

# Tax-Aide Appointment System

## Installation and Configuration Manual

June 12, 2019

Version 5.00

This appointment system (referred to in this document as TAAS) was developed by AARP Foundation Tax-Aide volunteers from Colorado to replace paper or spreadsheet type systems. It provides a convenient platform for managing appointments for individual sites, coordination of scheduling across multiple sites, or a central scheduling point for many sites. New sites and users can be added by any Appointment Manager and users can be assigned either viewing or scheduling permissions at their own or multiple sites as desired. Sites can optionally allow internet access to taxpayers for scheduling their own appointments or add themselves to a callback list for subsequent scheduling.

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## Introduction

### Overview

The software for the Appointment system is delivered in a zip file containing numerous PHP executable files (.php, .css), image files (.png, .gif, .ico) and supporting documents (.pdf).

This is a web application, not a desktop application. These files must be installed on a web server. The Appointment system has been successfully deployed on Windows, Linux, and MacOS servers.

Access to the Appointment system is via a public-facing web page.

### Prerequisites

TAAS requires these components to work

- MySQL database – version 4.6 or later
- PHP – version 5.0 or later
- An HTTP web server, e.g. IIS or Apache.

If you do not have all these already installed on your server, please refer to Appendix 1.

## Windows or Linux Installation

### Step 1: Create a folder

Create a new folder to hold the Appointment system files. If you are using a website creation system (like Wordpress, Joomla or Drupal), you want the folder to be outside of that environment. It's usually best to add the new directory immediately above your website root folder to keep the access link simple, for example:

`https://mywebsite.net/myappts`

For IIS installations, it's OK to create your folder below the default:

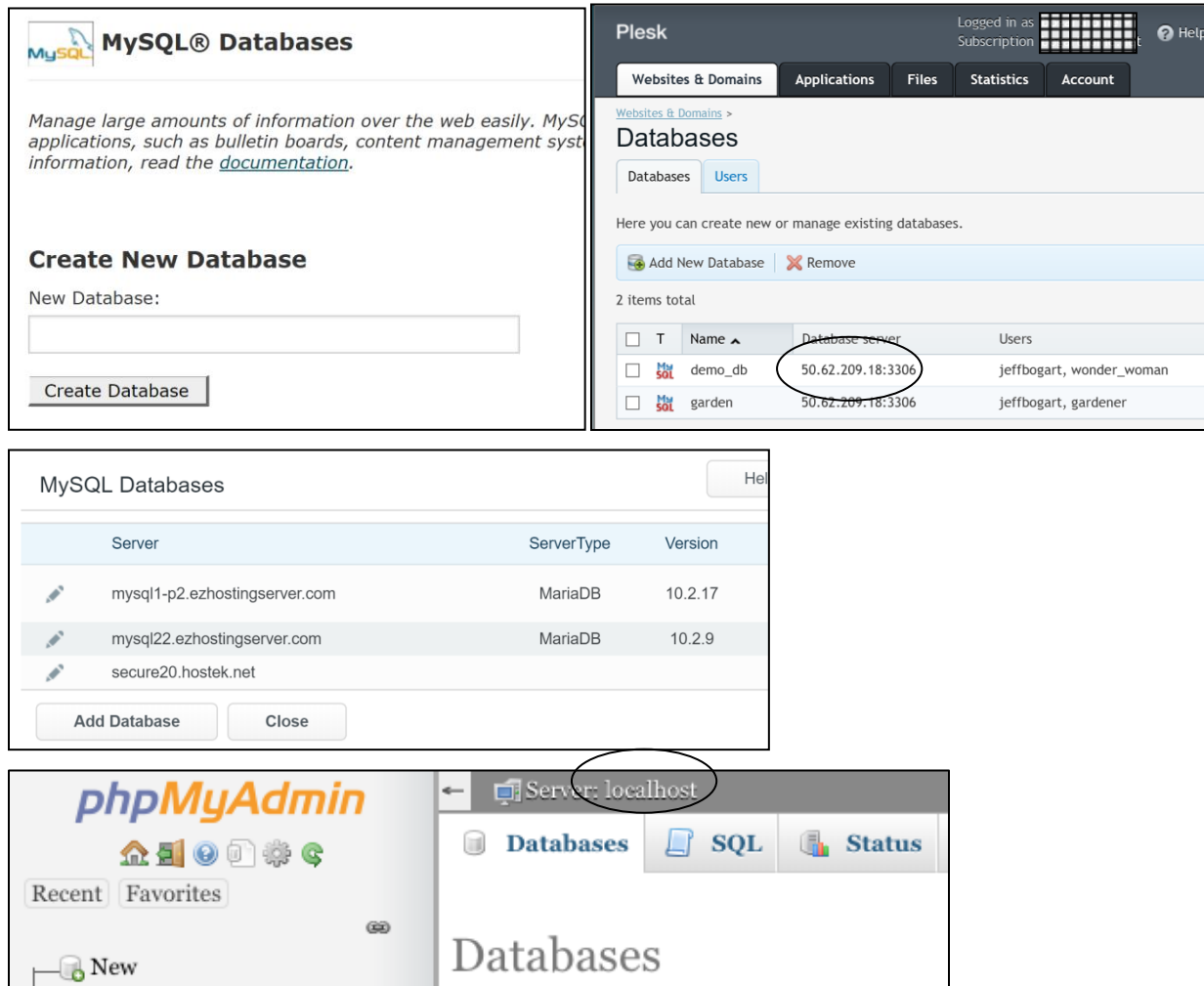
`C:\inetpub\wwwroot`

After you create your folder:

- Enable full permissions to this folder for your web server app and for yourself.
- Unzip and copy the files into the new folder

## Step 2: Create a database

The Appointment System uses a MySQL database interface. Creation of the database varies with the host server, but may look like one of the following:



**Important** - Record the host name of your database (an IP address or "localhost"). You'll need that information later.

### Step 3. Create a database user name and password.

The image displays two side-by-side screenshots of web-based database management interfaces.

**Left Screenshot: MySQL Users**

- Add New User**
  - Username: gardener
  - Password: [masked]
  - Password (Again): [masked]
  - Strength: Very Strong (100/100)
  - Button: Create User
- Add User To Database**
  - User: gardener
  - Database: garden
  - Button: Add

**Right Screenshot: Plesk**

- Header: Logged in as bogarthome - Subscription bogarthome.net
- Navigation: Websites & Domains, Applications, Files, Statistics, Account
- Breadcrumb: Websites & Domains > Databases >
- Adding Database User**
  - Database: Any
  - Type: MySQL (highlighted with a red circle)
  - Database server: 50.62.209.18:3306 (default for MySQL)
  - Database user name: newusername
  - New password: [masked] (Strength: Strong)
  - Confirm password: [masked]
  - Buttons: Generate, Show, OK, Cancel

Be sure your new user has full access privileges to the database, typically the default. If you already have a user name set up for other databases, you could use that same user here of course.

## Step 4: Setup

To initialize the system, invoke index.php from your browser:

<http://localhost/apptsys/index.php>

The page below will display. You will need to enter:

- Database host name (recorded from step 2 above).
- The database name, user name and password.
- Your personal information – name, phone, email, home site name.  
(your initial password will be "admin").

### Information about your database:

Host:  (Could be an IP address if other than "localhost")

Database Name:

Username:

Password:

Time Zone: ☐ Eastern ☐ Central ☒ Mountain ☐ Mountain no DST  
☐ Pacific ☐ Alaska ☐ Hawaii ☐ Hawaii no DST

### Information about you:

First Name:

Last Name:

Email:

Phone:  (7 or 10 digits with optional leading 1)

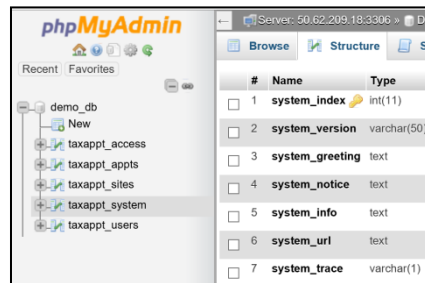
Your Home Site Name:

Your public website URL:  × (Optional)

The setup program will create new subfolders in your appointment folder:

- Images - all .png and .jpg files will be moved to this directory.
- appt\_session\_dir - where global session variables are stored.  
(overrides the PHP system session location setting if it exists)
- appt\_error\_log – a text file where error messages may appear.
- crontab.bat – a file that is executed as a scheduled task to send email reminders.
- crontab.txt – (for future use)

The setup program will also create the database tables and their fields:



The screenshot shows the phpMyAdmin interface. On the left, a tree view shows the database 'demo\_db' with several tables: 'taxappt\_access', 'taxappt\_appts', 'taxappt\_sites', 'taxappt\_system', and 'taxappt\_users'. The 'taxappt\_system' table is selected, and its structure is displayed on the right. The table has 7 fields:

#	Name	Type
1	system_index	int(11)
2	system_version	varchar(50)
3	system_greeting	text
4	system_notice	text
5	system_info	text
6	system_url	text
7	system_trace	varchar(1)

In addition to entries in the `taxappt_system` table, there should be one entry in the `taxappt_users` table (you) and two entries in the `taxappt_sites` table (your site and an “Unassigned” site).

The setup program will also create a new PHP file, `opendb.php`. This file uses the information you entered to provide the needed code statements to connect the database to the Appointment system.

If you need to run setup again for some reason, simply delete the `opendb.php` file and it will be re-created. Re-running setup will not change the contents of the database other than to add new tables or table fields during an update process. But it will set your password back to “admin”.

## Appointment reminders:

One final step is to set up a scheduled task to run which will send email reminders to those who have upcoming appointments.

On Linux systems, that means setting up a cron job. Look for the cron icon:



Click the Cron Jobs icon and you will be presented with a form to fill in:



The image shows two screenshots of a web form titled 'Add New Cron Job'. The left screenshot shows the top part of the form with PHP command examples and common settings. The right screenshot shows the bottom part of the form with cron job scheduling options. The left screenshot includes a section for 'PHP command examples' with a 'General example' and a 'Domain-specific example'. Below this is a 'Common Settings' section with a dropdown menu and several input fields for 'Minute', 'Hour', 'Day', 'Month', and 'Weekday'. The right screenshot shows the 'Add Cron Job' form with fields for 'Name', 'URL', and 'Expert' scheduling. It also has a table for 'Easy' and 'Advanced' scheduling options. The 'Expert' scheduling section has a table with columns for 'Minute', 'Hours', 'Day', 'Month', and 'Day Of Week'. The 'Save' button is highlighted in green.

These examples are set to run at 2:20 am every day.

The command entry is the full path from your home directory to the crontab.bat file that was created during the installation process.

An example Plesk screen for scheduling on a windows system:

To see all scheduled tasks created for a subscription, go to **Websites & Domains > Scheduled Tasks**.

For every task in the list you can change the settings of the task (by clicking on the task's name), activate it by clicking the  icon, deactivate it by clicking the , or run the task immediately.

To create a scheduled task, go to **Websites & Domains > Scheduled Tasks > Add Task**.



## Step 5: Configuration

If setup runs properly, you will then be presented with the login page:

### Tax-Aide Appointments

We are not accepting reservations at this time.

Appointments at other sites are by phone – see the [AARP Locator web site](#).



WELCOME

#### Sign In

Email:

Password:

☐ Remember me on this PC.

**FORGOT YOUR PASSWORD?**

[Click here](#)


Don't have an ID yet? . . . . .

Sign Up


Sign Up

**AARP reservations are now closed for this year.**

**Please come back when we re-open next January.**




**Make or Change appointments**




**Manage options and permissions**


**Change your information:**




**Password**



**Email**



**Phone**



Sign in with your email and initial password (“admin”). You should change that password as soon as possible.

Then, choose “Manage options and permissions”. It will take you to your home site configuration tab.

Tax-Aide Appointment System – Installation and Configuration

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## Site and User Administration

You are signed in as Jeff Bogart

Manage appointments   Search   Tools   Sign out

**Site being managed:** Apple Valley Senior Center ▼

System Options

Site Options

Schedulers

Taxpayers

Add a new site

Current site name:

Apple Valley Senior Center

[SITENAME]

Address:

1000 Apple Drive

[ADDRESS]

City:

Apple Valley

State: CO

Zip: 80999

[CITY] [STATE] [ZIP]

Contact:

Jeff Bogart

[CONTACT]

Appointment phone:

303-555-1212

Email: reservations@applevalley.info

[PHONE] [EMAIL]

Website:

[WEBSITE]

Email messages:

☐ Send confirmation email if taxpayer has an email.

Site options:

☐ Allow scheduling of reserved slots in Summary View (empty slots are always chosen first)

☐ Require 10-digit phone numbers (with optional toll prefix)

Internet access:

☐ Allow internet taxpayers to make their own appointment.

Other site access:

☐ Allow other sites to view or schedule your taxpayers.

Save changes

Cancel

Delete this site

Complete filling out the information and options for your home site. More details about the options are in the *Appointment help.pdf* document, included as one of the TAAS files.

## The Site Options Tab:

As the System Administrator, you have a tab for System Options that others do not. Here, you can customize the Login Greeting and the Login Notice. They both use HTML coding for the messages. To restore the default Login Greeting, simply delete the entire greeting and select *Save changes* (buttons will appear at the bottom of the screen). To remove the Login Notice, delete the notice and it will not appear on the login screen. The notice will have no effect on the ability to use the system but acts only as a deterrent to warn internet clients that the system is not active for their use.

The State Website should point to a web page that is accessible to the public such as lists of what to bring. The [STATESITE] shortcode in appointment confirmation messages will be replaced by what you enter in that field.

**Site and User Administration**  
You are signed in as Jeff Bogart

Manage appointments Search Tools Sign out

**System Options** **Site Options** **Schedulers** **Taxpayers**

OPTION	VALUE or STATUS
System Version:	5.00
State Web Site [STATESITE]:	<input type="text" value="https://coltaxaide.org"/> <a href="#">Go there</a>
Default Email:	<input type="text" value="no_reply@tax_aide_reservations.no_email"/>
Reminder cron job:	

**Login Greeting**

AARP Foundation Tax-Aide, an AARP Foundation program, helps low- to moderate-income taxpayers have more discretionary income for everyday essentials, such as food and housing, by assisting with tax services and ensuring they receive applicable tax credits and deductions.

**Login Notice:**

The AARP reservations are closed for this year.  
This site is now preparing for the upcoming season  
See you next January!

The "greeting" field to the left and the "notice" field below appear on the sign-in page. Both fields can contain HTML coding to display text, for example:

- Use `<b>`some text`</b>` to make *some text* bold.
- Use `<i>`some text`</i>` to make *some text* italic.
- Use `<u>`some text`</u>` to make *some text* italic.
- Nest them: `<u><b><i>`some text`</i></b></u>` to make *some text* do combinations.
- Use `<br />` to start a new line. (Leaving blank lines won't do it.) Use 2 of them to skip a line.
- Use `&apos;` for an apostrophe (') - if you don't, we'll fix it.
- To restore the default greeting, simply clear the box to the left and click the save button at the bottom of the window.

[Save changes](#) [Cancel](#)

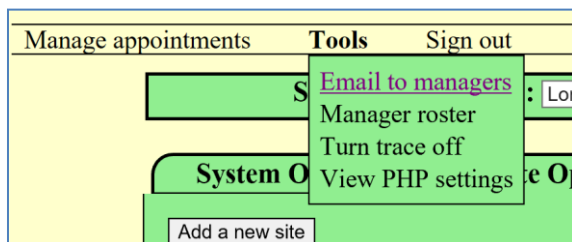
Also, as System Administrator, you have full access to all sites and all users and can change all permissions including adding additional System Administrators (it's a good idea to have a backup). This can be helpful when the Appointment Managers at sites need assistance in configuring their setups.

You also have access to a site called "Unassigned". The purpose of this site is to list users (in the Taxpayer tab) who have login accounts but are not associated with any site. Perhaps a person created a login ID but never made an appointment. You may wish to purge names on this list if they haven't been used for a long time.

That's it! You are now ready to add additional sites and their Appointment Managers, Schedulers and appointment slots for each site. For those tasks, see the *Appointment help.pdf* file included in the TAAS distribution files.

## The Tools Menu:

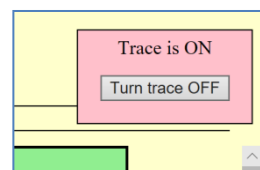
The tools menu is only available to the Administrator.



**Email to managers** opens your email application on your PC and pre-loads the send-to list with all Administrators and Appointment Managers.

**Manager roster** produces a new window listing all Administrators and Appointment Managers in the system with their email address, phone number and home site name. This can be copied and pasted into an excel spreadsheet.

**Turn trace off/on** provides messages in the `appt_error_log` as an aid to troubleshooting. When the trace is active, a red indicator box at the top right of the window indicates this status. Turn the trace off by clicking the button in the red box or the Tools menu choice.



**View PHP settings** provides a new window showing all settings for PHP and its extensions as an aide to troubleshooting. This invokes the `show_phpinfo.php` file, which can also be run directly as a URL, for example:

[https://mywebsite.net/myappts/show\\_phpinfo.php](https://mywebsite.net/myappts/show_phpinfo.php)

## MacOS Installation

### Step 1: Create a folder

Create a new folder to hold the Appointment system files. It's fine to use the default MacOS Apache folder:

```
/Users/<username>/Sites
```

After you create your folder:

- Enable full permissions to this folder for your web server app and for yourself.
- Unzip and copy the files into the new folder

Then follow Steps 2 through 5 in the Windows Installation section.

## Troubleshooting tips

### Reporting problems

To ask questions or to report problems, please send an email to: [jeff@bogarhome.net](mailto:jeff@bogarhome.net).

### Check the PHP version and extensions

On your server dashboard there will be a place to select the version of PHP that is being used. The icon may be something like:



The application has been tested on several PHP versions and it's best to use the latest (7.2 as of this writing) since the later versions have significant performance improvements.

If, during setup, the database doesn't get created, verify that *mysqli* is included in the extensions.

Current PHP version: **7.2**

PHP Version: 7.2 Set as current Switch To PHP Options

<input type="checkbox"/> apcu	<input type="checkbox"/> igbinary	<input type="checkbox"/> nd_pdo_mysql	<input checked="" type="checkbox"/> posix	<input type="checkbox"/> uploadprogress
<input checked="" type="checkbox"/> bcmath	<input checked="" type="checkbox"/> imagick	<input checked="" type="checkbox"/> oauth	<input type="checkbox"/> propo	<input type="checkbox"/> uuid
<input type="checkbox"/> brotli	<input type="checkbox"/> imap	<input checked="" type="checkbox"/> oci8	<input type="checkbox"/> pspell	<input type="checkbox"/> vips
<input type="checkbox"/> dba	<input type="checkbox"/> inotify	<input type="checkbox"/> odbc	<input type="checkbox"/> raphf	<input type="checkbox"/> wddx
<input type="checkbox"/> dbase	<input type="checkbox"/> interbase	<input type="checkbox"/> opcache	<input type="checkbox"/> redis	<input type="checkbox"/> xdebug
<input type="checkbox"/> disval	<input type="checkbox"/> intl	<input checked="" type="checkbox"/> pdo	<input type="checkbox"/> snmp	<input checked="" type="checkbox"/> xmlreader
<input type="checkbox"/> dom	<input checked="" type="checkbox"/> ioncube_loader	<input type="checkbox"/> pdo_dblib	<input type="checkbox"/> soap	<input checked="" type="checkbox"/> xmlrpc
<input type="checkbox"/> eio	<input type="checkbox"/> json	<input checked="" type="checkbox"/> pdo_firebird	<input type="checkbox"/> sockets	<input checked="" type="checkbox"/> xmlwriter
<input type="checkbox"/> enchant	<input type="checkbox"/> ldap	<input checked="" type="checkbox"/> pdo_mysql	<input checked="" type="checkbox"/> sqlsrv	<input type="checkbox"/> xsl
<input type="checkbox"/> ffmpeg	<input type="checkbox"/> lz4	<input type="checkbox"/> pdo_oci	<input type="checkbox"/> ssh2	<input type="checkbox"/> yaf
<input type="checkbox"/> fileinfo	<input checked="" type="checkbox"/> mailparse	<input type="checkbox"/> pdo_odbc	<input type="checkbox"/> stats	<input type="checkbox"/> yaml
<input type="checkbox"/> gd	<input checked="" type="checkbox"/> mbstring	<input checked="" type="checkbox"/> pdo_pgsql	<input type="checkbox"/> sysvmsg	<input type="checkbox"/> zip
<input type="checkbox"/> gender	<input type="checkbox"/> memcached	<input checked="" type="checkbox"/> pdo_sqlite	<input checked="" type="checkbox"/> sysvsem	<input type="checkbox"/> zmq
<input type="checkbox"/> geoip	<input type="checkbox"/> mongodb	<input type="checkbox"/> pdo_sqlsrv	<input type="checkbox"/> sysvshm	
<input type="checkbox"/> gmagick	<input type="checkbox"/> mysqli	<input checked="" type="checkbox"/> pgsql	<input type="checkbox"/> tidy	
<input type="checkbox"/> gnupg	<input type="checkbox"/> mysqlind	<input checked="" type="checkbox"/> phalcon3	<input type="checkbox"/> timezonedb	
<input type="checkbox"/> http	<input type="checkbox"/> nd_mysqli	<input type="checkbox"/> phar	<input checked="" type="checkbox"/> trader	

Save Use Defaults

### The Trace tool

From the Tools menu option, you can turn trace on or off.

This produces messages in the *appt\_error\_log* file whenever an action is taken and is helpful when the action does not do what was expected – especially if a real error is logged as a result of that action. If such occurs, please report it so that it can be investigated and repaired. Send the trace file along plus any other information that you think might be helpful.

With trace on, the *appt\_error\_log* can get rather large as time goes on. After using this tool for troubleshooting, it's a good idea to erase the *appt\_error\_log*. It will be recreated when needed.

## Environment settings

The *environment.php* module is designed to set the required PHP options and create the necessary subfolders.

You may gain some insight by running the *show\_phpinfo.php* module as a URL:

[https://mywebsite.net/myappts/show\\_phpinfo.php](https://mywebsite.net/myappts/show_phpinfo.php)

If you have difficulty with the installation or operation and find a setting that is causing problems, please report it. The default settings on servers vary. We'll be glad to help you get set up if you run into trouble.

## Appendix 1 - Prerequisite Components

### Windows Prerequisites

Assuming you want to use IIS as your web server, we highly recommend that you use Microsoft Web Platform Installer. It provides a robust system to install and configure many well-known web components. It works well for installing MySQL and PHP.

<https://www.microsoft.com/web/downloads/platform.aspx>

### MacOS Prerequisites

Apache and PHP come pre-installed on MacOS. There are numerous articles available to assist you with configuring these components.

<https://coolestguidesontheplanet.com/install-apache-mysql-php-on-macos-mojave-10-14/>

<https://www.iodocs.com/installing-apache-php-mysql-mac-os-x-macos-sierra/>

### MySQL

If you're not already using MySQL, we recommend the Community Server edition.

<https://dev.mysql.com/downloads/>

If you install version 8.0 or greater of MySQL, we recommend you choose the Legacy Encryption option to ensure compatibility with third party tools.

### Also Recommended

One of the best free database management tools for MySQL is phpMyAdmin. It is well supported and very powerful for a wide range of DBA tasks.

<https://www.phpmyadmin.net/>



## Appendix 2 – Database Schema

Table	Field	Option	Description
taxappt_system	system_index	1	Only one record in this table
	system_version	(number)	Version number in setup.php file
	system_greeting	(text)	Login page greeting message
	system_notice	(text)	Login page notice (doesn't print if blank)
	system_info		Reserved for future use
	system_url		URL to state web site
	system_trace	T	"T" if trace is active
	system_email		Default email address for emails
	system_reminders	(date)	The date and time when the last scheduled crontab.bat ran
taxappt_sites	site_index	(number)	Index of the record for the site (1 = Unassigned)
	site_name	(text)	Site name
	site_address	(text)	Address, phone, contact with " " as a delimiter
	site_inet	S R C	Internet scheduling allowed Restrict scheduling to CB list if CB list > avail slots Restrict scheduling to CB list
	site_contact	(text)	Contact person
	site_message	(text)	Email message to be sent when appt is made or changed. Not sent if first 4 characters are "NONE".
	Site_addedby	(index)	Index of site that created this site
	site_open	(date)	Date site is open for internet scheduling
	site_closed	(date)	Last date site is open for internet scheduling
	site_schedule		Reserved for future use
	site_help	(URL)	
	site_sumres	"checked"	Allow selection of RESERVED slot from Summary View
	site_reminder	(number)	Number of days prior to appointment to send reminder
	site_lastrem	(number)	Number of days since last email to not send a reminder
	Site_10dig	"checked"	10-digit phone numbers are required
taxappt_users	user_index	(number)	Index of the record for this user
	user_name	(text)	Abbreviated name for status history messages
	user_email	(email)	User's email address
	user_phone	(phone)	User's phone number
	user_last	(text)	User's last name
	user_first	(text)	User's first name
	user_home	(index)	Index of user's home site (Appt Mgrs, Schedulers only)
	user_appt_site	(index)	Index of user's last appointment site (Inet scheds only)
	user_options	A M 1-63	Administrator Appointment Manager Bit map value of Scheduler permissions: 1 = view Callback list 2 = add/change Callback list 4 = view Appointment availability (Summary View) 8 = add/change Appointments 16 = (reserved for future use) 32 = allowed to use RESERVED slots
	user_lastlogin	(timestamp)	Date and time of last login
	user_sitelist	(indexes)	Indexes of sites to which the user has permissions

taxappt_access	acc_index	(index)	Index of the permission entry in the table
	acc_owner	(index)	Index of the site who has given this permission
	acc_location	(index)	Index of site to whom the owner wishes to give permissions (i.e. who is listed on the Scheduler tab)
	acc_user	(index)	Index of the user to whom the owner gave permissions
	acc_option	M, 1-63	The permission option (see above table)
taxappt_appts	appt_no	(index)	Index of the appointment slot
	appt_date	(date)	Slot date (0000-00-00 is unused, Callback or Deleted)
	appt_time	(time)	Slot time (00:00:00 is unused, Callback or Deleted)
	appt_name	(text)	Client's name
	appt_location	(index)	Index of the site for which the appointment is made
	appt_phone	(phone)	Client's phone number
	appt_need	(text)	Client's need information
	appt_status	(text)	Status history – each event separated by “%%”
	appt_wait	(number)	A number, used for Callback list sorting
	appt_change	(timestamp)	When the appointment was last added or changed
	appt_by	(text)	Full name of the person who made the appointment
	appt_type	D	Deleted record
	appt_tracking		Reserved for future use
	appt_emailsent	(date)	Date when the last email was sent
	appt_tags	(text)	Tags content
	appt_info	(text)	Info content
Taxappt_scheds	Sched_index	(index)	Index of the schedule pattern
	Sched_location	(index)	Index of the site to which the pattern belongs
	Sched_name	(text)	The name of the pattern
	Sched_pattern		The pattern: d1, d2   , dow1, dow2, ...   , n1, n2, n3, n1, ... d1 = starting date as yyyy-mm-dd d2 = ending date as yyyy-mm-dd dow1 – dow7 = Mon, Tue, Wed, etc n1 = number of slots n2 = time as hh:mm in 24 hr format n3 = number of slots reserved n1 – n3 is repeated up to 8 times as needed

## Appendix 3 – Update History

New in version 5.00:

- Management window:
  - New option to require entry of 10-digit phone numbers.
  - New option by Scheduler to allow or deny using reserved slots for an appointment.
  - Search by name, phone or email of internet registered persons.
  - Sites are prevented from removal if any appointment slots are present – to remove a site, go to the appointment screen and “Start over” to remove all.
  - Sites are prevented from removal if any Schedulers are assigned – move them to another site or delete them.
  - New option to delete all members of the “Taxpayers” tab who have not logged in since a given date.
  - Site Appointment Managers now have access to the “Unassigned” site – a list of internet users who have created a login but have not completed a registration at any site.
  - Addition of a default system email “From” address to be used if email is sent without a site email address.
  - Ability to schedule reminder emails on a site basis (if set up for the system).
  - Administrable limit on the number of appointments an internet user can make.
- Appointment window:
  - The calendar now scrolls from the earliest appointment date to one month past the last appointment date.
  - The current date is highlighted in the calendar.
  - Schedulers can now go to an earlier than current date by clicking on the calendar day.
  - Daily view appointments now sorted by: assigned, available, RESERVED.
  - Separate the Notes field into 3 depending on desired use:
    - Tags field displays with the name on the Daily view but does not print on the check-in sheet or the ERO report.
    - Notes field continue to be footnotes on the check-in sheet,
    - Info field is miscellaneous information for Schedulers,
  - Added search by Tags option.
  - An additional column in Daily, Callback and Deleted views to indicate that the Info field has information – hover the mouse over the icon to see the information.
  - Search shows any match to phone or email at any site in the system, not just your own.
  - Allow ampersand (&) in name and email fields.
  - The status log for an appointment now shows when an email was sent.
  - The “cancel” button on the appointment entry form is now labeled “close”.
  - Deleting “Reserved for #...” entries in the Callback list no longer are added to the Deleted list.
  - Ability to save and recall a schedule pattern and use patterns saved at other sites to which you have access.
  - Ability to delete the “Deleted list”.
- Internet window:
  - The calendar was removed because it was hiding sites that could be selected and provided no additional information not already available in the list of available appointments.

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