VoiceCast Help Guide

How to Build a Voice Broadcast Control File (SFV)

VoiceCast, or Voice Broadcast, is an automated dialler service, designed to project computerised voice information to a telephone caller.

Some of these voice broadcasts can be complex, requiring bespoke set up options that couldn't be satisfied with a Web Portal system. To satisfy this requirement, we have given users access to the heart of the VoiceCast sytem, through the Control File itself.

The Control File is a simple text based file named *Main.SFV*.

The Control File is able to produce voice calls containing a mixture of both text-to-speech (TTS) and human recorded voice (audio files, or WAV files).

Along with a Control File, users can include a CSV file that contains a list of contacts, as well as specific information that can control the substitution (Custom Command) section of the VoiceCast.

The CSV List of contacts should be named *Main.CSV*.

Main.SFV and *Main.CSV* can be transmitted to the VoiceCast engine via Email as a simple attachment, or an API such as SOAP.

Should you want to submit your VoiceCast for processing using email (SMTP), you should send your email to broadcast@voice.tnz.co.nz, with your Main.SFV, Main.CSV and any WAV files attached to the email. You can use the Subject section of the email as a reference (as email will overwrite the Reference command in the SFV Control File).

Contents

The Control File (SFV)

Here you will find information on building the Control File component of the VoiceCast.

Control File Sections

The Control File has two main sections:

1. [Commands]
   This section controls the core commands on how the VoiceCast should operate and how it should be reported on. If this section is left blank, the server will complete this section with default options. Here you can set timezones, sending delays, account codes, reporting email addresses, answerphone actions, retry profiles, etc.
2. [Main] and Sub-Sections
   This section starts the voice data information on what should be heard on the end of the telephone line. The Main section will reference the first thing the call recipient should hear, as well as the answerphone message and subsequent options and DTMF tone actions (for surveys).

[Commands]

The Commands section of the Control File references the core commands. This is formatted in a simple format, for example:

> [Commands]
> Reference=My Voice Broadcast
> AFMODE=NDAF
> PACING VALUE=15
> VOICE=female2
> RETRY=10 10 10 60 5

Controlling the Origin Code

The Origin Code sets the region for the Main.CSV file's telephone numbers.
By default, we expect the telephone numbers in the Main.CSV file to be in the full country-coded format, such as +6499293000.
By setting the Origin Code, you can create a default for the number formatting. For example, an Origin Code of *+649* would allow us to use "099293000" or even "9293000" in the Main.CSV file.

> [Commands]
> ORIGIN CODE=+649

Controlling the Reporting Email Address

The Reporting Email Address sets the email address/user that the VoiceCast is sending as. This email address will be the one that authenticates with the server, as well as the address that will receive completion reports.

[Commands]
UID=name@mycompany.com

Contolling the Sub Account Code

The Sub Account Code is used in the billing and reporting areas of VoiceCast. By manipulating this command, you can control end-user access to information and billing on the Voice Broadcast. This is particularly useful for Resellers of the VoiceCast service or for larger organisations that have multiple departments with access to VoiceCast or other TNZ Group services. TNZ Group is able to set up special logins that can only see a specific Sub Account Code. TNZ Group is also able to itemize your invoice based on the Sub Account Code.

[Commands]
SAC=Customer1234

Controlling the Reference

The Reference is a free format field that allows you to add a reference to the job. This field will be carried through the billing and reporting areas of VoiceCast. The Reference will be displayed alongside your job statistics in the Web Portal, as well as at the head of any reporting emails you may receive. TNZ Group is also able to itemize your invoice based on the Sub Account Code.

[Commands]
REFERENCE=My Voice Broadcast

Controlling the Answerphone Rules

The Answer Phone rules relate to what the VoiceCast engine should do when an answering machine is detected as answering the call.

Note: The DAS and DAF options will still incur call charges, as the call must connect before we detect the call was answered by an answering machine.

Note: In the event an answering machine is detected, the DAF and NDAF options will instruct the system to not retry the call to Main Phone. If an Alt Phone is listed, the system will attempt a call to the Alt Phone number.

Answer Phone Options are:

NDAS	Play the VoiceCast message to the answering machine. **This is the default option.**
NDAF	Play the VoiceCast message to the answering machine but mark the call as a failure in the report.
DAS	Don't play the VoiceCast message to the answering machine. Drop the call as soon as the answering machine was detected. Flag the call as successful in the report.
DAF	Don't play the VoiceCast message to the answering machine. Drop the call as soon as the answering machine was detected. Flag the call as a failure in the report.

[Commands]
AFMODE=DAS

Controlling the Number of Calls at a Time

The number of simultaneous calls being made can be controlled with pacing.

This is the *maximum* number of calls able to be active at a single time. For example, if you had a list of 20 numbers to call and set the pacing to 3, the VoiceCast engine would make only 3 calls at a time. If you have a route to operator/call centre in your configuration, the call will continue to use up one of the pacing credits until the user ends the call with the operator.

This is useful for:
1. Slowing the job to achieve higher success rates (often we can overload a telephone exchange if all the calls are going to one area code).
2. Slowing the job to match your number of on-call telephone operators (we will only make as many calls as your call centre team can handle).

[Commands]
PACING VALUE=8

Controlling the Text-to-Speech (TTS) Voice

The Text-to-Speech voice controls the gender or accent of the robotic speech generator.
Currently, the options are female1, female2, female3, female4, male1. See the section on SSML/SAPI if you would like to control how the voice speaks specific words.

[Commands]
VOICE=female4

Controlling the Retry Profile

The Retry Profile tells the VoiceCast engine how many times to retry calling an unsuccessful number before marking it as a failure. Calls can fail for a number of reasons, including Busy Number, Bad Number, Fax Machine Answer, No Answer, Answerphone (if you have set the AFMODE), etc.
There are particular failure types that we will not retry, such as Blacklisted Number, Barred Number, etc.
The Retry Profile is calculated in minutes between attempts. For example, a Retry Profile of "10 5" means "try once, if unsuccessful wait 10 minutes and try again, if unsuccessful again wait 5 minutes and try again, if that is unsuccessful, mark the job as a failure", for a total of three attempts to the number (the initial attempt, plus two retries).
Remember, a higher retry count isn't always better, as a higher retry count can often correlate to higher opt-outs or complaints.

[Commands]
RETRY=10 10 10 30 10

Controlling the Sending Time (to Delay a VoiceCast Job)

The Sending Time controls the time and date a Voice Broadcast will begin transmission.
Sending Time values should always be in UTC Time.
1:02:00pm on 7th Feb 2014 in the required UTC Time format is 20140207130200

> [Commands]
> SENDTIME=UTC20140207130200

Controlling the Finishing Time (to End a VoiceCast Job)

The Finishing Time controls the time and date a Voice Broadcast will end. This end time is a strict ending. If the job has not fully completed at this time, the VoiceCast engine will cease creating new calls and will wait for existing calls to end.
Finishing Time values should always be in UTC Time.
10:02:00am on 10th Feb 2014 in the required UTC Time format is 20140210100200

> [Commands]
> SENDTIMEOUT=UTC20140210100200

Controlling the Sending Time Window (Sending Between Specific Hours)

The Sending Time Window controls the time of day and day of week that the VoiceCast engine can be creating calls. Once the job begins, it will continue creating new calls until the current Time Window finishes, at which point it will cease creating new calls and will wait for existing calls to end. It will then wait until the next available Time Window to begin creating calls again.
Sending Time Window values should be in 24-hour time and calculated in the correct time zone (as set by the TimeZone "ZONE" command).

This example example shows a Job with an available Sending Time Window of Monday to Wednesday, 10am to 10pm.

> [Commands]
> SENDTWIN=Mon..Wed-10:00-22:00

Controlling the Time-Zone

The Time Zone tells the VoiceCast engine what time-zone to calculate for the Sending Time Window (SENDTWIN) command.

> [Commands]
> ZONE=New Zealand

Controlling the Routed Call Prompts (Audio Files for Call Centre Operators)

In the [Main] section or its Sub-Sections, you can refer to a prompt that should be played to either the User or the Call Centre Operator once a call has been transferred. This is particularly useful for letting the Call Centre Operator know some information about the call, before being connected to the user.

> [Commands]
> ROUTEPROMPTIN=Message_to_User
> ROUTEPROMPTOUT=Message_to_Operator
>
> [Main]
> Wavefile=FirstMessage.wav
> Option=1,TransferTheCall
>
> [TransferTheCall]
> Callmode=Route,006499293000
>
> [Message_to_Operator]
> Play=This is an incoming call from VoiceCast regarding payment for %custom1%.
>
> [Message_to_User]
> Wavefile=ThankYou.wav

Controlling the Maximum Length of Calls

The Maximum Length of Calls has two parts. The first is the maximum length of the call by the VoiceCast engine to the user. The second is the maximum length of the call once the user has opted to have the call routed to a live Operator. This command is important to ensure a call isn't left off the hook by the recipient (user) to clock up call charges and is also important in some telephones that do not give the correct Hang Up codes.

LIM controls the maximum length of time the actual VoiceCast call can be active for (in seconds). This is the part of the call from the VoiceCast engine itself, to the recipient.

LIMB controls the maximum length of time a routed, or "bridged" call can be active for (in seconds). This only applies to calls that are redirected to a Call Centre Operator. The counter begins from the moment the Call Centre Operator picks up the redirected call.

Default LIM and LIMB settings are:
LIM=90 (in seconds)
LIMB=3600 (in seconds)

> [Commands]
> LIM=300
> LIMB=8000

[Main] and Sub-Sections

The Main section of the Control File commences the voice data (the information that the call recipient hears). It is effectively the first trunk of the call tree, with the additional prompts stemming of this section.

The [Main] section has the following attributes:

Title	This should always be [Main]
Wavefile or Play	This is the command that tells the VoiceCast engine to pick up voice data. "Wavefile" indicates an Audio File (a WAV file). "Play" indicates that text-to-speech information is to follow.
Machine	When this is present, it tells the VoiceCast engine that an "Answerphone" related sub-section exists and that the engine should not play the [Main] voice data and should jump to the referred section if it detects an answerphone. If this section isn't present, the VoiceCast engine will not detect answering machines (it will also not display answering machine data on reports) and will play the default [Main] voice data. This section can be overridden by the "AFMODE" option in the [Commands] section.
Option	This tells the VoiceCast engine what to do once the voice data has been played. If this section isn't present, the engine will loop the [Main] voice data for a second time, and then end the call (hang up). If this section is present, the VoiceCast engine will set the DTMF (dialpad/keypad tones) to match the set parameters. You would normally use this to send the recipient to another voice prompt (in a sub section) or route the call to a live Operator.

[Main]
Play=Hello. This is a test call from the VoiceCast Engine. Press one to be transferred to an Operator. Press two if you would like to answer a short survey. Press any other button to hear this message again.
Machine=Answerphone
Option=1,RouteTheCall
Option=2,NextPrompt
Option=Main

[Answerphone]
Wavefile=AnsweringMachineMessage.wav

[RouteTheCall]
Callmode=Route,006499293000

[NextPrompt]
Play=Thank you for opting in to answer our short survey. Press one if you are male. Press two if you are female.
Option=1,Prompt2Male
Option=2,Prompt2Female

"Options" Sub-Section

After [Main], the Control File can contain subsequent sections. These subsequent sections allow the call recipient to use the keypad on their telephone to answer questions, allowing the call to be used as a survey or information gathering tool. The final reporting will contain information on the Options selected and the path that the caller took.

For example:

[Start_of_Survey]
Play=Which is your favourite colour? Press 1 for Red, 2 for Green, or 3 if you are unsure.
Option=1,AnswerRed
If this is present, when DTMF tone number one is pressed (number one on the telephone's keypad), the VoiceCast engine will jump to the section [AnswerRed].
[AnswerRed] can be named anything you wish, provided spelling is identical without any spaces.
Option=2,AnswerBlue
If this is present, when DTMF tone number two is pressed (number two on the telephone's keypad), the VoiceCast engine will jump to the section [AnswerBlue].
[AnswerBlue] can be named anything you wish, provided spelling is identical without any spaces.
Option=AnswerUnsure
If this is present, any DTMF between 1 and 9 that is pressed will cause the VoiceCast engine to jump to the section [AnswerUnsure].
If any other DTMF tone options are present, the VoiceCast engine will only allow this Option to cover what is remaining (e.g. Options 3 to 9 in this example).

Additional Features of the Sub-Sections

Here you will find information on manipulating options in a Sub-Section.

Route the Call to a Live Operator

If you have reached the point in your Voice Broadcast, whereby you would like to route the call to a Live Operator, you can set a "CallMode=Route" command.
The telephone number you route the call to needs to include the country code (with leading 00's).

Ensure you understand the options for Routed Call Prompts (ROUTEPROMPTIN and ROUTEPROMPTOUT) and controlling the Maximum Length of Calls (LIM and LIMB) from the [Commands] section before using this feature.

[YourSampleSection]
Play=Press one to be transferred to an operator.
Option=1,RouteTheCall

[RouteTheCall]
CallMode=Route,006499293000

Substituted Information inside Voice Data

There may be a requirement to insert customised information into the voice data.

For this, we use the "Custom" command to call information from the Main.CSV destination list file.

For example, your CSV file will contain:

Main Phone,custom1,custom2,custom3
099293000,TNZ Group Limited,A Test
092023333,Customer One,A Live Call
0061490008000,Customer Five,A Live Call

Your SFV file will contain:

[ASampleSection]
Play=This is a message for %custom1% regarding %custom2%. If this is %custom1%, press 1.
Option=1,NextSection

Multiple Voice Files for a Sub-Section

There may be a requirement to play multiple audio files inside one Sub-Section. To do this, we use curly "{}" brackets to call in further Sub-Sections into the one Sub-Section.

For example:

[YourSampleSection]
Play=This is a call for %custom1% regarding {FirstMsg} and {SecondMsg} {ThirdMsg}

[FirstMsg]
Wavefile=Information about the VoiceCast.wav

[SecondMsg]
Wavefile=Next lot of information.wav

[ThirdMsg]
Wavefile=Last lot of information.wav

Multiple DTMF Tone Options for a Single Sub-Section

There may be a requirement to record multiple DTMF tones for a particular option. This can be useful for recording survey data that has more than one digit, such as a person's age, address, phone number, etc.

Once the person has input a certain number or value, you can then have them send to a different Sub-Section to a person who input a different number or value.

DTMF Tone Options are:

LT	Less than
LE	Less than or Equal to
GT	Greater than
GE	Geater than or Equal to

For example:

[InsertTelephoneNumber]
Play=Please enter your eight digit telephone number using the keypad.
Option=LE.99999999,NextSection
Here, once an eight digit number has been inserted using the keypad, the VoiceCast engine will move on to the "NextSection" prompt.

In situations where the number of digits can vary, use the hash option:

[InsertAge]
Play=Thank you. Please enter your age using the keypad, followed by the hash key.
Option=LE.0050,Under50s
Here, once a number has been inserted using the keypad that is less than four digits, the user can press hash to cause the VoiceCast engine to calculate the inputted value. If this is 50 or under, the VoiceCast engine will move on to the "Under50s" prompt. If the user inserts a value that is four digits long, the hash button will not be required. A value over four digits cannot be used (if this is required, use "LE.00050", etc).
Option=GT.0050,Over50s
Here, once a number has been inserted using the keypad that is less than four digits, the user can press hash to cause the VoiceCast engine to calculate the inputted value. If this is over 50, the VoiceCast engine will move on to the "Over50s" prompt. If the user inserts a value that is four digits long, the hash button will not be required. A value over four digits cannot be used (if this is required, use "LE.00050", etc).

Controlling the Text-to-Speech (TTS) Voice

The Text-to-Speech voice controls the gender or accent of the robotic speech generator.
Currently, the options are female1, female2, female3, female4, male1.
Use the following command underneath the [Commands] section.

[Commands]
VOICE=female4

Speech Manipulation with Text-to-Speech (SSML and SAPI)

The Main section and Sub-Sections can include TTS Markup to control certain aspects of the speech. This can include options such as slow down reading speed; spell the text out character-for-character; read the text as a currency, date or number, etc.

The SSML/SAPI commands can be used on a static word, phrase, and sentence or a substituted value.

For example, before the TTS Markup is inserted:

> [NextPrompt]
> Play=This is a test sentence. It can contain substituted values such as %custom1%. It can also contain simple words or much longer phrases that need to be clearer. It may be useful to spell out names, such as TNZ Group Limited. Some users may need to insert currency information, for example, my product costs $100.00. If you are interested in my product, you can call 099293000.

After the TTS Markup is inserted:

> [NextPrompt]
> Play=This is a test sentence. It can contain substituted values such as <slow>%custom1%</slow>. It can also contain simple <loud>words</loud> or <loud>much longer phrases that need to be clearer</loud>. It may be useful to spell out names, such as <spell>TNZ</spell> Group Limited. Some users may need to insert currency information, for example, my product costs $100.00. If you are interested in my product, you can call <spell>099293000</spell>.

Action	Begin Markup	End Markup
Spell Out Text	<spell>	</spell>
Speak as a Time	<time>	</ time>
Speak as a Date Forwards	<dmy>	</ dmy>
Speak as a Date Backwards	<ymd>	</ ymd>
Speak as a Currency	<currency>	</ currency>
Speak as a Number	<number>	</ number>
Speak Softly	<soft>	</ soft>
Speak Loudly	<loud>	</ loud>
Speak Fast	<fast>	</ fast>
Speak Slow	<slow>	</ slow>
Break for 100 Milliseconds	<break.1>	</ break.1>
Break for 200 Milliseconds	< break.2>	</ break.2>
Break for 300 Milliseconds	< break.3>	</ break.3>
Break for 500 Milliseconds	< break.5>	</ break.5>
Break for 1000 Milliseconds	< break.10>	</ break.10>

Final Example

[Commands]
ORIGIN=+649
UID=sales@tnz.co.nz
SAC=VoiceCastTester
REFERENCE=TNZs Sample VoiceCast
AFMODE=NDAS
PACING=100
VOICE=male1
RETRY=5 5 5 5
SENDTIME=UTC20140609140000
SENDTIMEOUT=UTC20140618190000
SENDTWIN=Mon..Fri-9:00-17:00
ZONE=New Zealand
ROUTEPROMPTIN=MessagetoRecipient
ROUTEPROMPTOUT=MessagetoOperator
LIM=300
LIMB=4000

[Main]
Play={MainPartOne} %custom1% {MainPartTwo}
Machine=Answerphone
Option=1,FirstPrompt
Option=2,End

[Answerphone]
Play=This is a call for <slow>%custom1%</slow>. Can %custom1% please call <spell>TNZ</spell>
Group Limited on <spell>09</spell>, <spell>929</spell>, 3000. Thank you.

[MainPartOne]
Wavefile=MainPartOne.wav

[MainPartTwo]
Wavefile=MainPartTwo.wav

[End]
Play=Sorry, we were trying to reach %custom1%. Have a nice day!

[FirstPrompt]
Play=Thank you %custom1%. To confirm this is %custom1%, please enter your five digit account
number using the keypad, followed by the hash key.
Option=LE.012000,WrongAccount
Option=LE.035999,SecondPrompt
Option=GE.036000,WrongAccount

[WrongAccount]
Play=Sorry, you have entered an incorrect account number. Press one to try again. Otherwise, press two.
Option=1, FirstPrompt
Option=End

[SecondPrompt]
Play=Thank you %custom1%. Using your account last month, you have sent %custom2% VoiceCast messages, %custom3% fax messages and %custom4% text messages. Your current account balance is <currency>%custom5%</currency>. Press one if you would like to hear this information again. Press two if you would like to speak to a Live Operator. Press any other button if you would like to finish this call.
Option=1,SecondPrompt
Option=2,RouteTheCall
Option=ThankYou

[RouteTheCall]
CallMode=Route,006499293000

[MessagetoRecipient]
Wavefile=CallTransferring.wav

[MessagetoOperator]
Play=This is an incoming call from VoiceCast. A customer would like to query the information. Connecting now to %custom1%.

[ThankYou]
Wavefile=ThankYou.wav