies whereby they cover the relevant costs, the latter can be entered in a fixed or percentage form. This will be

accounted for through corresponding reports to calculate the profit margins on the performed treatments.

Basically, after obtaining a quotation, a patient asks for financing, which is covered by the medical practice. Therefore, such costs become quotation-related.

To facilitate this operation, XDENT is designed so that costs covered by a medical practice are entered in the *Quotations archive* window.

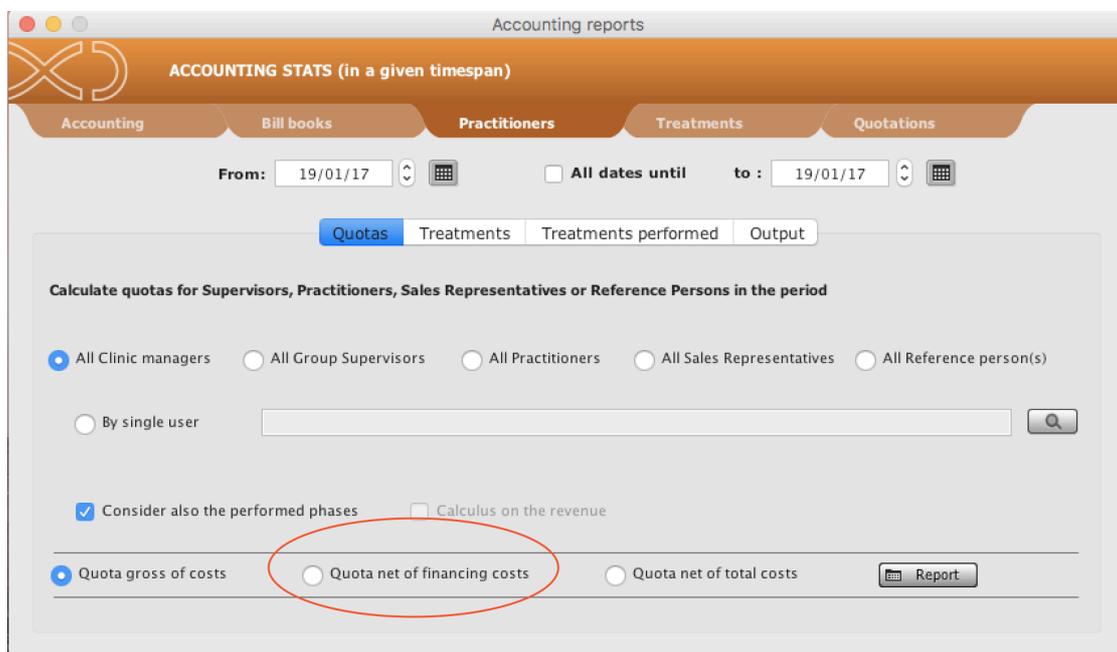
Financing costs entries were added and subdivided into fixed and percentage form, followed by calculation of the total cost.



A summary bar for financing charges. It shows 'Financing charges:' followed by 'fixed' with a text input field containing '0.00', a percentage sign, and another text input field containing '0.00'. To the right, it says 'Total cost: 0.00' followed by a percentage sign icon in a square button.

Please remember that updating the quotation-related treatment plan results in changing the quotation itself. If such a modification implies a change in the quotation total amount, an alert informs the user about the need to recalculate financing costs to adapt them to the new amount.

Financing costs are therefore considered as therapy-related additional costs, which are accounted for in the margin report. To visualize this, simply select *Quotas net of financing costs* among accounting reports in group two, in the section *Payment quotas*.



A screenshot of the 'Accounting reports' window. The title bar says 'Accounting reports'. Below it is a header 'ACCOUNTING STATS (in a given timespan)'. There are tabs for 'Accounting', 'Bill books', 'Practitioners', 'Treatments', and 'Quotations'. The 'Quotations' tab is active. Below the tabs, there are date pickers for 'From: 19/01/17' and 'to: 19/01/17', with an 'All dates until' checkbox. Below that are sub-tabs for 'Quotas', 'Treatments', 'Treatments performed', and 'Output'. The 'Quotas' sub-tab is active. The main area contains the text 'Calculate quotas for Supervisors, Practitioners, Sales Representatives or Reference Persons in the period'. There are radio buttons for 'All Clinic managers' (selected), 'All Group Supervisors', 'All Practitioners', 'All Sales Representatives', and 'All Reference person(s)'. Below that is a 'By single user' option with a search input field. There are checkboxes for 'Consider also the performed phases' (checked) and 'Calculus on the revenue'. At the bottom, there are radio buttons for 'Quota gross of costs' (selected), 'Quota net of financing costs' (circled in red), and 'Quota net of total costs'. A 'Report' button is on the right.

When added to those already provided, the quotation is in a pending status; other possible statuses are: accepted - unaccepted- cancelled. Only after the quotation is accepted, a corresponding treatment plan containing all the treatments referring to the quotation is created in the patient main treatment plan, which remains associated to the quotation in any case.

Patient quotations can be visualized and changed in all their parts, including the status, by clicking the appropriate button in the patient record.

Updating quotations

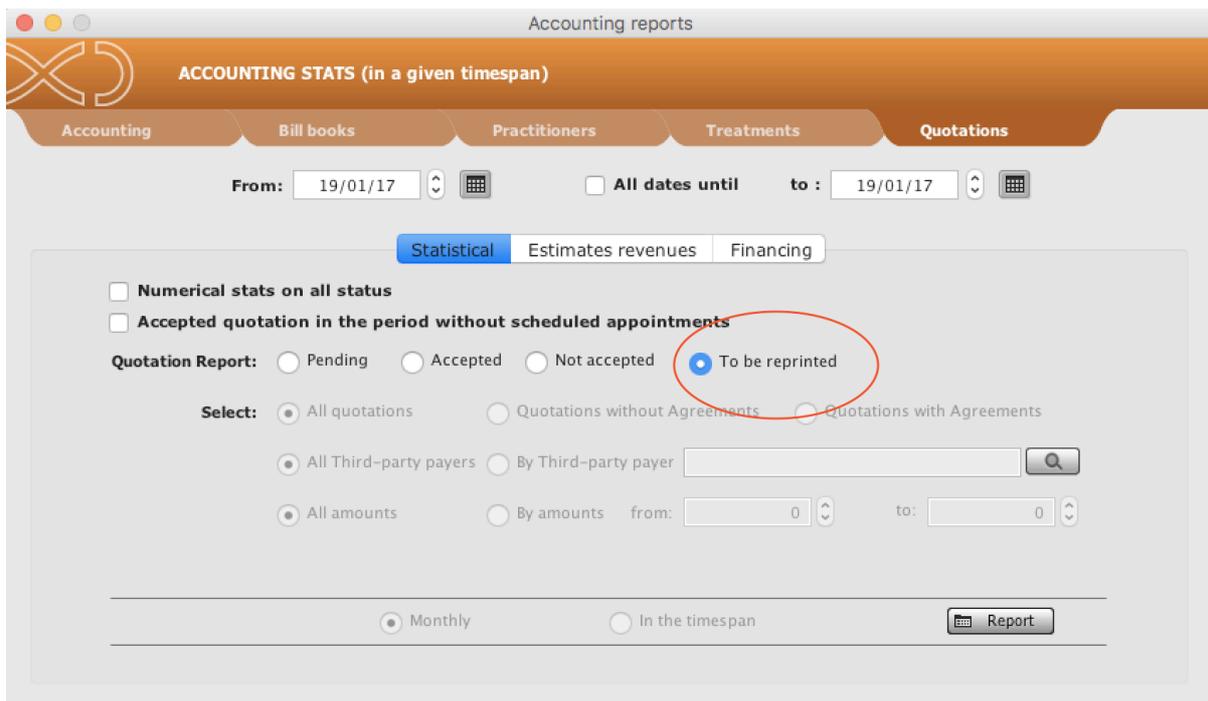
The procedure for changing a quotation-related treatment plan implies adding, changing or possible cancelling of the modified treatments, which results in the automatic update of the quotation. Modified treatments are always displayed as added to the original quotation, together with the date when the change was made, both for a quotation created from an XDENT or Word model.

Quotations to be reprinted

A flag named "Submitted quotation" is provided to mark if a quotation was printed and submitted to the client.

Every time a user edits a treatment plan obtained after accepting a quotation, XDENT changes the original quotation. To identify more easily accepted quotations to be printed and submit a new copy of the same to the client, a corresponding report is provided. To obtain it, select the *Accounting reports* function from the accounting menu, choose group 2 and select the *Quotations* tab.

Among the possible options, choose option **To be reprinted** and create the report.



The screenshot shows the 'Accounting reports' window with the 'Quotations' tab selected. The interface includes a date range selector set to 'From: 19/01/17' and 'to: 19/01/17'. Below this, there are three tabs: 'Statistical', 'Estimates revenues', and 'Financing'. Under the 'Statistical' tab, there are two checkboxes: 'Numerical stats on all status' and 'Accepted quotation in the period without scheduled appointments'. The 'Quotation Report' section has four radio buttons: 'Pending', 'Accepted', 'Not accepted', and 'To be reprinted'. The 'To be reprinted' option is selected and circled in red. Below this, there are 'Select' options: 'All quotations', 'Quotations without Agreements', and 'Quotations with Agreements'. There are also options for 'All Third-party payers' and 'By Third-party payer' with a search icon. At the bottom, there are options for 'All amounts' and 'By amounts' with 'from' and 'to' fields set to 0. A 'Report' button is located at the bottom right.

Quotation name

Within the quotation-related forms section, variable entries include "quotation name". The name of the variable entry can be used following the syntax below: *<quotation name>* and implies entering the name of the quotation in the document.

Registering the user creating the quotation

Upon generation of a quotation, the name of the user who created it is automatically registered.

Quotation generation date

The quotation generation date can be edited before acceptance of the quotation by the patient or a third-party payer. To edit the quotation date, use the date button next to the date field.

Generating quotations with Word and OpenOffice models

Two important features have been added: after editing the teeth order for a treatment, treatments are ordered in the quotation just as they are displayed in the main treatment plan. In quotations generated from our models, treatments are subdivided into types, independent of the order in which they were entered in the main treatment plan. If desired, the order in which treatments are **displayed** in the main treatment plan can be kept by simply choosing a model without **Type** from the table where treatments are entered. XDENT automatically lists treatments in the order selected in the main treatment plan.

Ordering teeth

The list of teeth involved in a therapy is ordered ascendently and follows the relevant dental arch order. Therefore, numbers 18 to 11, 21 to 28 and numbers 48 to 41 and 31 to 38 are provided in the first row and in a second row respectively at the relevant treatment level in the column named *Teeth*.

Generating quotations with no Third-Party Payer, no reductions

The "no third-party payer, no reductions" model is useful to display a patient quota net of the discount (i.e. without any discount entry specified) in the quotation. This model was added both in Microsoft Word and Open Office version and can therefore be used with both external editors.

To install the new models in XDENT, import the following files from the External_Documents/Quotations folder:

- No-discount Third-Party Payer quotation.docx
- No-discount Third-Party Payer quotation.odt

Importation can be carried out by drag&dropping the corresponding file icon or by clicking the *External document* button of the quotation forms management window.

Appointments

XDENT allows arranging appointments according to 5 different scheduling types, where the same technique is used to assign and manage a patient appointment:

- weekly scheduling per single practitioner
- weekly scheduling per groups of practitioners
- weekly scheduling per grouped practices
- daily scheduling per single practitioner
- daily scheduling per groups of practitioners

By simply highlighting the time needed for an appointment, the same can be entered in any agenda, whereupon the appointment report is displayed where applicable:

- select the practitioner performing the examination
- select the practice
- edit time and date
- choose colour
- choose an icon characterizing the appointment
- choose a patient whose record, main treatment plan and diary can be displayed.
- select the treatments/phases of the main treatment plan "in progress" or "to be performed", in which the type-related colour graphically identifies the scheduled appointment box
- mark what to do during this and the following appointment (by clicking the relevant button, information related to the previous appointment can be retrieved)

Once the appointment is added to the agenda,

- moving it to another position in the current agenda is possible by simply drag&drop it
- copying, cutting, deleting or pasting it by right-clicking the colour box representing the appointment in the agenda is also possible
- reassigning it is also possible through the same right clicking operation
- right clicking the box also allows to call the patient who has a pre-existing appointment
- when the patient shows up, managing the appointment is possible by right clicking the box to indicate:
 - o when they arrive (check-in)
 - o when the examination starts (app. start)
 - o when the examination ends (check-out)

in order to register the waiting and examination time, to display them in patient records and to detect them at a later stage also through the relevant *Appointment reports*.

Missed appointments

Managing appointments avoids losing information about the missed appointment even when the latter is reassigned to another patient. Reports are available: through reports, some information about patient reliability can be obtained.

TIP

In section "Communication Centre", entry "Multiple Communication", selecting all patients to send them a specific notification because of "Non-performed treatments due to missed appointments" is possible.

Searching for a new appointment

Through function 'search for a new appointment', specific hours and time ranges in which a patient is available for an appointment can be defined, obviously based on the practice needs and the possible duration of the appointment.

If a patient has no preferences, check box *select all* can be used to enable or disable all days in just one click.

TIP

XDENT saves the last selection. Therefore, if assigning several appointments in a row is desired, conveniently configure the research parameters and assign the first appointment in the scheduling accordingly. By recalling the *New Appointment* function, a research starting from the first appointment assigned with the parameters already selected the first time is activated.

Find Next Available

SEARCH AVAILABLE APPOINTMENTS

Practitioner: PRACTITIONER #1 Seat: Any

Patient settings:
Any preference will be considered only in accordance with practice opening hours

<input type="checkbox"/> Monday	All day	All hours	06:15 AM
<input type="checkbox"/> Tuesday	All day	All hours	05:00 AM
<input type="checkbox"/> Wednesday	All day	All hours	02:00 AM
<input type="checkbox"/> Thursday	All day	All hours	02:00 AM
<input type="checkbox"/> Friday	All day	All hours	02:00 AM
<input type="checkbox"/> Saturday	All day	All hours	08:00 AM
<input type="checkbox"/> Sunday	All day	All hours	02:00 AM
<input type="checkbox"/> Select all			

Duration of appointment to be assigned (minutes): 15

Search an appointment in the weekly scheduling:
in: 1 week starting from currently viewed. **Search**

Arranging appointments

The window provided to schedule treatments defined in the main treatment plan when the appointment was arranged also displays the name of the practitioner performing the treatment, so as to facilitate determining the treatment to be scheduled for the current appointment.

Associated appointments

Several appointments can be related to each other and managed simultaneously.

The reasons for this function are multiple. Here are some examples:

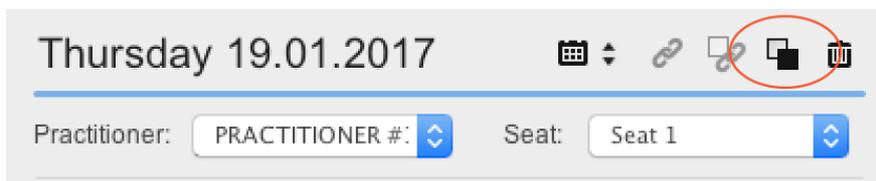
- If a therapy implies performing two or more interrelated treatments on the same or on different days, with the same or with different practitioners, it might be useful to associate appointments, because possible postponing or cancelling of a single appointment could negatively affect the

treatment program.

If on the same date several appointments were assigned to different patients, for example father and son willing to come to the practice on the same day, associating their appointments might be useful. In this way, if one of the two patients cancels or postpones the appointment, the associated appointment is postponed accordingly.

The operations to associate two or more appointments are as follows:

1. Assigning a first appointment to a patient;
2. Arranging a second appointment and clicking the corresponding button, which will automatically copy data of the previous visit and associate the two appointments.



The icon in the appointment record defines whether the appointment is associated with another one or not.



Associated appointments can be postponed simultaneously with a cut/paste operation and cancelling the association is possible by simply clicking the corresponding icon in the appointment record which defines the associated appointment.

Cancelling an associated appointment is however possible by choosing a single appointment to be cancelled or all the appointments associated with it.

Moreover, in case of associated appointments on the same day, upon checking-in for one of them, the change of status will occur for all the appointments associated with it on that same day.

Pending appointments

Pending appointments can be managed directly from the scheduling. The corresponding **“appointment to be reassigned”** entry can be accessed by right-clicking the appointment in the agenda and from there the appointment can be defined as pending. Once an appointment is defined as pending, it is added to the list of pending appointments, which can be accessed by clicking the corresponding button in the low-left portion of the agenda. From the same list, information about the pending appointment can be edited or deleted and the appointment can be reassigned in the agenda through a drag&drop operation if desired.

Emergencies

In order to guarantee an accurate management of patient records, emergency situations can be

added and managed totally independent of scheduled appointments. This new function can be accessed from the lower-left button displayed in a scheduling. Such situations can be added and managed from the corresponding window and all data referring to the emergency can be specified for each case. The same screen also gives access to a patient's main treatment plan, treatment diary and record. Emergencies displayed in the list are filtered based on the enabled practitioner. It is anyhow possible to visualize emergencies associated with all practitioners through the corresponding button in the lower-left portion of the emergency list.

Medical Records

All specific medical records can be used to help the practitioner treat specific data which is also displayed among the tooth-related notes and/or in the patient treatment diary (see 'configuration section').

A date can be specified during filling in of the medical records. This allows records to be entered even on a date other than the one in which a treatment was performed.

Orthodontic Record – XDENT Ortho Ceph

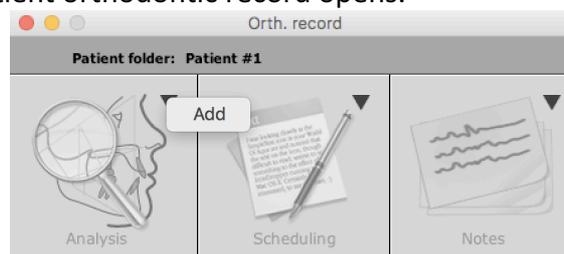
Each orthodontic record collects three different kinds of information:

1. data referring to diagnostic measurement analysis,
2. a document related to orthodontic planning,
3. notes about materials used and biomechanical comments.

To enter data in the orthodontic record, open the main treatment plan of any patient and click the "Ortho Ceph" button.



At this point, an empty patient orthodontic record opens.



If some data is already contained in the orthodontic record, the three different corresponding sections, namely Analysis, Planning and Notes are highlighted in colour. If the record is empty, sections are displayed in grey, as shown in the above picture.

In case of a blank section, the only entry connected with it in the operations menu is "Add". Entries "Edit" and "Delete" are also provided in case of a filled-in section.

Analysing diagnostic data

The diagnostic data-related part is subdivided into two sections:

- General data referring to measurements (dental class, skeletal class, ...)
- Data referring to cephalometric measurements

The two paragraphs below describe in further detail how to use and set preferences in these two sections.

Analysing general measurements

When choosing to fill in the section referred to data analysis, a window is displayed in which values must be entered as follows:

The screenshot shows a software window titled "Orth. record" with a "Compilation date" of 19/01/17 and "Practitioner" PRACTITIONER #1. It features two tabs: "Analysis" (active) and "Cephalometrics". The "Analysis" section contains the following fields:

- Biotype: Mesial
- Dental class: Class II 1[^] div.
- OVB: Deep bite, 3
- OVJ: Normal
- Transverse diameter: Increased
- Upper dental midlines: [empty]
- Lower dental midlines: [empty]
- Leeway space: [empty]
- Rotations: [checkbox]
- Dental crowdings: [checkbox]

The "Cephalometrics" section contains the following fields:

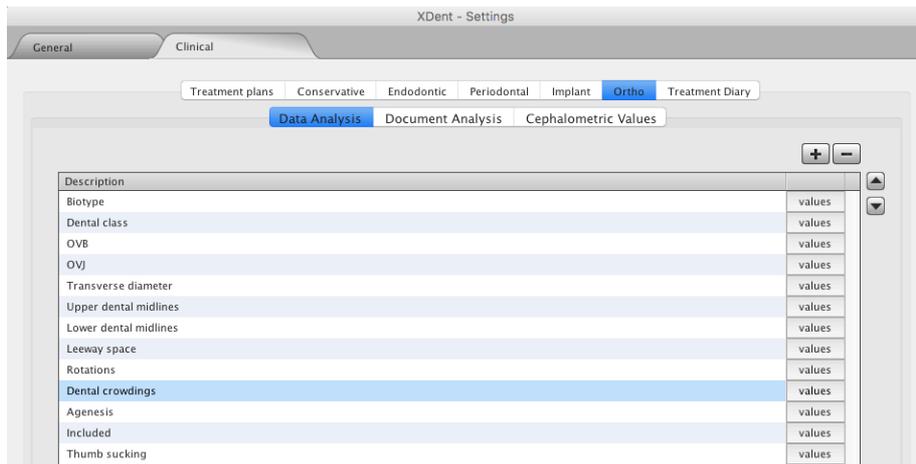
- Agenesis: [checkbox]
- Included: [checkbox]
- Thumb sucking: [checkbox]
- Lower lip entrapment: [checkbox]
- Atypical swallowing: [checkbox]
- Mouth breathing: [checkbox]
- Labial incompetence: [checkbox]
- Bruxism: [checkbox]
- Articular symptomatology: [checkbox]
- Skeletal class: [dropdown]

Buttons for "Cancel" and "Confirm" are located at the bottom right.

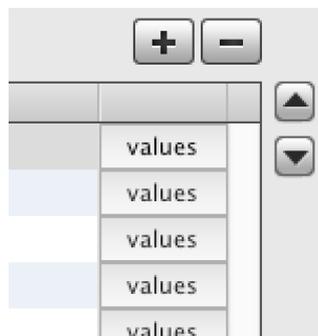
The data structure in the Analysis is flexible, allowing to define data and values suggested during the preference setting phase.

Data Analysis Preferences for general measurements

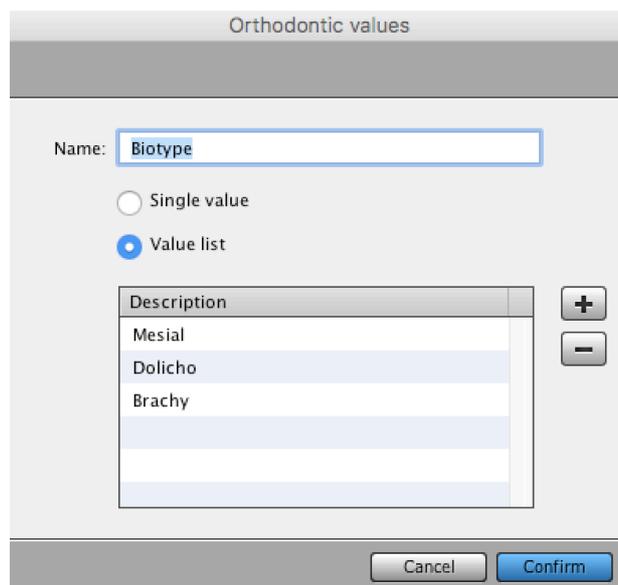
In "Preferences", section "Medical", panel "ortho - Data analysis" as shown in the picture, indexes useful to fill in the orthodontic record can be chosen.



Adding and deleting indexes can be easily carried out through the upper-right buttons. If however establishing the order in which such indexes are displayed in the orthodontic record is desired, scroll them upward or downward through the buttons next to the list.



If the index contains values, these can be changed by clicking "values" at the index level. A window will then pop up from which the value list can be added or deleted and the index changed.



If no value is contained in the index and only highlighting the presence or absence of dissimilarities (such as the presence of Bruxism) is desired, select the "Single value" entry.

From the cephalometric data section, a decision can be made as to whether the definition of an intermediate and a final value is desired besides the value related to patient analysis before the treatment. Such values must be entered at the index level in the cephalometric record, columns "Int. Val." and "Fin. Val" respectively.

Analysing Cephalometric measurements

Given that

“XDENT Ortho Ceph is NOT a software for cephalometric analysis”

XDENT meets the expectations of practitioners requiring **also** monitoring the orthodontic aspect of their daily work.

This without affecting the underlying principles, consisting in:

Simplicity - Safety - Prompt availability of medical data

The availability of multiple cephalometric techniques and the quantity of reviews provided, together with the possibility that every single practitioner decides to collect cephalometric data with different techniques to present their own analysis, brought to proposing a cephalometric solution revolving around two pivot points:

1. Default proposal for the **most representative techniques**
2. Great freedom of parameter setting

Suggested Cephalometric Analyses

XDENT Ortho Ceph includes some of the most common and demanded (structured and targeted) cephalometric analyses, since they represent milestones in the history of cephalometry.

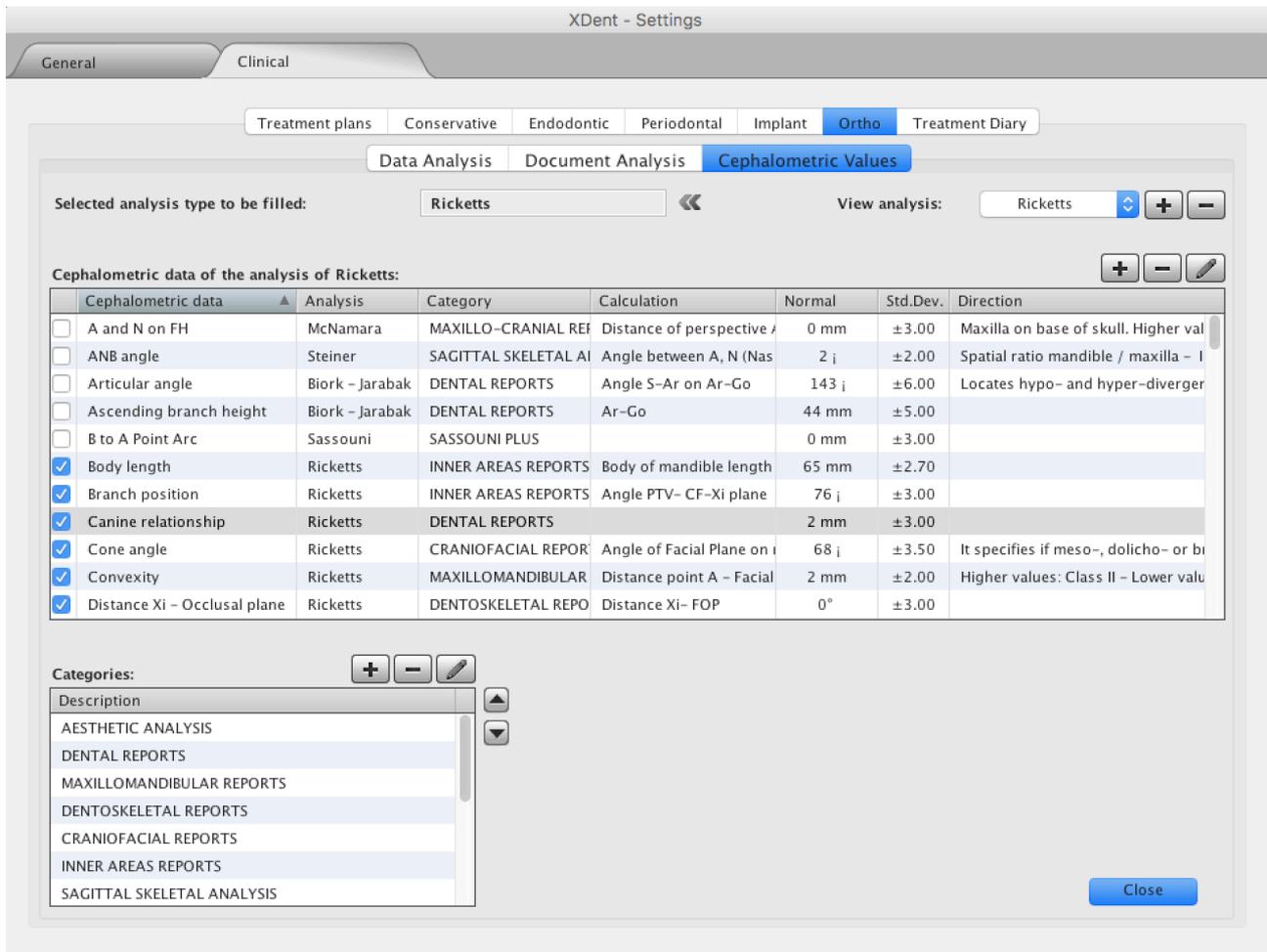
The suggested analyses, intended as default values, are as follows:

- Ricketts
- Steiner
- McNamara
- McLaughing
- Tweed
- Biork – Jarabak
- Sassouni
- Wits

Cephalometric measurement analyses preferences

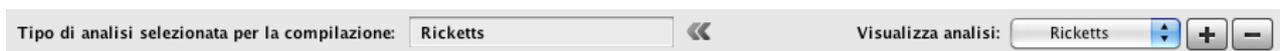
In “Settings”, section “Medical” panel “ortho – Cephalometric Values”, as shown in the picture, practitioners visualize what follows:

- ANALYSES SECTION
- CEPHALOMETRIC DATA SECTION
- CHAPTERS SECTION

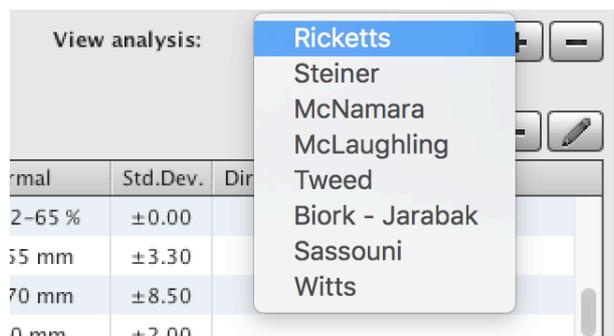


Cephalometric Analyses Section

On the right side of this section a drop-down menu contains the analyses currently saved in the system. Initially, eight basic analysis types are displayed, which the user cannot change.



Cephalometric data in the list below is chosen based on the selected analysis. To change the current analysis, simply select a new one from the drop-down menu.



Moreover, the left part of the section is dedicated to the analysis selected by the practitioner to fill in the cephalometric section of the patient orthodontic record.

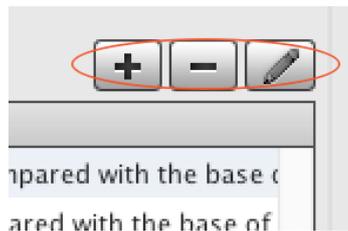
Cephalometric Data Section

Eight fields can be found, and their contents are editable anytime. Based on the analysis the user wants to be visualized and data related thereto, checkboxes of the first column are unmarked.

Cephalometric data of the analysis of Ricketts:							
Cephalometric data	Analysis	Category	Calculation	Normal	Std.Dev.	Direction	
<input type="checkbox"/> SNB angle	Steiner	SAGITTAL SKELETAL AI	Angle between S (Sella), I	80 j	±2.00	Mandible compared with the base c	
<input type="checkbox"/> SNA angle	Steiner	SAGITTAL SKELETAL AI	Angle between S (Sella), I	82 j	±2.00	Maxilla compared with the base of	
<input checked="" type="checkbox"/> Skull deflection angle	Ricketts	INNER AREAS REPORTS	Angle Ba-N on Frankfort	27 j	±3.00	It specifies a II class or III class gro	
<input type="checkbox"/> Sella angle	Biork - Jarabak	DENTAL REPORTS	Angle S-N on S-Ar	123 j	±5.00	Locates hypo- and hyper-diverger	
<input type="checkbox"/> Rear/front facial height	Biork - Jarabak	DENTAL REPORTS	S-Go/N-Me	62-65 %	±0.00		
<input checked="" type="checkbox"/> Rear facial height	Ricketts	INNER AREAS REPORTS	Distance Go-CF	55 mm	±3.30		
<input type="checkbox"/> Rear facial height	Biork - Jarabak	DENTAL REPORTS	S-Go	70 mm	±8.50		
<input type="checkbox"/> Rear facial height	Sassouni	SASSOUNI		0 mm	±2.00		
<input type="checkbox"/> Rear base of skull	Biork - Jarabak	DENTAL REPORTS	S-Ar	32 mm	±3.00		
<input checked="" type="checkbox"/> Position 1j molar	Ricketts	DENTOSKELETAL REPO	Distal distance 1j molar	3 mm	±2.00		
<input checked="" type="checkbox"/> Porion location	Ricketts	INNER AREAS REPORTS	Distance Porion-PTV	39 mm	±2.00		

Fields named Calculation and Information are additional fields for the practitioner, allowing them to verify both the way that piece of data is created and the diagnostic suggestion provided.

The user can **add** a new piece of data, **edit** or **delete** an existing one using the upper-right buttons.



If adding or editing a new piece of data is desired, a window opens which allows filling in or editing the values of the cephalometric piece of data. Analysis is the only information which cannot be edited, because that value indicates one of the *default* analyses.

Cephalometric data

Name:

Analysis:

Category: ⌵

Calculus:

Normal: ° ⌵

Standard Dev.:

Information:

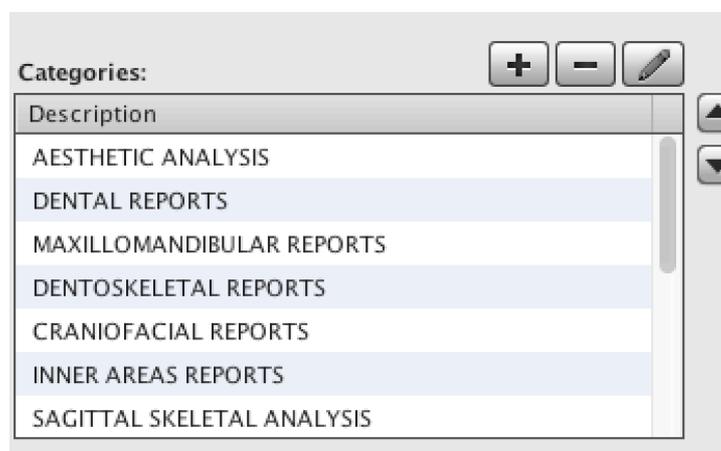
Chapter Section

A chapter allows to aggregate data according to desired criteria (which is independent of the kind of analysis and common to all of those available).

Since chapters can have an order of position, cephalometric analysis is displayed according to that very order, therefore making reading smoother and clearer.

If the practitioner chooses cephalometric data belonging to different medical histories, such data is always displayed according to the chapter criterion. Each cephalometric piece of data also indicates the corresponding chapter.

Chapters can be **added, edited, deleted**. Their display **order** can also be changed. As shown in the picture, buttons “more”, “less” and “edit” are available which allow to add, delete or edit the chapter respectively.



To change the chapter order, simply select the desired row and move it upward or downward using the arrow buttons next to the chapter list.

After mentioning the various sections related to Preferences for "Cephalometric values" in an Ortho record, customizing of the same will now be described. Be aware that the cephalometric section in the Analysis portion of an orthodontic record is presented based on the settings chosen from preferences. The latter require making choices as to the desired kind of analysis, namely the selection of cephalometric data useful to the practitioner, the relevant division into chapters and the chapter order itself.

Operatively, a user can:

1. Select an analysis from the eight *default* analyses provided.
2. Customize one of the *default* analyses provided
3. Create a *new* analysis

Carrying out of one of the above points will now be described.

Choosing an analysis from the eight default analyses provided

This is the most simple case, because the only necessary operation consists in choosing one of the analyses provided, as described above. Note that *check boxes* of the analysis-related cephalometric data can be unmarked.

After choosing the preferred analysis, the latter must be indicated in "Selected analysis type to be filled" through the arrows on the right.

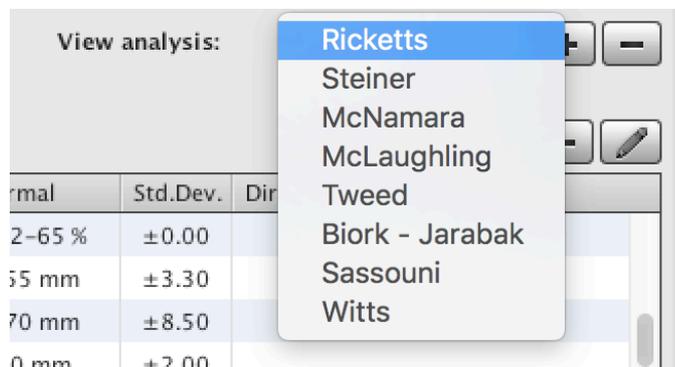


Customizing one analysis out of the default analyses provided

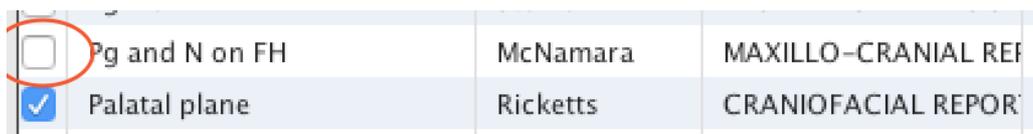
Often, starting from a *default* analysis to be customized is necessary, which can be done by deleting or adding some cephalometric data. Since changing default analyses is not possible, adding a new one will be necessary.

An example will now be described. Here is how to proceed assuming that the "Ricketts" analysis is quite completely satisfactory and relevant customisations are desired:

1. Select the "Ricketts" analysis among those available;



2. Select the row referred to the cephalometric piece of data to be added and unmark the *flag* on the first column



3. Since "Ricketts" is a *default* analysis, it cannot be modified. Therefore, XDENT immediately asks whether creating a new analysis is desired. Answer "Yes" and name it, for example, "My analysis"
4. point 2 can be repeated several times in order to add or delete cephalometric data as needed
5. the new analysis named "My analysis" can be found among those available and is currently highlighted in the drop-down menu
6. Finally, choose "Selected analysis type to be filled" through the arrows on the right.

Creating an new Analysis

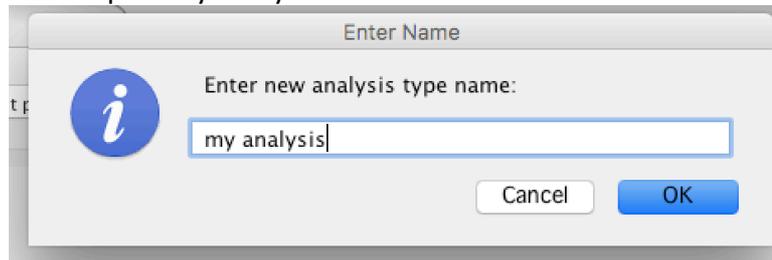


Sometimes, creating a new analysis is useful to meet specific requirements. In this case, two steps must be carried out:

1. Creating a new analysis by clicking the "more" button.
- 2.



3. Choose a name, for example "My analysis"



4. Select the row referring to the cephalometric data to be added and unmark the flag on the first column

Cephalometric data of the analysis of Ricketts:							
	Cephalometric data	Analysis	Category	Calculation	Normal	Std.Dev.	Direction
<input type="checkbox"/>	SNB angle	Steiner	SAGITTAL SKELETAL AI	Angle between S (Sella), f	80 j	±2.00	Mandible compared with the base c
<input type="checkbox"/>	SNA angle	Steiner	SAGITTAL SKELETAL AI	Angle between S (Sella), f	82 j	±2.00	Maxilla compared with the base of
<input checked="" type="checkbox"/>	Skull deflection angle	Ricketts	INNER AREAS REPORTS	Angle Ba-N on Frankfort	27 j	±3.00	It specifies a II class or III class gro
<input type="checkbox"/>	Sella angle	Bjork - Jarabak	DENTAL REPORTS	Angle S-N on S-Ar	123 j	±5.00	Locates hypo- and hyper-diverger
<input type="checkbox"/>	Rear/front facial height	Bjork - Jarabak	DENTAL REPORTS	S-Go/N-Me	62-65 %	±0.00	
<input checked="" type="checkbox"/>	Rear facial height	Ricketts	INNER AREAS REPORTS	Distance Go-CF	55 mm	±3.30	
<input type="checkbox"/>	Rear facial height	Bjork - Jarabak	DENTAL REPORTS	S-Go	70 mm	±8.50	
<input type="checkbox"/>	Rear facial height	Sassouni	SASSOUNI		0 mm	±2.00	
<input type="checkbox"/>	Rear base of skull	Bjork - Jarabak	DENTAL REPORTS	S-Ar	32 mm	±3.00	
<input checked="" type="checkbox"/>	Position 1j molar	Ricketts	DENTOSKELETAL REPO	Distal distance 1j molar	3 mm	±2.00	
<input checked="" type="checkbox"/>	Porion location	Ricketts	INNER AREAS REPORTS	Distance Porion-PTV	39 mm	±2.00	

5. Finally, choose "Type of selected analysis to be filled" through the arrows on the right.

Guide to editing cephalometric analysis

The practitioner carries out the cephalometric tracing with relevant analysis through their preferred system:

- Acetate x-rays and manual tracing
- Tracing with in-house corresponding software
- Outsourcing tracing to external service centre

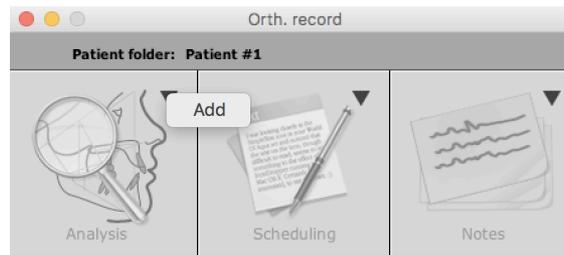
When all this is done, the practitioner is able to:

1. Import tracing in XDENT Multimedia Archive
2. Edit the cephalometric analysis

To edit the cephalometric analysis, access the patient Ortho Ceph record. Next, open the main Treatment plan and click the "Ortho Ceph" button on the left bar.



The patient **Ortho Ceph record** opens in an initial empty state. Add analysis-related data.



When the Cephalometric data section is displayed, select the upper **Cephalometry** record. The record is now displayed as in the picture

Ortho. record

Compilation date: 19/01/17 Practitioner: PRACTITIONER #1

Analysis Cephalometrics

Cephalometric data	Normal	Std. Dev.	Patient	Diff.	Int. value	Fin. value	Comments
▼ AESTHETIC ANALYSIS							
Upper labial protrusion	4 mm	±2.00					
Lower labial protrusion	2 mm	±2.00					
Upper lip length	24 mm	±2.00					
Pg from N-B	1 mm	±0.00					
Labial commissure - Occlusal plane	3.5	±1.00					
▼ DENTAL REPORTS							
Molar relationship	3 mm	±3.00					
Canine relationship	2 mm	±3.00					
Incisor overjet (OVJ)	2.5 mm	±2.50					
Incisor overbite (OVb)	2.5 mm	±2.00					
Mandib. incisor extrusion	1.25 mm	±2.00					
Interincisal angle	130 j	±10.00					
▼ MAXILLOMANDIBULAR REPORTS							
Convexity	2 mm	±2.00					
Lower facial height	47 j	±4.00					
▼ DENTOSKELETAL REPORTS							
Position 1j molar	3 mm	±2.00					

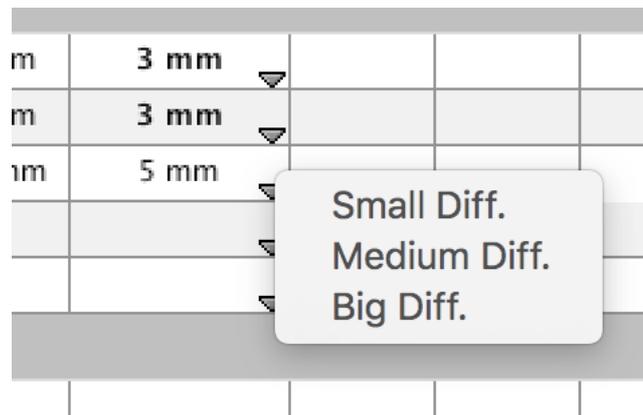
Cancel Confirm

In column **Normal** and **Std. Dev** values set in Preferences are automatically displayed, which can nevertheless be edited. Also note how cephalometric data are arranged in chapters.

Inputting data is now possible according to the values available, as in the picture.

Cephalometric data	Normal	Std. Dev.	Patient	Diff.	Int. value	Fin. value	Comments
▼ AESTHETIC ANALYSIS							
Upper labial protrusion	4 mm	±2.00	1 mm	3 mm			
Lower labial protrusion	2 mm	±2.00	5 mm	3 mm			
Upper lip length	24 mm	±2.00	29 mm	5 mm			
Pg from N-B	1 mm	±0.00					
Labial commissure - Occlusal plane	3.5	±1.00					
▼ DENTAL REPORTS							

To further highlight values in column **Diff.**, a colour can be assigned based on the deviation extent (small, medium or large) through the arrow button at the base of every cell, as shown in the picture



Besides, to facilitate reading of cephalometric data, "closing" the visualization of currently useless chapters is possible as shown in the picture:

Cephalometric data	Normal	Std. Dev.	Patient	Diff.	Int. value	Fin. value	Comments
▼ AESTHETIC ANALYSIS							
Upper labial protrusion	4 mm	±2.00	1 mm	3 mm			
Lower labial protrusion	2 mm	±2.00	5 mm	3 mm			
Upper lip length	24 mm	±2.00	29 mm	5 mm			
Pg from N-B	1 mm	±0.00					
Labial commissure - Occlusal plane	3.5	±1.00					
▶ DENTAL REPORTS							
▶ MAXILLOMANDIBULAR REPORTS							
▼ DENTOSKELETAL REPORTS							
Position Ij molar	3 mm	±2.00					
Maxil. incisor protrusion	4 mm	±2.00					
Mandib. incisor protrusion	2 mm	±2.00					
Maxil. incisor inclination	28 j	±4.00					
Mandib. incisor inclination	22 j	±4.00					
Occlusal plane inclination	22 j	±4.00					
Distance Xi - Occlusal plane	0°	±3.00					
▼ CRANIOFACIAL REPORTS							
Facial depth ('Downs' angle)	87 j	±3.00					

This result is obtained by simply using the arrow  to the left of the chapter.

Orthodontic Planning Document

To fill in the orthodontic planning document, open the orthodontic record as described above and add the planning document

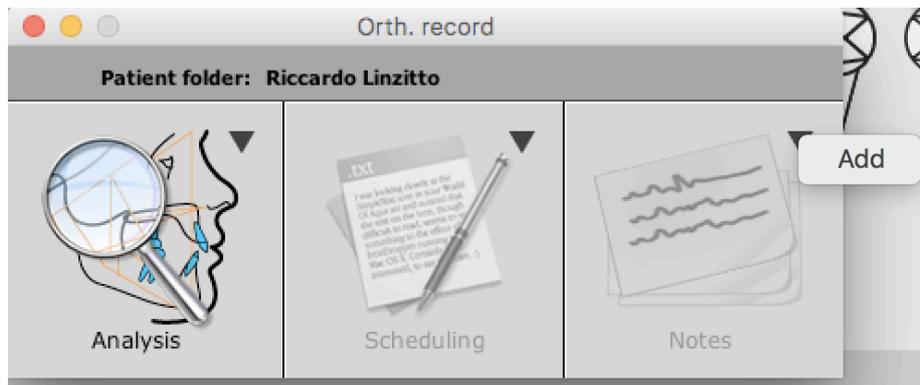
A new **Planning Document** opens, which is pre-filled based on the preference settings. The document follows the logic of all other documents in XDENT.

Planning document preferences

Preferences in the *Ortho Ceph Record* include setting the **planning document model**, which is used by XDENT to fill every new orthodontic planning document. Similarly to the filling in of any other document in XDENT, the editing window comprises a bar on the left where variable data and buttons for formatting the document are highlighted.

Notes and Biomechanical Comments

The section referring to notes and biomechanical comments is added just like other sections in the orthodontic record, as shown in the picture.



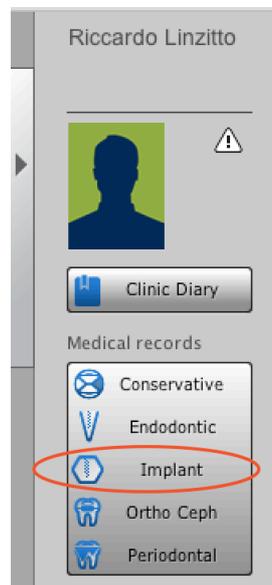
Once the window is open, notes can be freely typed-in while checking data entered in the analysis-related section, as shown in the picture.

The image shows a software window titled "Orth. record". It contains several text input fields, each with a label above it: "Ligatures", "Brackets:", "Inserted upper arches:", "Inserted lower arches:", "Biomechanics notes:", and "Notes:". At the bottom of the window, there is a search bar containing the text "Orthodontic", a "Cancel" button, and a "Confirm" button.

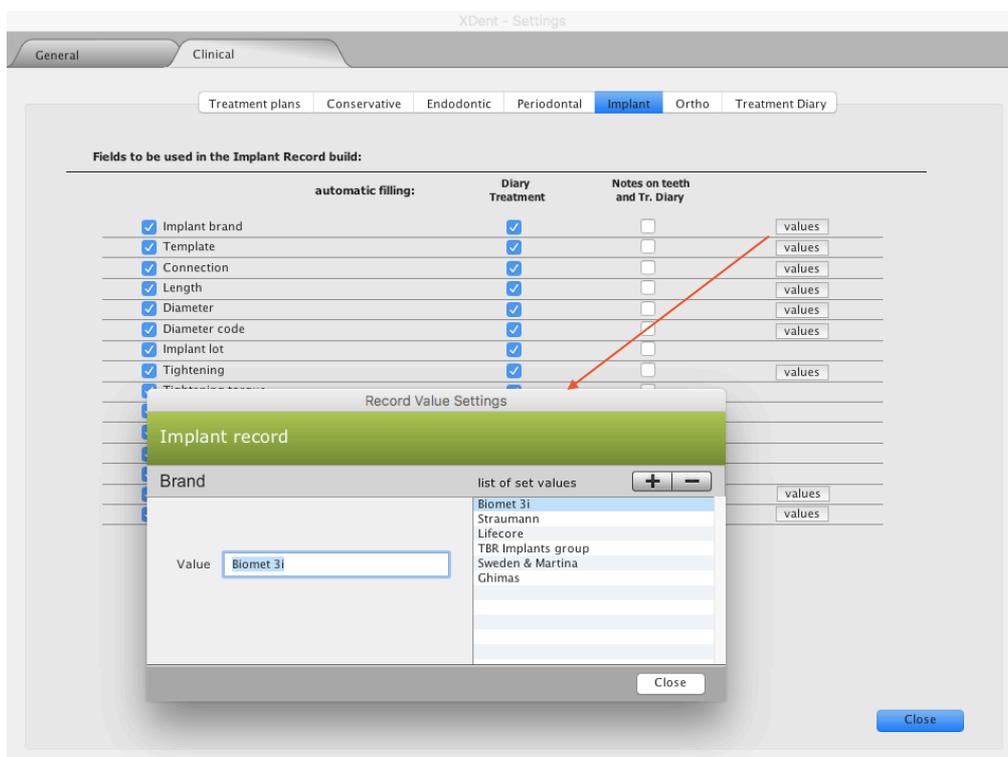
Free notes can be entered in the space provided on the bottom of the screen.

Implant / Conservative / Endodontic Record

By way of example, the *Implant* record, which can be accessed from the patient main treatment plan window, will next be described.



Functioning and operating modes of the *Implant* record are similar to those of *Conservative* and *Endodontic* medical records. To define the values in the record, set preferences by selecting indicators and indicator default values.



Upon filling in, the record will be provided based on the preference settings.

Implant record

Practitioner: PRACTITIONER #1 Date: 19/01/17

Treatment plan:

Treatment of the plan:

Brand: Biomet 3i

Template: Restore

Connection: External hexagon implant

Length: 10

Diameter: 3,75

Diameter code: WD

Implant lot:

Tightening: manual

Tightening torque:

Immediate load:

One Stage:

Months before reopening:

Regenerative:

Filling used: Autologous bone

Membrane: DynaMatrix

All data entered in the implant record is automatically imported in the treatment diary, similarly to the Conservative and the Endodontic record. Values that are transferred from the implant record to the diary follow the sentence below:

Implant record: [tooth reference number]

if the implant is associated with a treatment and a tooth.

Periodontal record

XDENT periodontal record was developed with the scientific contribution of Centro Ricerca sulle Malattie Perimplantari e Parodontali, University of Ferrara, headed by Prof. Trombelli.

To access periodontal records of a patient, use the **Periodontal** button in the *Main Treatment Plan* window.

The list of records comprises *entry*, *deletion*, *edit* and *compare* functions.

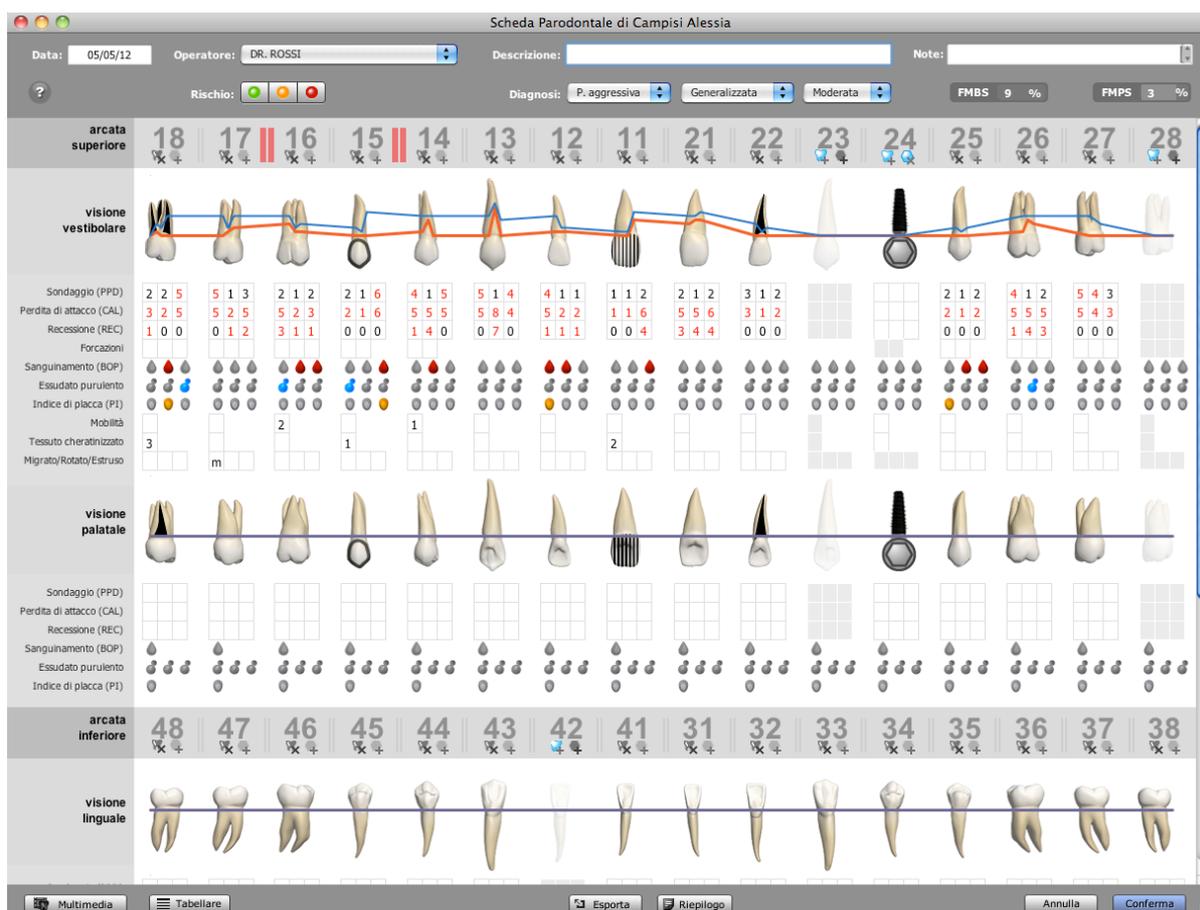
Functioning and operating modes of the Periodontal record are similar to those of other medical records. To define the values in the records, set preferences by establishing indicators and indicator default values as specified in the section referred to other medical records.

Periodontal dental chart

The 3D graphics in the periodontal record allows identification of dental symbols. This is because here, punctual identification of the various tooth sections as in the dental chart is unnecessary.

Information about possible implants and missing teeth is imported from the patient physical examination and can be changed through the two icons located below the tooth reference number.

Identifying the presence of diastemas, implants, caries, crowns and devitalizations is possible.



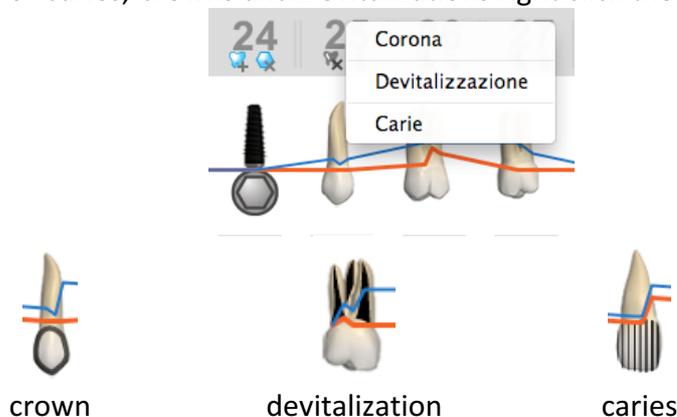
TIP

In the presence of implants, Furcations and Migration are the only disabled fields.

To enable visualization of Diastema, click on the image between teeth reference numbers:



To enable presence of Caries, Crowns and Devitalizations right click the tooth reference number.



The record window can be enlarged in full-screen mode to benefit from extended display areas. Furthermore, the Multimedia button allows accessing videos and/or patient-related medical imaging.

REC values and diagnosis

Probing, Clinical attachment loss, Recession, Furcation, Bleeding, Purulent Exudate, Plaque Index, Loosening, Keratinised tissue, presence of Migrated/Turned/Extruded tooth can be specified for each dental element.

TIP

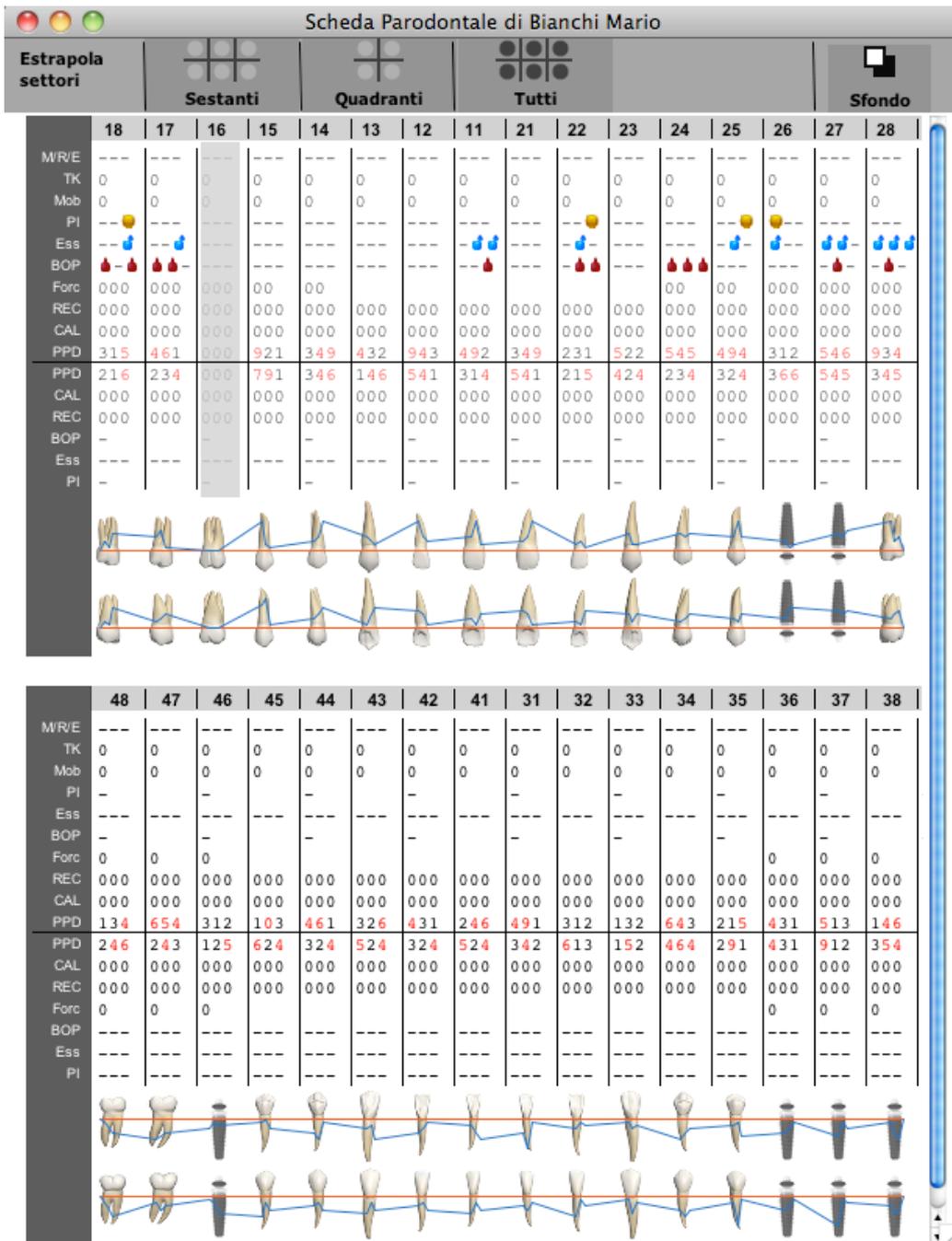
For a comprehensive legend of the values validated for each assessment, click the ? button, which displays a palette. Negative symbols are also allowed for the REC chart.

The diagnosis can be defined through three drop-down menus which allow to specify three diagnosis types respectively:

- Aggressive path, Chronic path and Gingivitis.
- Located and Generalised
- Mild, Moderate and Severe

Tabular visualization and prints

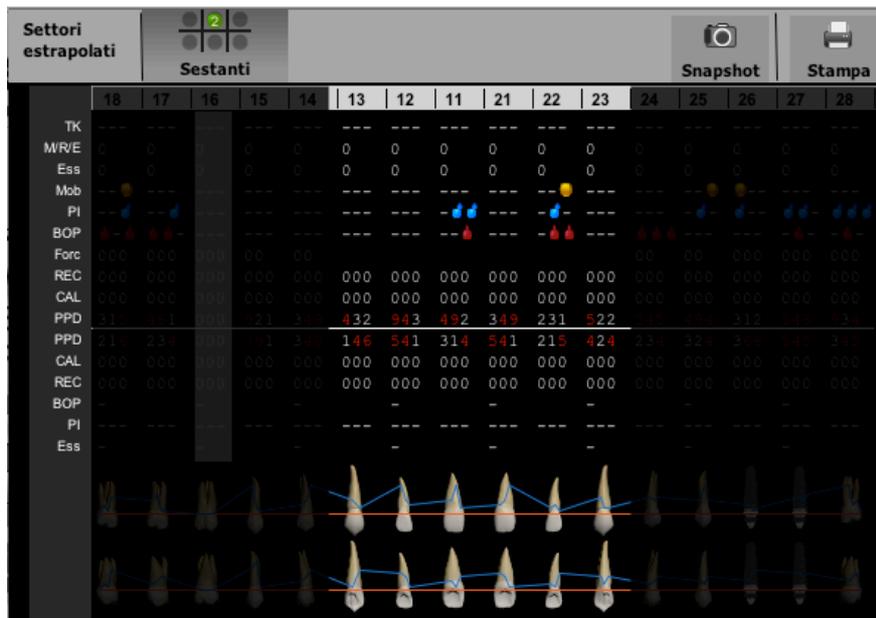
Together with the graphic visualization of the periodontal dental chart, a tabular visualization can be obtained which is optionally available with or without periodontal index graphs.



The tabular visualization can be obtained with white or black background (changing the background is useful if exporting the record to multimedia presentations is desired).

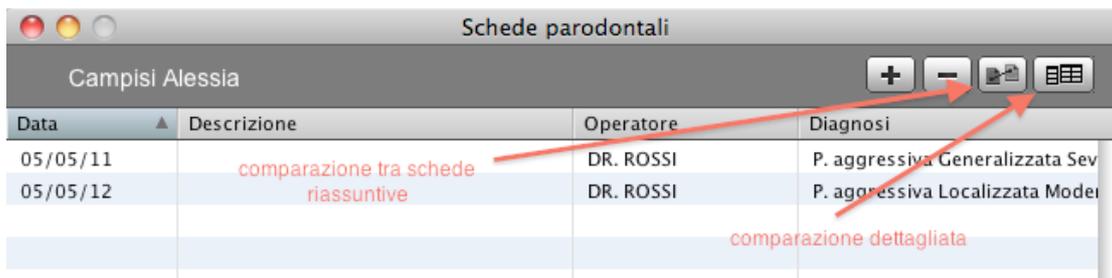
6 sextants or 4 quadrants can be extracted not only to obtain a snapshot or a print of the whole mouth, but also of that desired portion.

The snapshot operation on a section is useful if, for example, creating a status with medical imaging, x-rays and part of the periodontal indices is desired.



Comparing records

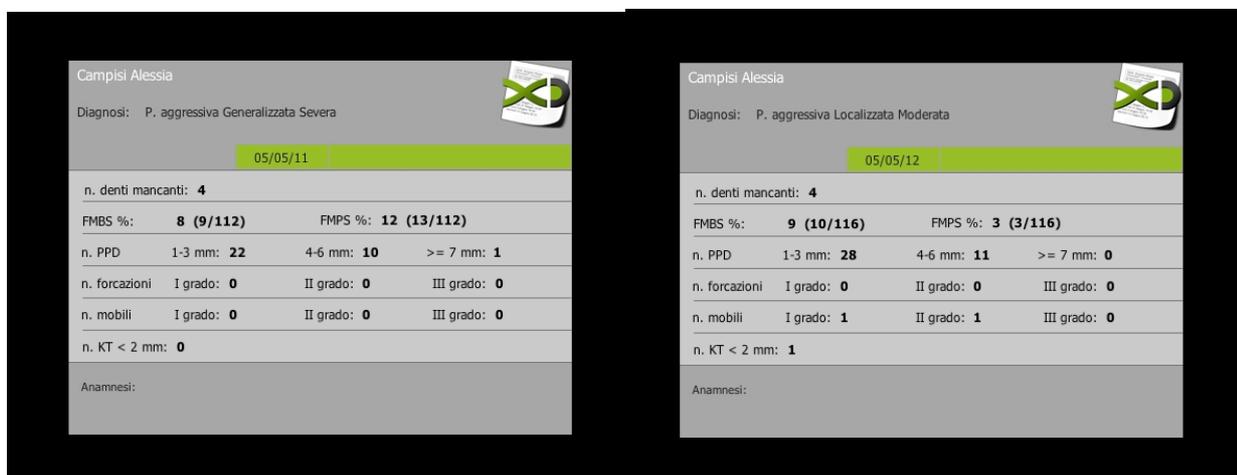
Two types of comparisons among different periodontal records are possible:



- comparison among summary values
- detailed comparison.

Comparing summary values allows comparing the summary values deduced from records by comparing two to four different records.

In the picture located below an example of summary comparison between two records:



The percentage value of FMBS and FMPS indices is also expressed in the form of ratio of probes to the number of teeth.

In the detailed comparison, data of two records are compared considering details of PPD, BOP, PI and Furcations indices as shown below:

arcata superiore	18	17	16	15	14	13	12	11	21	22	23	24	25	26	27	28
visione vestibolare																
Sondaggio (PPD)-1	2 2 5	5 1 3	2 1 2	2 1 6	4 1 5	5 1 4	4 1 1	1 1 2	2 1 2	3 1 2			2 1 2	4 1 2	5 4 3	
Sondaggio (PPD)-2	1 2 1	5 4 1	1 2 6	5 1 2	2 2 1	3 2 1	5 4 8	1 2 4	2 1 5	2 1 5	2 1 5					
Sanguinamento (BOP)-1	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●
Sanguinamento (BOP)-2	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●
Forcazioni-1																
Forcazioni-2																
Indice di placca (PI)-1	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●
Indice di placca (PI)-2	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●

Treatment diary

XDENT Treatment diary gathers all medical notes about patients, which are defined in the various parts of the software or are explicitly entered by the practitioner in the Diary management window.

Contents in the Treatment diary are shown in a user-friendly manner, which is readable also in its structured visualization, which is as a sequence of treatment-related registrations.

The diary is **structured** as a sequence of information referring to the single treatments or to the patient in general.

Accessing the Diary

Access to diary occurs from the patient *Main Treatment Plan* window or from appointment.

The Diary can be accessed from the Patient Main Treatment Plan window by clicking the “*Diary*” button. If a single treatment is right-clicked, **treatment diary of the selected treatment** can be opened.

Visualizing the Diary

Two types of visualizing data contained in the Diary exist:

- structured visualization
- text visualization

Structured visualization highlights information in the Diary as a sequence of chronologically defined registrations. To visualize details of a single registration, click the expansion button located at the beginning of the row. Text visualization displays the Diary as an open notebook gathering medical notes.

This double visualization displays the diary in its entirety while carrying out dedicated research based on the structure of single registrations. For instance, easy detecting of "First examination"-related notes made on the diary by practitioner "Rossi" on "11/11/2011" is possible.

Treatment Diary

Riccardo Linzitto

+ -

Date	Practitioner	Associated treatment plan	Associated treatment
▶ 19/01/17 02:29 PM	PRACTITIONER #1	Prestazione su preventivo n. 1	[21] molar root canal therapy
Treatment to perform			
▶ 19/01/17 02:29 PM	PRACTITIONER #1	Prestazione su preventivo n. 1	Periapical/ Bitewing
Treatment to perform			
▶ 19/01/17 12:51 PM	PRACTITIONER #1		
Medical History risk Medical History risk			
▶ 18/01/17 06:42 PM	PRACTITIONER #1	Prestazione su preventivo n. 1	[21] molar root canal therapy
Treatment performed			
▶ 18/01/17 06:42 PM	PRACTITIONER #1	Prestazione su preventivo n. 1	Periapical/ Bitewing
Treatment in progress			

Text: Date: Practitioner: Tooth:

Diary Close

While accessing the Diary, single registrations can be viewed by selecting them through research filters highlighting treatment plans and single treatments of every treatment plan.

In Diary, notes about treatments are also displayed referred to quotations not yet accepted by the client, which therefore are not temporarily displayed in the main treatment plan. To indicate that such treatments are in a quotation-related phase, the *Treatment plan* column includes “Treatment from quotation no.”, followed by the quotation number.

This mode allows for constant visualization of diary notes, even when they refer to treatments that are not included in a treatment plan.

In text visualization, the Diary is visualized as a notebook for medical notes mentioning the relevant date, practitioner and text of the medical notes.

In Open Diary, through text research can be carried out through the research field. In this text form, the Diary can also be printed.

Clinic Diary of: **Riccardo Linzitto**

19/01/17 02:29 PM Practitioner: **PRACTITIONER #1** Treatment: [21] **molar root canal therapy**

Treatment to perform

19/01/17 02:29 PM Practitioner: **PRACTITIONER #1** Treatment: **Periapical/ Bitewing**

Treatment to perform

19/01/17 12:51 PM Practitioner: **PRACTITIONER #1** Treatment:

Medical History risk
Medical History risk

18/01/17 06:42 PM Practitioner: **PRACTITIONER #1** Treatment: [21] **molar root canal therapy**

Treatment performed

18/01/17 06:42 PM Practitioner: **PRACTITIONER #1** Treatment: **Periapical/ Bitewing**

Treatment in progress



Registering changes

The Diary closing mechanism comprises buttons to confirm single-registration changes.

The Diary also comprises a closing button that closes the management window.

Given the importance of the information saved in the Diary, in case of window closing, if changes were made but not confirmed, an alert message pops up asking whether saving changes is desired.

Entering notes in the Diary

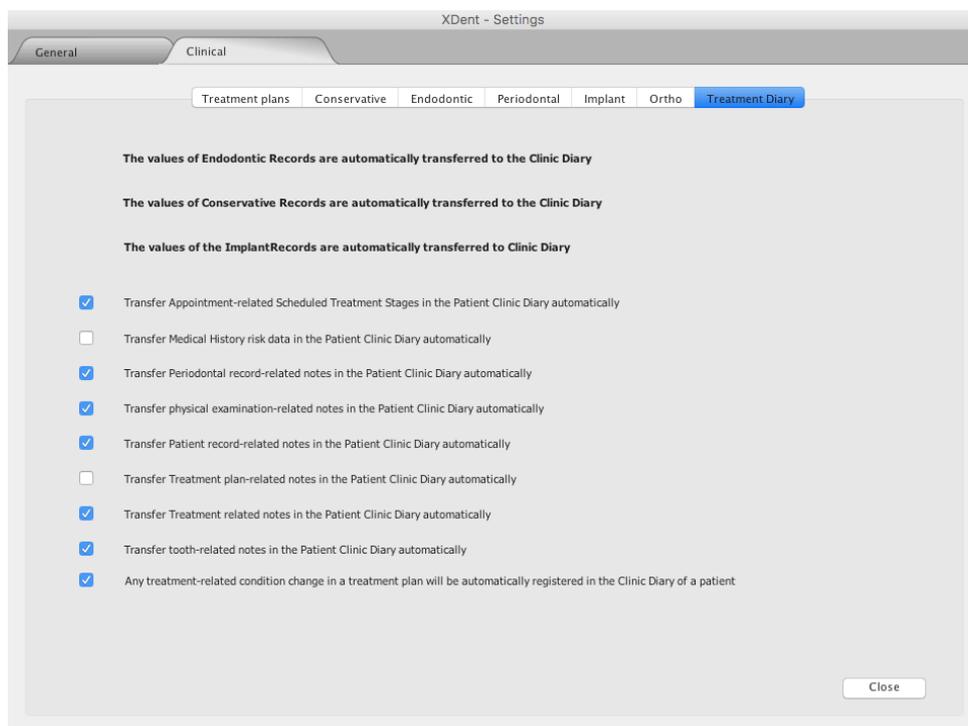
Information contained in Diary can be added manually by associating Diary notes with a particular treatment or the patient in general.

XDENT further provides a very flexible and useful mechanism allowing for automatic transfer to Diary of following information:

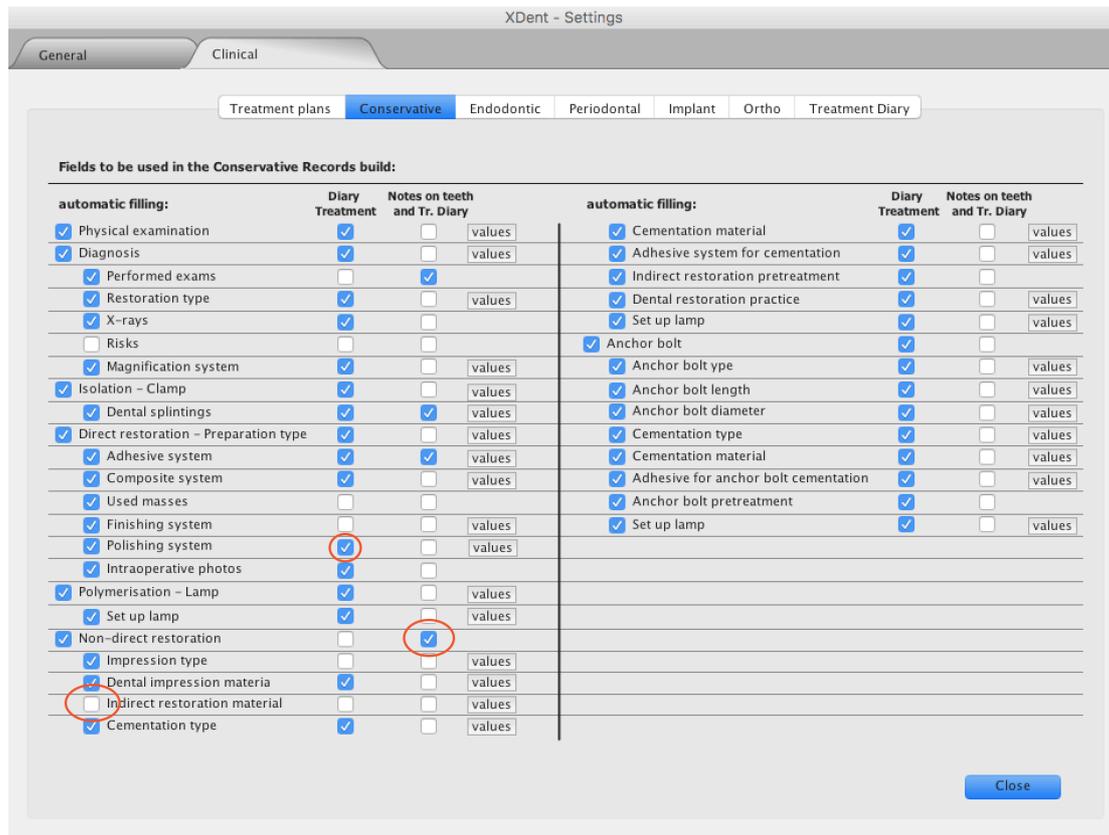
- information contained in conservative records
- information contained in endodontic records
- information contained in implant records
- information contained in periodontal records
- information about treatments performed during the appointment
- anamnestic risks

- general notes about patient physical examination
- notes about patient record
- general notes about treatment plans
- notes about single treatments of the treatment plans
- notes about dental elements of the main treatment plan
- change in treatment performing status

Each of these automatisms can be controlled through the definition of medical preferences.



In conservative, endodontic and implant records, a decision can be made during the preference definition phase about the elements to be automatically displayed in the diary and those to be displayed in teeth-related notes as well as in the diary. For example, preferences for the conservative record are as follows:



As shown in the previous picture, from preferences, a check is possible to verify if data in medical records is contained in the Diary and if, as well as in the Diary, it is also contained in the tooth-related notes of the dental chart.

Treatment and phase status

The status of a treatment can be changed in the diary. Changing the status is also possible for multi-phase treatments. When a change of status related to a multi-phase treatment is requested, the list of phases and the relevant changeable statuses are displayed. Furthermore, notes can be added: if set in preferences, they are stored in the patient treatment diary based on the treatment to which a phase belongs.

Such a possibility is particularly useful when directly accessing the treatment diary from an appointment.

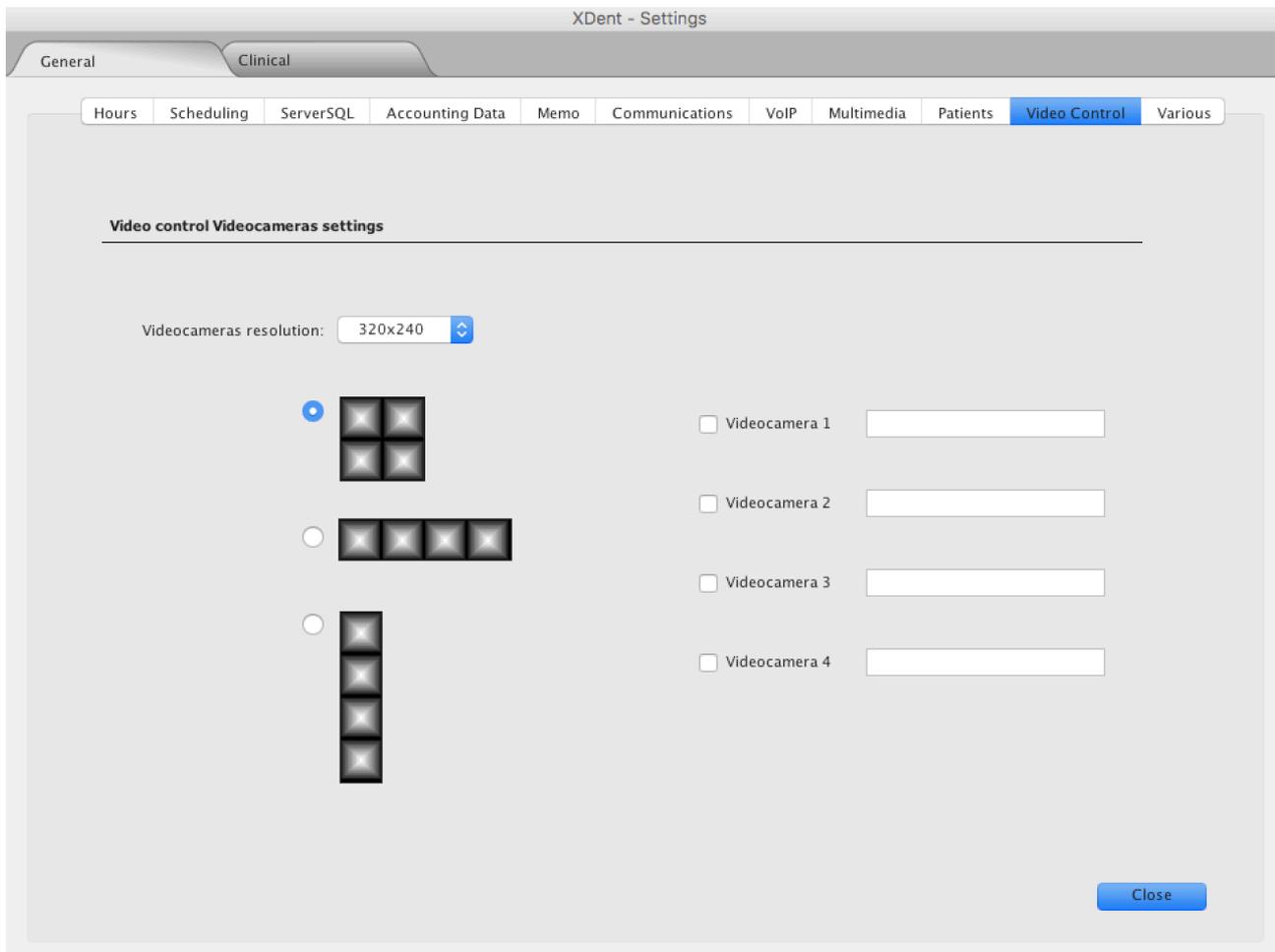
Displaying notes

To provide an immediate visualization of the notes contained in the treatment diary, visualizing the whole note text is possible, therefore avoiding opening of every single note.

Video Control

Managing visualization of IP camera images directly from XDENT is possible. This function allows not only to avoid resorting to an Internet browser for visualizing images, but also to display several images within the same XDENT window instead of opening several browser windows or panels.

The video control panel is provided in preferences and allows to define camera resolution and number of active cameras. XDENT allows to manage visualization of up to 4 cameras. For each camera, specify the necessary IP address to display the image (similarly to what would be done with the address bar of a web browser).



The resolution provided is 1280x960, 1024x768, 800x600, 640x480, 320x240 and 160x120. Besides resolution and number of active cameras, an arrangement can be selected among the three provided for the window displaying images from the video control cameras.

Once cameras are enabled and the address for accessing images is provided, activating the video control function is possible from XDENT operations menu.

Depending on the number of active cameras, on the resolution provided by each camera and on the choice of the type of image arrangement, a window opens: it displays images from IP cameras in real time.

TIP

This function is active for MacOS X and Windows systems; it is however not available for Linux systems.

Accounting

Invoicing Preferences

To issue invoices, there are some options that can be set from preferences, "Accounting" record.

Concise description to be mentioned in the invoice: if it exceeds the length of a row, it automatically continues in the following line, which is repeated during formatting.

Invoicing notes can be customized, with the possibility to enter what are relevant notes.

The screenshot shows the 'Accounting Data' tab in the 'Xdent - Settings' application. The 'Invoices Issue' section has 'with detailed description' selected. The 'Invoicing type' section has 'Invoice' selected. The 'Items to be reported in the invoice' section has a 'Logo' field and a 'Notes' text area. The 'Profits assessment' section shows 'Profit margin' at 50.00%, 'Risk management' at 500.00 Fixed, and 'Taxation' at 0.00 Fixed. There is also a checkbox for 'Alert for Time and cost record: NOT COMPLETED' which is checked.

(Italian version only) *Stamp duty paid using the virtual system:* when selected in preferences, "Stamp duty paid using the virtual system" appears in the final invoice if the stamp duty cost is added to the invoice. If on the other side a copy of the invoice is printed, "Duty stamp on the original copy of the document" appears on the invoice.

(Italian version only) *Issuing of non-treatment-related invoicing forbidden:* forbidding or allowing generation of non-treatment-related invoices is possible. By enabling the corresponding flag in the accounting section of preferences, activation of the above preference will be made available. In so doing, creating proforma or final invoices that are not associated with any treatments can be avoided.

(Italian version only) *Summary invoice*: gathering treatments with the same description in the invoice and indicating relevant quantities is possible. In this way, no long lists pertaining to the same treatments will be created, but rather a well arranged one sorted by group. Furthermore, choosing whether to keep or not such function in the invoice generation window is possible.

The option can be activated from *Preferences*, group *Generals*, entry *Accounting*.

Accounting record

The accounting record represents the main tool to obtain patient-related information in terms of profits and treatments provided at the practice.

Similarly to the main treatment plan, the list of treatments sorted by treatment plans can be found in which accounting information relating to treatments in the treatment plan is displayed. For each treatment, the relevant total amount and collected amount are provided.

The accounting situation of the patient is displayed against a blue background in the upper portion of the record. The total amount is displayed against a red background if the patient is in debt, otherwise against a green one.

All total amounts in the accounting record refer either to the treatment plan currently selected in the plan list, or to the accounting record in its entirety. The type of balance to be displayed can be chosen by clicking the relevant button as shown in the following picture:

Riccardo Linzitto		Accounting statement: 720.00		Total full payments	
↑ Debits		↓ Credits			
Treatments performed:	2,232.00	Paid documents:	1,512.00	Treatments in progress:	36.00
Service and products	0.00	Adv. payments to invoice:	0.00	Treatments to perform:	1,440.00
Total Debit:	2,232.00	Total Credit:	1,512.00	Total:	2,196.00
				Due dates:	3,708.00
				Past Due dates:	0.00

As illustrated in the picture against a grey background, total amounts are sorted by uniform types.

Patient **Debts** can be found which are given by the sum of all the treatments performed and all the services and products bought by the patient. Next to *Debts*, a graphic sign in the form of a red arrow was added to better and faster detect the desired section.

Riccardo Linzitto	
↑ Debits	↓ Credits
Treatments performed:	2,232.00
Service and products	0.00
Total Debit:	2,232.00
Paid documents:	1,512.00
Adv. payments to invoice:	0.00
Total Credit:	1,512.00

To the right of debts, **Credits** are displayed: it lists total revenues. Even in this case, a graphic element was added in the form of green arrow to help detect the section.

Finally, the right portion of the record displays the total amount for treatments in progress, the total amount for treatments to be performed and the total balance of the treatment plan (or of the accounting record overall) when all treatments have been performed.

Accounting statement:	
Treatments in progress:	36.00
Treatments to perform:	1,440.00
Total:	2,196.00

In the above picture, please note that the patient is in credit because treatments performed are less expensive than what they paid (for a total amount of 1.112,00 euro), but that, by the end of treatments scheduled in the treatment plan, balance is reached. This results in the total amount being displayed against a **green** background (which is otherwise red).

Accounting reference

If the selected patient is a member of a family group, useful information is displayed in the upper-left portion of the record. Indeed, immediately following *accounting representative*, the family member is mentioned whose treatment plan list is displayed.

Riccardo Linzitto > All	
↑ Debits	
Treatments performed:	0.00
Service and products	0.00

To change the current member, click the button displayed in a down-pointing triangle and choose the desired member.

Riccardo Linzitto > All	
↑ Deb	
Treatmen	0
Service and products	0.00

Riccardo Linzitto
 Patient #1
 All

If rather a summary visualization of all members sorted by each member is desired, just click the

Issuing a Final Invoice

A *final invoice* can be issued directly from the patient accounting record. The invoice will be associated to the selected treatment plan and could possibly be associated to some or all the treatments of the current treatment plan.

- a) If the treatments have been selected from a treatment plan to which the invoice is to be associated and deposits have been previously associated to these treatments, the collection of these deposits will become payments of the issuing invoice.

(only International version) If payment receipts are associated to these deposits, these will also be associated to the payment of the issuing invoice.

- b) If no treatment has been selected to which the invoice is to be associated but deposits are available, that is deposits not associated to any treatment, the procedure will suggest a list of them from which the user could select some: if selected, the collection of these deposits will become payments of the issuing invoice.

(only International version) As mentioned above, if these available deposits are associated to payment receipts, these will also be associated to the payment of the issuing invoice.

Soon after choosing to issue the invoice, a window will appear in which changes and discounts can be applied to the treatments (with a similar method to the one described in the quotation generating procedure); by confirming the invoice, this one is displayed and the invoice generated can be further modified.

Issuing a proforma invoice

(only Italian version) In XDENT, proforma invoices can be issued with the same procedure as for the final invoices, also for the treatment plans in which a third-party payer is involved.

Treatments can or cannot be selected from a treatment plan before issuing the invoice.

In case of a treatment plan referred to a quotation associated to a third-party payer list, a treatment-related proforma invoice can be issued, in which the patient and third-party payer quota can be distinguished.

When issuing the invoice, the user will see a dialogue window in which he/she will have to enter the deposit amount distinguished between the two different quotas.

In order to help the user issue the invoice, the same dialogue will also have the amounts already invoiced over the total treatments selected, respectively for the patient quota and for the third-party payer quota.

Issuing a Credit Note

(only Italian version) A *credit note* can be issued directly from the patient accounting record, however only with relation to the VAT-free treatments. The note will be associated to the treatment plan selected. Obviously, this could not be associated to the single treatment of the same. In the patient accounting record, the credit note is listed together with the treatment plan-related issued invoices. It is clear that the payment of the credit note decreases the total amount of the documents paid. The issue of a credit note generates a prime entry transaction with "Issuing a Credit Note" type and its payment generates a prime entry transaction with "Payment of Credit Note" type.

If a Credit Note is to be issued with relation to the VAT-based treatments, this could be done

directly from *Credit Note* in the *Issued Documents* of the *Accounting* menu.

Statement of account for the patients

By clicking the Print button, a dialogue will appear where the treatment plan and other details can be selected. By selecting their status, the treatments to be displayed during the printing process can be selected here.

Document section

In order to make clearer the situation concerning the documents issued to the patient, inside the accounting record, documents will be distinguished by two letters:

- "FT" stands for invoice
- "NC" stands for credit note

Tooth	Treatment	Practitioner	Status	Price List	Amount	T.P. Quota	Deposits	Invoices
32	Consultation (Simple)	PRACTITIONER #1	19/01/2017	30.00	30.00	0.00	0.00	0.00
11	implant procedures	PRACTITIONER #1	to perform	6,000.00	6,000.00	0.00	0.00	6,000.00
11	implant procedures	PRACTITIONER #1	to perform	6,000.00	6,000.00	0.00	0.00	0.00

Documents				
Num.	Date	Amount	Dep. inv.	Paid
1	19/01/17	6,000.00	No	6,000.00

Deposits to be invoiced	
Date	Amount

Payment due dates	
Date	Amount

› Date: 18/01/2017 Default treatment proposal - Quotation No. 1

Proposed Invoice Number

In order to avoid any "vacant numbers" in the invoice numbers, while having at the same time a flexible choice of the invoice number, there is a function that, when generating a new invoice, proposes an invoice number that is not present in the archive. If the proposed number is not the one desired for the invoice to be issued, the default sequence number can be chosen. The presence in the archive of the number assigned to the current document can also be checked. This avoids to enter two accounting documents with the same number. If a skipped invoice number is desired, the programme will automatically assign the invoice date associated to the previous invoice and not to the present date, in such a way to maintain a correct order for both the numbers and the dates of the invoices.

Type of invoices

Characters can be entered after the invoice number on XDENT, thus allowing an advanced management in case of need to have differentiated invoices. In order to improve such a function, more suffixes can be managed in the invoice numbers, which means that a different letter can be associated for each invoice issuer registered into XDENT. This function can be customized in the XDENT Settings under "accounting" where the default invoice issuer can be moreover set for the workstation.

Prime Entry

In order to speed up the management of prime entries, these are logically divided by years and can be selected by a pushbutton with a list of all years for which there are prime entries in the archive.

No.	Date	Total am.	Reason
79	19/01/17	6000.00	Invoice no. 1 of 19/01/2
80	19/01/17	6000.00	Payment collection of: Inv
82	19/01/17	1512.00	Invoice no. 2 of 19/01/2
83	19/01/17	1512.00	Payment collection of: Inv

Independently from the entries displayed, printing or exporting will be possible by defining the initial and final date of the desired time range.

The Export button in the management window of the prime entry will allow to export the prime entry by selecting the desired time range. Among the amounts exported for each entry, starting from this version, there will also be Client, Supplier and Type of Payment. Such an ability will increase the opportunity to have post-processing with third-party software such as Excel.

Payment of issued invoices

It is necessary to distinguish between two cases:

- invoices containing VAT-based treatments
- (only Italian version) invoices containing VAT-free treatments

a) In the first case, issue and collection are two separate transactions and two steps will have to be carried out:

- Issuing the invoice from the patient accounting record as described above
- Paying the invoice, also partially, from *Credit collection* in the *Accounting* menu,

(only International version) also by asking the issue of the payment receipt; if the receipt is required to be issued, this will include the reference to the paid invoice

In any case, payment will be allowed for a net amount of any previous deposits or payments, as mentioned above (see "Invoice issuing").

b) In the second case, as professionals are not obliged to issue an invoice when providing a treatment, but only when receiving the payment, and in the view of simplifying the management activities, issue and collection transactions can occur in XDENT at the same time as the invoice issue.

The payment date can be moreover entered in the collection window. This will allow to issue an invoice with a specific date and to collect it later.

The invoice transaction will generate two prime entry transactions: one related to the invoice issue with the same date as the invoice, and another one related to the collection with the same date as the collection date which is not necessarily the same as the invoice date.

In this way, also unpaid invoices can be registered, thus with a deferred payment. When the patient pays, the invoice will only have to be opened and ticked as paid, by simply adding the payment date. The payment mode (also mixed) could be specified with three different modes of payment (i.e. one part in cash, one part by cheque or by POS cash register systems)

In order to have a report that takes into account only collections and not invoices issued in a specific period, use the Revenues report by ticking the check "*only prime entry transactions*".

The issue of invoices can also use a function that allows to inform the practitioner, when confirming a cash payment higher than € 1,000.00.

Changing VAT Rate

The VAT rate can be changed for invoices received and issued existing in all XDENT versions.

During the invoice issuing procedure, when the '*VAT-based invoice*' check is enabled, a selection dialogue appears where the type of rate to apply will have to be selected.

This version makes sure that all issued invoices with different rates in the archive can coexist; such as 20, 21 and 22.

(only Italian version) According to the existing regulatory amendments, 22% VAT rate has been added and all VAT-based treatments and items have been amended by changing the rate from 21 to 22. Moreover, all procedures that had default VAT amounts to 21% have been updated by increasing the amounts to 22%.

Customised due dates

In order to provide a far more complete management for registering issuing or receiving documents, there is the possibility to set customized payment dates. A specific date can be set to define the document due date. A customized due date can be set directly in the document registration window; besides the already existing modes of payment, there is also "customized" allowing to set due date, amount and mode of payment.

Statistics-based tax assessment

(only Italian version) Updated forms and calculations for statistics-based tax assessments related to the Unified Tax Return Form of the current year are available. The calculation is based on the income and expenses occurred in the tax period of the previous fiscal year.

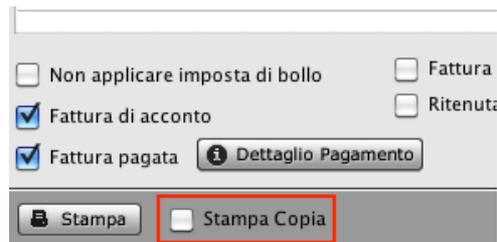
Data resulting from the statistics-based tax assessment of the previous tax year are also available to allow comparisons.

Managing issued documents

From the Accounting menu, a list of issued documents can be obtained where these can be selected by type via check-boxes placed in the lower part of the management window.

From this window, invoices can be printed.

Moreover, the *Print a copy of the invoice* button allows to distinguish whether the invoice printed is a copy. Before printing, it is sufficient to select the “Print a Copy” flag.



Multimedia Archive

The XDENT image module has a new design and interface as well as many other functions:

- New image and video general archive
- Image category archive
- Onfly acquisition
- Image space reduction factor
- Integration with DPM for the storage of 3D CAT scans

The management window of the multimedia archive shows a list of thumbnails of the stored images that can be filtered by acquisition event, category or keyword. Every thumbnail can be selected to be edited or displayed in a picture-comparison window.

Image and video general archive

XDENT multimedia archive can be globally and independently managed by each single patient.

In the *Multimedia* menu, there is the entry *Multimedia Archive* by which the entire archive can be accessed.

On the left bar, all acquisition events are available. By selecting one or more acquisition events, thumbnails of stored multimedia items are displayed (pictures and/or videos).

Each event is identified by patient name and acquisition date which define the event univocally.

TIP

By clicking the event bar, each single event is selected thus displaying all thumbnails on the screen. By the general management of the multimedia archive, all elements related to a patient can be searched by clicking the *Search patient* button placed top left of the management window.

Category Archive

The medical imaging-related category archive can be managed. The archive can be found under Image Categories.

The management of categories allows to add, cancel or edit the categories to be associated or already associated to the multimedia archive images.

Via this management, all stored images can be classified, thus quickly modifying also the categories associated to the already stored images.

In the category management, there are two check boxes

- *Default category*
- *CAT-related category*

These two checks are used to define the default category for the images acquired by drag & drop and for the CAT scans imported via DICOMRx integration. Obviously, only one category in the archive could be defined as default category or as CAT-related category. The category assigned to the image or CAT can be modified after the import by the *Category* button of the management window in the multimedia archive.

In the diagnostic imaging and video management window, there is a list of categories of the stored images. For each category in the list, there is category name, number of images with an assigned category.

By clicking one category, only thumbnails of the images belonging to that category will be displayed. For instance, by clicking on panorex category, all panorex images are shown divided by acquisition events.

OnFly Acquisition

OnFly acquisition mode is available. By this function, XDENT waits to receive images into a target folder as defined in the settings.

Such a function is designed to use the features of the new Wi-Fi SD Cards through which pictures can be taken and sent to the PC or to the Mac in Wi-Fi mode. By this mode, as soon as the PC or MAC receives the image, this is immediately acquired in the patient multimedia archive.

Integration with DICOMRx for managing the 3D CAT archive

XDENT integrates the archive management of the CAT scans on PACS server.

Such an important function allows to quickly store and search the patient CAT scans.

Such a function is made possible by the integration with DicomPlayMaker software which includes a PACS server, some software modules to save and select DICOM images from PACS server, and a 3D viewer/editor to display and possibly edit the CAT scan.

In order to enable the function, use the Acquire CAT button.

Such a button enables a menu from which one of the following entries can be selected:

- *Acquire from patient CD*
- *Acquire from other device*

If the first entry is selected, CAT acquisition starts automatically by searching it into the CD player of the workstation. The procedure will select the DICOM information about the scan from the optical device and will put them into the PACS server storing the DICOM tags in the scan (check of personal data, scan date, etc..).

Once the procedure is enabled, the user can keep on working on XDENT during acquisition. When the acquisition procedure is complete, the patient multimedia archive will contain a reference to the CAT scan acquired.

By this reference, the scan could be selected from the PACS server and the CAT displayed on the 3D viewer. Also this operation will occur by simply double-clicking the thumbnail that identifies the CAT scan in the multimedia archive.

All CAT scans will be identified by the default CAT category in the category archive with date and time corresponding to the acquisition event.

TIP

In order to see all stored CAT scans, access the general multimedia management (*Image Archive* in *Multimedia* menu) and select the CAT category from the category list. In order to see all patient CAT scans in the same window, select the desired patient.

[DICOMRx software](#) is a separate module from XDENT; to buy it, please contact the Area Sales Office.

Image space reduction factors

Special algorithms have been designed to compress and reduce the space taken by an image. The reduction obtained is very high and depends of course on the type and quality of the original image. However, during the laboratory tests carried out, up to a ten-fold space reduction was obtained, without significantly losing quality.

In order to define the reduction factor, access the new *Multimedia* panel in the *Settings* where there is the check to enable the reduction algorithms as well as a cursor to set how much to reduce the images that will be acquired.

A smaller size of the images managed allows to optimize the use of XDENT functions, thus

speeding both data coming from the clients to the server and the processing of the single client during the visualization and editing of thumbnails and images.

TIP

With XDENT Cloud, the compression function is enabled by default and an average compression factor is previously selected. Such a choice allows a much more easily use of the images existing on the Cloud servers.

Image Import

Images can be acquired individually or as a group (by selecting an image folder) either by Add or by the drag&drop function.

The acquisition of the images in case of group acquisition is in alphabetical order based on the file name. This is quite useful if the file name reflects the time order of the shots (as with digital cameras and some RVG)

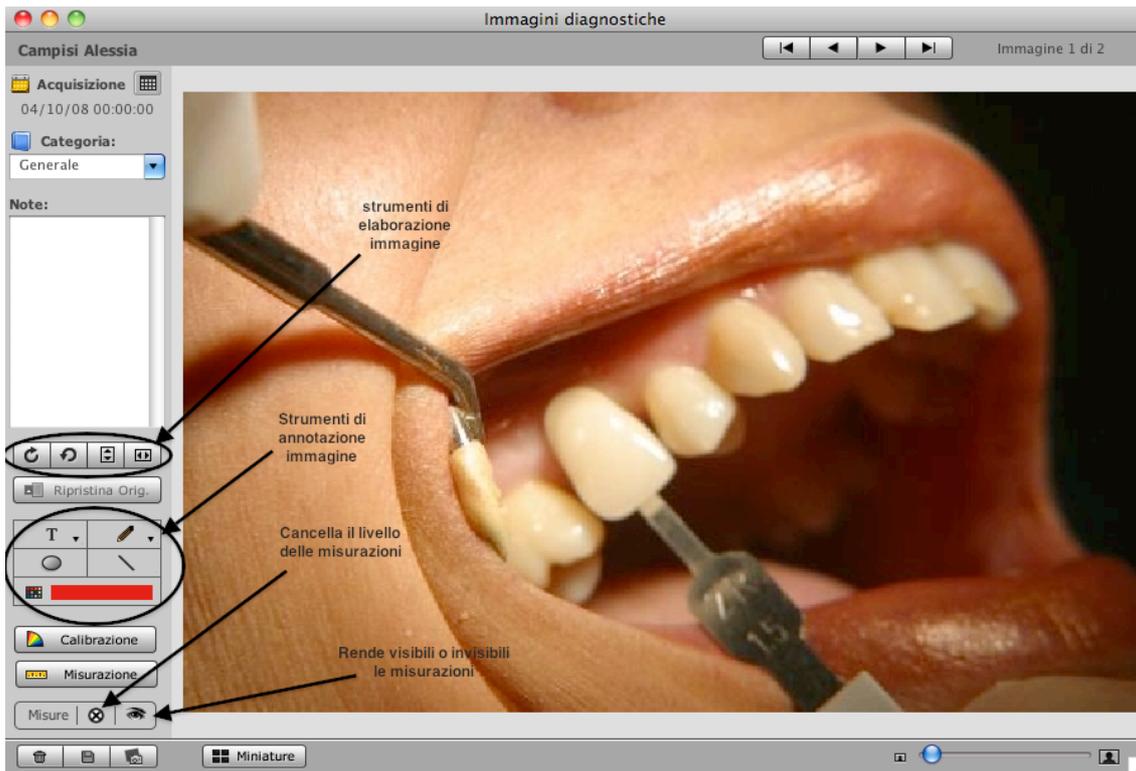
Image Editing

The Multimedia Archive of each patient is provided with tools to edit images and to carry out measurements.

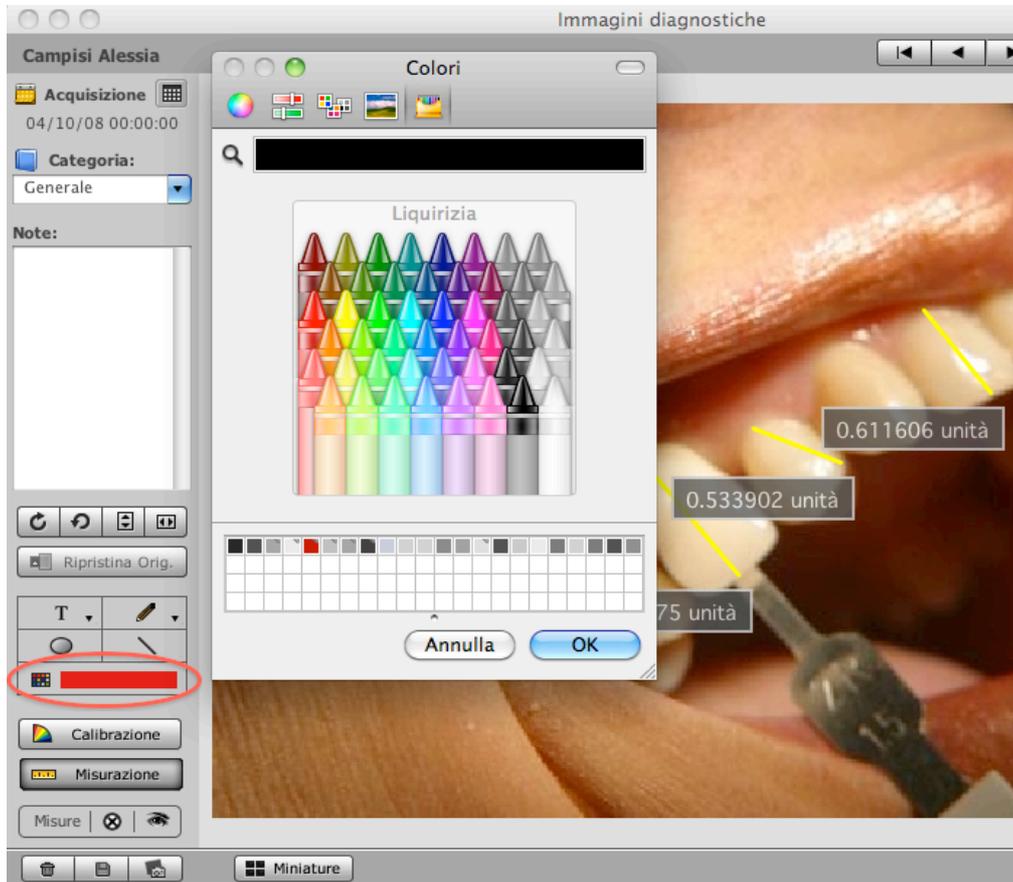
Tools

By clicking the thumbnail of the medical imaging, the editing window can be accessed and the following tools can be used to

- Turn the image clockwise and anticlockwise
- Mirror the image vertically and horizontally
- Put a note on the image;
- Highlight some parts of the image
- Draw circles;
- Draw straight lines.



All the tools are associated to a list of colours from which to choose the colour corresponding to the tool used.



The editing operations on the image modify permanently the image itself. The original image can be however restored anytime by a special function.

Measurements

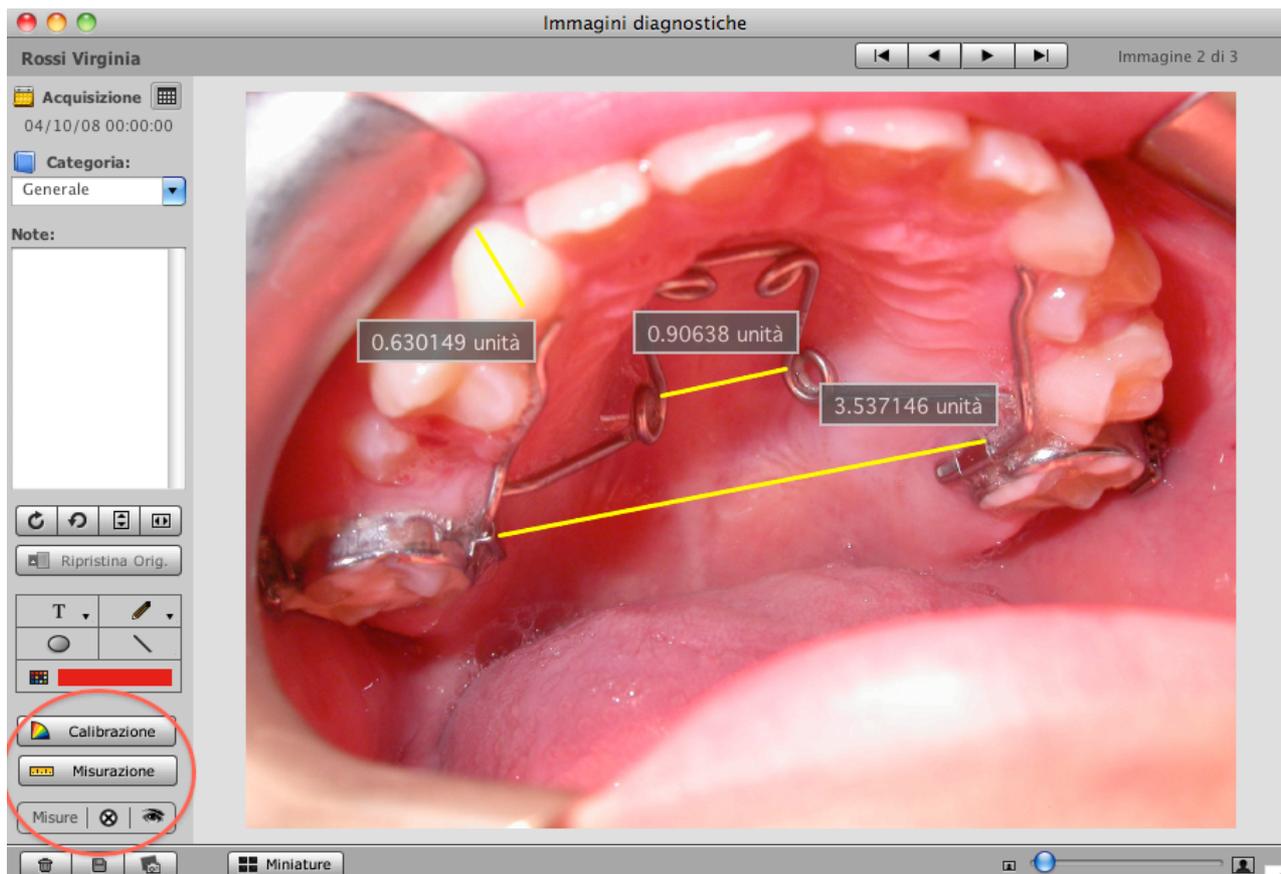
In order to carry out the measurements on the image, it is necessary to carry out the calibration. Such an operation allows to correctly detect measurements.

If the image is imported via DICOMRx, it is not necessary to do the calibration as, during the scan, the driver of the X-ray template transfers all necessary information for the calibration to XDENT.

During a measurement, XDENT automatically signals the need to calibrate, if necessary.

Such a calibration will allow to carry out the measurements by specifying the ratio of the calibrated segment in millimeters.

The measurements carried out on the image are overlapped and can be seen or not by clicking a button. Each single measurement can be moved by dragging the measuring field with the mouse. A measurement can be cancelled by right clicking the measuring field. In order to cancel all measurements, use the button in the editing tools palette.



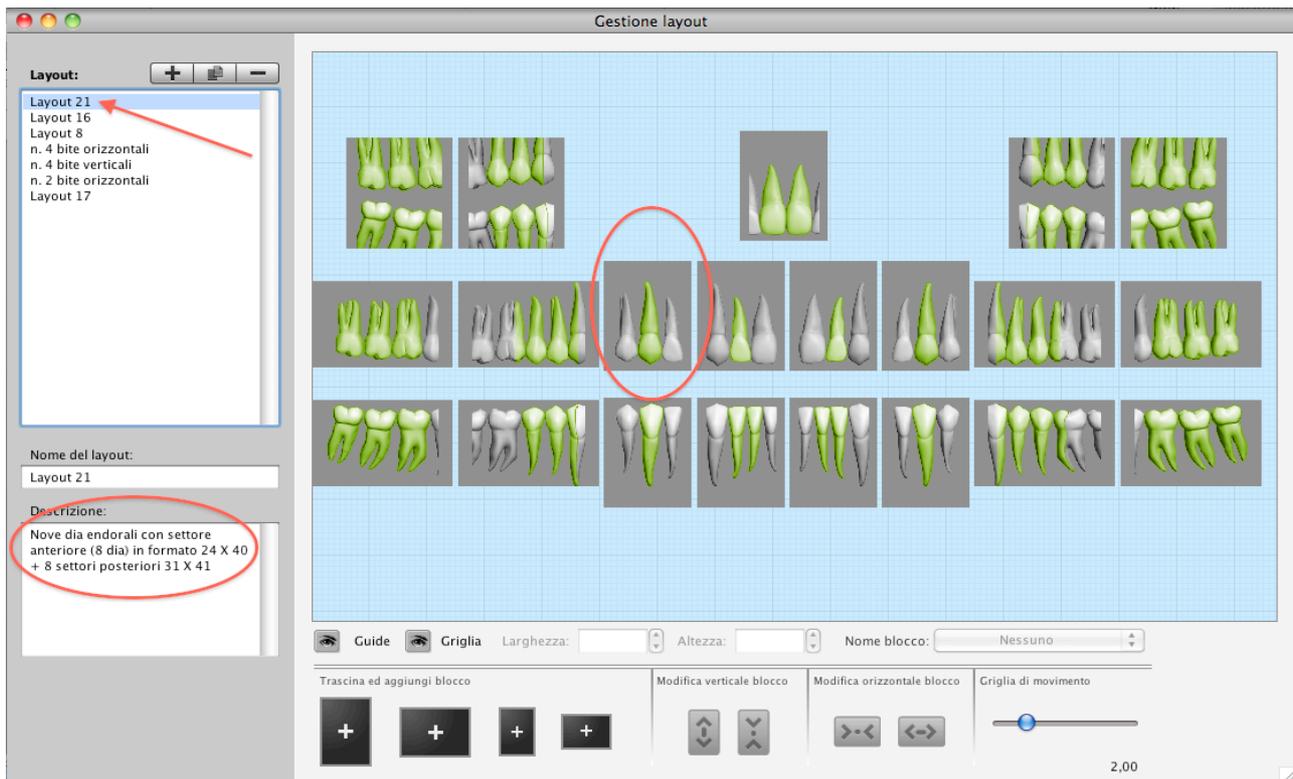
Layout

The layout archive allows to customize *templates* starting from which the status will be created. XDENT is installed with a default set of layouts that can be customized by eliminating, modifying or adding new layouts.

Access to **Layout Management** is done through the corresponding entry in the MultiMedia menu.

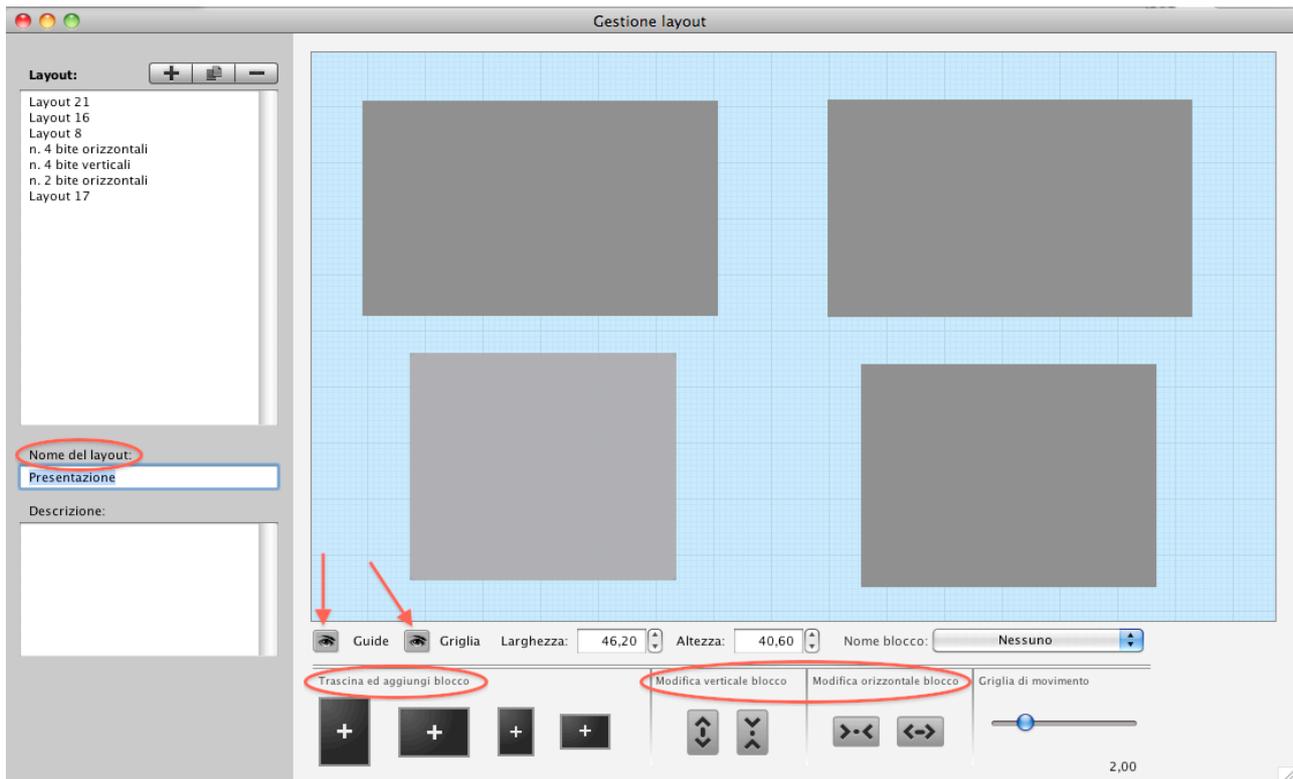
The default layouts correspond to the 'frames' of the endoral x-rays and are made up of a set of blocks in which each block is identified by a name and highlights, by means of a special design, the item and the dental items of the endoral x-rays.

As an example, here follows an image of layout 21 made up of nine dia-endoral images with a front sector (8 dia) size 24 X 40 + 8 rear sectors size 31 X 41. Each block can be modified in width and height.



In order to define a new layout, start from an empty scheme or an already existing layout and use the Duplicate function. There is a set of highly intuitive editing tools allowing to position the blocks and to change their horizontal and vertical size.

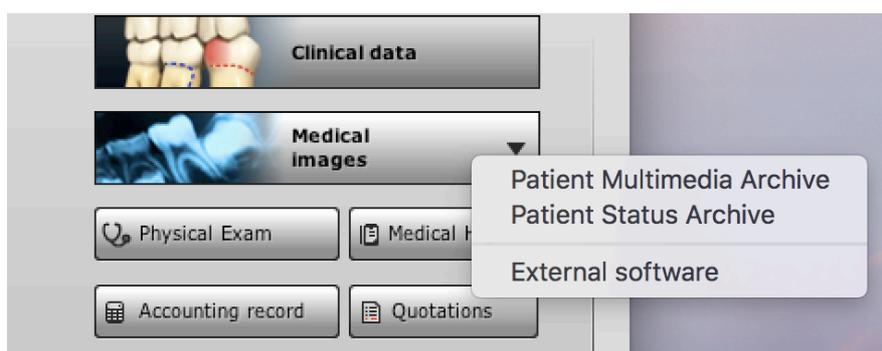
Layouts can also be used to define a useful template for the storage or display of the treatment status. For instance, if a layout is to be created for showing a 4-image layout: one for a picture, one for an endoral x-ray, one for the periodontal data of a sextant and one for the summary data of a periodontal record, a new layout with 4 blocks can be defined. Once the blocks are positioned and sized, a name will be assigned to the layout that will be available to subsequently store a status.



Patient Status Archive

The Status implement a technique to define both the **x-ray status** of the patient and any image combination that can be used for instance to display the **treatment status** or to better photograph the evolution trend of a treatment plan.

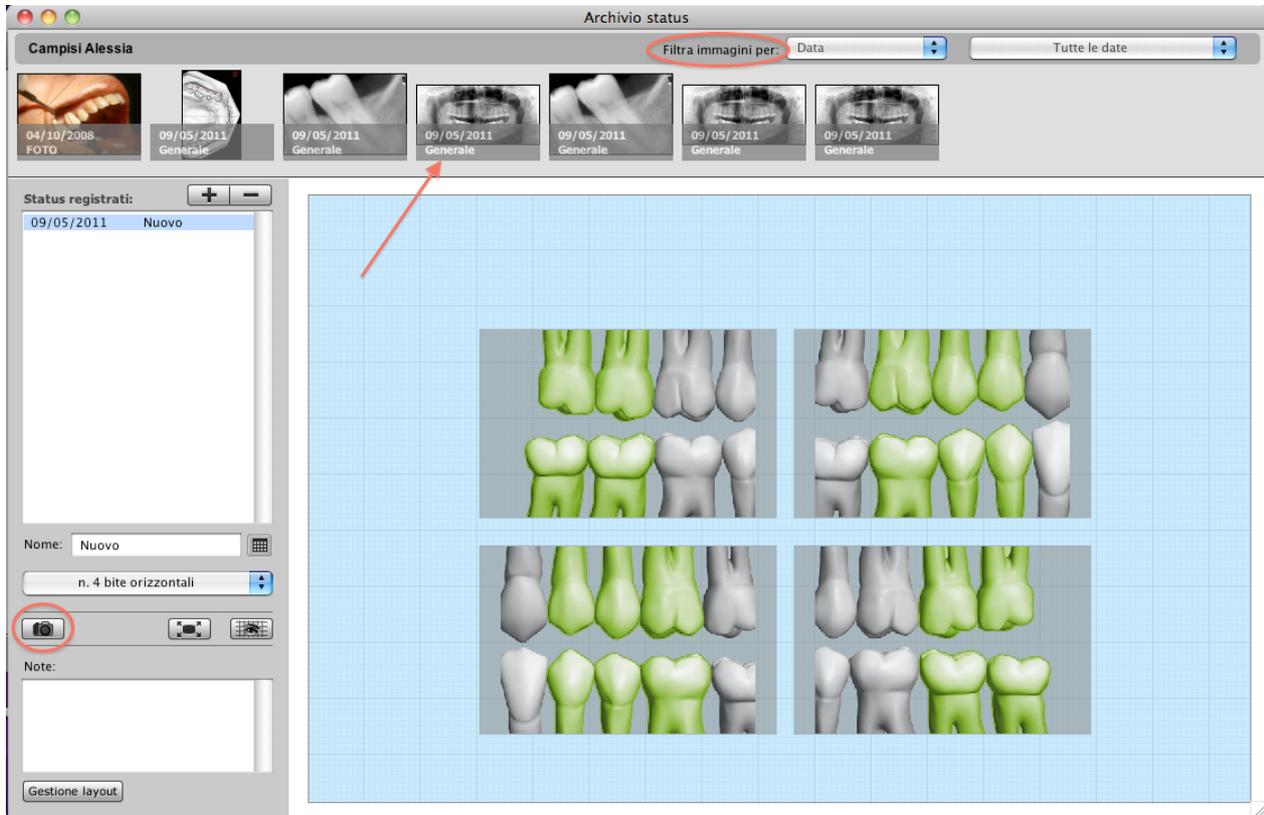
From the button of the patient **Diagnostic Imaging**, select **Patient Status Archive**.



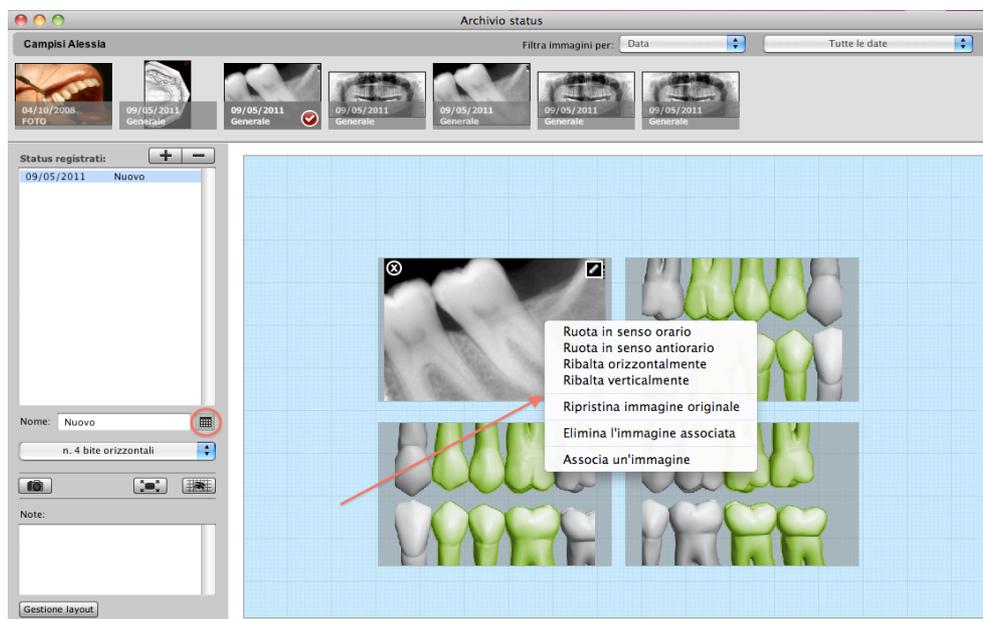
The window of the Status Archive will be enabled and from there all the Status found for a patient could be accessed. To create a new status, use the + button, assign a name to the status (the name *new* will be suggested) and choose the status layout.

Once the layout has been chosen, select from the multimedia archive the diagnostic images to associate to the status. The selection is done by filtering the stored images for that patient based

on the following search parameters: *by date, by category or by keyword*. The images that meet the specified search criteria will be shown in the upper bar where date and category will be shown for each image.

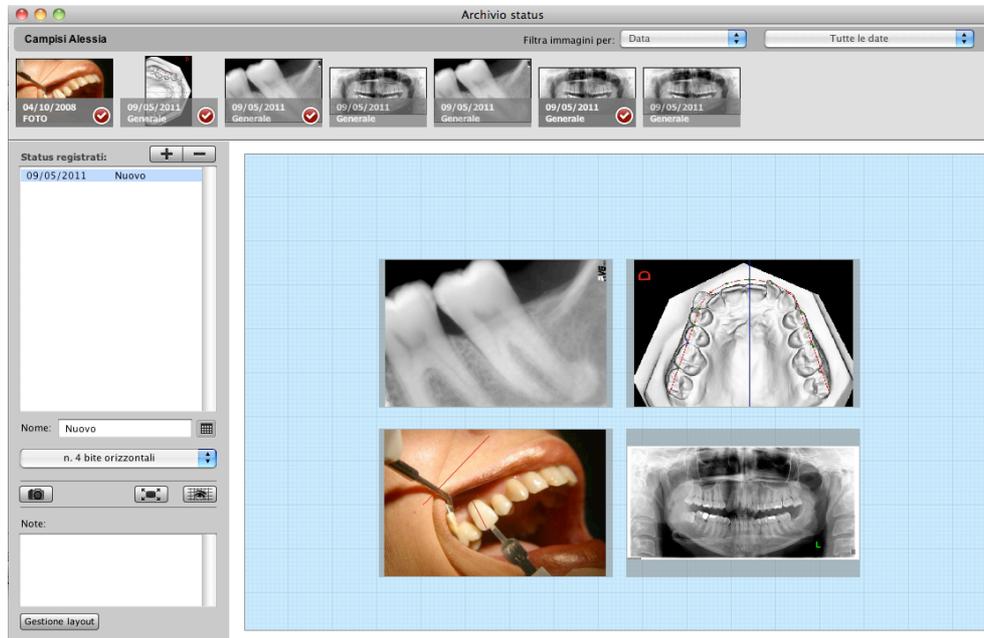


Select and drag the image on the block to transfer the image into the status. Alternatively, right-click the block to highlight the context menu which will not only allow to associate an image but also to rotate, reverse, modify or cancel the image of the block.



The status date is set by default to the current date, although this can be changed by the *Calendar* button.

Once defined the status, this can be **imported into the multimedia archive** of the patient by clicking Import.



TIP

Use this function to create an image of the status that can be used to show medical cases with software such as Keynote by Apple or Powerpoint by Microsoft.

Xinfo

Xinfo is a Practice/Patient communication tool made up of two modules: one for the patient that can be installed on his/her own Smartphone or Tablet, and another one for the practice, as an integrated module in XDENT software or as stand-alone software to be used via the Cloud.

Via Xinfo, the practice and the patient can interact in different ways both actively and by informational way. The practice will be provided with several tools fully dedicated to manage the patients using Xinfo, ranging from the management of the therapeutic indications specific to the patient treatment plan to the possibility to create a general archive of frequent questions and answers available to patients (First-aid FAQ).

In such a context, the most important tool that the office will have is the new **Communication Centre**. The Communication Centre includes all the CRM functions of the office and therefore manages all the Practice/Patient interaction modes in both communication directions. In quite an easy and thorough way, the practice could have access to recalls to be sent to the patients, to practice news, to appointment notifications or requests received. All of this could occur by receipt notification systems fully integrated in XDENT. On the other side, the patient could benefit from the convenience of interacting with his/her own medical staff directly from his/her own Smartphone or Tablet, verifying appointments, checking the accounting situation, accessing to documents and so on.

The communication management includes different communication tools: telephone (traditional phone and VoIP), SMS, e-mails and notifications.

Xinfo Configuration

From the Services Menu, under Xinfo, Xinfo configuration can be accessed.

Xinfo configuration can be completed by completing the following sections:

1. Configuration data
2. Add office logo
3. Cover image
4. Images on display

1. Configuration data: Office contacts can be entered here. This section contains the office telephone number, the mobile number to receive SMS coming from the patient, the e-mail address and the full office address. It is moreover possible to decide whether to give the patient the ability to visualize his/her own accounting situation by selecting or deselecting a check box, and to set how many days before, the appointment request is to be sent. This information is available under "Contacts" in the Xinfo main menu.

2. Add office logo: under "add office logo", an office logo can be added or removed. By clicking the + button, an image can be added by specifying the path and then a preview will be shown. The logo will be immediately visible in the main menu of Xinfo application.

3. Cover image: Inside Xinfo application, a cover image can be managed and displayed directly on the application main menu. Here, the desired image can be added, such as a picture of the office.

4. Images on display: last section for completing the Xinfo configuration where images on display can be added. Up to 5 images can be added and displayed inside the Xinfo main menu. By

touching the cover image on his/her own device, the user can access the showcase and see the images added. Images can be browsed by horizontally scrolling pages on the device with a finger.

Additionally, the Xinfo configurations window contains the service validity period.

Therapeutic indications

Therapeutic indications give the ability to define an archive of default statements to be used to define the patient treatment plans. They can be managed by the archive menu under “therapeutic indications”. Inside the window “therapeutic indications”, by clicking on the + button, a new indication can be added and notes can be associated.

Thanks to the integration of Xinfo into XDENT, when a new treatment plan is created from the patient treatment plan, a field is shown where it is possible to select the specific indication to be associated to the treatment plan (among the existing ones) from a drop-down menu.

The therapeutic indications are moreover available to the user using Xinfo on his/her own device. By this device, the user can in fact see his/her own treatment plans and if a treatment plan is selected, all associated therapeutic indications are shown.

First Aid

First Aid is a very useful function to Xinfo users. On XDENT, under the document menu, a new entry called “First Aid FAQ” has been added, where a set of frequent questions and answers can be found, divided by category. By creating a new first aid category and by clicking “add”, new questions and answers can be added.

This info can be accessed by the user from the main Xinfo menu. By clicking “First Aid”, the most frequent first aid-related questions can be accessed. The user could then consult anytime the doctor advice and the procedures to follow.

Treatment description

The treatment archive has been modified by adding the “Description in Xinfo” field. In this new field, a treatment description to be provided to the patient can be specified, in such a way to more easily understand the treatments of a treatment plan.

Communication Centre

Managing the office communications in XDENT becomes a CRM tool that allows to manage all the practice communications in a two-direction and controlled way.

As all modern systems to manage relationships with users (CRM), XDENT has a control panel called Communication Centre that can be accessed to manage all inbound and outbound communications and to manage with professionalism and accuracy the patient resources as it should happen in a modern medical office.

The CRM in XDENT identifies with the new Communication Centre that can be accessed from the Operations menu or by the main bar of XDENT. Via the Communication Centre, the following items can be checked and managed

1. Communications with patients in different ways (SMS, letter, e-mail, Xprint and notification)
2. Multiple communications to be sent to patients
3. Management of news to post on Xinfo
4. Notifications received via Xinfo

1. Managing Communications

When a new Communication Centre is opened, all inbound and outbound communications managed by the office are shown for a desired time range.

The screenshot displays the 'Centro comunicazioni' interface. At the top, there is a search bar and navigation tabs for 'Gestione Comunicazioni', 'Comunicazioni Multiple', 'Notifiche Ricevute', 'Gestione News', and 'Gestione Comunicazioni'. Below the navigation, there are filters for 'Mese:' (set to 'Tutti'), 'Tutti', and 'Nascondi Recall appuntamenti'. The main area is a table with columns: Destinatario, Cell. e Tel., Tipo, Richiedente, Data, Note, and Stato. The table lists several communications, including those from 'Primerano Francesco', 'Campisi Alessia', and 'Bianchi Virginia'. Red annotations highlight specific features: 'filtra per destinatario della comunicazione' points to the 'Tipo' column; 'filtro di ricerca per mese e anno' points to the 'Mese:' filter; 'modalità di invio delle comunicazioni' points to the bottom toolbar; and 'stato della comunicazione: -effettuata il 17/12/12 alle ore 00:46 tramite telefono' points to the 'Stato' column. The bottom toolbar includes icons for 'Aggiungi', 'Elimina', 'Trova', 'Consulta', 'Report', and a 'modalità di invio' section with options for 'Lettera', 'Xprint', 'Email', 'SMS', 'Notifica', and 'Telefono'.

Destinatario	Cell. e Tel.	Tipo	Richiedente	Data	Note	Stato
Primerano Francesco	Cell.: +3933324232423 Tel.: 023123456			29/12/2012		Da inviare
Primerano Francesco	Cell.: +3933324232423 Tel.: 023123456	filtra per destinatario della comunicazione	Dr. Verdi	17/12/2012	chiedere analisi del sangue	17/12/2012 00:46
Primerano Francesco	Cell.: +3933324232423 Tel.: 023123456	filtro di ricerca per mese e anno		17/12/2012	stato della comunicazione: -effettuata il 17/12/12 alle ore 00:46 tramite telefono	17/12/2012 00:46
Campisi Alessia	Cell.: +3933432232341 Tel.: 067512345523			17/12/2012		17/12/2012 00:46
Bianchi Virginia	Cell.: +3933312344556 Tel.: 093212344567			17/12/2012		17/12/2012 00:46
Primerano Francesco	Cell.: +3933324232423 Tel.: 023123456			17/12/2012		Da inviare
Campisi Alessia	Cell.: +3933432232341 Tel.: 067512345523			17/12/2012	stato della comunicazione: -da inviare	Da inviare
Bianchi Virginia	Cell.: +3933312344556 Tel.: 093212344567			17/12/2012		Da inviare
Bianchi Virginia	Cell.: +3933312344556 Tel.: 093212344567			17/12/2012		17/12/2012 00:46

Among the communications, there will be the recalls automatically generated by the system after a treatment as well as the recalls of appointments sent via SMS or notifications resulting from the daily and weekly scheduling.

The send modes for each communication are the following:

- *Letters*: prints the communication
- *Xprint*: uses the service of communication and mailing integrated exclusively in XDENT
- *E-mail*: sends the communication by e-mail
- *SMS*: sends the communication by SMS
- *Notification*: sends the communication by the Xinfo service if the practice is enabled and if the patient has enabled the service
- *Telephone*: if the office has a XDENT-integrated VoIP telephone system, the workstation will automatically call the patient

The communications to be sent need to be selected and the send mode icon pushed. For instance, if three communications need to be sent by SMS, select them from the list and then push SMS.

Once the communication has been sent, a management window will appear in which can be added notes on the communication and the following options selected: close communication, leave open (and optionally the reason why) or reschedule the communication to a specific date.

In case of telephone communications, calls can be made and the Notes field can be used to take notes of the conversation with the patient. Then, leave the communication open and write "Recall" in the reason field, if the speaker asks to be called back later.

Eventually, the communication status can be the following ones:

- To be sent (no communication)
- Finished (communication finished)
- Open (communication to be managed as not finished)

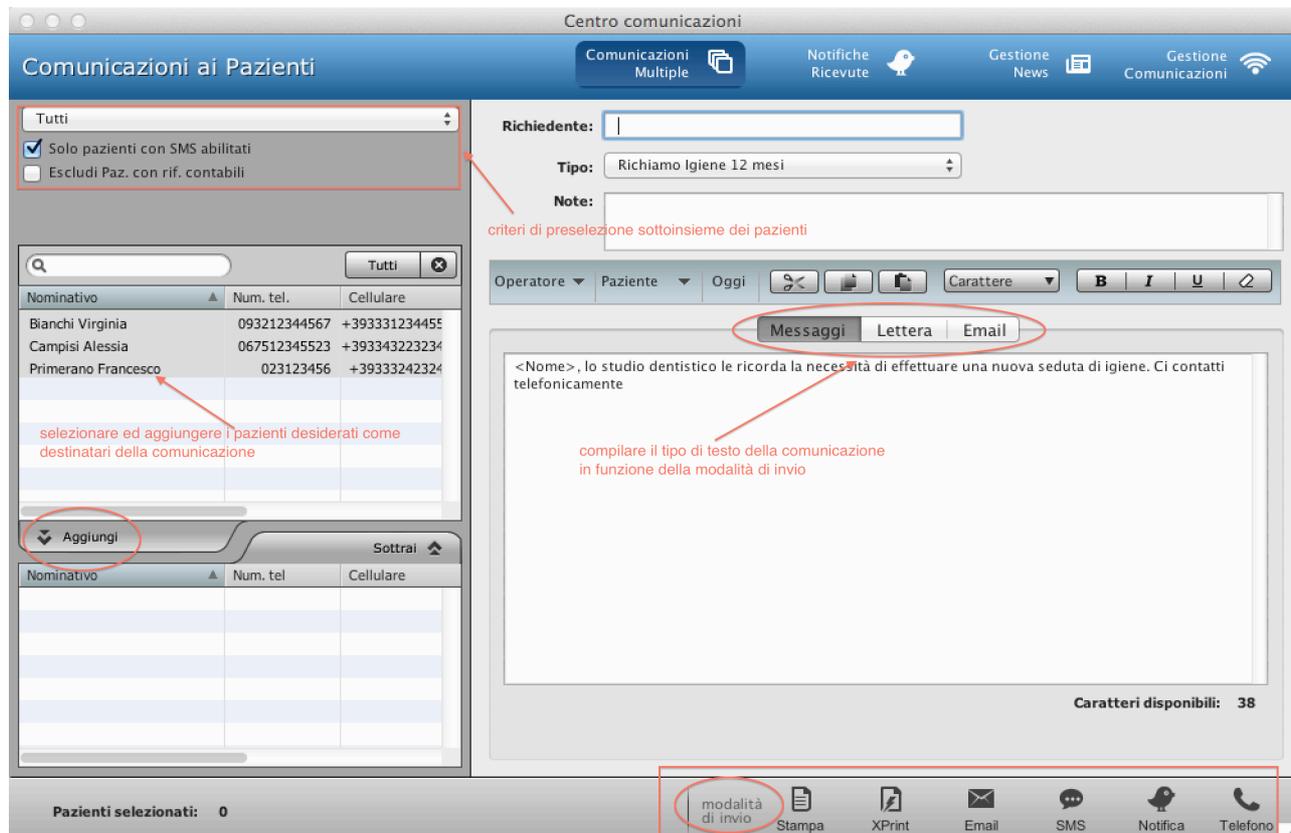
In the figure below are shown the icons used in case of telephone communications: communication finished (green), to do, open (orange)



Besides visualizing all communications and recalls to be sent, all Recalls of appointments occurred can be tracked in the planning. Optionally, the recall can also not be displayed in the communication list by clicking *Hide Appointment Recall*.

2. Multiple communications

By the multiple communications, a communication can be sent to more selected users based on some default criteria or by manually selecting them.



Patient preselection criteria:

- All Patients
- All Active Patients
- All Inactive Patients
- All Patients with special categories (select the desired category)
- Patients whose birthday is on the specified day
- Patients with no reservation
- Patients with debts
- Unpaid due dates
- Patients with at least one Accepted Quotation
- Patients with no Accepted quotations
- Patients with Undone Treatments on missed appointments

Once identified a group of patients meeting one of the above search conditions, this selection could be further restricted. As shown in the picture, selection can be made from the list and the *Add* button pushed.

On the right side of the window, the type and mode of communication can be selected that can be extracted from the communication archive and pre-selected by the drop-down menu with the Type tag.

The communication can occur in different ways:

- messages: used to send SMS and Notifications
- letter: used to print letters and to send Xprints
- Email: used to send e-mails

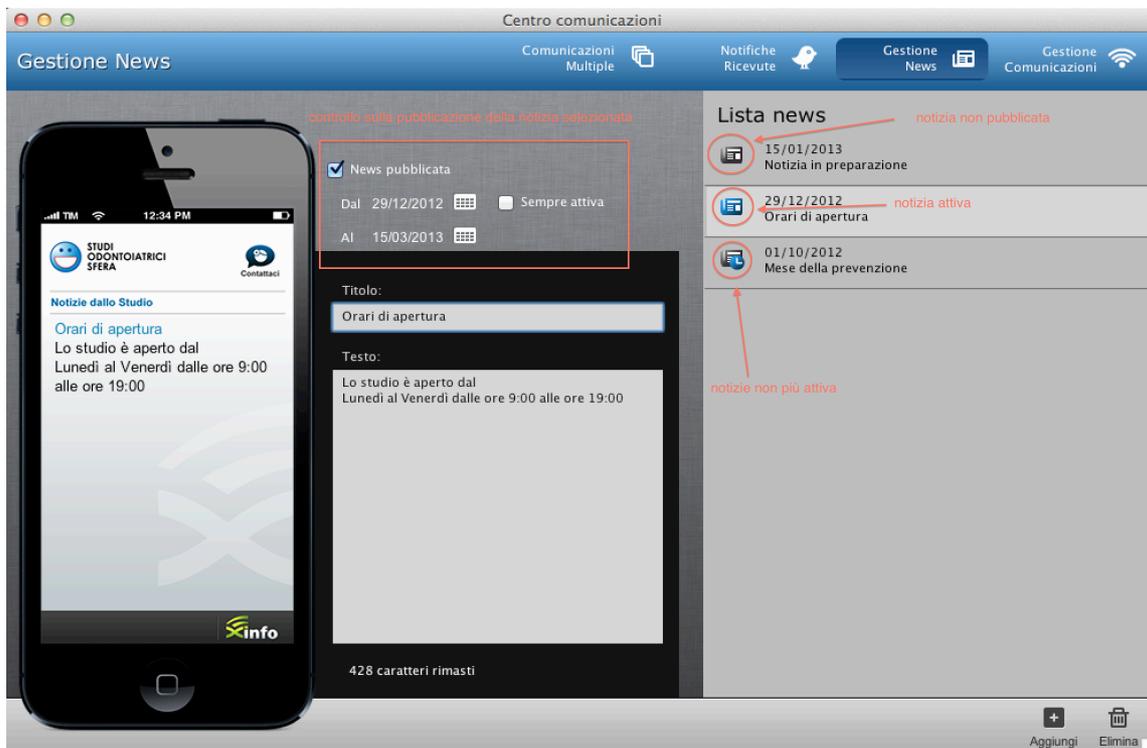
The send mode can be chosen to forward the communication to the selected users.

Please note the send mode by notification. By writing the text of the message, the communication can be sent via the notification system. In such a way, the user will receive the notification with the message directly on his/her own mobile device, even when the Xinfo app is off.

3. Managing News

By this section of the Communication Centre, all practice News can be managed.

The News Management is implemented inside the Xinfo service and allows to deliver all news that the Medical Office wants to communicate to the enabled patients. Each piece of news is notified to all enabled patients that have Smartphone and Tablet Android or Apple.



Here, users can add new pieces of News by clicking the button “add”. Each piece of News is identified by a title or a text and news can be written and published on the Xinfo platform only when desired by clicking the checkbox “Published news”.

The publication dates of the news can also be scheduled by setting the desired period or by setting the News activation date and then selecting “always on” so to leave the news published for an indefinite period of time.

While writing the News text, this is displayed on the iPhone graphic emulator and a preview is available showing how the image will be displayed on the patient mobile device.

The News Archive is shown as a scroll banner on Xinfo home page.

All News created inside the XDENT News Management are displayed on the Xinfo home page with an animated banner that shows all published news.

4. Notifications received

Receiving a notification is a new function of Xinfo service. Patients enabled to the service could use this new communication way nowadays widely widespread and used in the world of Smartphones and Tablets.

Via Xinfo, patients will be able to send two types of notifications to the Practice:

- Patient/Practice communication notifications
- Appointment requests

The Patient/Practice communication notifications are sent by the patients through the Contacts section in the Xinfo app.

Under Practice Contacts, by clicking "*notifications*", the patient can write the text of the communication to be sent to the practice. The notification will be then displayed in XDent under the "notifications received" window together with date, time, name and telephone number of the patient. The appointment request notifications are instead sent from the Xinfo appointment section. The patient will enter date and time of the desired appointment and will add any further notes.

When XDent receives a notification sent via Xinfo, an **alert badge** is shown on the menu bar with the number of notifications received and not yet managed.

The two types of notifications received are highlighted in the list with different icons.

The following operations are available for each notification:

- Management by clicking *manage*
- Answer by clicking *reply*
- Appointment by clicking *scheduling*

By selecting the notification and by clicking the *manage* button, the notification can be ticked as managed and notes can be possibly added. By selecting the notification and by clicking the *reply* button, an answer can be sent to the patient by just writing a message that will be received as a notification. By selecting an appointment request-type notification, the scheduling of the specific day as well as the reply or management function could be opened with the *scheduling* button.

Sending Messages of Appointment Recalls

With the introduction of the Notifications, the terms used to send messages to the patients have been modified. In many contexts, there is no distinction between SMS and Notifications, the common term used is Messages.

TIP

XDENT will automatically send the message by SMS or Notification. If the practice has the Xinfo service on and the patient is enabled to receive notifications, XDENT will always send messages by using notifications. If the practice has enabled the patient to use Xinfo, the system will be able to understand if the user has registered to the service (that is if he/she downloaded the Xinfo App

and has signed in on the notifications server via the security certificates designed by Apple or Google), and if the user has not yet authenticated, XDENT will send an SMS instead of a notification.

A typical example of sending messages is the Appointment Recall. As usual, the Recall for the appointments of a day can be enabled through the specific scheduling button with one or multiple practitioners that is now generally referred to as Messages:



By the new function of sending notifications, XDENT **automatically recognize users with Xinfo on and will send them notifications instead of SMS**. The same text of the message will always be sent, independently on whether they are SMS or notifications.



The report of the Recall messages sent shown at the end of the message transmission has been reviewed so to be able to highlight the different send modes provided.

Additionally, the Appointment Recall communications are registered in the Communication Centre as all others. In this way, there is traceability of the communications sent also in case of Appointment Recall.

Multiple Communications –Xinfo patient filter

Among the selection filters of the patients to whom communications are to be sent, there is a filter called *Patients with Xinfo on*. By selecting this filter, among all the patients meeting the search requirement, only those with Xinfo service on will be taken into account, in other words those to whom a communication can be sent via notification.

Accounting Reports

Accounting reports are used to obtain essential information about cost and revenue analysis of the Practice. They are divided into two groups that can be selected by using the tabs on top of the window.

Treatments

The report of the treatments occurred in a specific time period related to one or all the practitioners will include the dental element on which the treatment has occurred. The report contains the total number of the treatments selected, the number of accounts and treatments with paid invoices. These amounts are shown in the report footer.

Income/Expenditure

This report shows the total income and expenditure for each month of the current year or the previous year and besides the monthly total amounts also the algebraic difference between the two amounts.

Turnover

This report is used to print the list of invoices in a specific time range. It has detailed information about all invoices and in fact separate elements are the VAT rate, the stamp duty (if paid) and the withholding tax calculated on the invoices.

Compensation and Credit Quota

In this report there is a checkbox called "Consider the steps taken". By selecting this flag, credits and quotas can be taken into account, resulting from carrying out each single step of the treatment.

The screenshot shows a software window titled "Accounting reports" with a sub-header "ACCOUNTING STATS (in a given timespan)". The interface includes several tabs: "Accounting", "Bill books", "Practitioners", "Treatments", and "Quotations". The "Quotations" tab is active, and within it, the "Quotas" sub-tab is selected. The main area contains the following options:

- From: 19/01/17 (with a calendar icon) and to: 19/01/17 (with a calendar icon). There is an unchecked checkbox for "All dates until".
- Buttons for "Quotas", "Treatments", "Treatments performed", and "Output".
- Section: "Calculate quotas for Supervisors, Practitioners, Sales Representatives or Reference Persons in the period".
- Radio buttons for selection: "All Clinic managers" (selected), "All Group Supervisors", "All Practitioners", "All Sales Representatives", and "All Reference person(s)".
- Option: "By single user" with an empty text input field and a search icon.
- Option: "Consider also the performed phases" (checkbox checked and circled in red) and "Calculus on the revenue" (checkbox unchecked).
- Radio buttons for calculation: "Quota gross of costs" (selected), "Quota net of financing costs", and "Quota net of total costs".
- A "Report" button.

In case of treatments in more steps, the steps will be displayed and not the treatment as a whole. As well as for costs, time and practitioners will be referred to costs, time and practitioners of the corresponding step and not of the treatment.

Any deposits and invoices paid will be divided into steps, according to their percentage value on the treatment.

If the report of the “Compensation Quota” is referred to the practitioners and to the “gross amount of the costs”, compensations could be calculated on each treatment as a function of the revenue date and not of the occurrence date. It will be necessary to select the “calculation on the amount received” flag.

The screenshot shows the 'Accounting reports' window with the 'ACCOUNTING STATS (in a given timespan)' title. The 'Practitioners' tab is selected. The date range is set from 19/01/17 to 19/01/17. The 'Quotas' sub-tab is active. The 'All Practitioners' radio button is selected. The 'Calculus on the revenue' checkbox is checked and circled in red. The 'Quota gross of costs' radio button is selected. The 'Report' button is visible at the bottom right.

The report will only show the treatments and/or steps that have received a deposit or an invoice payment in the time range defined in the search and that are reported as occurred.

If the treatment has occurred before the search time range, the amount displayed will only be the one received in the same period. Otherwise, if the treatment has occurred in the same search time range, the amount displayed will be equal to the sum of all revenues received also before the period taken into account. And this is because the quota is paid when the treatment has actually occurred.

If the report includes also the steps, any deposits and/or invoices paid, they will be divided in steps by their percentage value compared to the treatment. Moreover, these revenues will be distributed over the steps having as a priority the date of occurrence of the steps themselves.

Practitioners

This report summarizes all treatments carried out by the practitioners over a certain period.

To get this report, open the accounting reports, then move on to group 2 and eventually open the tab called *Practitioners*.

Select the desired period (by the dates on the top), so to obtain the treatments whose last change date falls under the above period.

The screenshot shows a web application window titled "Accounting reports". The main header is "ACCOUNTING STATS (in a given timespan)". Below the header are five tabs: "Accounting", "Bill books", "Practitioners", "Treatments", and "Quotations". The "Practitioners" tab is selected. The interface includes a date range selector with "From:" and "to:" fields, both set to "19/01/17". There is an unchecked checkbox for "All dates until". Below the date range is a sub-menu with "Quotas", "Treatments" (selected), "Treatments performed", and "Output". Under "Treatments", there are three checked checkboxes: "Performed", "In progress", and "To be performed". There are two radio buttons: "All practitioners" (selected) and "Selected practitioners". Below these is a text input field and a "Practitioners" button. At the bottom, there are two radio buttons: "Monthly" and "In the timespan" (selected), along with a "Report" button.

Among the other options in the report, the practitioner or practitioners whose treatments are desired can be chosen by selecting "*Selected Practitioners*". In order to know the work of **all** the practitioners, select option "*All practitioners*".

A selective search can also be done by choosing only the list of in-progress, to-do or already occurred treatments or any combination thereof. Such a choice is made by the user by selecting "*Occurred*", "*In progress*" or "*To do*".

The list obtained will have the date of the last change, the treatment description, the amount, the payments received for the amount invoiced and the residual amount to be paid for each treatment. Total amounts are on the report footer.

Credits

This section is used to show the credits of the patients that come to the practice for appointments on a particular day and the credit of the patients without any fixed appointments starting from the current date.

The period is referred to the scheduled appointments; this means that if an interval of one week is fixed, the patient list will be available, among those scheduled for the specific week, with an accounting balance other than zero. Particularly, the report will be useful to understand the accounting situation of the patients that will come to the practice on the same day or on the day after so to make accounting recalls.

Discounts

Used to show all discounts made over a desired period. The application options of the reports are many: there is in fact the possibility to visualize the data by filtering the search by patient and practitioner, and to choose whether the data are referred to treatments or types.

In this way, it is possible to know all discounts applied to a patient and/or by a specific practitioner. (The selection of the patient and/or the practitioner is always multiple so to be able to select one or more elements from the list).

Reports can be applied to all treatments or limited to a particular treatment or type.

The reports displays the total amounts of the list prices, of the discount applied in terms of amount and percentage but suggests also the name of practitioner and patient, the treatment, the type and the discount rate applied for each treatment.

Types

This report is used to display the treatments occurred by period and by type. Starting from this new version, the report has more detailed information and the pie chart contains the type percentage over the total amount.

Quotations

In the quotation reports there is a search rule allowing to display numeric statistics for all quotation status and another one allowing to filter quotations by amount. Moreover, an interval between two amounts can be chosen.

Appointment Reports

Scheduled appointments

This report lists all the scheduled appointments for a specific practitioner, in a specific period of time.

These can be selected also with reference to a specific practice or a study group.

The report lists all appointments with date, time, duration, patient, scheduled treatment and planned stage.

Missed appointments

The report extracts all appointments missed by patients from the XDENT archives, even if they have been cancelled from the agenda and replaced by other appointments.

Appointments can be obtained for one or all patients for a specific period of time. Also this report will include date, time and name of the patient, practitioner, scheduled treatments and planned stage.

The appointment reports provide statistics about the number and duration of the scheduled appointments (*Scheduling*) and the appointments missed by the patients (*Missed*) see previous section.

Statistical surveys can be carried out on estimated and actual time of appointments (*Times*). In particular, the number of appointments, the average hold time, the average estimated duration of appointment, the actual average duration of appointment and the average gap between average estimated and actual duration are found here. This information can be restricted to the activity of a specific practitioner and/or the appointments of a specific patient.

Besides having the information on totals from which also histogram and linear graphs can be obtained, a tabular visualization with the details of each appointment involved in the statistics is also available.

No appointments

The **no appointment** report allows to obtain statistical surveys on those patients that have had no appointments for a certain number of days. Besides the information about the patient, the date of the last appointment with the main practitioner, the treatment and the type of appointment are also available. Any existing future recalls can also be seen. The statistical surveys obtained from the report can be filtered by gender.

A practice communication can be sent based on the result obtained, by automatically transferring the patient list to the XDENT *Communication Centre* which allows to manage SMS, notifications, calls, e-mails and Xprints.

Patient reports

These reports allow to extract complete statistics on the practice patients.

Two report groups have been created.

Group 1 concerns new patients acquired by the practice.

Acquisitions

The Acquisition tab allows to display the list of new patients acquired over the desired period.

This information can be obtained by filtering by:

- Category
- Organization/Company
- Ass./ Social security
- Reference doctor
- Origin
- Commercial

A tabular detail is added to the global numerical result with the list of patients meeting the search requirement that can be transferred to the XDENT communication section for sending marketing communications.

With the other tabs, numerical statistics are obtained with reference to the acquisition date for each single type mentioned above.

Group 2 adds further information to the patient report. The number of patients filtered by age, gender and job is in fact displayed. Additionally, new entries such as postal codes and their filters have been added.

Treatment recalls

The **treatment recalls** report allows to obtain the list of patients that have not had a specific treatment for a certain time and that have no scheduled appointment for the desired treatment. The list can also be chosen and filtered by gender. Based on the result obtained, a communication can also be sent by the practice thus automatically transferring the list of patients to XDENT *Communication Centre* and allowing to manage SMS, notifications, calls, e-mails and Xprints.

Xinfo

This report is used to have the list of all the patients to whom a Xinfo code has been assigned and to know if the patients have used it, in other words if they have signed in on Xinfo with their own smartphone or tablet.

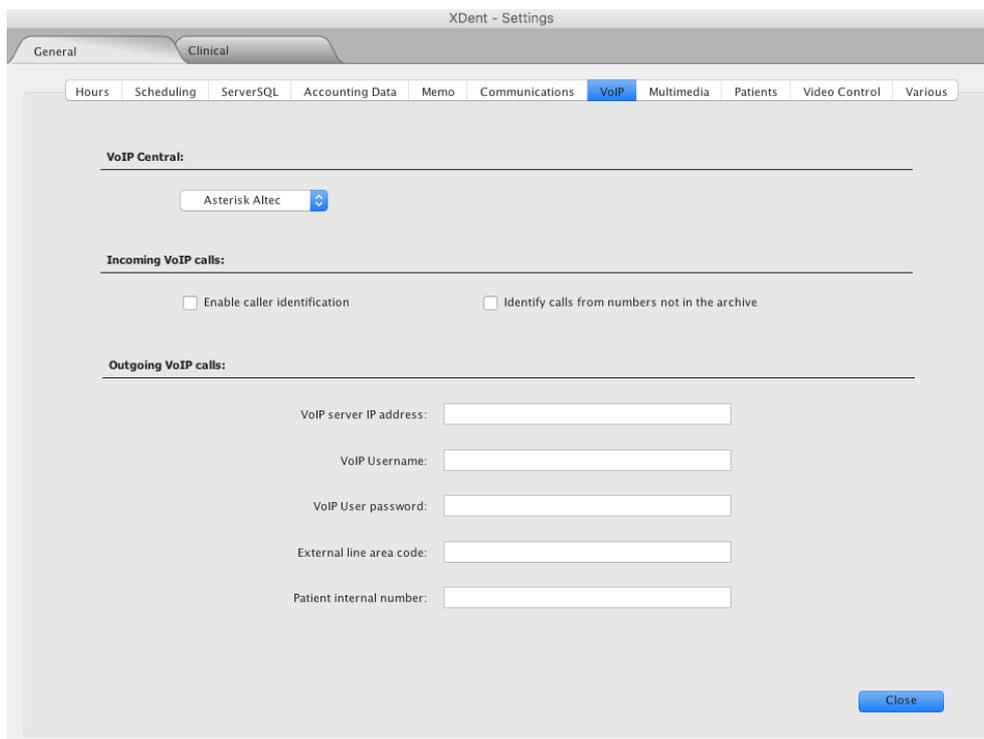
In order to have this last piece of information, tick *Search smartphones/tablets of the patients signed in on Xinfo*

VoIP Communications

XDENT integrates inbound and outbound VoIP communications thus allowing to immediately detect the caller and to make the phone call without dialing or searching the number to call.

The configurations of the VoIP communications depend on the settings of the installed VoIP unit. XDENT certifies the integration with the VoIP Dexgate units available in cross-platform environments such as Mac, Win and Linux.

In order to configure the management of the VoIP communications, open Settings and choose VoIP from the General tab.



Tick *Enable caller identification* when it is desired for XDENT to manage the inbound VoIP calls.

The section called VoIP outbound calls contain the entries required to make VoIP calls from XDENT. In order to enter these values correctly, consult the system administrator or the person who installed the VoIP unit.

Configuration of the XDENTbar of Dexgate:

In the settings, enter <http://127.0.0.1:8000/x> as http call

Enter *chiamate.txt* as a file

by selecting XDENT folder as path file (in Mac systems, this is /Applications/XDENT/ and for Windows systems C:\XDENT\)

Inbound calls

If Settings have been set in such a way to accept inbound calls, XDENT will interact with XDENT bar every time an inbound call is received. For each call received, the calling number will be searched

in XDENT Patient Archive that will become a real address book containing the numbers stored for the VoIP unit.

XDENT is able to identify any inbound number mentioned in the fields Tel. Nr., Home, Mobile, Office Tel. Nr. of the patient identity record. In order to identify numbers, it is necessary to enter them in the identity record with no spaces or symbols (i.e. 06123456789 instead of 06 123456789 or 06/123456789). If entering international numbers, enter the number as follows +3906123456789.

Once the calling number identified, XDENT will show a pop-up window in the lower right corner of the screen with picture, surname, name, age and reference doctor, if any, of the calling patient. The pop-up window will automatically disappear after a few seconds from the call unless an appointment is given to the calling patient by opening the scheduling of the reference doctor.

Any further inbound call in queue while managing a call will also be identified and displayed in the *VoIP calls* pop-up window.

The *VoIP calls* pop-up window containing the details of the calling patient allows to open the patient record or to fix an appointment by a single click.

If in Settings, the *Identify calls from not stored numbers* checkbox has been set, XDENT will also manage the calls coming from unknown numbers thus allowing to open the patient list or a new patient record directly from the *VoIP Calls* window. If creating a new patient record, the telephone or mobile phone field will be directly filled with the calling number (XDENT will automatically recognize whether the call comes from a mobile phone or a fixed number). If opening an already existing record (updating a telephone number), XDENT will save the calling number so that the practitioner can easily *paste* the calling number in the desired field.

TIP

If choosing a new appointment from the agenda, with a patient record open or the *VoIP calls* pop window on, the appointment is automatically assigned to the highlighted patient.

If the *VoIP Calls* window has more calls going on at the same time, the appointment will be assigned to the first patient in the list.

TIP

Available both for Mac and Windows.

Outbound calls

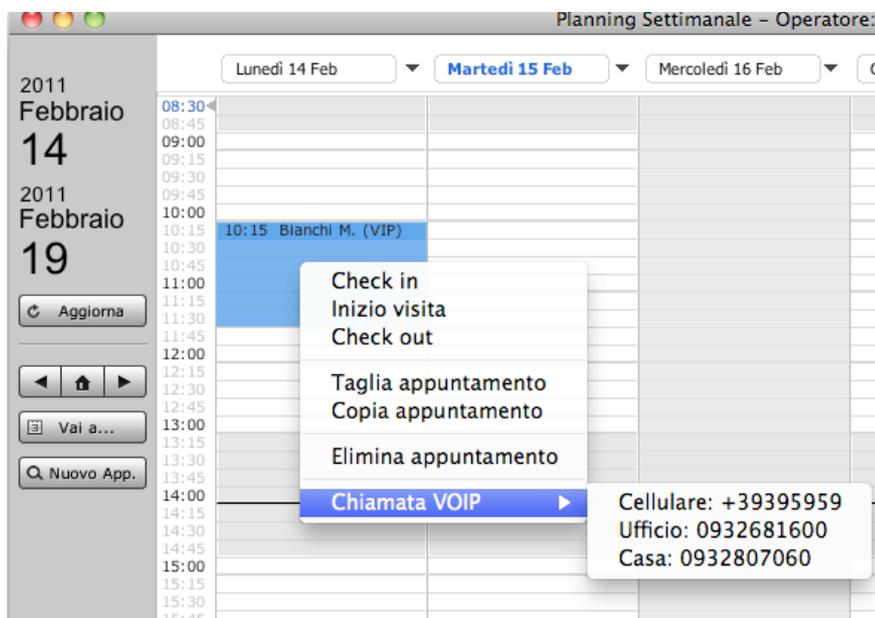
In all fields of the identity records containing the VoIP button, a VoIP call can be made directly by XDENT by simply clicking the button.

In the patient record, there is also a VoIP menu from which a call can be quickly made to one of the patient numbers. The VoIP function has been introduced also in the patient list to be able to make the call without opening the patient record.

Sending recalls via VoIP calls

Among the recall sending modes, there is the *telephone* mode.

If the enabled, directly Centre. option clicking mode,



VoIP outbound communication is a call can be made by the Communication The VoIP call can be enabled by the icon representing the telephone sending only if a single communication to

send is selected.

Credit report with VoIP call

Once the credit report has been obtained, *the VoIP call* can be enabled by selecting directly the line corresponding to the patient to call.

Credit/debit bill book with VoIP call

In the XDENT Clinic version, there is a bill book complete with debits and credits of the practice with all fiscal documents received or issued.

In the credit/debit list, each individual is identified by the name/company name and telephone numbers in such a way to call them without searching in the patient or supplier record.

By the VoIP function, a call can be enabled by selecting the due date line and by clicking the *VoIP* button.

Calling the patient from the appointment and scheduling record

The VoIP call is also integrated into the appointment record of all scheduling provided in XDENT.

By right-clicking the appointment from a scheduling, a context menu will appear by which a VoIP call can be immediately made to the scheduled patient.

The same operation can be enabled in the appointment record. In addition to the Messages and Print Memo buttons, there is the VoIP button that allows to call one of the patient telephone numbers.

Thursday 19.01.2017

Practitioner: PRACTITIONER # Seat: Seat 1

Time	Duration	Type	Colour	Status
10:00 AM	75 min			Undefined

Patients + No Patients

PATIENT #1

Did not show up

Treatments + To be reserved

- 11 implant procedures - Phase #1

Scheduled treatment stage Expected

treatment stage - next appointment

voip Cancel Confirm

Automatic Updates

In order to help the XDENT updating procedure in environments with many client workstations, this procedure is done automatically.

The system allows to choose whether the update checks and installations thereof have to be manual or automatic on the server workstation. Updates can be downloaded in background and once finished, they will be available for all the XDENT workstations in the practice.

By this procedure, update is completely transparent or upon the user request, it occurs directly on the server workstation.

It is therefore not necessary:

- To have the Internet connection available on the client workstations;
- To update manually on the client workstations;
- To save the Update Code.

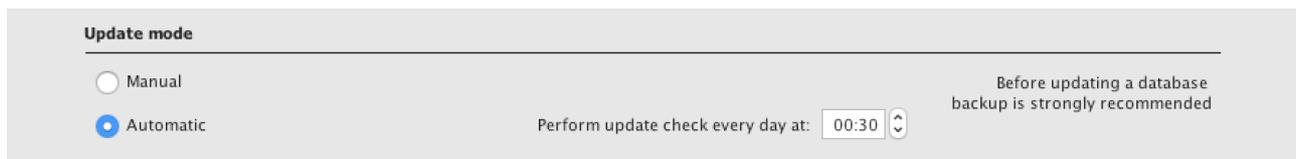
Manual update (server)

By activating the *manual update* mode from the settings in the *General* tab, XDENT will check if there are any updates every time it is launched.

If the system finds a new update, a warning message will be shown and two options will be available: update now or update later.

Automatic update (server)

By activating the mode *automatic update* from the settings in the *General* tab, a run time is to be set for the update procedure. XDENT will check every day, at the time set, if there is any new update. If yes, the procedure will be started automatically. Such a mode requires the XDENT server workstation to be on and to be provided with Internet connection while all other client workstations must be logged off. This should be used when the server workstation is always on.



The screenshot shows a settings panel titled "Update mode". It contains two radio buttons: "Manual" (unselected) and "Automatic" (selected). To the right of the "Automatic" option, there is a text field labeled "Perform update check every day at:" followed by a time input field set to "00:30" and a dropdown arrow. On the far right, there is a warning message: "Before updating a database backup is strongly recommended".

Xchat

XDENT integrates the ability for the users to communicate via text messages. (for the Italian market, this function is available only for the XDENT Clinic version)

Xchat can be accessed from the services menu and requires the XDENT server to be on.

With Xchat, the following options are available:

- Sending messages among users in private or public mode (wall)
- Attaching priority to the message to send (low, medium, high)
- Adding the name of the patient in the message subject
- Associating a warning sound to a communication
- Setting a profile image for each user (Archive menu “users and access rights” section)
- Filtering the messages sent and received by patient

Xchat settings allow to:

- Choose the size of the text used for the messages.
- Enable or disable the notification sound for the messages received.
- Enable or disable the alert sound.
- User logoff.