

# WISN

WORKLOAD INDICATORS  
OF STAFFING NEED

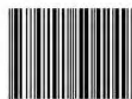
Multilingual version 2.2.169.1

- > Start WISN study
- > Open an existing study
- > Build summary report
- > Build institution report

**ENG** FRA POR ESP

[WHO Health Workforce page](#)

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## SOFTWARE MANUAL





# SOFTWARE MANUAL

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# 1 . Using the WISN application

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## ■ About the WISN application

The WISN application is a software tool for recording, analyzing, and reporting data related to staffing status and needs at health facilities.

Learning to use this software is easy, but it assumes that you are familiar with the terms, concepts, and methodologies presented in *Workload Indicators of Staffing Need (WISN): User's Manual*. You should review the aforementioned document thoroughly before you make use of the software.

This user guide presents an overview of the application's features and gives step-by-step instructions for completing a variety of tasks.

## ■ System requirements

Please ensure that your computer meets or exceeds the following system requirements before installing the WISN application.

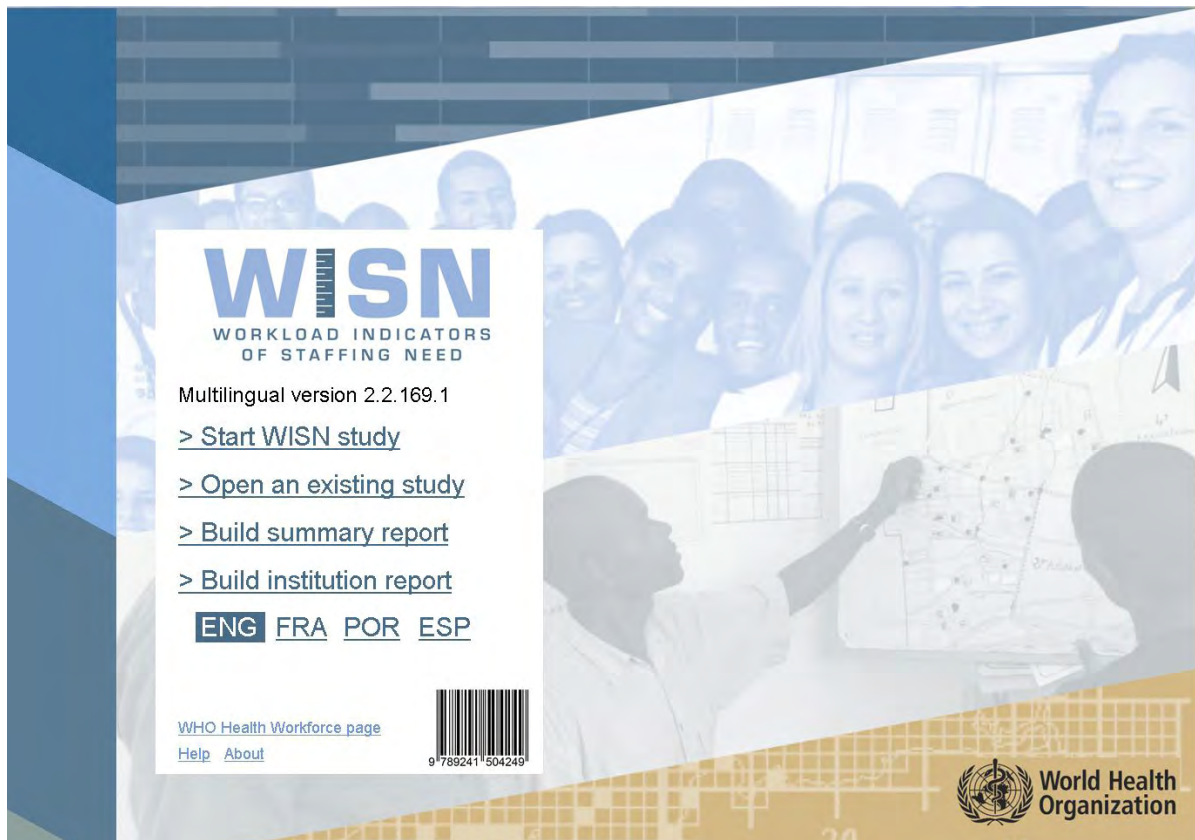
<b>CPU</b>	Intel Celeron 800 MHz (Intel Core 2 Duo 2 GHz recommended)
<b>RAM</b>	256 MB (2 GB recommended)
<b>Available disk space</b>	200 MB
<b>Operating system</b>	Windows 7, Windows Vista, or Windows XP

- **To launch the WISN application**, double-click its desktop icon, or choose Start > All programs > WHO HRH Tools > WISN > WISN from the Start menu.



## ■ Exploring the start page

The start page provides a convenient hub to the different parts of the WISN application.



Choose your preferred language by clicking on the relevant language button.

- **To start a new WISN study**, click [Start WISN study](#) (see Chapter 2).
- **To open a previously saved WISN study**, click [Open an existing study](#) (see Chapter 2).
- **To compare multiple WISN studies in report form**, click [Build summary report](#) (see Chapter 3).
- **To present the details of a single WISN study in report form**, click [Build an institution report](#) (see Chapter 3).
- **To change the interface language to English, French, Portuguese or Spanish**, click on [ENG](#), [FRA](#), [POR](#), or [ESP](#) button.

## ■ Getting additional help

- **To receive technical support and software assistance,** please contact [hrhinfo@who.int](mailto:hrhinfo@who.int).
- **For questions regarding WISN policies and procedures, please refer to** *Workload Indicators of Staffing Needs (WISN): A User's Manual*.

## 2. Working with WISN studies

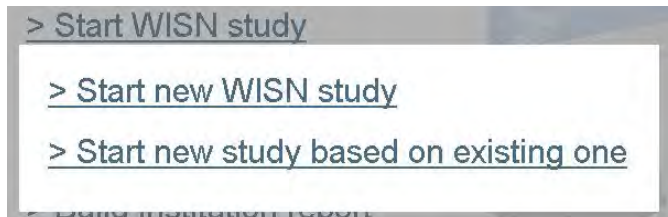
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## ■ About WISN studies

The application keeps track of data for separate facilities in document files called *WISN studies*. You can create as many WISN studies as you like and save them to your computer for reference or revision at any time.

- **To create a new WISN study**, click **Start WISN study** on the start page. Small popup window will open.



- Click on **Start new WISN study** to create empty study from scratch.
- Click on **Start new study based on existing one** to create new study that will copy some basic properties of an earlier study you have:
  1. After click the **Open an existing study**, dialog box appears.
  2. In the **Folders** pane, navigate to the location of the saved WISN study. All the WISN studies at this location appear in the lower pane.
  3. Check the checkbox of the study that you want to use as a base, and click **OK**.
  4. The application will copy basic properties from the selected study.

The application creates the new WISN study and switches to its Facility Properties tab by default.

- **To open an existing WISN study**, follow these steps:
  1. Click **Open an existing study** on the start page. The **Open an Existing Study** dialog box appears.
  2. In the **Folders** pane, navigate to the location of the saved WISN study. All the WISN studies at this location appear in the right pane.
  3. Check the checkbox of the study that you want to open, and click **OK**.
- **To return to the start page from the current WISN study**, click the Back button at the top of the application window. The application prompts you to save your changes. Do one of the following:
  - Click **Yes** to save the WISN study before returning to the start page.
  - Click **No** to discard your changes and go back to the start page immediately.
  - Click **Cancel** to remain in the current WISN study without saving.

## ■ Exploring the tabs of a WISN study

The application displays the data of a WISN study under a series of seven tabs. These tabs appear along the top of the application window. Simply click a tab to switch to this section of the WISN study.



Under each tab, the application presents one or more worksheets, which are similar to the pages in a common spreadsheet application. Position the mouse pointer inside a worksheet cell, and click the mouse button to select this cell. If the cell is editable, you can then enter or change its value, and the application automatically recalculates the values of other worksheet cells where appropriate.

### TIP

Press TAB to select the next cell in the worksheet.

- **To expand or collapse list items in a worksheet**, click the + or – button, respectively, to the left of the list name. You can also right-click the list and choose **Expand All** or **Collapse All** from the context menu that appears.

The contents of the various tabs are as follows:

- **Facility Properties.** This tab displays the name, type, and location of the institution in the WISN study.
- **Type of Staff at the Facility.** This tab displays the kinds of personnel employed at the facility and the annual salary for each type.
- **Available Working Time.** This tab displays the hours and days of work per week and the number of days of leave per year for each staff type.
- **Workload Statistics.** This tab displays the number of times per year that any given activity is completed by each staff type.
- **Activity Standards.** This tab displays the benchmark performance standards for the activities of each staff type.
- **Staffing Comparison.** This tab displays the difference between actual and recommended staffing levels.
- **Salary Cost Calculations.** This tab displays the budgetary requirements for each staff type..

## Inserting new or revising existing data

Whether you are inserting data to a new WISN study or revising the data of a previously saved WISN study, you simply switch among the tabs at the top of the application window and enter the data directly into the WISN study worksheets.

This section gives you step-by-step instructions for adding or revising data under each of the tabs.

## Setting the facility properties

The facility properties indicate the name, type, and location of the institution in the WISN study.

The screenshot shows the 'WISN Automated Tool - demo\_en.wat' application window. The 'Facility Properties' tab is selected. The window contains a menu bar with 'Save', 'Save As', 'Dictionary Manager', and 'Institution Report'. Below the menu bar is a tabbed interface with the following tabs: 'Facility Properties', 'Type of Staff at the Facility', 'Available Working Time', 'Workload Statistics', 'Activity Standards', 'Staffing Comparison', and 'Salary Cost Calculations'. The 'Facility Properties' tab is active, displaying two sections: 'Geographics' and 'Institution'. The 'Geographics' section has three dropdown menus: 'Country' (set to 'Demo Country'), 'Region/Province' (set to 'Demo Region'), and 'District' (set to 'Demo District'). The 'Institution' section has three fields: 'Institution Name' (text input with 'Demo Institution'), 'Institution Type' (dropdown menu set to 'Hospital/Bedded Institution'), and 'Institution Description' (two dropdown menus, the first set to 'Provincial (general) hospital' and the second set to 'Public').

- **To specify facility properties in your WISN study**, switch to the **Facility Properties** tab, and fill out the fields of the worksheet.

### NOTE

If the desired value for a field does not appear among the items in the Region/Province or District drop-down menus, you must add this value as an element of the Geographic dictionary. For more information, see “Adding a dictionary element” in Chapter 4 of this guide.

## Setting the type of staff at the facility

The type of staff at the facility indicates the kinds of personnel employed at the facility as well as the annual salary for each job.

Type of Staff	Annual Salary (Local Currency)
<input type="checkbox"/> Dental specialist	
<input type="checkbox"/> Dentist general practitioner	
<input type="checkbox"/> Hygienist	
<b>LABORATORY STAFF</b>	
<input type="checkbox"/> Laboratory assistant	
<input type="checkbox"/> Laboratory technician	
<input type="checkbox"/> Laboratory technologist	
<b>MEDICAL PRACTITIONERS</b>	
<input checked="" type="checkbox"/> Clinical officer	18,000.00
<input type="checkbox"/> Family practitioner	
<input type="checkbox"/> General practitioner	
<b>MIDWIVES</b>	
<input type="checkbox"/> Enrolled midwife	
<input type="checkbox"/> Professional degree midwife	
<input checked="" type="checkbox"/> Registered midwife	10,000.00
<b>NON SURGICAL SPECIALISTS</b>	
<input type="checkbox"/> Emergency/trauma	
<input type="checkbox"/> Internal Medicine	
<input type="checkbox"/> Psychiatry	
<input type="checkbox"/> Radiology	
<input type="checkbox"/> Rehabilitation	
<b>NURSES</b>	
<input type="checkbox"/> Assistant nurse	
<input type="checkbox"/> Emergency Nurse	
<input type="checkbox"/> Enrolled nurse	
<input type="checkbox"/> Professional degree nurse	
<input type="checkbox"/> Psychiatric nurse	
<input type="checkbox"/> Registered nurse	10,000.00
<input type="checkbox"/> Surgical Nurse	
<input type="checkbox"/> Ward Nurse	
<b>OTHER SPECIALISTS</b>	
<input type="checkbox"/> Biochemistry specialist	
<input type="checkbox"/> Haematologist	
<input type="checkbox"/> Microbiology specialist	
<input type="checkbox"/> Pathologists	
<b>PHARMACY STAFF</b>	
<input type="checkbox"/> Dispenser	

- **To specify the type of staff at the facility in your WISN study,** follow these steps:

1. Switch to the **Type of Staff at the Facility** tab.
2. In the **Type of Staff** column, click the checkboxes to the left of the staff types that are employed at the facility. Leave unchecked those staff types that are not currently represented.
3. In the **Annual Salary (Local Currency)** column, enter the annual salary for each job that you checked in Step 2. Be sure to enter numbers only. You should not include currency symbols or thousands separators.


### NOTE


If the desired staff type does not appear in the Type of Staff list, you must add this staff type as an element of the Staff Types dictionary. For more information, see “Adding a dictionary element” in Chapter 4 of this guide.


## Setting the available working time


The available working time indicates the hours and days of work per week and the number of days of leave per year for each staff type at the facility.

WISN Automated Tool - demo\_en.vst

 Save

 Save As...

 Dictionary Manager

 Institution Report

Facility Properties

Type of Staff at the Facility

Available Working Time

Workload Statistics

Activity Standards

Staffing Comparison

Salary Cost Calculations

Type of Staff	No of Working Days		No of Non Working Days						Total				
	Working Days Per Week	Working Hours Per Day	Annual Leave	Public Holidays	Sick Leave	Special No Notice Leave	Training Days Per Year	Non - Working Days	Non - Working Weeks	Working Weeks	Working Days	No of Hours	
Clinical officer	5	8	20	5	5	2	15	47	9.4	42.6	213	1,704	<a href="#">Apply to all</a>
Registered midwife	5	8	20	5	5	2	10	42	8.4	43.6	218	1,744	<a href="#">Apply to all</a>

- **To specify the available working time in your WISN study,** follow these steps:
  1. Switch to the **Available Working Time** tab.
  2. For each staff type, enter the number of workdays per week, the number of work hours per day, the total days of annual leave per year, the total number of public holidays per year, the total number of sick days per year, the total number of days for special no-notice leave per year, and the total number of training days per year. Based on your input, the application automatically calculates the values in the Total columns.
- **To use the same values for all staff types,** click the **Apply to all** link at the end of the row that contains the desired data.

### TIP

If an expected staff type does not appear in the Type of Staff list, make sure that you have checked this staff type under the Type of Staff at the Facility tab. For more information, see “Setting the Type of Staff at the Facility” earlier in this chapter.





## TIP

If an expected staff type does not appear in the Type of Staff and Activities list, make sure that you have checked this staff type under the Type of Staff at the Facility tab. For more information, see “Setting the type of staff at the facility” earlier in this chapter.

## Setting the activity standards

The activity standards indicate the benchmark performance standards for the activities of each staff type at the facility. Based on these standards, the application computes the necessary staff requirements.


The screenshot shows the WISN Automated Tool interface. The 'Activity Standards' tab is selected. The left sidebar shows the 'Type of Staff' list with 'MEDICAL PRACTITIONERS - Clinical officer' selected. The main area displays the 'MEDICAL PRACTITIONERS - Clinical officer' worksheet. The 'Activities Related With Service Statistics' table shows the following data:

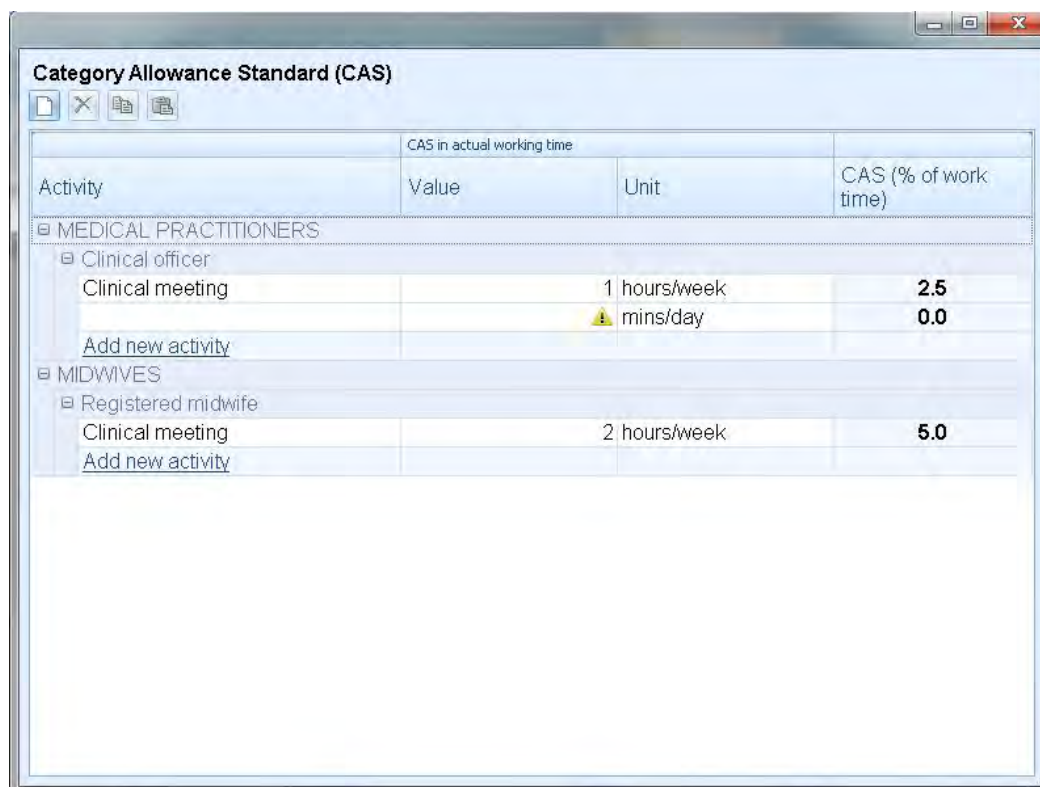
Activity	Service Standard	Unit	Standard Workload	Calculated Requirement
Primary Activities				
Inpatients	10 min/inpatient		10,224	0.15
Outpatients	20 min/outpatient		5,112	0.49
Deaths	30 min/inpatient		3,408	0.01
Non surgical interventions	60 min/inpatient		1,704	0.59

Below this table, it states: 'Staff required based on activities related to service statistics: 1.24'. The 'Activities Not Related With Service Statistics' section contains two tables: 'Category Allowance Standard (CAS)' and 'Individual Allowance Standard (IAS)'. The CAS table shows 'Clinical meeting' with a value of 1 hour/week, unit of mins/day, and CAS (% of work) of 2.5. The IAS table shows 'Report writing' with a value of 1, unit of 4 hours/month, and Annual IAS of 48, and 'Supervisory activities' with a value of 2, unit of 30 mins/day, and Annual IAS of 260. At the bottom, the summary shows 'Total CAS (%) 2.5', 'CAF: 1.03', 'Total IAS (hours) 308', and 'IAF: 0.18'.


- To explore the activity standards in your WISN study, follow these steps:
  1. Switch to the Activity Standards tab.
  2. Select a staff type from the Type of Staff list on the left.
  3. The Activities Related With Service Statistics worksheet will display activity standards that was defined on the Workload Statistics tab.

- **To add a category allowance for activities not related with service statistics**, follow these steps:




1. Click the **Edit** button  in the Category Allowance Standard section. Category Allowance Standard Edit window will open




Activity	Value	Unit	CAS (% of work time)
<b>MEDICAL PRACTITIONERS</b>			
Clinical officer			
Clinical meeting	1	hours/week	2.5
		mins/day	0.0
<a href="#">Add new activity</a>			
<b>MIDWIVES</b>			
Registered midwife			
Clinical meeting	2	hours/week	5.0
<a href="#">Add new activity</a>			

2. Click the **Add new activity standard**  in the toolbar above the Category Allowance worksheet or click the **Add new activity** link in the worksheet. The application adds a new row to the worksheet.





3. Enter the activity name and value, and choose the appropriate units from the drop-down menu. Based on your input, the application automatically determines the Category Allowance Standard (CAS) for this activity.

- **To delete a category allowance for activities not related with service statistics**, select the category allowance that you want to delete in the **Category Allowance** worksheet, and click the **Delete the activity standard** button  in the toolbar above this worksheet.
- **To copy a category allowance from the one staff type to another**, select the category allowance from the source staff type, and click **copy** button  in the toolbar. Then select the staff type you want the category allowance to be pasted into, and click **paste** button  in the toolbar. New category allowance will be created.

- **To add an individual allowance for activities not related with service statistics**, follow these steps:
  1. Click the **Edit** button  in the Individual Allowance Standard section. Individual Allowance Standard Edit window will open



		IAS in actual working time(per person)		
Activity	No of staff allocated	Value	Unit	Annual IAS (hours)
<b>MEDICAL PRACTITIONERS</b>				
Clinical officer				
Report writing	1	4	hours/month	48
Supervisory activities	2	30	mins/day	260
Add new activity				
<b>MIDWIVES</b>				
Registered midwife				
Report writing	1	0.5	hours/day	130
General administration	1	⚠	mins/day	0
Add new activity				

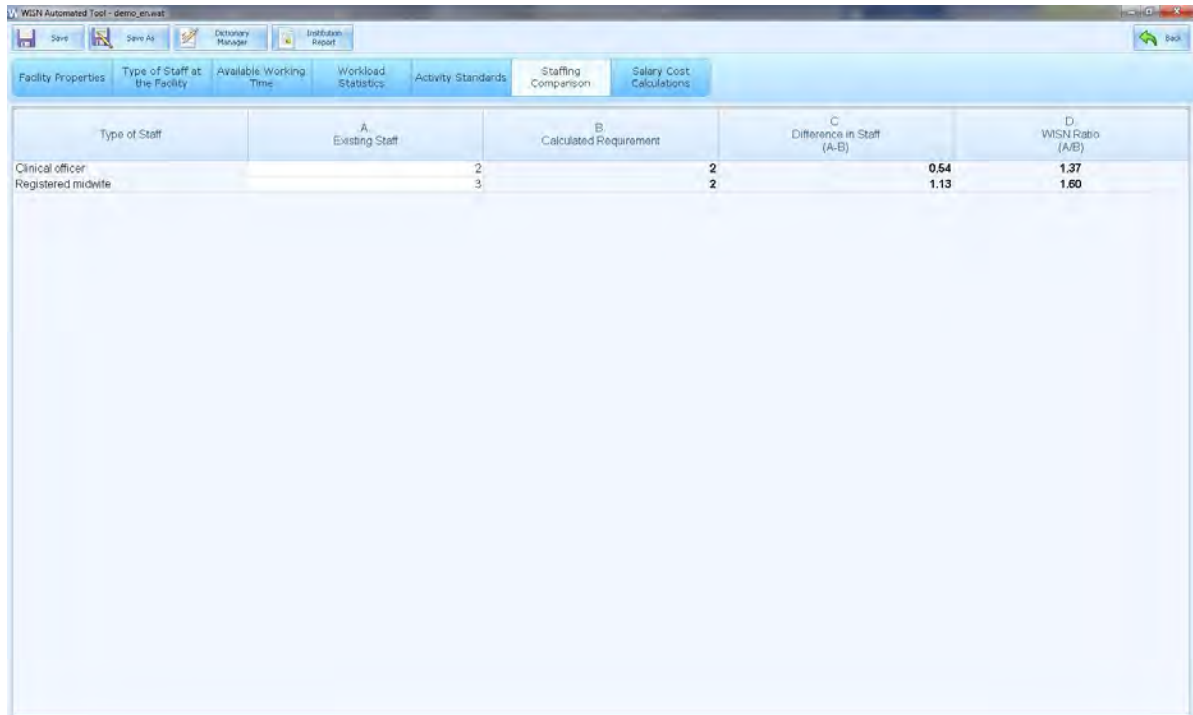
2. Click the **Add new activity standard** button  in the toolbar above the **Individual Allowance** worksheet or click the **Add new activity** link in the worksheet. The application adds a new row to the worksheet.
  3. Enter the activity name, the number of staff members allocated to this activity, and the value, and choose the appropriate units from the drop-down menu. Based on your input, the application automatically determines the Individual Allowance Standard (IAS) for this activity.
- **To delete an individual allowance for activities not related with service statistics**, select the individual allowance that you want to delete in the **Individual Allowance** worksheet, and click the **Delete the activity standard** button  in the toolbar above this worksheet.
  - **To copy an individual allowance from the one staff type to another**, select the individual allowance from the source staff type, and click **copy** button  in the toolbar. Then select the staff type you want the individual allowance to be pasted into, and click **Paste** button  in the toolbar. New individual allowance will be created.

#### TIP

If an expected staff type does not appear in the Type of Staff list, make sure that you have checked this staff type under the Type of Staff at the Facility tab. For more information, see "Setting the type of staff at the facility" earlier in this chapter

## Setting the staffing comparison

The staffing comparison indicates the difference between actual and recommended staffing levels.



The screenshot shows the 'WISN Automated Tool - demo\_en.vst' application window. The 'Staffing Comparison' tab is selected. The table below shows the staffing comparison for two staff types: Clinical officer and Registered midwife.

Type of Staff	A. Existing Staff	B. Calculated Requirement	C. Difference in Staff (A-B)	D. WISN Ratio (A/B)
Clinical officer	2	2	0.54	1.37
Registered midwife	3	2	1.13	1.60

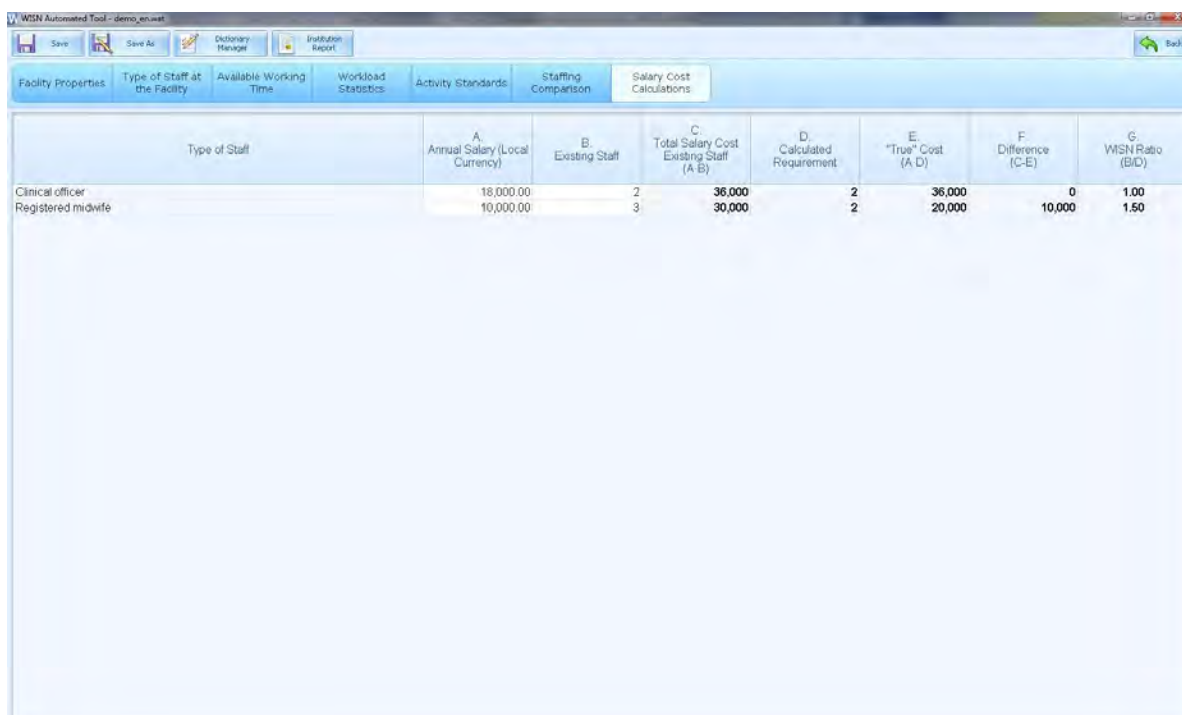
- **To specify the staffing comparison,** switch to the **Staffing Comparison** tab, and in the **Existing Staff** column (column A), enter the current number of staff members for each staff type. The application automatically computes the calculated requirement (column B), the difference in staff (column C), and the WISN ratio (column D).

### TIP

If an expected staff type does not appear in the Type of Staff list, make sure that you have checked this staff type under the Type of Staff at the Facility tab. For more information, see "Setting the type of staff at the facility" earlier in this chapter.

## Viewing the salary cost calculations

The salary cost calculations indicate the budgetary requirements for each staff type.



Type of Staff	A. Annual Salary (Local Currency)	B. Existing Staff	C. Total Salary Cost Existing Staff (A * B)	D. Calculated Requirement	E. "True" Cost (A * D)	F. Difference (C-E)	G. WISN Ratio (B/D)
Clinical officer	18,000.00	2	36,000	2	36,000	0	1.00
Registered midwife	10,000.00	3	30,000	2	20,000	10,000	1.50

- **To review the salary cost calculations for existing staff and salary values**, switch to the **Salary Cost Calculations** tab.
- **To review the salary cost calculations for new staff and salary values**, type new values in the **Annual Salary (Local Currency)** and **Existing Staff** columns for any given staff type, and press ENTER. The application automatically recalculates the rest of the worksheet.

### NOTE

Changing the annual salary or existing staff on this worksheet does not alter the corresponding values on other worksheets of the WISN study.

## ■ Saving the WISN study

To save the WISN study, follow these steps:

1. Click the **Save** button at the top of the application window. The **Save As** dialog box appears.
2. Navigate to a convenient location on your computer, or use the default location that the application automatically supplies.

### TIP

We strongly recommend that you use the default folder for all WISN studies. This way, you can run comparison reports on multiple studies with ease (see Chapter 3). The built-in default folder for your WISN studies is WISN Documents under Documents (Windows 7 and Windows Vista) or My Documents (Windows XP).

3. Type a name for the WISN study file in the **File name** field, and click **Save**. The **Save As** dialog box closes, and the application saves the WISN study file in the specified location.

### TIP

You can overwrite an existing WISN study file by selecting this file in the Save As dialog box.

# 3. Working with reports

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## ■ About reports

*Reports* are printable documents that provide in-depth information and unique perspectives into WISN studies. These documents include dynamically generated tables and charts for ease of comprehension and added insight.

The application enables you to create two types of reports:

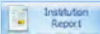
- **Summary report.** This report compares the difference between existing and calculated staffing and WISN ratios for multiple WISN studies.
- **Institution report.** This report provides a detailed look at a single WISN study.

## ■ Creating a report

You can create either type of report at any time from the application's start page.

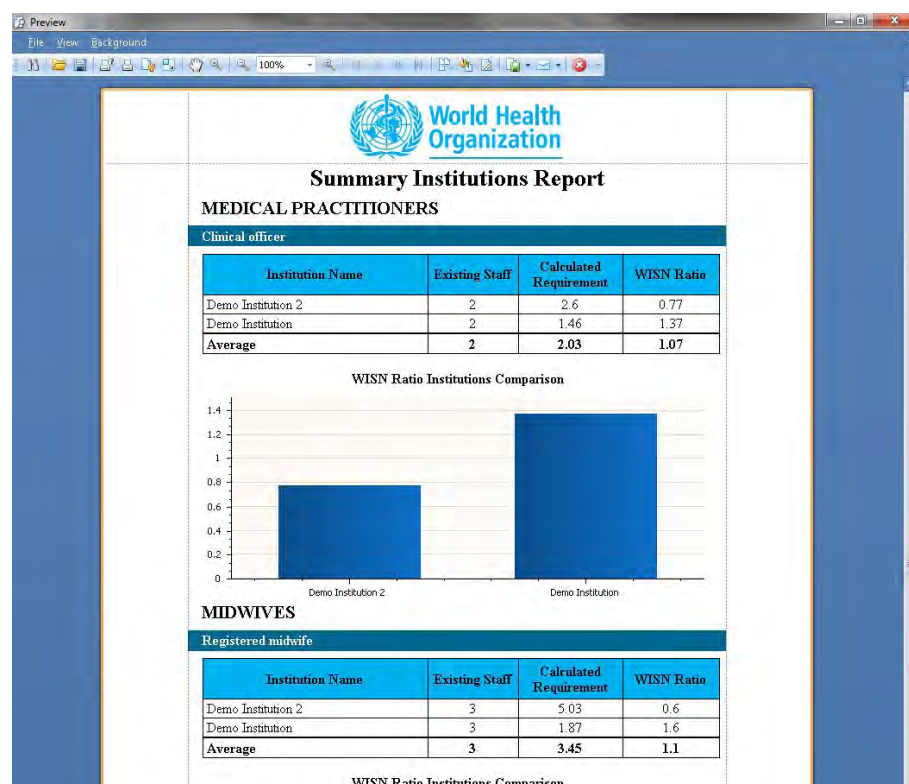
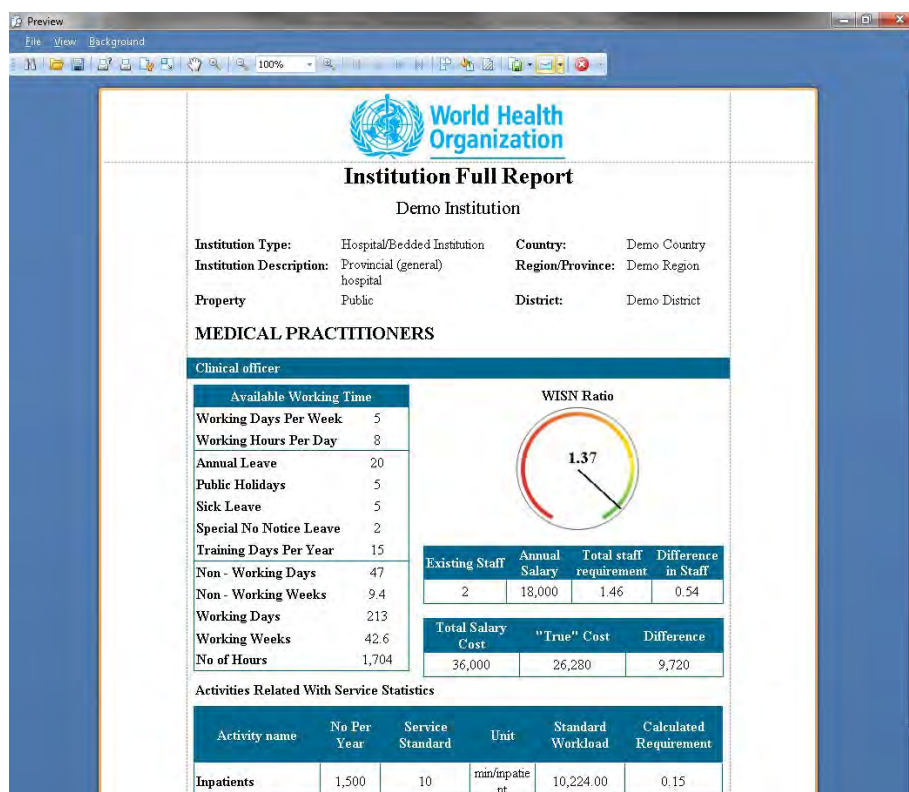
- **To create a summary report,** follow these steps:
  1. Click **Build summary report** on the start page. The **Build Summary Report** dialog box appears.
  2. If necessary, in the **Folders** pane at the top of the dialog box, navigate to the folder that contains the WISN studies that you want to compare. All the studies at this location appear in the lower pane of the dialog box.
  3. Check the checkboxes to the left of the WISN studies that you want to compare, and click **OK**. The **Build Summary Report** dialog box closes, and the application displays the summary report in the Preview window.
- **There are two ways to create an institution report,** follow these steps:
  1. Click **Build an institution report** on the start page. The **Build an Institution Report** dialog box appears.
  2. If necessary, in the **Folders** pane at the top of the dialog box, navigate to the folder that contains the WISN study that you want to use for the report. All the studies at this location appear in the lower pane of the dialog box.
  3. Check the checkbox to the left of the WISN study that you want to use, and click **OK**. The **Build an Institution Report** dialog box closes, and the application displays the institution report in the Preview window.

### TIP

The second method if you have the WISN study already opened. You can easily build an institution report by clicking the Institution Button  at the top of the application window.

## Exploring the Preview window

The Preview window displays your report and provides tools for customizing its appearance, saving it as a file on your computer, and printing it on your printer.



The interface of the Preview window includes the following components:

- **Main menu.** The main menu organizes the available commands and options of the Preview window into three submenus: **File**, **View**, and **Background**. The main menu appears by default along the top of the application window.
- **Toolbar.** The toolbar provides graphical icons or *tools* for commonly used commands and options. It appears by default between the main menu and the report area.
- **Report area.** The report area occupies the large lower portion of the Preview window. It displays the contents of the report.
- **Status bar.** The status bar appears along the bottom edge of the application window. It displays the current page number of the report as well as the zoom level.





#### TIP

You can show or hide the toolbar or the status bar by checking or unchecking the **Toolbar** and **Status Bar** options under **View** in the main menu.

The Preview window appears automatically when you create a report from the start page of the application. Each report opens in its own Preview window. You may have multiple Preview windows open at the same time.

## ■ Navigating the report

To navigate the report in the Preview window, do any of the following:



- **To go to the next page in the report,** click the **Next Page** button  in the toolbar.
- **To go to the previous page in the report,** click the **Previous Page** button  in the toolbar.
- **To go to the first page of the report,** click the **First Page** button  in the toolbar.
- **To go to the last page of the report,** click the **Last Page** button  in the toolbar.

## ■ Saving and opening a report

The application enables you to save your report in its native format (PRNX). Once saved, you can open it again at any time in the Preview window.

### NOTE

You can share your report file with other users as long as they have the WISN application installed on their systems. Otherwise, their computers cannot open the report's PRNX file. To share your report with non-WISN users, simply export the report to a common file format, and then share the exported version. For more information, see "Printing, exporting, and distributing the report" later in this chapter.





- **To save a report,** follow these steps:
  1. Click the **Save** button  in the toolbar. The **Save As** dialog box appears.
  2. If necessary, navigate to a convenient location for the saved report, and type a file name for the report in the **File name** field.
  3. Click **Save**. The **Save As** dialog box closes, and the application saves your report in PRNX format.
- **To open a previously saved report,** follow these steps:
  1. Click the **Open** button  in the toolbar. The **Open** dialog box appears.
  2. If necessary, navigate to the location of the report that you wish to open.
  3. Double-click the report, or select the report and then click **Open**. The **Open** dialog box closes, and the application loads the saved report into the Preview window.


## ■ Changing the view of the report

The application enables you to change the view of the report in the Preview window in a variety of ways.

### NOTE

These commands and options simply change the view of the report as it appears in the Preview window. They do not affect the way that the application prints or exports your report. If you want to adjust the physical properties of the printed or exported report, see “Printing, exporting, and distributing the report” later in this chapter.


- **To change the position of the report**, click to select the **Hand** tool  in the toolbar. Then move the mouse pointer into the display area, hold down the mouse button, and drag the mouse. The **Hand** tool pushes the report in the direction that you drag. When you are finished, click the **Hand** tool again to deselect it.
- **To change the magnification level of the report**, do one of the following:
  - **To switch between 100% and whole-page magnification**, click to select the **Magnifier** tool  in the toolbar. Then move the mouse pointer into the display area, and click any page of the report. If the current magnification level is less than 100%, the **Magnifier** tool changes it to 100% exactly. If the current magnification level is 100% or more, the **Magnifier** tool changes it to the whole-page magnification setting, so that the selected report page fits inside the Preview window; the exact percentage depends on the physical dimensions of your screen as well as the current dimensions of the Preview window. Continue clicking the report page with the **Magnifier** tool to switch back and forth. When you are finished, click to deselect the **Magnifier** tool in the toolbar.
  - **To increase or decrease the magnification level in increments of 5%**, go to the toolbar, and click the **Zoom In** button  or the **Zoom Out** button . *Zooming in* increases magnification, while *zooming out* decreases it.
  - **To set the magnification level to a custom percentage**, enter the percentage value directly in the **Zoom** field in the toolbar.
  - **To apply a preset magnification level**, click to open the **Zoom** drop-down menu in the toolbar, and choose an option. Your choices include common percentage values as well as four special functions. **Page Width** sets the magnification level to the width of a single report page, including margins; **Text Width** sets the magnification level to the width of the text on the report page, ignoring margins; **Whole Page** sets the magnification level so that a single report page fits in the Preview window; and **Two Pages** sets the magnification level so that two report pages fit side by side in the Preview window.
- **To change the arrangement of report pages in the Preview window**, look under **View** > **Page Layout** in the main menu, and choose an option from the submenu that appears. Choose **Facing** to arrange the pages side by side, or choose **Continuous** to arrange them in vertical columns.

- **To change the layout of multiple report pages in the Preview window**, click the **Multiple Pages** button  in the toolbar. A grid of page icons appears. Move the mouse pointer over the icons to select them. When the selection in the grid matches the number of pages that you want to display horizontally and vertically in the Preview window, click the mouse button. If you need more page icons in either direction, move the mouse pointer off the right side or the bottom side of the grid. To turn off the **Multiple Pages** feature, click **Cancel** at the bottom of the grid.

## ■ Changing the appearance of report pages

The application enables you to change the background color of the report pages as well as apply a custom *watermark*, which is a string of text or a graphic that appears on one or more report pages.

### ■ Changing the background color of report pages

- **To change the background color of the report pages**, follow these steps:
  1. Choose **Background > Color** from the main menu, or click the **Color** button  in the toolbar. The control panel for the background color appears.
  2. Do any of the following:
    - **To select a custom color**, switch to the **Custom** tab, and click any of the color swatches.
    - **To select a Web-safe color**, or one that looks the same across virtually all computers and devices, switch to the **Web** tab, and choose from any of the colors in the menu.
    - **To select from system colors**, or the colors currently defined in your Windows settings, switch to the **System** tab, and choose from any of the colors in the menu.


### ■ Adding a watermark

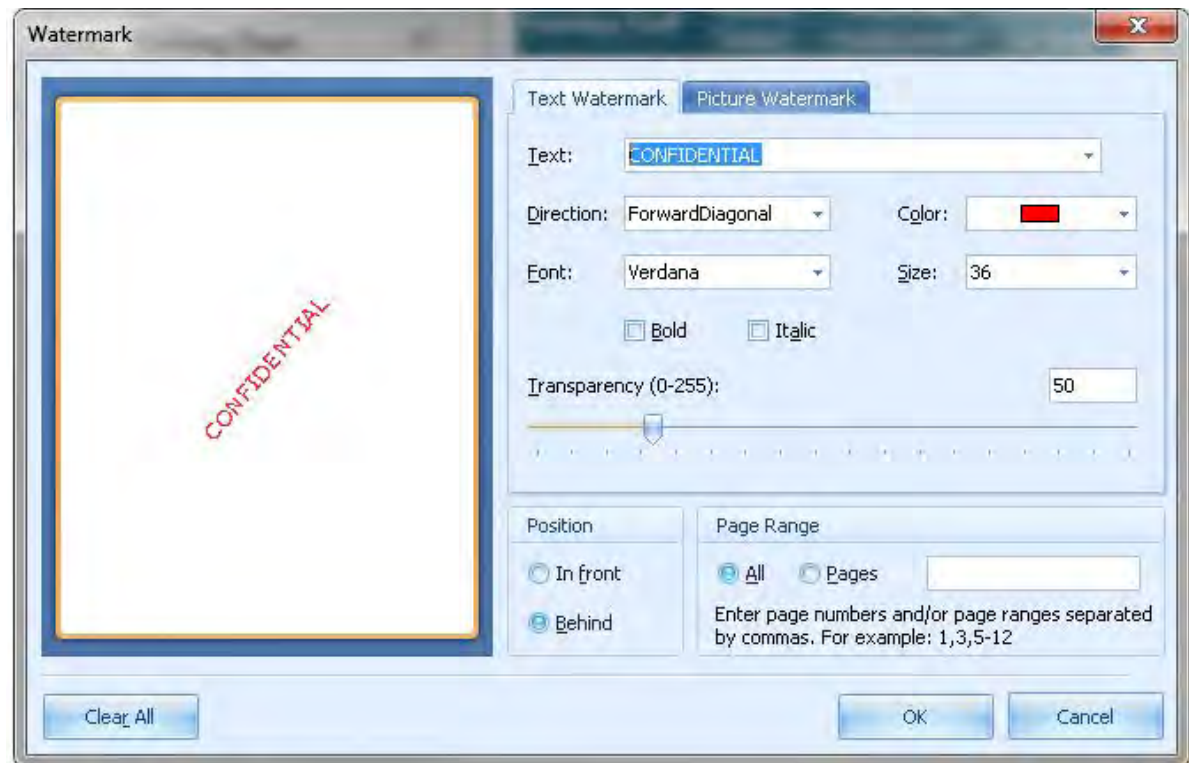
The application enables you to create a watermark from a string or text or an image file. These watermarks are called *text watermarks* and *picture watermarks*, respectively.

#### TIP

You can apply both a text watermark and a picture watermark to the same report.

- To add a text watermark, follow these steps:

1. Choose **Background > Watermark** from the main menu, or click the **Watermark** button  in the toolbar. The **Watermark** dialog box appears.
2. If necessary, switch to the **Text Watermark** tab.



3. In the **Text** field, type the text of the watermark, or choose from several preset text messages by opening the drop-down menu.
4. Set the appearance attributes of the text:
  - From the **Direction** drop-down menu, choose the way in which the text should run.
  - From the **Color** drop-down menu, choose the color of the text.
  - From the **Font** drop-down menu, choose the typeface of the text.
  - From the **Size** drop-down menu, choose the type size of the text.
  - Check the **Bold** option to apply boldface type.
  - Check the **Italic** option to apply italic type.
5. Drag the **Transparency** slider or type a value directly in the **Transparency** field to set the level of transparency of the text. Transparency values range from 0 to 255, with 0 representing complete opacity and 255 representing complete transparency.
6. Under **Position**, choose an option:
  - Choose **In front** to place the watermark on top of the text and graphics in the report.
  - Choose **Behind** to place the watermark beneath the text and graphics in the report.




7. Under **Page Range**, choose an option:

- Choose **All** to place the watermark on each report page.
- Choose **Pages** to place the watermark on select pages only, and then enter the desired pages or page ranges in the field.

8. Click **OK**. The **Watermark** dialog box closes, and the application adds the watermark to your report.

• **To add a picture watermark**, follow these steps:

1. Choose **Background > Watermark** from the main menu, or click the **Watermark** button  in the toolbar. The **Watermark** dialog box appears.
2. If necessary, switch to the **Picture Watermark** tab.



3. To choose the image for the watermark, click **Load image**. The **Select Picture** dialog box appears. Navigate to the location of the image file, and then either double-click the image file or select it and click **Open**.

4. From the **Size mode** drop-down menu, choose an option:

- Choose **Clip** to show the image file in its native dimensions. If these are larger than the page dimensions, the image is cropped to fit.
- Choose **Stretch** to change the dimensions of the image to match those of the page exactly.
- Choose **Zoom** to change the dimensions of the image to match those of the page as closely as possible without stretching the image.




5. From the **Horizontal alignment** and **Vertical alignment** drop-down menus, choose the horizontal and vertical alignment options for the position of the image on the page.
6. Check the **Tiling** option if you want the image to tile, or repeat itself as often as necessary to fill every square unit on the report page. Note that tiling produces no visible effect under the **Stretch** size mode (see Step 4).
7. Drag the **Transparency** slider or type a value directly in the **Transparency** field to set the level of transparency of the image. Transparency values range from 0 to 255, with 0 representing complete opacity and 255 representing complete transparency.
8. Under **Position**, choose an option:
  - Choose **In front** to place the watermark on top of the text and graphics in the report.
  - Choose **Behind** to place the watermark beneath the text and graphics in the report.
9. Under **Page Range**, choose an option:
  - Choose **All** to place the watermark on each report page.
  - Choose **Pages** to place the watermark on select pages only, and then enter the desired pages or page ranges in the field.
10. Click **OK**. The **Watermark** dialog box closes, and the application adds the watermark to your report.

#### TIP

Click the Clear All button under the watermark preview to remove the current watermark in its entirety. If your watermark combines text with an image, the application removes both elements.

## ■ Searching the text of the report

- **To search the current report for a target word or string of text**, follow these steps:
  1. Click the **Search** button  in the toolbar. The **Find** dialog box appears.
  2. In the **Find what** field, type the target text, or open the drop-down menu and choose text from previous searches.
  3. Set the search options:
    - Check the **Match case** option if the search should consider the case of the target text to determine a match. For example, searching for *wisn* with **Match case** enabled does not locate occurrences of *WISN* in the report.
    - Check the **Match whole word** option if the search should not find occurrences of the target text within other words. For example, searching for *is* with **Match whole word** enabled does not return the middle characters of *WISN* as a match.
    - Check the **Search up** option to conduct the search backwards, from the current location in the report to the top of the first page. By default, the search goes from the current location in the report to the bottom of the last page.


4. Click **Find Next**. The application locates the first occurrence of the target text in the report and highlights this occurrence in the Preview window. Continue clicking **Find Next** to locate subsequent occurrences.
5. When you are finished, click **Close**. The **Find** dialog box closes.

## ■ Printing, exporting, and distributing the report

The application provides many options for customizing the printed or electronic output of your report.

### ■ Setting up the page

Setting page properties enables you to control the printout of your report. To set up the page, follow these steps:

1. Choose **File > Page Setup** from the main menu, or click the **Page Setup** button  in the toolbar. The **Page Setup** dialog box appears.
2. Describe the paper in your printer with the controls under **Paper**:
  - Choose the size of the paper in your printer from the **Size** drop-down menu.
  - Choose the source of the paper in your printer from the **Source** drop-down menu.
3. Set the orientation of the printout by choosing an option under **Orientation**:
  - Choose **Portrait** to make the report taller than it is wide (for example, 8.5 × 11 inches).
  - Choose **Landscape** to make the report wider than it is tall (for example, 11 × 8.5 inches).
4. Set the size of the margins in the fields under **Margins**. The **Left**, **Right**, **Top**, and **Bottom** fields represent the left, right, top, and bottom margins, respectively, and all measurements are expressed in inches.


#### TIP

To review or change your printer settings from the Page Setup dialog box, click the Printer button.

5. Click **OK**. The **Page Setup** dialog box closes, and the application makes the changes to your page settings.

### ■ Setting the scale of the report

The *scale* of a report is the ratio between the width of one *report page*, or any single page in the report, and the width of one *printed page*, or the page as it is printed or exported. By default, the scale is 100%, meaning that the width of a report page is exactly equal to the width of a printed page.

- **To set the scale of the report**, click the **Scale** button  in the toolbar. The Scaling control panel appears directly below the toolbar.
  - **To scale the report by percent**, select the **Adjust to** option in the **Scaling** control panel, and then type a percentage value in the field to the right of this option. A value of 100% indicates the report prints at normal width; a value of 200% indicates that the report prints at twice normal width, while a value of 50% indicates that the report prints at half the normal width, and so on.
  - **To scale the report by number of pages**, select the **Fit to** option in the **Scaling** control panel, and then, in the field to the right of this option, type the number of printed pages whose combined width should equal the width of a single report page. For example, typing 3 in this field spreads the width of a single report page over the combined width of three printed pages.

#### NOTE



Scaling by percent and scaling by page width are two different ways of expressing the same concept. Therefore, changing the value of one option changes the value of the other.

## Printing the report

The application provides two different methods of printing your report:

- **Print.** By this method, the application enables you to select and set up your printer before printing.
- **Quick Print.** By this method, the application sends your printout directly to your computer's default printer using the current printer settings.

While the Quick Print method is convenient for creating rough drafts, the Print method provides more control for finished reports that you intend to distribute to others.

- **To print a report using the Print method**, follow these steps:
  1. Look under **File** in the main menu and choose the first **Print** option, or click the **Print** button  in the toolbar. The standard Print dialog box for Windows appears.
  2. In the **Print** dialog box, choose a printer to use, select a page range to print, specify the number of copies to print out, and set any other options that you require, and click **Print**. The **Print** dialog box closes, and the application sends your report to the selected printer using the specified options and settings.
- **To print a report using the Quick Print method**, look under **File** in the main menu and choose the second **Print** option, or click the **Quick Print** button  in the toolbar. The application sends your report to your default printer using the current printer settings.

#### TIP

Before you print, you might want to review or change the page settings to ensure that the report prints out as you intend it. For more information, see "Setting up the page" earlier in this chapter.

## ■ Exporting and distributing the report

The application enables you to *export* your report, or convert it to a different electronic format, for sharing with other computer users who do not have the WISN application. Further, the application's Send Via Email feature simplifies the task of distributing your exported report to email contacts.


You can export to any of nine available formats:

- **PDF.** This format opens in Adobe Acrobat.
- **HTML.** This format opens in any Web browser, such as Microsoft Internet Explorer.
- **MHT.** This format opens in Microsoft Internet Explorer.
- **RTF.** This format opens in any word processor, such as Microsoft Word.
- **XLS.** This format opens in Microsoft Excel.
- **XLSX.** This format opens in Microsoft Excel 2007.
- **CSV.** This format opens in any spreadsheet application, such as Microsoft Excel.
- **Text.** This format opens in any text editor, such as Notepad.
- **Image.** This format opens in any image editor or image viewer.

### CAUTION

Not all export formats render your report exactly as it appears in the Preview window. For example, exporting to RTF strips out the graphical elements of your report, since this format is text-based. Therefore, you should always review your exported report before you share it with others.

If you are not sure which format to use, select PDF. It provides a very accurate conversion while maintaining high compatibility.


- **To export a report,** follow these steps:
  1. Look under **File > Export Document** in the main menu and choose your preferred export format from the submenu that appears, or click the inverted triangle to the right of the **Export** button  in the toolbar and choose your preferred export format from the pop-up menu. The application displays the **Export Options** dialog box for your selected format.

### TIP

After you select an export format from the toolbar button's pop-up menu for the first time, the application remembers your choice. In the future, you can click the Export button itself, not the inverted triangle, to export to your preferred format. To change the format for subsequent exports, click the inverted triangle again, and choose a new format from the pop-up menu.

2. Adjust the export settings as you require, and click **OK**. The **Export Options** dialog box closes, and the application opens the **Save As** dialog box.
3. Navigate to a convenient location on your computer for the exported report file or files, and type a name for the exported report in the **File name** field. (If you are exporting to multiple files, the application appends a suffix to each subsequent file).
4. Click **Save**. The **Save As** dialog box closes, and the application exports your report to the specified location on your computer.

- **To send your report by email**, follow these steps:

1. Look under **File > Send via Email** in the main menu and choose your preferred export format from the submenu that appears, or click the inverted triangle to the right of the **Send via Email** button  in the toolbar and choose your preferred export format from the pop-up menu.
2. The application steps you through the export procedure as described above. Upon completion, your default email program opens a new message window with your exported report as an attachment.
3. Address and send the email.

#### **NOTE**

If you have already exported your report, you do not need to re-export it using the Send via Email feature just to share your report by email. Simply open a new message in your email application and attach your exported report file or files.

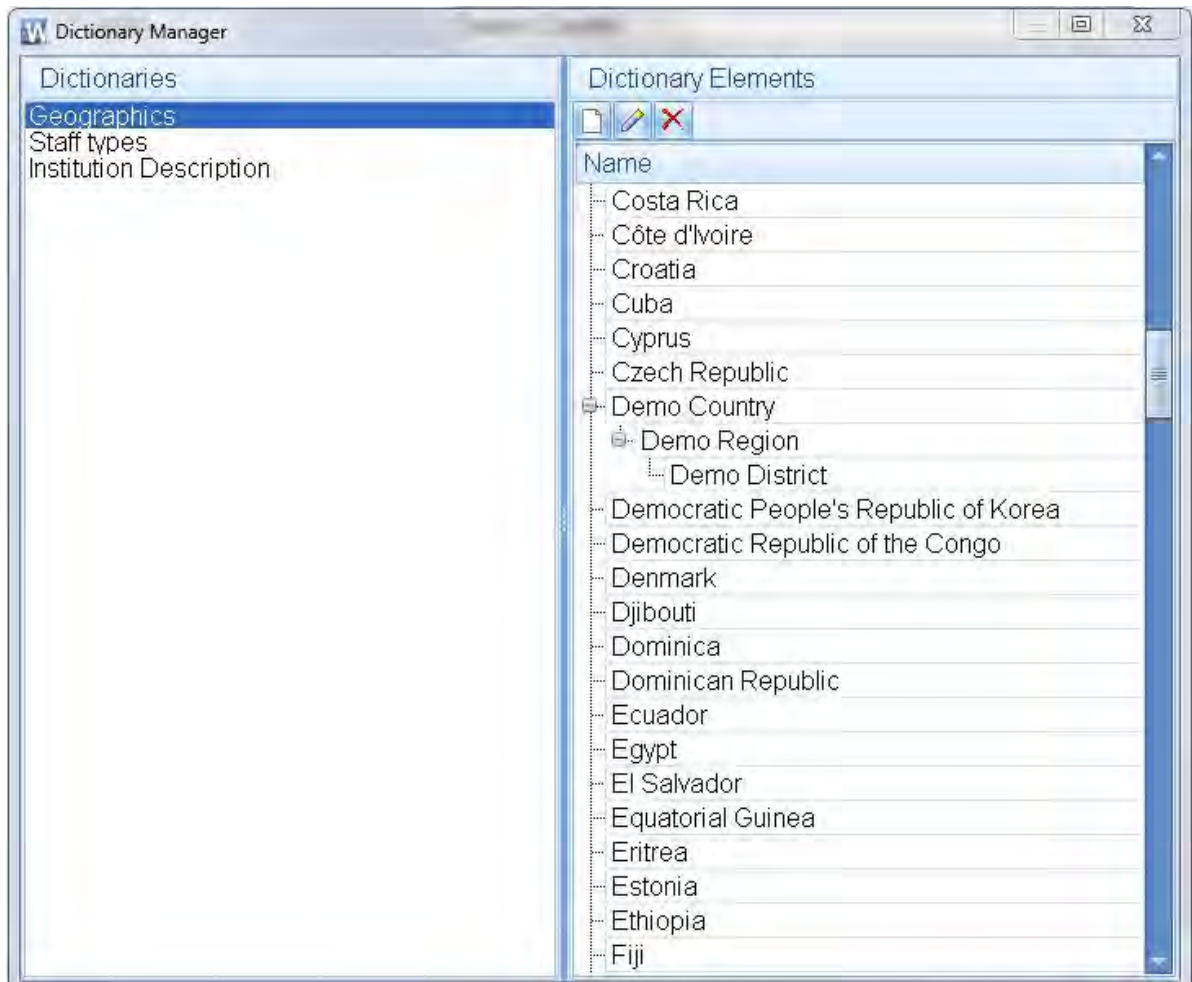
# 4. Working with dictionaries

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## ■ About the Dictionary Manager

The Dictionary Manager enables you to review and change the contents of an application *dictionary*, or data repository. A dictionary consists of a hierarchical list of items, or *elements*.



The application makes use of two built-in dictionaries:

- **Geographic.** This dictionary contains a hierarchical list of countries and regions.
- **Staff types.** This dictionary contains a hierarchical list of personnel functions and jobs.
- **Institution description.** This dictionary contains a hierarchical list of institution types and descriptions.

Using the Dictionary Manager, you may add or subtract elements to either dictionary at any time.

- **To open the Dictionary Manager,** click the **Dictionary Manager** button at the top of the WISN study, or click **Administrator tasks** from the start page.
- **To select a dictionary from the Dictionary Manager,** click the desired dictionary in the **Dictionaries** list in the pane on the left. The elements of this dictionary appear in the **Dictionary Elements** list in the pane on the right.


- **To expand or collapse the list of details under any given dictionary element**, click the + or – button, respectively, to the left of the element name. If no such button appears next to the element name, then the element does not currently contain details.

## ■ Adding a dictionary element

The procedure for adding a new element to either dictionary is essentially the same, but since the content of each dictionary is different, we provide two sets of instructions here.

### ■ Adding an element to the Geographic dictionary


To add an element to the geographic dictionary, follow these steps:

1. Select the **Geographic** dictionary from the **Dictionaries** list.
  2. Click the **Create Element** button  in the toolbar above the **Dictionary Elements** list. The **Create Element** dialog box appears.
  3. In the **Country** field, do one of the following:
    - **If the country for the new element already exists in the dictionary**, select the country from the drop-down menu.
    - **If the country for the new element does not yet exist in the dictionary**, type the name of the country in the field. When you create the element, the application adds this country to the dictionary.
  4. In the **Region** field, do one of the following:
    - **If the region for the new element already exists in the dictionary**, select the region from the drop-down menu.
    - **If the region for the new element does not yet exist in the dictionary**, type the name of the region in the field. When you create the element, the application adds this region to the dictionary.
  5. In the **District** field, type the name of the new element's district.
    - **If you do not want to specify a district for your new element**, leave this field blank.
  6. Click **Add**. The **Create Element** dialog box closes, and the application adds the new element to the dictionary.
- **To close the Create Element dialog box without adding the new element**, click **Cancel**.




## ■ Adding an element to the Staff Types dictionary

To add an element to the **Staff Types** dictionary, follow these steps:

1. Select the **Staff Types** dictionary from the **Dictionaries** list.
  2. Click the **Create Element** button  in the toolbar above the **Dictionary Elements** list. The **Create Element** dialog box appears.
  3. In the **Institution type** field, do one of the following:
    - **If the institution type for the new element already exists in the dictionary,** select the institution type from the drop-down menu.
    - **If the institution type for the new element does not yet exist in the dictionary,** type the name of the institution type in the field. When you create the element, the application adds this institution type to the dictionary.
  4. In the **Specialist category** field, do one of the following:
    - **If the specialist category for the new element already exists in the dictionary,** select the specialist category from the drop-down menu.
    - **If the specialist category for the new element does not yet exist in the dictionary,** type the name of the specialist category in the field. When you create the element, the application adds this specialist category to the dictionary.
  5. In the **Specialist Group** field, type the name of the new element's specialist group.
    - **If you do not want to specify a specialist group for your new element,** leave this field blank.
  6. Click **Add**. The **Create Element** dialog box closes, and the application adds the new element to the dictionary.
- **To close the Create Element dialog box without adding the new element,** click **Cancel**.

## ■ Adding an element to the Institution Description dictionary


To add an element to the **Institution description** dictionary, follow these steps:

1. Select the **Staff Types** dictionary from the **Dictionaries** list.
2. Click the **Create Element** button  in the toolbar above the **Dictionary Elements** list. The **Create Element** dialog box appears.
3. In the **Institution type** field, do one of the following:
  - **If the institution type for the new element already exists in the dictionary,** select the institution type from the drop-down menu.
  - **If the institution type for the new element does not yet exist in the dictionary,** type the name of the institution type in the field. When you create the element, the application adds this institution type to the dictionary.
4. In the **Institution description** field, do one of the following:
  - **If the institution description for the new element already exists in the dictionary,** select the the institution description from the drop-down menu.

- **If the institution description for the new element does not yet exist in the dictionary**, type the name of the institution description in the field. When you create the element, the application adds this specialist category to the dictionary.
1. Click **Add** the **Create Element** dialog box closes, and the application adds the new element to the dictionary.
- **To close the Create Element dialog box without adding the new element, click Cancel.**

## ■ Editing a dictionary element

To edit a dictionary element, follow these steps:


1. In the **Dictionary Elements** list, click to select the dictionary element that you want to edit.
  2. In the toolbar above the **Dictionary Elements** list, click the **Edit Element** button . The **Edit Element** dialog box appears.
  3. In the **Name** field, type the new name for the element.
  4. Click **OK**. The **Edit Element** dialog box closes, and the application changes the name of the element.
- **To close the Edit Element dialog box without changing the name of the element, click Cancel.**

### NOTE

If you specify the name of an existing element in Step 3, the application does not move the edited element's details to the existing element. Instead, you get two elements with the same name but with differing details

## ■ Deleting a dictionary element

To delete a dictionary element, follow these steps:

1. In the **Dictionary Elements** list, click to select the dictionary element that you want to delete.
2. In the toolbar above the **Dictionary Elements** list, click the **Delete Element** button . A confirmation message appears.
3. Click **Yes** to delete the selected element, or click **No** to cancel.

### NOTE

Deleting an element also deletes all its details. For example, if the Demo Country dictionary element contains the Demo Region region element and the Demo District district element, then deleting Demo Country also deletes Demo Region and Demo Districts, along with all the other regions and districts under the Demo Country element.



The **Workload Indicators of Staffing Need (WISN)** software application is a tool for using a computer to record, analyze, and report data related to staffing status and requirements at health facilities.

The software complements the revised Workload Indicators of Staffing Need (WISN) : User's Manual. It assumes that the software user is familiar with the terms, concepts, and methodologies presented in it. This software manual starts with an overview of the software application's features. It then gives step-by-step instructions for completing a variety of tasks in order to manipulate the data and produce reports.

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