China's National Intellectual Property Releases RFC for Draft Patent Examination Guidelines Targeting Video Codecs

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On April 30, 2025, <u>China's National Intellectual Property Administration</u> (CNIPA) released a draft amendment for comment of the Patent Examination Guidelines (<u>?????????(????</u>)), which is somewhat analogous to the US Patent & Trademark Office's Manual of Patent Examining Procedure. One of the main proposed changes is the addition of a section tightening examination standards for video codec patent applications. CNIPA explained, in part, that the purpose of the addition was to "provide the right holder with the option of claiming rights to one of the links" (e.g., generation, storage and transmission of bitstreams) and prevent the "right holder from claiming rights to multiple links of the streaming industry and obtain licensing income that is disproportionate to their technical contributions."

Comments are due June 15, 2025. A translation of the proposed bitstream addition and drafting notes follow. The full text is available <u>here</u> (Chinese only).

Proposed Addition

Part II Chapter 9

7. Provisions on the Examination of Invention Patent Applications Containing Bitstreams In application fields such as streaming media, communication systems, and computer systems, various

types of data are generally generated, stored, and transmitted in the form of bitstreams. This section aims to make specific provisions on the examination of the protected object of invention patent applications containing bitstreams and the drafting of specifications and claims in accordance with the provisions of the Patent Law and its implementing regulations.

7.1 Examination of protected object

7.1.1 Applications that are not patentable

If the subject matter of a claim only involves a simple bitstream, the claim falls within the rules and methods of intellectual activities stipulated in Article 25, paragraph 1, item (2) of the Patent Law and does not fall within the subject matter of patent protection. If a claim, except for the title of its subject matter, all the contents that limit it only involve a simple bitstream, the claim falls within the rules and methods of intellectual activities stipulated in Article 25, paragraph 1, item (2) of the Patent Law and does not fall within the subject matter of patent protection.

7.1.2 Patentable applications In the technical field of digital video encoding/decoding,

If a specific video encoding/decoding method for generating a bitstream belongs to the technical solution described in Article 2, Paragraph 2 of the Patent Law, then the method for storing or transmitting the bitstream and the computer-readable storage medium for storing the bitstream defined by the specific video encoding/decoding method can achieve the optimization configuration of storage or transmission resources, etc. Therefore, the storage or transmission method and the computer-readable storage medium defined by the specific video encoding/decoding to the specific video encoding/decoding method specific video encoding/decoding method and the computer-readable storage medium defined by the specific video encoding/decoding method belong to the technical solution described in Article 2, Paragraph 2 of the Patent Law and are the subject of patent protection.

7.2 Writing of the specification

The specification of an invention patent application containing a bitstream generated by a specific video encoding/decoding method shall make a clear and complete description of the specific video encoding/decoding method, which shall be implemented by a technician in the relevant technical field. If the subject of protection involves the method for storing or transmitting the bitstream and the computer-readable storage medium for storing the bitstream, the specification shall also make corresponding descriptions to support the claims.

7.3 Drafting of claims

An invention patent application that includes a bitstream generated by a specific video encoding/decoding method can be drafted as a method, device, and computer-readable storage medium claim. In the claims of an invention patent application, the specific video encoding/decoding method claim for generating the bitstream should generally be used as the basis, and the corresponding storage method, transmission method, and/or computer-readable storage medium claim should be drafted by citing the specific video encoding/decoding method claim or including all the features of the specific video encoding/decoding method.

[Example 1] An invention patent application related to "a video encoding method" can draft claims in the following manner.

1. A video encoding method, characterized in that it includes the following steps: obtaining a

frame image to be encoded, dividing the current frame image into multiple image blocks; selecting at least one reference frame from the encoded frames; for each image block, searching for the best matching block in the reference frame, and calculating the motion vector between the image block and the best matching block; obtaining a prediction block from the reference frame according to the motion vector; calculating the residual between the image block and the prediction block; transforming and quantizing the residual to generate a quantization coefficient; performing entropy coding on the quantization coefficient and the motion vector to generate a bit stream.

- 2. A video encoding device, characterized in that it includes the following units: a frame image division unit, which obtains the current frame image to be encoded and divides the current frame image into multiple image blocks; a reference frame selection unit, which selects at least one reference frame from the encoded frame; a motion vector calculation unit, which searches for the best matching block in the reference frame for each image block and calculates the motion vector between the image block and the best matching block; a prediction block acquisition unit, which obtains the prediction block from the reference frame according to the motion vector; a residual calculation unit, which calculates the residual between the image block and the prediction block; a transform and quantization unit, which transforms and quantizes the residual to generate a quantization coefficient; an entropy coding unit, which entropy codes the quantization coefficient and the motion vector to generate a bit stream.
- 3. A method for storing a bit stream, comprising storing the bit stream in a storage medium, characterized in that the bit stream is generated by the method of claim 1.
- 4. A method for transmitting a bit stream, comprising transmitting the bit stream, characterized in that the bit stream is generated by the method of claim 1.
- 5. A computer-readable storage medium having a bit stream stored thereon, wherein the bit stream is generated by the method of claim 1.

Drafting Notes

(V) Section 7 of Chapter 9 of Part II on the examination of invention patent applications containing bitstreams

In order to adapt to the new situation of the rapid development of the streaming media industry, adapt to the new changes brought about by the continuous evolution of streaming media related technologies and application scenarios, respond to the demands of innovation entities to further strengthen patent protection for multiple links in the streaming media industry chain such as generation, storage, and transmission, and actively connect with international high-standard patent examination and protection rules, Section 7 "Related provisions on the examination of invention patent applications containing bitstreams" is added to Chapter 9 of Part II. The main contents include:

1. Examination of the object of protection of invention patent applications containing bitstreams

(1) Clarifying the circumstances in which invention patent applications containing bitstreams cannot be granted patent rights

Section 7.1.1 stipulates that if the subject matter of a claim only involves a simple bitstream, it is not an object of patent protection. If a claim, except for its subject name, all the contents that limit it only involve a simple bitstream, it is not an object of patent protection.

(2) Circumstances in which patent rights can be granted for invention patent applications that clearly include bitstreams

Section 7.1.2 stipulates that in the technical field of digital video encoding/decoding, if a specific video encoding/decoding method that generates a bitstream belongs to a technical solution in the sense of patent law, then the method for storing or transmitting the bitstream and the computer-readable storage medium for storing the bitstream defined by the specific video encoding/decoding method belong to the subject of patent protection.

2. Requirements for writing the specification of invention patent applications that clearly include bitstreams

Section 7.2 clarifies that the specification should fully disclose the specific video encoding/decoding method for generating a bitstream. If the subject matter of the protection involves the method for storing or transmitting the bitstream and the computer-readable storage medium for storing the bitstream, the specification should also make corresponding explanations to support the claims.

3. Clarify the requirements for the drafting of the claims of invention patent applications containing bitstreams

Section 7.3 clarifies that invention patent applications containing bitstreams generated by specific video encoding/decoding methods can be drafted as method, device and computer-readable storage medium claims, which is intended to regulate that the applicant should generally write the corresponding storage method, transmission method and/or computer-readable storage medium claims based on the specific video encoding/decoding method claim for generating the bitstream, by citing the method claim or including all the features of the method; at the same time, specific drafting examples are given.

It should be noted that, unlike the relatively concentrated industrial chain of the traditional communications industry, the industrial chain of the streaming media industry is relatively dispersed, with multiple links and entities such as generation, storage, and transmission. Therefore, the protection of technical themes involved in multiple links of the streaming media industry in this section is intended to adapt to the new situation and changes in the streaming media industry, and provide the right holder with the option of claiming rights to one of the links, so as to balance the interests of the right holder, implementer and the public, and ensure the sustainable development of the industry, rather than allowing the right holder to claim rights to multiple links of the industry and obtain licensing income that is disproportionate to their technical contributions.

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