

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1569

DATE: JANUARY 1, 2024

PROJECT MP12205

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Titles Changed:	G10L	SUBCLASS
	G10L	17/00
	G10L	21/00
DEFINITIONS:		
Definitions Modified:	G10L	SUBCLASS
	G10L	21/00, 25/00

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following [Check the ones included]:

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3. REVISION CONCORDANCE LIST (RCL)

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS - SPEECH ANALYSIS OR SYNTHESIS; SPEECH RECOGNITION; SPEECH OR VOICE PROCESSING; SPEECH OR AUDIO CODING OR DECODING

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	G10L	Subclass	SPEECH ANALYSIS TECHNIQUES OR SPEECH SYNTHESIS; SPEECH RECOGNITION; SPEECH OR VOICE PROCESSING TECHNIQUES; SPEECH OR AUDIO CODING OR DECODING	
M	G10L17/00	0	Speaker identification or verification techniques	
M	G10L21/00	0	Speech or voice signal processing techniques to produce another audible or non-audible signal, e.g. visual or tactile, in order to modify its quality or its intelligibility (G10L 19/00 takes precedence)	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.

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- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

2. A. DEFINITIONS (modified)

G10L

Definition statement

Replace: The existing Definition statement text with the following updated text.

- Processing of speech or voice signals in general (G10L 25/00).
- Production of synthetic speech signals, text to speech systems (G10L 13/00).
- Recognition of speech (G10L 15/00).
- Lyrics recognition from a singing voice (G10L 15/00).
- Speaker identification, authentication or verification (G10L 17/00).
- Singer recognition from a singing voice (i.e. speaker recognition on a singing voice) (G10L 17/00).
- Analysis of speech signals for bandwidth compression or extension, bit-rate or redundancy reduction (G10L 19/00).
- Coding/decoding of audio signals for compression and expansion using analysis-synthesis, source filter models or psycho-acoustic analysis (G10L 19/00).
- Modification of speech signals, speech enhancement, source separation (G10L 21/00).
- Processing of the speech or voice signal to produce another audible or non-audible signal, e.g., visual or tactile, in order to modify its quality or its intelligibility (G10L 21/00).
- Noise reduction or echo cancellation in an audio signal (G10L 21/00).
- Speech or voice analysis techniques specially adapted to analyse or modify audio signals, where the audio signals do not necessarily include speech or voice, are also covered in subgroups (G10L 21/00, G10L 25/00).

Insert: The following new Relationships with other classification places section.

Relationships with other classification places

Classification should be generally directed to appropriate subclasses, e.g. G06F, H03M, for mathematical models for audio analysis in general.

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Classification should be generally directed to appropriate subclasses, e.g. [G10K](#), [G10H](#), [H04R](#), [H04S](#) when audio productions or general audio analysis or processing are of relevance.

Telegraphic communication is covered in subclass [H04L](#).

Telephonic communication is covered in subclass [H04M](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace: The existing Informative references table with the following updated table.

Larynxes or tracheae prosthesis implantable into the body	A61F 2/20
Input/output arrangements for on-board computers	G01C 21/36
Measurement of sound waves in general	G01H
Direction-finders for determining the direction from which infrasonic, sonic or ultrasonic waves, not having a directional significance, are being received	G01S 3/80
Systems using the reflection or reradiation of acoustic waves	G01S 15/00
Sound input/output for computers	G06F 3/16
Compilation or interpretation of high level programme languages	G06F 8/41 , G06F 9/455
Information retrieval; Database structures therefor	G06F 16/00
Complex mathematical functions	G06F 17/10
General pattern recognition	G06F 18/00
Digital data processing methods or equipment specially adapted for handling, processing or translating natural language data	G06F 40/00
Image data processing	G06T
Arrangements for image or video recognition or understanding	G06V 10/00

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Character recognition; Recognising digital ink; Document-oriented image-based pattern recognition	G06V 30/00
Recognition of biometric, human-related or animal-related patterns in image or video data	G06V 40/00
Individual entry or exit registers	G07C 9/00
Arrangements for influencing the relationship between signals at input and output, e.g. differentiating, delaying	G08C 13/00
Teaching speaking	G09B 19/04
Teaching or communicating with the blind, deaf or mute	G09B 21/00
Electronic musical instruments	G10H
Sound producing devices other than musical instruments or loudspeakers	G10K
Methods or devices for protecting against, or for damping, noise or other acoustic waves	G10K 11/16
Signal processing for recording	G11B 20/00
Error detection or correction in digital recording or reproducing; Testing involved in digital recording or reproducing	G11B 20/18
Editing; Indexing; Addressing; Timing or synchronising; Monitoring	G11B 27/00
Electronic circuits for sound generation	H03B
Amplifiers	H03F
Amplifiers using amplifying element consisting of two mechanically- or acoustically-coupled transducers, e.g. telephone-microphone amplifier	H03F 13/00
Gain control in amplifiers or frequency changers	H03G 3/00
Electronic filters	H03H
Coding, decoding or code conversion, error protection in general	H03M
Transmission	H04B
Means associated with receiver for limiting or suppressing noise or interference	H04B 1/10

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Details of transmission systems, not characterised by the medium used for transmission, for reducing bandwidth of signals	H04B 1/66
Transmission systems employing ultrasonic, sonic or infrasonic waves	H04B 11/00
Transmission systems not characterised by the medium used for transmission characterised by the use of pulse modulation	H04B 14/02
Broadcast distribution systems	H04H
Time-division multiplex systems in which the transmission channel allotted to a first user may be taken away and re-allotted to a second user if the first user becomes inactive	H04J 3/17
Secret communication	H04K 1/00
Transmission of digital information, e.g. telegraphic communication	H04L
Telephonic communication	H04M
Arrangements of transmitters, receivers or complete sets to prevent eavesdropping, to attenuate local noise or to prevent undesired transmission; Special mouthpieces or receivers therefor	H04M 1/19
Arrangements for preventing acoustic feedback in telephonic communication	H04M 1/20
Devices for calling a subscriber whereby a plurality of signals may be stored simultaneously	H04M 1/27
Substation equipment, e.g. for use by subscribers including speech amplifiers	H04M 1/60
Automatic arrangements for answering calls	H04M 1/64
Interactive information services, e.g. directory enquiries	H04M 3/493
Simultaneous speech and telegraphic or other data transmission over the same conductors	H04M 11/06
Systems for transmission of a pulse code modulated video signal with one or more other pulse code modulated signals, e.g. an audio signal, a synchronising signal	H04N 7/52
Switching systems	H04Q

Loudspeakers, microphones, gramophone pick-up or like acoustic electromechanical transducers; Deaf-aid sets; Public address systems	H04R
Stereophonic arrangements	H04R 5/00
Public address systems	H04R 27/00
Stereophonic systems, e.g. spatial sound capture, matrixing of audio signals in the decoded state	H04S

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Replace: The existing Glossary of terms text with the following updated text.

speech	definite vocal sounds that form words to express thoughts and ideas.
voice	sounds generated by vocal chords or synthetic versions thereof.
audio signal	of or relating to humanly audible sound, meant to include speech, voice, music, silence or background noise, or any combinations thereof.

G10L 21/00

Definition statement

Replace: The existing Definition statement text with the following updated text.

- Speech or voice modification applications, but receives also applications for speech or voice analysis techniques specially adapted to analyse or modify audio signals, where the audio signals do not necessarily include speech or voice but which are not music signals (G10H).
- Bandwidth extension of an audio signal.
- Improvement of the intelligibility of a coded speech signal.
- Removal of noise from an audio signal.
- Removal of echo from an audio signal.
- Separation of audio sources.

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- Pitch, speed modification of an audio signal.
- Voice morphing.
- Visualisation of audio signals (e.g. sonograms).
- Lips or face movement synchronisation with speech (e.g. phonemes - visemes alignment).
- Face animation synchronisation with the emotion contained in the voice or speech signal.

References

Limiting references

This place does not cover:

Replace: The existing Limiting references table with the following updated table.

Speech or audio signal analysis-synthesis techniques for redundancy reduction, e.g. in vocoders; Coding or decoding of speech or audio signals, using source-filter models or psychoacoustic analysis	G10L 19/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace: The existing Informative references table with the following updated table.

Direction finder	G01S 3/00
Complex mathematical functions	G06F 17/10
3D Animation	G06T 13/20
Animation based on audio data, talking heads	G06T 13/205
Signal processing not specific to the method of recording or reproducing	G11B 20/00

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Signal processing not specific to the method of recording or reproducing, for reducing noise	G11B 20/24
Editing; Indexing; Addressing; Timing or synchronizing; Monitoring	G11B 27/00
Gain control in amplifiers where the control is dependent upon ambient noise level or sound level	H03G 3/32
Reducing echo effect or singing in line transmissions systems	H04B 3/20
Transmission systems not characterised by the medium used for transmission using pulse code modulation, e.g. for reducing noise or bandwidth	H04B 14/04
Reducing noise or bandwidth in transmission systems not characterised by the medium used for transmission	H04B 14/046
Echo suppression in hand-free telephones	H04M 9/08
Hearing aids	H04R 25/00
Public address systems	H04R 27/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Replace: The existing Glossary of terms table with the following updated table.

viseme	a visual representation of the mouth, lips, tongue and teeth corresponding to a phoneme.
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Synonyms and Keywords

In patent documents, the following abbreviations are often used:

Replace: The existing Synonyms and Keywords table with the following updated table.

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BSS	Blind source separation
LDA	Linear discriminant analysis
NB	Narrowband
PCA	Principal component analysis
SBR	Spectral Band Replication
WB	Wideband

G10L 25/00

Definition statement

Replace: The existing Definition statement text with the following updated text.

- Processing of speech or voice signals in general, in particular detection of a speech signal, end points detection in noise, extraction of pitch, measure of the voicing, emotional state, voice pathology or other speech or voice related parameters.
- Extracted parameters, e.g. techniques for evaluating correlation coefficients, zero crossing, prediction coefficients or formant information.
- Analysis technique, e.g. neural network, fuzzy, chaos, genetic algorithm or coding technique.
- Analysis window (window function).
- Specially adapted for particular use, e.g. for comparison and discrimination, evaluating synthetic and decoded voice signals, for transmitting result of analysis.
- Speech or voice analysis techniques specially adapted to analyse audio signals, where the analysed audio signals do not necessarily include speech or voice, such as audio scene segmentation, jingle detection, separation from music or noise or detection of particular sounds.
- Modeling vocal tract parameters.
- Detection of presence or absence of speech signals.
- Pitch determination of speech signals.
- Discriminating between voiced and unvoiced parts of speech signals.

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References

Limiting references

This place does not cover:

Replace: The existing Limiting references table with the following updated table.

Muting semiconductor-based amplifiers when some special characteristics of a signal are sensed by a speech detector, e.g. sensing when no signal is present	H03G 3/34
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace: The text in the fifth row of the Informative references table with the following updated text.

Switching of direction of transmission by voice frequency in two-way loud-speaking telephone systems	H04M 9/10
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Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Replace: The existing Glossary of terms table with the following updated table.

audio signal	of or relating to humanly audible sound, e.g. it comprises any combination of background noise or silence, voice or speech, music
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