

Sermon Podcasting Guide

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Chapter 1: What is a Podcast?

There's an old Chinese proverb that goes: He who defines the terms wins the argument. I'm not sure who is arguing with who in this case, but the principle is still a good one: let's be clear on our terms before we continue. There is a lot of internet jargon out there that gets bandied about, and most people only barely have a clue what they're talking about. The more you understand the fundamentals of building a podcast, the better you'll be able to keep yours running smoothly and solve problems as they come up. So, without further ado:

Podcast:

I hope you don't skip this section. The fact is, lots of people use the term podcast and don't even know what it means. It's a fashionable, sexy word. It makes you sound cool and knowledgeable about the "information superhighway." It drives girls crazy. So lots of people talk about podcasts but have no idea what it means. Let's fix that.

A podcast is like a magazine subscription. It's a way of subscribing to a source of audio content that you like, making sure that you get new episodes whenever they become available. In your case, that's sermons. Lots of people think that just having audio files on their website means that they have a podcast. They don't. Having audio content is an indispensable part of having a podcast, but it's not the same.

For example, if you upload your church's sermons to your website that's great, but it's not a podcast. If your church members like downloading the sermons, they will have to come back each week, or every couple days, to check if there is a new message available. If there is, they need to download it manually each time. If you had a podcast, you would still upload your sermons to your website, but your website users could now 'subscribe' to your podcast. This means that a program on their computer (often a free media player like Apple's iTunes) would be 'hooked up' to your website, and would automatically check for new episodes every day (or more or less often, depending on the user's preferences) and when a new sermon is available, automatically download it.

Having a podcast makes it much, much easier for people to download your church's sermons. If they are using iTunes and have an iPod (as untold billions now do) then your churches sermons will be automatically downloaded and moved to the iPod whenever it is synced with the computer. The end result is more people downloading and benefiting from your church's sermons. A church that I set up a couple podcasts for recently doubled the amount of sermons being downloaded in less than a month after starting a couple of podcasts.

MP3

An MP3 is a digital audio file. There are lots of ways to store audio digitally -- sort of analogous to the way you can store analog audio in many forms: record, tape, 8-track, etc. You've probably heard of many of the file types, although maybe you've never registered exactly what they were—MP3, AAC, WAV, WMA, OGG, etc. These are all just different formats for encoding audio digitally.

Note: please slap yourself before reading this paragraph. Done? Good. Listen closely: many people make the mistake of using a file format OTHER than MP3. Don't do it! I see lots of church websites that use .WMA or other file formats, and they don't realize they are making it much more difficult for their listeners to hear the sermons. You want to use MP3 files exclusively. Trust me. MP3's aren't necessarily the best file format, but that doesn't matter. The important thing is, they are 100% universal. Every computer, every operating system, and every program can open an MP3. A pregnant walrus in the arctic circle could open an MP3 if he wanted to. That's not true of any other file format. AAC's (popularized by Apple and the iTunes store) can only be opened by Apple computers or Windows machines running iTunes. WMA's can only be opened by Windows machines. All the other file formats will ensure that a percentage of your congregation will not be able to hear your sermons. That's bad.

MP3's can be encoded at many different quality settings, so it's possible to have large MP3's that sound as good as a CD, or to have them compressed so small that they sound horrible. In a later section I'm going to teach you exactly how to compress your MP3's so that they sound near-CD quality and still have extremely small file sizes--very important for files that are downloaded from the internet. This is another area where many, many churches make mistakes. I've seen lots of churches whose sermon MP3's are 50+ megabytes. Bad news. Nobody wants to download a file that huge – it takes too long. Plus, it can cost you money if you exceed your allowed bandwidth with your web hosting provider. I'll help you get those file sizes down to around 7-9 megabytes for a 30 minute sermon. I've been tinkering with many programs and many different advanced compression settings for several years, trying to find the perfect balance between size and quality. In chapter 4 I'll share my secret recipe with you.

XML

We'll be talking a lot about XML files as we progress. XML stands for eXtensible Markup Language. If that means nothing to you, don't worry. At the heart of every podcast is an XML file. It's basically a little text file (you can create one in Notepad or TextEdit – free programs included with most computers) that tells people about your sermons. XML is a coding language. If you've never learned a computer language before, don't worry, you won't have to start now. I've included a starter XML file and all you have to do is learn how to modify a few lines of it each time you add a new sermon. It takes about 60 seconds, and I could teach a 5th grader to do it in about 5 minutes – so you should have it mastered in an hour or two. Seriously, it's very easy.

RSS Aggregator

This is just a fancy term for a program that subscribes to a podcast. iTunes is probably the most popular RSS Aggregator (actually it's a fully-functional media player that also functions as a podcast RSS Aggregator) although there are many others like Juice, and Doppler. This is the (almost always free) program that lives on the computer of your congregation member and makes the podcast magic happen. It checks your podcast regularly looking for new sermons. When it finds a new sermon on your website, it licks its chops and downloads it automatically, then patiently waits for your congregation member to listen to it at their convenience.

Chapter 2: Anatomy of a Podcast

Slap yourself again if you're considering skipping this section. You need to understand HOW all this stuff works, not just WHAT TO DO to make it work. If you don't understand how it all works, you're going to have a lot more trouble figuring out why something is not working if you later have problems. So bear with me, and we'll get to the fun stuff in a jiffy. Plus, in a few paragraphs I make a horrendous extended analogy that you won't want to miss.

A working podcast consists of three main parts: audio episodes (sermon MP3's), an XML podcast file, and an RSS aggregator. It works like this. You, as the webmaster (or webninja, if you prefer) upload sermon MP3's to your website. They live on a web hosting server somewhere. Most likely, you provide direct download links to these files somewhere on your site, so that if some web-neanderthal hasn't figured out how to use your shiny new podcast yet, they can still download the files manually.

You, as the webmaster, also update your podcast XML file everytime you add a new sermon to the website. This is a little file that contains information about and directions to all the sermon MP3 files that live on your website. It also lives on your web hosting server, so it's on the internet as well, just like the MP3 files that it points to. Humans are not intended to see or read this file (although you, as the webninja look at it and update it) so you also provide a subscription link to this XML file. This link allows people from your church (or people from other states and continents who really like your sermons) to subscribe to your podcast.

Subscribing to your podcast is essentially telling an RSS aggregator (like iTunes) where on the internet your XML file lives. Once the RSS aggregator knows where the XML file is, it checks up on this file every so often. Whenever there is a new sermon on your website, the XML file informs the RSS aggregator and tells it how to download it.

Don't worry, we'll make this totally automatic and dummy-proof for your church members. It will be as easy as clicking on a link and automatically subscribing.

By way of explanation, permit me to make an extended analogy. Imagine that your name is Betty. (If your name really is Betty, slap yourself, because that is creepy.) You like imported cheese from the tiny, island nation of Tuvalu. Every once in a while, your local grocery store gets some new piece of cheese from Tuvalu. So, you've gotten in the habit of going there every day to check for new cheese. Most of the time, there is nothing new, so this is a waste of time. But, every couple of days you check a few aisles and find a new piece of imported cheese to buy.

Now imagine if the grocery store started posting a flyer on the door that listed new pieces of imported cheese from Tuvalu, as well as directions to exactly where to find them in the store. Every time a new piece of cheese came in, they added a line to the flyer describing the new piece of cheese and its location. This would sure save Betty time, right? Now you could just walk by the store and glance at the flyer instead of hunting around for new cheese.

But it gets better. Imagine a friendly neighbor kid offered to walk by the store every day and check the flyer. Whenever he saw that a new piece of cheese from Tuvalu came in, he checked the directions, went inside and found the cheese, bought it and brought it right to your doorstep. What a great system for you, eh?

This, my friends is the beauty of podcasts. You, Betty, are the congregation member. The pieces of cheese are new sermons and messages that become available from time to time on your website. The flyer on the store door is the podcast XML file. And the friendly neighbor boy is the RSS Aggregator.

That's how a podcast works. In the chapters to come, I'll show you how to use totally free software to edit your sermons and create great MP3 files out of them—files that sound near-CD quality but are still small in size and download fast. That's your cheese. I'll also show you how to create the XML file that you update to point to all your sermons. In fact, I've included the same XML file I use to help you get started. You won't have to learn code, just swap out a few pieces of information for each new message. This is the flyer on the store door. Finally, I'll show you how to make it super easy for your church members to subscribe to your new podcast—this is the friendly neighbor kid who checks the flyer for cheese every day.

Chapter 3: Starting with Great MP3s.

If you want to have a great podcast, you've got to start with great MP3's. You or your teaching pastor puts a lot of time into preparing the sermon each week, so it's important we take care to create the best MP3 file we can. Creating a good MP3 file has lots of benefits:

- clear audio quality makes listening to a sermon enjoyable and easy on the ears. No one likes a garbled, hard-to-understand audio file. Remember those awful sermon tapes from the 80's? We can do way better.

- Small file sizes mean that people don't have to wait long to get your sermon files. People don't like downloading huge files, especially if they only have dial-up internet access. Big files also clog up peoples' hard drive.
- Smaller file sizes also help you save money on your web hosting. Most web hosts have a monthly limit on how much people can download from your site. If you are getting close to or exceeding your monthly limit, decreasing file size can give you the equivalent of up to 5 times as much bandwidth. I've worked with churches and ministries that have literally tripled or quadrupled the amount of sermons they were able to deliver just by reducing file size. Often, using the settings I outline below, the audio quality actually improves!
- MP3 files ensure that everybody can open your sermon files.

To get a great sounding MP3, you have to start with a good source. Most churches that are putting sermons online record their sermon's one of three ways: straight to a CD, straight to a computer, or straight to a dedicated digital recording device of some sort. In all three cases, my first recommendation is the same: start with a very high-quality recording. You can always compress a file downwards in size, but if you start with a bad-sounding, over-compressed file, you're stuck.

Getting a good source file:

If you're recording straight to a CD, getting a good source file shouldn't be a problem. Most real-time CD recorders record in an uncompressed format that is very-high quality. If your CD recorder gives you recording quality options (many don't) choose the one that says 'uncompressed,' 'WAV,' or 'lossless.' If it doesn't seem to have any settings like that on it, don't worry.

Computers and digital recording devices will almost always give you options at what quality to record. Choose an uncompressed (WAV or 'lossless') setting if possible. If it only records to MP3s (which by nature are compressed), make sure you set it to record at the highest possible quality setting (192 kB/s or higher is good).

Signal Strength

Once you've got the recording quality set, the only thing you'll need to pay attention to is the signal strength. If you start out with a very weak (quiet) signal, this can lead to a noisy recording later on. You want a strong, robust signal. In fact, you want to record the sermon as loud as you can without distorting the recording. Most CD recorders or digital recorders have a prominent "input level" meter on the front, and an input level knob somewhere. If you're going direct to a computer, the software you are using will have some equivalent.

As your soundperson is recording the message, have them make sure that the input level on the meter is consistently hitting the 0db mark, and occasionally spiking into the red zone. If the input meter is only barely registering, or never getting close to the 0db mark, you need to turn up the input level knob until it does. If you have that knob turned up all

the way, and there's still not a strong enough signal – boost it coming out of the sound mixing board. Everything starts with a good strong signal, so be sure to figure this out. If you're having trouble, refer to the manual for your recorder and, if necessary, your soundboard. Unfortunately, I can't provide technical support for all the different recorders and sound mixing boards out there, because their name is legion. If you have one semi-knowledgeable sound person, have them read this section, and it should be very easy for them to figure out and show to others. Once you're comfortable recording at optimum level, have your sound technicians slap themselves repeatedly if they forget to keep an eye on this.

Editing the file:

If you've recorded your message somewhere besides on the computer where you'll be doing your web work (e.g.: on a CD, or on a dedicated digital recorder of some sort) then the next thing you'll need to do is get your sermon onto your main computer. If you've recorded on another computer, or on some sort of digital recording device, simply move the file onto your web computer and skip the next couple paragraphs.

If you recorded a CD, you'll need to 'rip' the CD onto your computer. HOW you do this is important. You want to make sure that you don't downgrade the quality of your audio file at this step, which is easy to do. Here's how to rip it correctly: If you don't already have it, download the program iTunes. It's a free, powerful, elegant media player from Apple. You can get it here. Open iTunes and go to the importing encoding preferences (PCs: File Menu → Preferences → advanced tab → importing) and select "WAV encoder" from the drop-down menu. Get used to finding the encoding preferences inside iTunes. You'll be using it a lot.

Before you rip the CD, it's a very good idea to briefly 'tag' the file so it is easier to find later. To do this, click on the track you're about to import and choose "get info" from the file menu (keyboard shortcut: Ctrl-I for PC's or command-I for Macs). Make sure the "info" tab is selected and fill out two of the text fields. (We'll have a whole lot more to say about tagging later on in the book.) First, under "Album" type "Uncompressed Sermons" or something clear like that, and under "Name" type "Please Tithe More" or whatever the name of that particular sermon is. Press OK, and you're done tagging for now.

Once you've changed your preferences to import as WAV and done a little preliminary tagging, go ahead and 'rip' the CD. (The verb 'to rip' is the technical term for transferring an Audio CD onto a computer in digital format.) You do this by clicking 'import CD.' If you don't see the 'import CD' button, make sure the Audio CD is selected from the source column on the left-hand side of the iTunes program.

Have Audacity!

Once you've got the sermon file on your computer, you'll need to edit it. To do this, you'll need to download a powerful, free program from the internet called "Audacity."

You can get it here, or if that link doesn't work for some reason, Google "Audacity" and you should be able to find it no problem.

Once you've downloaded it, run the program and open your sermon file by going to the file menu and choosing 'Open.' Then browse to where your file is located on your hard drive. If you imported using iTunes for the first time (see above), you may not know exactly where your file is. Have no fear. If you are using a PC you should be able to find the file under MyDocuments → MyMusic → iTunes Library → Uncompressed Sermons. If you are using a Mac, it will be under User → iTunes → iTunes Music → Uncompressed Sermons.

Once the file is opened (this can take a few minutes – uncompressed audio files such as these are bulky, unwieldy things) you'll see a large blue waveform. This is what you'll be editing.

INSET: GETTING AROUND INSIDE AUDACITY

A couple things you'll want to know as you get used to using Audacity. First, your space bar acts as a play/pause button. Go ahead, try it. Fun, isn't it? Next, you can click with your mouse anywhere in the waveform to begin listening at that point.

Sometimes you need to zoom in closer on the waveform to make more precise edits. Use the zoom buttons to zoom in and out on different sections.

Cutting sections of audio is something you'll want to do frequently. To snip out a section of audio, zoom in and use the space bar to play pause until you know which part of the waveform you want to cut out. Then highlight it and go to the Edit menu and choose "Delete" (or ctrl-K) and it's gone. I use this a lot to trim the beginning and end of the sermon recordings. You can also snip out sections in the middle if there was a particularly boring or heretical section of the message you don't want widely disseminated.

Applying effects is a great part of Audacity. Highlight any part of your audio waveform by clicking and dragging (or press ctr-A to select all) and then run one of the effects. There are all kind of fun things you can do to the audio—most of it probably entirely unnecessary. However, there are three effects I use over and over on sermons: fade in, fade out, and amplify.

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On most sermons, I like to do a few things consistently. First, I snip off the beginning and end so that the message starts and stops in a logical place. Do this by listening to the first few seconds or minutes until you find where the message should begin. Then highlight the waveform leading up to that point and delete it using the delete command (Edit menu → Delete or Ctrl-K). Then do the same with the end of the sermon.

If the recording starts or ends in the middle of a sentence and you don't want to cut any of it, send your sound tech a polite email asking them to slap themselves 3-4 times for this offense, then use a fade-in or fade-out to make things sound smoother. To do this, just highlight the first or last few seconds of the message and run a 'fade-in' or 'fade-out' effect from the effects menu. Presto! You have a professional sounding fade in and you have covered over the transgression of your sound tech.

The other thing I do most every time I prepare a sermon for the internet is amplify some or all of the message. The point here is to deliver a high-quality recording to the listener. If the volume is too low, they will have to turn up their computer or MP3 player, and this may result in a noisy message.

To tell if you need to amplify the message, zoom out and look at the whole waveform. If, as in the picture below, there is a lot of room between the peaks of the waveform and the top of the file's dynamic range.

(picture)

If this is the case, I usually highlight the whole waveform and amplify the file. When you choose the amplify effect, it automatically puts the slider at the maximum amount possible without distortion (clipping). I usually uncheck the prevent clipping box and push it about 2 dB past where it was set. I find this gives me just a little stronger overall signal, and usually the few brief points where the signal clips are hardly noticeable.

Here is a picture of a nice strong signal—note how the waveform fills the whole dynamic range nicely.

If your waveform looks like this: you've gone too far. Undo!

Once you get really good at using the amplify effect, you may find (if you're a perfectionist like me) that you want to amplify certain sections of the file and not the whole thing. Go ahead! Amplify till your heart's content. Or, alternatively, you may be a more sane individual and less of a perfectionist, and you might skip amplifying altogether. Also a reasonable course of action.

NOTE: if you got a great recording level at the initial recording, you won't need to amplify. However, I've found in practice that most recordings are recorded too soft, so some amplifying is necessary.

Exporting from Audacity

Once you've made any edits and amplified (if necessary), you're ready to export out of Audacity. Once again, it is important that we preserve the audio quality during this step. A good audio file is like a precious, fragile vase. We must handle it gently at all times.

At this point I want you to export the entire edited file as a WAV. Do this by going to the file menu and choosing “Export as WAV.” When you do this, Audacity will prompt you to save it somewhere and give it a name. I like to give it a simple name based on the title of the sermon and save it to my desktop for simplicity’s sake.

But wait, some of you might be thinking, there is another option called “Export as MP3.” Why don’t we convert to an MP3 while exporting it out of Audacity? Good question. Here’s a little truth that it took me a while to learn: not all MP3 encoders are created equal. You can have several different programs encoding MP3’s at the exact same settings, and get different quality results. Audacity’s built in MP3 encoder, like many programs (many that are NOT free) is not very good. Fortunately for us, the MP3 encoder built into iTunes is excellent, and also free. This is why I want you to export as a WAV out of Audacity. This preserves all the original sound quality. Later, we’ll let iTunes go to work on this pristine audio file and use it’s excellent MP3 encoder set according to our secret recipe to finally reduce this huge file down to a small, high-quality MP3.

Encoding the MP3

Once you’ve exported your edited file out of Audacity as a WAV file. Open up iTunes and import that file. Do this by going to the file menu and choosing open (or press ctrl-O) and pointing iTunes to the correct file.

INSET: Where did my file go in iTunes?

If you’re not familiar with iTunes, you may import a file at one point or another and then not be able to ‘find’ it within iTunes. If this happens, don’t panic. The file is there-- unless you didn’t actually succeed in importing it, in which case we can just redo the import. What you’ll need to do in order to find it is get comfortable using the search widget. This is in the upper right hand corner of iTunes. First, make sure that “Music” is selected under the “Library” heading of the source column on the left-hand side of iTunes. Then type in a word or words from the filename of the file you imported. iTunes searches all your files and should bring up only those files including that word or words.

The only time this might not work is if you failed to give the track a filename when exporting from Audacity or maybe you didn’t tag it while originally importing a CD into iTunes (see page xx). In this case, your file is probably in there, but it’s probably labeled something non-descript and hard to find like “untitled” or “Track 01.” You can search for these and try to find the right file, or maybe you should just throw in the towel and reimport the CD (tag it first!) or the Audacity WAV file (name the file something easy to search for!). Then, slap yourself with a rubber chicken and promise never to be careless with tagging and file naming again.

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Now that you've imported into iTunes your WAV file which came out of Audacity you need to convert it to an MP3. To do this we'll start by making sure our preferences are set to encode MP3s at the right settings.

In iTunes, go to iTunes → preferences (Mac) or (FIGURE OUT PC). Click on the advanced tab and select the importing section. Where it says "import using" select "MP3 Encoder." Where it says "Settings" select "Custom..." In the box that comes up, match the settings to the picture below and press OK.

NOTE: if you're using iTunes to import WAV files from your CD's as described on pageXX, you're going to have to switch back and forth between WAV encoder and MP3 encoder fairly frequently. The good news is, once you've set the proper custom settings

Checklist:

1. Preach a good sermon
2. Record at optimum level
3. Move file to your main web computer. If using a CD, be sure to tag the file and import as WAV.
4. Open the file in Audacity
5. Edit the file (fade-ins and fade-outs are extra nice!) and amplify as needed
6. Export as WAV out of Audacity
7. Import file from previous step back into iTunes
8. Make sure iTunes importing preferences are set to our secret recipe of custom settings
9. Convert the file to an mp3
10. Carefully tag the new MP3 file
11. Drag the file out of iTunes into your web directory
12. Upload the file to your website
13. Edit the XML file to

