

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 506

DATE: MAY 1, 2018

PROJECT MP0320

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>Title wording change:</b>	G06F	subclass
	G06F	1/16
	G06F	1/24
	G06F	1/26
	G06F	1/30
	G06F	3/05
	G06F	3/12
	G06F	7/544
	G06F	7/58
	G06F	11/00
	G06F	11/22
	G06F	13/00
	G06F	13/42
	G06F	15/18
	G06F	15/76
	G06F	19/22
	G06F	21/00
<b>Modified definitions</b>	G06F	subclass
	G06F	1/26
	G06F	3/01
	G06F	7/58
	G06F	11/00
	G06F	11/22
	G06F	13/00
	G06F	15/76
	G06F	21/00
	G06F	21/30
<b>New definitions</b>	G06F	1/16
	G06F	1/20
	G06F	1/24
	G06F	1/30
	G06F	3/05
	G06F	3/12
	G06F	3/13
	G06F	7/544
	G06F	13/38
	G06F	13/42
	G06F	15/18
	G06F	15/163

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

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**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 Notice(s)
  - C. New, Modified or Deleted Note(s)
  - D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS (New or Modified)
  - A. DEFINITIONS (Full definition template)
  - B. DEFINITIONS (Definitions Quick Fix)
3.  REVISION CONCORDANCE LIST (RCL)
4.  CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5.  CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

**SUBCLASS G06F - ELECTRIC DIGITAL DATA PROCESSING**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title (new or modified)</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	G06F	subclass	ELECTRIC DIGITAL DATA PROCESSING (computer systems based on specific computational models G06N)	
M	G06F 1/16	1	Constructional details or arrangements	
M	G06F 1/24	1	Resetting means	
M	G06F 1/26	1	Power supply means, e.g. regulation thereof (for memories G11C)	
M	G06F 1/30	2	Means for acting in the event of power-supply failure or interruption, e.g. power-supply fluctuations (for resetting only G06F 1/24)	
M	G06F 3/05	1	Digital input using the sampling of an analogue quantity at regular intervals of time {, input from a/d converter or output to d/a converter}	
M	G06F 3/12	1	Digital output to print unit {, e.g. line printer, chain printer}	
M	G06F 7/544	3	for evaluating functions by calculation {(G06F 7/4824 takes precedence)}	
M	G06F 7/58	1	Random or pseudo-random number generators	
M	G06F 11/00	0	Error detection; Error correction; Monitoring (error detection, correction or monitoring in information storage based on relative movement between record carrier and transducer G11B 20/18; monitoring, i.e. supervising the progress of recording or reproducing G11B 27/36; in static stores G11C 29/00)	
M	G06F 11/22	1	Detection or location of defective computer hardware by testing during standby operation or during idle time, e.g. start-up testing	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title (new or modified)</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	G06F 13/00	0	Interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units (interface circuits for specific input/output devices G06F3/00; multiprocessor systems G06F15/16 {multiprogram control therefor G06F9/46})	
M	G06F 13/42	2	Bus transfer protocol, e.g. handshake; Synchronisation	
M	G06F 15/18	1	in which a program is changed according to experience gained by the computer itself during a complete run; Learning machines (adaptive control systems G05B 13/00; artificial intelligence G06N)	
M	G06F 15/76	1	Architectures of general purpose stored program computers (with program plugboard G06F 15/08; multicomputers G06F 15/16)	
M	G06F 19/22	2	for sequence comparison involving nucleotides or amino acids, e.g. homology search, motif or Single-Nucleotide Polymorphism [SNP] discovery or sequence alignment	
M	G06F 21/00	0	Security arrangements for protecting computers, components thereof, programs or data against unauthorised activity	

\*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; E= 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).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. 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 except “D” which requires only a symbol.
- #“Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.

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- 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>” or “<administrative transfer to XX and YY simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be “invention information”, unless otherwise indicated, and to 2000 series groups is assumed to be “additional information”.

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## 2. A. DEFINITIONS (new)

Insert the following new definitions.

### G06F 1/16

#### References

##### *Informative references*

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

Instrument details	<a href="#">G12B</a>
Constructional details common to different types of electric apparatus	<a href="#">H05K 7/00</a>

### G06F 1/20

#### References

##### *Informative references*

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

Modifications to facilitate cooling, ventilating, or heating	<a href="#">H05K 7/20</a>
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## G06F 1/24

### References

#### *Informative references*

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

Microprogramme loading	<a href="#">G06F 9/24</a>
Restoration from data faults	<a href="#">G06F 11/00</a>

## G06F 1/30

### References

#### *Limiting references*

*This place does not cover:*

For resetting only	<a href="#">G06F 1/24</a>
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#### *Informative references*

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

Involving the processing of data-words	<a href="#">G06F 11/00</a>
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**G06F 3/05****References*****Informative references****Attention is drawn to the following places, which may be of interest for search:*

Sample-and-hold arrangements	<a href="#">G11C 27/02</a>
Sampling per se	<a href="#">H03K 17/00</a>

**G06F 3/12****References*****Informative references****Attention is drawn to the following places, which may be of interest for search:*

Digital output to typewriter	<a href="#">G06F 3/09</a>
Arrangements for producing a permanent visual presentation of the output data using printers	<a href="#">G06K 15/02</a>

**G06F 3/13****References*****Informative references****Attention is drawn to the following places, which may be of interest for search:*

Arrangements for producing a permanent visual presentation of the output data using plotters	<a href="#">G06K 15/22</a>
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**G06F 7/544****References*****Limiting references***

Using signed-digit representation	<a href="#">G06F 7/4824</a>
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***Informative references***

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

With a look-up table	<a href="#">G06F 1/02</a>
Complex mathematical operations	<a href="#">G06F 17/10</a>

**G06F 13/38****References*****Limiting references***

*This place does not cover:*

Handling requests for interconnection or transfer	<a href="#">G06F 13/14</a>
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***Informative references***

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

Bus networks	<a href="#">H04L 12/40</a>
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**G06F 13/42****References*****Informative references****Attention is drawn to the following places, which may be of interest for search:*

Characterised by a protocol	<a href="#">H04L 29/06</a>
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**G06F 15/163****References*****Informative references****Attention is drawn to the following places, which may be of interest for search:*

Interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units	<a href="#">G06F 13/00</a>
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**G06F 15/18****References*****Limiting references****This place does not cover:*

adaptive control systems	<a href="#">G05B 13/00</a>
artificial intelligence	<a href="#">G06N</a>

## 2. A. DEFINITIONS (modified)

### G06F

#### References

##### *Limiting references*

*This place does not cover:*

Delete: The following existing rows from the *Limiting references* table.

Programme-control systems	G05B19/00
Digital computers in which all the computation is effected mechanically	G06C
Computers in which a part of the computation is effected hydraulically or pneumatically	G06D
Computers in which a part of the computation is effected optically	G06E

##### *Informative references*

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

Insert: The following four new rows into the *Informative references* table.

Programme-control systems	G05B19/00
Digital computers in which all the computation is effected mechanically	G06C
Computers in which a part of the computation is effected hydraulically or pneumatically	G06D
Computers in which a part of the computation is effected optically	G06E

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## G06F1/26

### References

#### *Limiting references*

*This place does not cover:*

Delete: The following row from the *Limiting references* table.

Power supplies in general	G05F
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#### *Informative references*

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

Insert: The following row into the *Informative references* table.

Systems for regulating electric or magnetic variables	G05F
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## G06F3/01

Insert: The following new Definition statement section.

### **Definition statement**

*This place covers:*

Input arrangements, or combined input and output arrangements, for interaction between user and computer.

Particularly, said input arrangements include those based on the interaction with the human body, e.g.

- gloves for hand or finger tracking;
- eye or head trackers;
- devices using bioelectric signals, e.g. detecting nervous activity;
- arrangements for providing computer generated force feedback in input devices.

Insert: The following new Informative references section.

### **Informative references**

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

Interaction techniques based on graphical user interfaces [GUI]	<a href="#">G06F 3/048</a>
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## G06F7/58

### References

Insert: The following new *Informative references* section and table.

#### ***Informative references***

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

Transformation of stochastic functions by table look-up	G06F 1/03
Lottery apparatus	G07C 15/00
Random pulse generators, random bit generators	H03K 3/84
Secret telegraphic communication	H04L 9/00

#### ***Limiting references***

Delete: The entire *Limiting references* section and table.

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**G06F11/00****References*****Limiting references****This place does not cover:*Delete: The reference symbol **G11B27/36** from the following row:

Error detection, correction or monitoring in information storage based on relative movement between record carrier and transducer	G11B 20/18, G11B 27/36
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Change: The reference symbol **G11C** in the following row:

Error detection, correction or monitoring in static stores	G11C
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to **G11C 29/00**.

Error detection, correction or monitoring in static stores	G11C 29/00
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Insert: The following new row into the *Limiting references* table.

Supervising the progress of recording or reproducing	G11B 27/36
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Delete: The following rows from the *Limiting references* table:

Monitoring of power supply means for computer, detecting and responding to power failures in a computer system	G06F 1/28, G06F 1/30
Exception handling during program execution	G06F 9/3861
Protection against unauthorized memory accesses	G06F 12/00
Security arrangements for protecting computers or computer systems against unauthorised activity or attacks	G06F 21/00
Testing of digital circuits that do not incorporate a programmable processing logic	G01R 31/00
Error detection, correction or monitoring in control systems	G05B 23/02
Methods or arrangements for verifying the correctness of marking on a record carrier	G06K 5/00
Registering or indicating the working of vehicles	G07C 5/00
Coding, decoding or code conversion, for error detection or error correction, in general	H03M 13/00
Detecting and preventing errors in transmission systems	H04L 1/00
Broadcast and reliability in networks	H04L 12/1863
Network security. Monitoring network traffic to detect malicious traffic. Protection against malicious traffic	H04L 29/06877
Counter measures to a fault in a network	H04L 29/14
Fault management in networks, network monitoring, network testing.	H04L 41/06, H04L 43/00, H04L43/50
Monitoring and testing of wireless networks	H04W 24/00



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**Informative references**

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

Insert: The following new rows into the *Informative references* table:

Testing of digital circuits	<a href="#">G01R 31/00</a>
Error detection, correction or monitoring in control mechanisms	<a href="#">G05B</a>
Methods or arrangements for verifying the correctness of marking on a record carrier	<a href="#">G06K 5/00</a>
Monitoring patterns of pulse trains	<a href="#">H03K 5/19</a>
Coding, decoding or code conversion, for error detection or error correction; Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes	<a href="#">H03M 13/00</a>
Counter-measures to a fault	<a href="#">H04L 29/14</a>

## G06F11/22

### References

#### *Informative references*

Insert: The following new rows into the *Informative references* table:

Testing of computer memories	G11C 29/00
Testing of digital circuits, e.g. of separate computer components	G01R 31/317

Delete: The entire *Limiting references* section and table.

## G06F13/00

Insert: The following new *Definition* section and paragraph:

### Definition

This place covers:

Interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units.

### References

#### *Limiting references*

*This place does not cover:*

Delete: The following two rows from the *Limiting references* table:

Transmission of digital information in general	H04L
Transmission of digital information through air	H04Q, H04W

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Insert: The following new rows into a new *Informative references* section and table:

### ***Informative references***

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

Transmission of digital information in general	<a href="#">H04L</a>
Synchronisation in transmission of digital information in general	<a href="#">H04L 7/00</a>
Bus networks	<a href="#">H04L 12/40</a>
Selecting	<a href="#">H04Q</a>

## **G06F15/76**

### **References**

#### ***Limiting references***

*This place does not cover:*

Insert: The following new row into the *Limiting references* table:

Digital computers with program plugboard	<a href="#">G06F 15/08</a>
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Replace: The row text for [G06F 15/16](#):

Loosely connected stored program computers, interconnections or intercommunication systems	<a href="#">G06F 15/16</a>
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with the following text:

Multicomputers	<a href="#">G06F 15/16</a>
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Delete: The following rows from the *Limiting references* table:

Generating or distributing clock signals or signals derived directly therefrom.	G06F 1/04
Circuits for multiplication/division	G06F 7/52
Concurrent instruction execution, multistreaming	G06F 9/3851
Concurrent instruction execution, pipeline.	G06F 9/3867
Concurrent instruction execution, using a slave processor.	G06F 9/3877
Concurrent instruction execution, using a plurality of independent parallel functional units	G06F 9/3885
Memory addressing, virtual memory, memory caches, memory access rights.	G06F 12/00
Transfer of data to/from memory or peripherals	G06F 13/00
Data processing equipment or methods specially adapted for complex mathematical operations	G06F 17/10
Circuit design for FPGAs, mapping, optimisation.	G06F 17/5045
Assemblies consisting of a plurality of individual semiconductor or other solid state devices	H01L 25/00
Logic circuits arranged in matrix form e.g. PLDs, FPGAs	H03K 19/177
Routing of packets in a LAN/WAN	H04L 45/00
Flow Control in a LAN/WAN	H04L 47/10
Queue Scheduling in a LAN/WAN	H04L 49/00
Packet switches for a LAN/WAN	H04L 49/00
Processing of video data.	H04N 21/23
Mounting supports, back panels, stackable IC modules	H05K 7/14

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Insert: The following new row into an *Application-oriented references* section and table:

## References

### *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:*

Processor architectures; Processor configuration for image data processing	G06T 1/20
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Delete: The entire *Informative references* section and table.

## Special rules of classification

Delete: The first paragraph

In general, when a document qualifies for one of the subclasses below, there is no need to assign any of the superclasses:

Replace: Two terms in the following paragraph (the next to the last paragraph),  
“Here are specified the classes which could be assigned in addition to the classes above to cover further technical details:”

the terms “classes” with “places”, as shown below:

“Here are specified the places which could be assigned in addition to the places above to cover further technical details:”

## G06F21/00

Insert: The following new *Definition* section and paragraph:

### Definition

*This place covers:*

Security arrangements for protecting computers or their components, programs and data against unauthorised activity, e.g. intrusion into a computer, computer malware detection and handling, authentication, unauthorised use of data, dishonest alteration of data, theft of secret data.

In particular, the following subjects are covered:

- Protecting specific internal or peripheral components in which the protection of a component leads to protection of the entire computer;
- Monitoring users, programs or devices to maintain the integrity of platforms;
- Authenticating users, programs or devices;
- Protecting distributed programs or content, e.g. vending or licensing of copyright material;
- Protecting data used within a computer.

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

### Relationships with other classification places

This group covers security arrangements for local platforms.

Classification should be directed to groups [H04L 9/00 - H04L 9/32](#) when the subject is secret or secure communication involving the use of encryption.

Furthermore, classification should be directed to group [H04L 29/06](#) when network involvement or protocols are of relevance.

Finally, classification should be directed to group [H04W 12/00](#) when security or authentication arrangements in wireless communication networks are of relevance.

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## References

### *Limiting references*

Delete: The entire *Limiting references* section and table.

### *Informative references*

Delete: The following row from the *Informative references* table:

Dispensing apparatus actuated by coded identity card or credit card	G07F 7/08
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Insert: The following new row into the *Informative references* table:

Security arrangements, e.g. access security or fraud detection; authentication in wireless communication networks	H04W 12/00
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Insert: The following new **Glossary of terms** section:

### **Glossary of terms**

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

Content	means any intellectually created work whose copyright is to be safeguarded
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