Secure-Vox 1.0 (*Dictation System*)

This document contains specifications for Secure-Vox dictation system.

Secure-Vox Dictation system is a VOIP based dictation system, the user dials a telephone number and calls are directed to the Server running Secure-Vox application. The files are recorded and transferred to the destination as per customer requirement.

We would like to have a web based UI for creating Users, configurations (like keypad, prompts etc.), reporting etc. The application should run as a Windows Service.

Following are components of Secure-Vox Dictation System.

VOIP Ports:

The system should have ability to add ports as required. The number of ports that can be added should be indefinite. Each port should be mapped to a telephone number.

Port No is the port that we wish to map with a particular number.

Enabled for enable disable the port

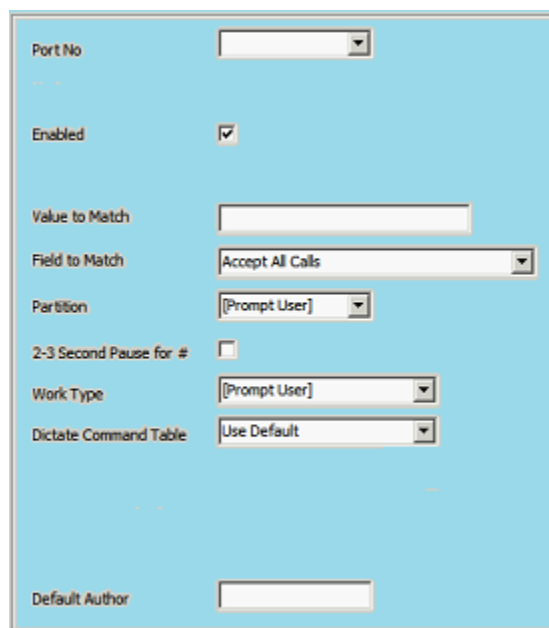Value to match - Enter the phone number which needs to be matched with this port.

Fields to match: This needs to be "match called" so that it accepts only phone calls dialed to that particular number which has been mapped above. It can also have option to accept all calls dialed to any number of this system.

Partition: This allows to map a particular partition to this particular port. We can also have calls being accepted for all partition.

Override # key - The system automatically moves to another prompt after few seconds.

Work Type: Allow to have particular work type assigned to the jobs by default. Its value is ALL by default.

Command Table (Keypad) - This is the default keypad mapped to all calls of this port. By default its value is Use default. That allows this to be set in particular partition.

S.NO	Port No	Status	Phone No Mapped	Mapping	Partition	Worktype	Keypad(default)
1	1	Disabled	8008008080	Match	All	All	Use Default
2	10	Enabled	8668668686	Accept All Calls	200	All	SXF999
3	20	Enabled	8008018010	Accept All Calls	All	All	Use Default

Export:

This feature allows us to configure Export settings for different Partitions.

Description: Name of the Export configuration

Path: path on the server where the files need to be exported after recording is complete

File format: This is the naming format by which the exported files will be renamed

Wav Format: This is the wav format in which the files need to be exported. The formats could be

GSM, DSP, MP3, C-ulaw etc.

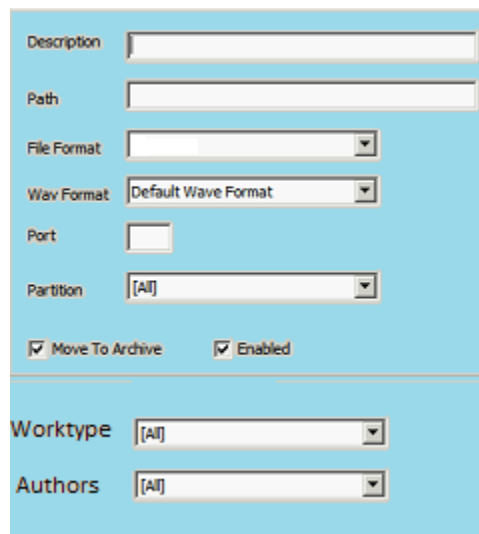Port: This is to map this export configuration to ONLY a specific port if required.

Partition: This is to specify partition where this configuration will be in effect.

Move to Archive: This option keeps files in archive when exported

Enabled: This allows to enable disable this particular configuration.

Worktype: This allows to select only a particular worktype to be exported. Default will always be ALL

Authors: This allows to select only a particular author files to be exported. Default will always be All

S.NO	Name	Status	Path	Archive	File Naming Format	Wav Format	Partition
1	For parti200	Disabled	C:\Export1	Enabled	Custom	Custom	200
2	For All	Enabled	D:\Exportall	Disabled	Default	GSM	All
3	For pat 20	Enabled	D:\Export20	Disabled	Custom	All	20

Partitions:

Facility to add partitions in the system. Each partition will have its own prompts as well as keypad.

Partition No : By default it would be the next available partition.

Description: Name of the partition to be created

Dictation Key Map: Keypad assigned to this particular partition.

Default Work Type: Assign default worktype to this partition.

Recording Format: This is the default recording format for this particular partion.

Master partition: For new partition need to select that number. It can also be used to clone with an existing partition.

Limit Author length: This can be used in case we wish to have a limited no of digts for an author

Continously prompt user: if we wish to prompt user until he/she enters the keys required

Require # after prompts: This will help to either wait for user to press # or system can automatically take user to next prompt after there is a delay.

Play record bong: If we wish user to hear a sound before the recording is started.

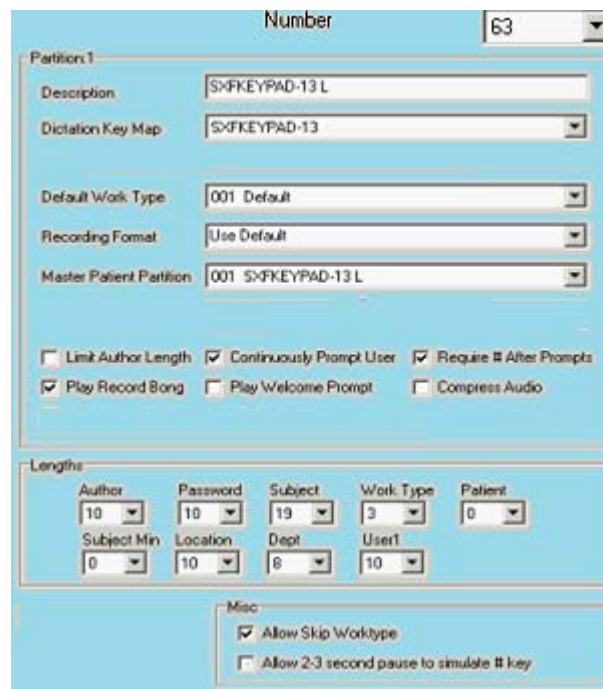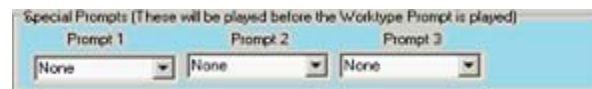Play welcome prompt: If we wish to have a specific welcome prompt for this particular partition.

Compress Audio: if we wish to reduce the size of recorded wav file before exporting it out of the system.

Lengths: This section allows to limit the keypad digit entries for respective fields.

Allow skip worktype: This is required to be checked, in case we wish user to be able to dictate even without entering the Worktype if the user is prompted as per configuration of the partition.
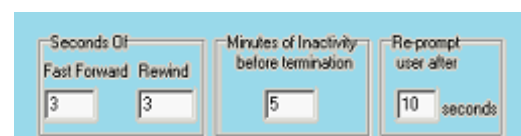
Allow 2-3 second pause to simulate # key: This setting allows to let user hear the next prompt without having to enter the # key.

The other settings for the partition would be to let user hear the other prompts if required. We can select 3 predefined prompts here.

The settings allow user to rewind, forward dictation while in listen mode.

Minutes of inactivity before termination, if the user does not dictate for particular time period his call should be terminated.

User should be reprompted to enter details after every few seconds.

Authors:

This feature is used to create new authors in the system. It also allows to edit existing authors.

Author ID: This is the author user needs to enter in case he is not mapped to the telephone number.

Password: This is the password of the user

Name: Name of the author to identify in the system

Telephone: If user has a fixed telephone number then we need to map that number with this in order to identify the author with that particular number.

Or, the user can be given a fixed telephone number in the system to dial into. That case that number will be mapped with this user.

Map user to telephone number: if this is checked then user won't have to enter the author id and password.

Key Map: The default Keypad that the user needs to be assigned.

Compress Silence: This allows to remove any gaps in the audio if there is silence in the recording in between. This helps to reduce the final length of dictation.

Always Create Author log: This should be checked if we wish to have a separate log for all calls made by the author, can help in overriding system default.
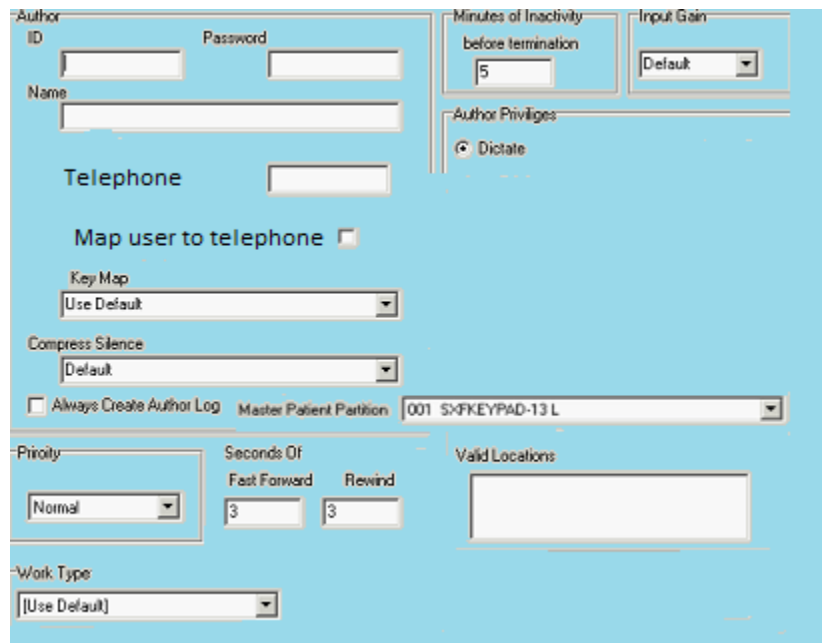
Master Patient Partition: This is the partition where this author is assigned. We can move an author from one partition to another. At a time an author can be in a single partition.

Priority: By default it would be always normal.

Seconds of: This gives ability to change forward and rewind seconds for this author.

Valid Locations: In case the author has a location prompt, this setting can validate if the location entered matches any of the specified location for this author.

Work type: This is the default work type assigned to all dictations of this author.

Prompts:

We should have ability to add voice prompts into the system.

We need to have facility to assign prompts to different Ports as well as partitions.

We need to have ability to give order to the prompts based on Default, port, partition.

We should also have ability to record prompts in the system by dialing into the system. Or we should have ability to import recorded wav files. We should then be able browse and select the wav files.

Add Prompt

Description [   ]

Select File [Welcome ▼]

Apply to   Default ☐

Port No   [▼]

Partition   [All] [▼]

VOIP Status:

Channel No	Status	PartNo	Author	MedRN	Job ID	Port No	Answered	BeginTM	Calling From Number	Number called	From IP	Length
0	in Use	10	Billy Jean	23456	7789099	5	23	6/15/2015 10:12	7653456789	8008093050	23.12.34.19	00:12:23
1	idle						12					
2	idle						5					
3	idle						4					
4	idle						2					
5	idle						1					
6	idle						0					
7	idle						0					
8	idle						0					
9	idle						0					
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15	idle						0					
16	idle						0					
17	idle						0					
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19	idle						0					
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System Status:

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This view will show any last errors generated and current number of calls and ports working.

Logs:

We should have option to get logs.

Author logs: It should show the dictation logs author based.

Channel Logs: It should show the call logs based on each channel.

Job logs: It should show the jobs for particular date range

Error Logs: If there are any errors generated

VOIP Logs: if there are any logs for carrier errors

Users:

This would allow to create users for maintaining the system.

We would have admin and limited user roles. Ability to add feature access to different roles.

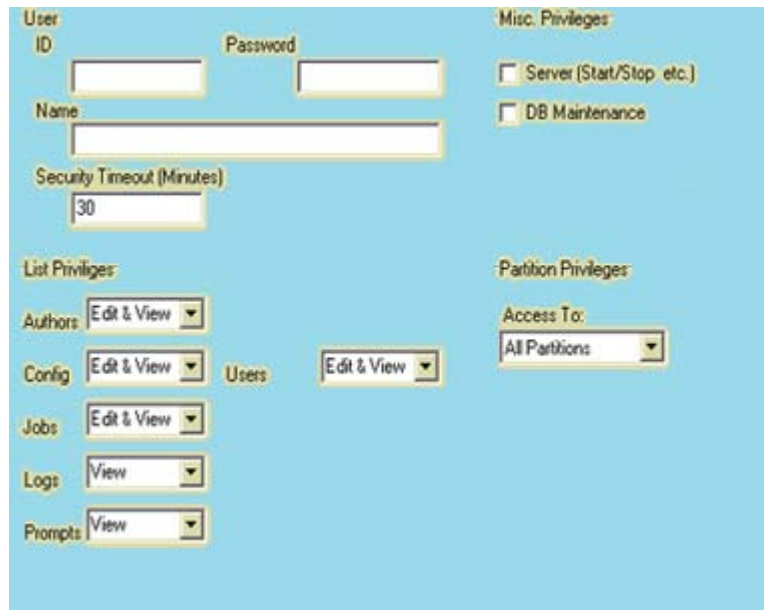User ID: User id for the person

Password: Password

Name: Name of the user

Security timeout: Minutes after which the system will prompt user to enter his details.

Misc.:

Server Start/stop: In order to stop the service for any backend maintenance.

DB Maintenance: User can copy backup the user, author, config. tables.

Keypads:

Ability to create Keypad templates.

We should be able to create keypads and add them into the system for assigning them later to the partition or author.

We can also edit a particular keypad mapping and change the function as required.

Key Template *

| DEFAULT | ⇕ |

Preview

1 Stop	2 Record	3 Rewind
4 FF to End	5 Save	6 Priority
7 Rew to begin	8	9 Play
*	0 Forward	# Job ID

Import Authors:

Ability to import authors directly into the system using a CSV file.

Export Authors:

Ability to export authors from system to a CSV file.

Update Authors:

Ability to update multiple authors using a CSV file.

SIP configuration:

This should allow us to specify SIP trunk configuration as provided by the VOIP carrier.

Purge:

This feature would allow us to specify how long the voice files would be kept before they are archived and purged.

Default Configuration:

This helps in having default settings for new partitions, authors in the system

Reports:

We should have ability to generate reports in CSV format from the system. The reports should be monthly, daily and date range based.

Various type of reports based on Author usage, partition usage, jobwise daily log etc.

Database Maintenance:

We should have ability to backup main tables like Author, Config.

Ability to archive old job log details.

File Transfer Options and File naming:

We should have ability to export voice files from the system based on the list of variables mentioned.

We should be able to identify the various name convention saved and should be provided in Export configuration.

The system should be able to send files across to different mediums, like Network folder. FTP site, email address etc.

Description	
Priority	%priority%
Year	%year%
Month	%month%
Day	%day%
Hour	%hour%
Minute	%minute%
Second	%second%
Job #	%job_number%
Pin #	%pin_number%
Pin Name	%pin_name%
Location #	%location_number%
Group #	%group_number%
Work Type	%work_type_prompt%
MRN	%medical_record_number%
Case #	%case_number%
Personal Identifier	%personal_identifier%
Document #	%document_number%
Location #	%location_number%
Company Name	%company_name%
Length (hour)	%length_hour%
Length (min)	%length_min%
Length (sec)	%length_sec%

Apart from above features, the system should have capability to sync its settings, configuration and details to a backup system as well.

The system should be have various alerts depending on the kind of issue, like Carrier issue, recording issue etc.

We would also like to have this application integrated with our transcription system at the backend. The dictators (authors) will be created in that system and they should automatically added in the dictation system as well. We should have a link which can be accessed through our current web application. That should allow us to delete or add any author from this system as and when we created or delete it from our system.

Please note all images are for illustration purpose only, just to make the developer understand. Please suggest UI.