

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 928

DATE: AUGUST 1, 2020

PROJECT RP0142

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>SCHEME:</b>		
Symbols Deleted:	H04N	21/42207, 21/42219
Symbols New:	H04N	21/411, 21/4112, 21/41265, 21/43072, 21/43074, 21/43076, 21/43078, 21/43079, 21/44224, 21/44226, 21/4518
Titles Changed:	H04N	21/40, 21/4104, 21/4108, 21/4126, 21/43, 21/4302, 21/4305, 21/4307, 21/436, 21/43637, 21/44222, 21/4508, 21/4516
Warnings New:	H04N	21/4104, 21/411, 21/4112, 21/4126, 21/41265, 21/4307, 21/43072, 21/43074, 21/43076, 21/43078, 21/43079, 21/44222, 21/44224, 21/44226, 21/4508, 21/4518
<b>DEFINITIONS:</b>		
Definitions Modified:	H04N	21/40, 21/4104, 21/4108, 21/4126, 21/436, 21/43637, 21/44222, 21/4516

**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 H04N - PICTORIAL COMMUNICATION, e.g. TELEVISION**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <b>“CPC only” text should normally be enclosed in {curly brackets}**</b>	<u>Transferred to#</u>
M	H04N21/40	1	Client devices specifically adapted for the reception of or interaction with content, e.g. set-top-box [STB]; Operations thereof	
U	H04N21/41	2	Structure of client; Structure of client peripherals	
C	H04N21/4104	3	{Peripherals receiving signals from specially adapted client devices}	H04N21/4104, H04N21/411, H04N21/4112
M	H04N21/4108	4	{characterised by an identification number or address, e.g. local network address (protecting specific internal or external computer components using identification number G06F21/73; addressing and naming in data networks H04L29/12009)}	
N	H04N21/411	4	{having similar hardware or software capabilities as the client device itself, e.g. a first STB connected to a second STB}	
N	H04N21/4112	4	{having fewer capabilities than the client, e.g. thin client having less processing power or no tuning capabilities}	
C	H04N21/4126	4	{The peripheral being portable, e.g. PDAs or mobile phones}	H04N21/4126, H04N21/41265
N	H04N21/41265	5	{having a remote control device for bidirectional communication between the remote control device and client device (unidirectional remote control device H04N 21/42204)}	
D	H04N21/42207	6	{Interfaces providing bidirectional communication between remote control devices and client devices}	< administrative transfer to H04N21/41265 >
D	H04N21/42219	6	{Remote control device emulator integrated in a peripheral device}	< administrative transfer to H04N21/41265 >
M	H04N21/43	2	Processing of content or additional data, e.g. demultiplexing additional data from a digital video stream; Elementary client operations, e.g. monitoring of home network or synchronising decoder's clock; Client middleware {(demultiplexing of	

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<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>
			data packets for data networks, e.g. RTP/UDP H04L29/06176)}	
M	H04N21/4302	3	{Content synchronisation processes, e.g. decoder synchronisation}	
M	H04N21/4305	4	{Synchronising client clock from received content stream, e.g. locking decoder clock with encoder clock, extraction of the PCR packets (arrangements for synchronising receiver with transmitter by comparing receiver clock with transmitter clock H04L7/0012; arrangements for synchronising receiver with transmitter wherein the receiver takes measures against momentary loss of synchronisation H04L7/0083)}	
C	H04N21/4307	4	{Synchronising the rendering of multiple content streams or additional data on devices, e.g. synchronisation of audio on a mobile phone with the video output on the TV screen}	H04N21/4307, H04N21/43072, H04N21/43074, H04N21/43076, H04N21/43078, H04N21/43079
N	H04N21/43072	5	{of multiple content streams on the same device}	
N	H04N21/43074	5	{of additional data with content streams on the same device, e.g. of EPG data or interactive icon with a TV program}	
N	H04N21/43076	5	{of the same content streams on multiple devices, e.g. when family members are watching the same movie on different devices}	
N	H04N21/43078	5	{for seamlessly watching content streams when changing device, e.g. when watching the same program sequentially on a TV and then on a tablet}	
N	H04N21/43079	5	{of additional data with content streams on multiple devices}	
M	H04N21/436	3	Interfacing a local distribution network, e.g. communicating with another STB {or one or more peripheral devices} inside the home	
M	H04N21/43637	5	{involving a wireless protocol, e.g. Bluetooth, RF or wireless LAN [IEEE 802.11] (arrangements for wireless networking or broadcasting of information in indoor or near-field type systems H04B 10/114)}	

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<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>
C	H04N21/44222	5	{Analytics of user selections, e.g. selection of programs or purchase activity (monitoring of user selections in data processing systems G06F11/34; arrangements for monitoring the user's behaviour or opinions in broadcast systems H04H60/33)}	H04N21/44222, H04N21/44224, H04N21/44226
N	H04N21/44224	6	{Monitoring of user activity on external systems, e.g. Internet browsing}	
N	H04N21/44226	7	{on social networks}	
C	H04N21/4508	3	{Management of client data or end-user data}	H04N21/4508, H04N21/4518
M	H04N21/4516	4	{involving client characteristics, e.g. Set-Top-Box type, software version or amount of memory available}	
N	H04N21/4518	4	{involving characteristics of one or more peripherals, e.g. peripheral type, software version, amount of memory available or display capabilities}	

\*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”.
- 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>.

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- 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.

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B. New, Modified or Deleted Warning(s)

**SUBCLASS H04N - PICTORIAL COMMUNICATION, e.g. TELEVISION**

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H04N 21/4104		Group H04N 21/4104 is impacted by reclassification into groups H04N 21/411 and H04N 21/4112. All groups listed in this Warning should be considered in order to perform a complete search.
N	H04N 21/411		Group H04N 21/411 is incomplete pending reclassification of documents from group H04N 21/4104. Groups H04N 21/4104 and H04N 21/411 should be considered in order to perform a complete search.
N	H04N 21/4112		Group H04N 21/4112 is incomplete pending reclassification of documents from group H04N 21/4104. Groups H04N 21/4104 and H04N 21/4112 should be considered in order to perform a complete search.
N	H04N 21/4126		Group H04N 21/4126 is impacted by reclassification into group H04N 21/41265. Groups H04N 21/4126 and H04N 21/41265 should be considered in order to perform a complete search.
N	H04N 21/41265		Group H04N 21/41265 is incomplete pending reclassification of documents from group H04N 21/4126. Groups H04N 21/4126 and H04N 21/41265 should be considered in order to perform a complete search.
N	H04N 21/4307		Group H04N 21/4307 is impacted by reclassification into groups H04N 21/43072, H04N 21/43074, H04N 21/43076, H04N 21/43078 and H04N 21/43079. All groups listed in this Warning should be considered in order to perform a complete search.
N	H04N 21/43072		Group H04N 21/43072 is incomplete pending reclassification of documents from group H04N 21/4307. Groups H04N 21/4307 and H04N 21/43072 should be considered in order to perform a complete search.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H04N 21/43074		Group H04N 21/43074 is incomplete pending reclassification of documents from group H04N 21/4307. Groups H04N 21/4307 and H04N 21/43074 should be considered in order to perform a complete search.
N	H04N 21/43076		Group H04N 21/43076 is incomplete pending reclassification of documents from group H04N 21/4307. Groups H04N 21/4307 and H04N 21/43076 should be considered in order to perform a complete search.
N	H04N 21/43078		Group H04N 21/43078 is incomplete pending reclassification of documents from group H04N 21/4307. Groups H04N 21/4307 and H04N 21/43078 should be considered in order to perform a complete search.
N	H04N 21/43079		Group H04N 21/43079 is incomplete pending reclassification of documents from group H04N 21/4307. Groups H04N 21/4307 and H04N 21/43079 should be considered in order to perform a complete search.
N	H04N 21/44222		Group H04N 21/44222 is impacted by reclassification into groups H04N 21/44224 and H04N 21/44226. Groups H04N 21/44222, H04N 21/44224 and H04N 21/44226 should be considered in order to perform a complete search.
N	H04N 21/44224		Group H04N 21/44224 is incomplete pending reclassification of documents from group H04N 21/44222. Groups H04N 21/44222 and H04N 21/44224 should be considered in order to perform a complete search.
N	H04N 21/44226		Group H04N 21/44226 is incomplete pending reclassification of documents from group H04N 21/44222. Groups H04N 21/44222 and H04N 21/44226 should be considered in order to perform a complete search.
N	H04N 21/4508		Group H04N 21/4508 is impacted by reclassification into group H04N 21/4518. Groups H04N 21/4508 and H04N 21/4518 should be considered in order to perform a complete search.

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<b><u>Type*</u></b>	<b><u>Location</u></b>	<b><u>Old Warning</u></b>	<b><u>New/Modified Warning</u></b>
N	H04N 21/4518		Group H04N 21/4518 is incomplete pending reclassification of documents from group H04N 21/4508. Groups H04N 21/4508 and H04N 21/4518 should be considered in order to perform a complete search.

\*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.



## 2. A. DEFINITIONS (modified)

### H04N 21/40

#### Limiting references

Delete: The entire Limiting references section.

Insert: The following two new sections: Informative references and Application-oriented references.

#### Informative references

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

Raw multimedia data per se	<a href="#">H04N 21/80</a>
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#### Application-oriented references

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

Arrangements for distribution where lower stations, e.g. receivers, interact with the broadcast	<a href="#">H04H 20/38</a>
Arrangements specially adapted for receiving broadcast information	<a href="#">H04H 40/00</a>

### H04N 21/4104

#### Definition statement

Delete: From the Definition statement section, the second sentence shown below.

Example(s) of documents found in this subgroup: US 2007/0143801 A1

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### Limiting references

Delete: The entire Limiting references section.

### Informative references

Insert: The following new Informative references section.

#### Informative references

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

Input-only peripherals	<a href="#">H04N21/422</a>
Communication aspects with peripherals	<a href="#">H04N21/436</a>

## H04N 21/4108

### Definition statement

Delete: From the Definition statement section, the second sentence shown below.

Example(s) of documents found in this subgroup: US 2007/0254651 A1

## H04N 21/4126

### Limiting references

Delete: The entire Limiting references section.

### Application-oriented references

Insert: The following new Application-oriented references section.

#### Application-oriented references

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

Constructional details of equipment or arrangements specially adapted for portable computer application	<a href="#">G06F 1/1626</a>
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## H04N 21/436

### Limiting references

Delete: The entire Limiting references section.

### Application-oriented references

Insert: The following new Application-oriented references section.

#### Application-oriented references

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

Arrangements specially adapted plural spots in a confined site in broadcast systems	<a href="#">H04H 20/63</a>
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## H04N 21/43637

### Definition statement

Delete: From the Definition statement section, the second sentence shown below.

Example(s) of documents found in this subgroup: US 2008/0273118 A1

### Limiting references

Delete: From the Limiting references table, the last two rows shown below.

Wireless local area data switching networks	H04W
Flow control in wireless networks	H04W 28/10

### Informative references

Insert: The following new Informative references section.

#### Informative references

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

Wireless local area data switching networks	<a href="#">H04W</a>
Flow control in wireless networks	<a href="#">H04W 28/10</a>

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## H04N 21/44222

### Definition statement

Delete: From the Definition statement section, the second sentence shown below.

Example(s) of documents found in this subgroup: WO 2006/126988 A1

### Limiting references

Delete: From the Limiting references table, the two rows shown below.

Monitoring of user activities for profile generation for accessing a video database	G06F 16/78
Tracking the activity of the end-user	H04L 29/08675

### Informative references

Insert: The following new Informative references section.

#### Informative references

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

Monitoring of user activities for profile generation for accessing a video database	<a href="#">G06F 16/78</a>
Tracking the activity of the end-user	<a href="#">H04L 29/08675</a>

## H04N 21/4516

### Definition statement

Delete: From the Definition statement section, the second sentence shown below.

Example(s) of documents found in this subgroup: US 2008/0148314 A1

### Limiting references

Delete: The entire Limiting references section.

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**Informative references**

Insert: The following new Informative references section.

**Informative references**

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

Allocation of resources considering hardware capabilities	<a href="#">G06F 9/5044</a>
Allocation of resources considering software capabilities	<a href="#">G06F 9/5055</a>
Protocols involving terminal profiles for network applications in communication control or processing	<a href="#">H04L 29/08927</a>
Message adaptation based on network or terminal capabilities in packet switching networks	<a href="#">H04L 51/06</a>
Processing of terminal status or physical abilities in wireless networks	<a href="#">H04W 8/22</a>

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## 3. REVISION CONCORDANCE LIST (RCL)

<b>Type*</b>	<b>From CPC Symbol (existing)</b>	<b>To CPC Symbol(s)</b>
C	H04N 21/4104	H04N 21/4104, H04N 21/411, H04N 21/4112
C	H04N 21/4126	H04N 21/4126, H04N 21/41265
D	H04N 21/42207	< administrative transfer to H04N 21/41265 >
D	H04N 21/42219	< administrative transfer to H04N 21/41265 >
C	H04N 21/4307	H04N 21/4307, H04N 21/43072, H04N 21/43074, H04N 21/43076, H04N 21/43078, H04N 21/43079
C	H04N 21/44222	H04N 21/44222, H04N 21/44224, H04N 21/44226
C	H04N 21/4508	H04N 21/4508, H04N 21/4518

\* 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; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

## NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- 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”.
- 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 (“To”) symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

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

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
H04N 21/411	H04N21/41	New
H04N 21/4112	H04N21/41	New
H04N 21/41265	H04N21/41	New
H04N 21/42207		Delete
H04N 21/42219		Delete
H04N 21/43072	H04N 21/43	New
H04N 21/43074	H04N 21/43	New
H04N 21/43076	H04N 21/43	New
H04N 21/43078	H04N 21/43	New
H04N 21/43079	H04N 21/43	New
H04N 21/44224	H04N 21/442	New
H04N 21/44226	H04N 21/442	New
H04N 21/4518	H04N 21/45	New

\*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are not included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.