

**IPC REORGANIZATION PROJECT FILES/
DOSSIERS DE PROJET DE RÉAMÉNAGEMENT DE LA CIB**

**ELECTRICAL FIELD/
DOMAINE DE L'ÉLECTRICITÉ**

DE Rapporteur Proposal

20 March 2003

Project: R224/03 Subclass: G01B

IPC	Maingroup Title
G01B 1/00	Measuring instruments characterised by the selection of material therefor
G01B 13/00	Measuring arrangements characterised by the use of fluids
G01B 11/00	Measuring arrangements characterised by the use of optical means (instruments of the types covered by group G01B 9/00 per se G01B 9/00) [2]
G01B 9/00	Instruments as specified in the subgroups and characterised by the use of optical measuring means (arrangements for measuring particular parameters G01B 11/00) [2]
G01B 3/00	Instruments as specified in the subgroups and characterised by the use of mechanical measuring means (arrangements for measuring particular parameters G01B 5/00; devices of general interest specially adapted or mounted for storing and repeatedly paying-out and restoring lengths of material B65H 75/34) [2]
G01B 5/00	Measuring arrangements characterised by the use of mechanical means (instruments of the types covered by group G01B 3/00 per se G01B 3/00) [2]
G01B 7/00	Measuring arrangements characterised by the use of electric or magnetic means
G01B 17/00	Measuring arrangements characterised by the use of infrasonic, sonic, or ultrasonic vibrations [4]
G01B 15/00	Measuring arrangements characterised by the use of wave or particle radiation (G01B 9/00, G01B 11/00 take precedence) [4]
G01B 21/00	Measuring arrangements or details thereof in so far as they are not adapted to particular types of measuring means of the preceding groups [3]
G01B 101/00	Transducers of the electrical or magnetic type [6]
G01B 103/00	Transducers of the optical type [6]
G01B 105/00	Transducers of other types [6]
G01B 121/00	Things being measured [6]

Japan Patent Office

April 1, 2003

Project: R224

Subclass:G01B

JP Comments on Rapporteur Proposal Dated March 20, 2003

It is considered that in the scheme proposed by Rapporteur precedence references and largeness of system (see section 5(b) of *the Guidelines for Rearrangement of Main Groups According to the Top-Down Sequence*) are not reflected satisfactorily. Thus we propose a following counter proposal in which these points are considered:

Project: R224/03 Subclass: G01B

IPC	Maingroup Title
G01B 11/00	Measuring arrangements characterised by the use of optical means (instruments of the types covered by group G01B 9/00 per se G01B 9/00) [2]
G01B 9/00	Instruments as specified in the subgroups and characterised by the use of optical measuring means (arrangements for measuring particular parameters G01B 11/00) [2]
G01B 15/00	Measuring arrangements characterised by the use of wave or particle radiation (G01B 9/00, G01B 11/00 take precedence) [4]
G01B 7/00	Measuring arrangements characterised by the use of electric or magnetic means
G01B 17/00	Measuring arrangements characterised by the use of infrasonic, sonic, or ultrasonic vibrations [4]
G01B 13/00	Measuring arrangements characterised by the use of fluids
G01B 5/00	Measuring arrangements characterised by the use of mechanical means (instruments of the types covered by group G01B 3/00 per se G01B 3/00) [2]
G01B 3/00	Instruments as specified in the subgroups and characterised by the use of mechanical measuring means (arrangements for measuring particular parameters G01B 5/00; devices of general interest specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34) [2]
G01B 1/00	Measuring instruments characterised by the selection of material therefor
G01B 21/00	Measuring arrangements or details thereof in so far as they are not adapted to particular types of measuring means of the preceding groups [3]
G01B 101/00	Transducers of the electrical or magnetic type [6]
G01B 103/00	Transducers of the optical type [6]
G01B 105/00	Transducers of other types [6]
G01B 121/00	Things being measured [6]

DE Rapporteur Proposal

20 March 2003

Project: R225/03 Subclass: G01C

IPC	Maingroup Title
G01C 13/00	Surveying specially adapted to open water, e.g. sea, lake, river, canal (liquid level metering G01F; measuring liquid velocity G01P; determining existence or flow of underground water G01V)
G01C 11/00	Photogrammetry; Photographic surveying (cameras combined with surveying instruments, e.g. with theodolite, G01C 1/00, G01C 3/00, G01C 5/00, G01C 9/00; surveying cameras G03B 37/00)
G01C 22/00	Measuring distance traversed on the ground by vehicles, persons, animals, or other moving solid bodies, e.g. using odometers, using pedometers (counting mechanisms per se G06M)
G01C 17/00	Compasses; Devices for ascertaining true or magnetic north for navigation or surveying purposes (using gyroscopic effect G01C 19/00; for geophysical or prospecting purposes G01V 3/00)
G01C 19/00	Gyroscopes; Turn-sensitive devices with vibrating masses; Turn-sensitive devices without moving masses
G01C 21/00	Navigation; Navigational instruments not provided for in preceding groups (measuring distance traversed on the ground by a vehicle G01C 22/00; measuring linear or angular speed or acceleration G01P; control of position, course, altitude or attitude of vehicles G05D 1/00; traffic control systems G08G)
G01C 23/00	Combined instruments indicating more than one navigational value, e.g. for aircraft; Combined measuring devices for measuring two or more variables of movement, e.g. distance, speed, acceleration
G01C 7/00	Tracing profiles (by photogrammetry G01C 11/00)
G01C 9/00	Measuring inclination, e.g. by clinometers, by levels
G01C 1/00	Measuring angles (in compasses G01C 17/00)
G01C 3/00	Measuring distances in line of sight; Optical rangefinders (tapes, chains, or wheels for measuring length G01B; coupling rangefinders with operating parts of photographic apparatus G03B)
G01C 5/00	Measuring height; Measuring distances transverse to line of sight; Levelling between separated points; Surveyors' levels (G01C 3/20, G01C 3/30 take precedence; tracing profiles G01C 7/00; levels indicating inclination at a single point G01C 9/00)
G01C 25/00	Manufacturing, calibrating, cleaning, or repairing instruments or devices referred to in the preceding groups (testing, calibrating, or compensating compasses G01C 17/38)
G01C 15/00	Surveying instruments or accessories not provided for in groups G01C 1/00 to G01C 13/00

Japan Patent Office

April 1, 2003

Project: R225

Subclass:G01C

JP Comments on Rapporteur Proposal Dated March 20, 2003

It is considered that the scheme proposed by Rapporteur would cause users' confusion for the mixture of groups for navigating and those for surveying. We also think that largeness of system is not fully reflected regarding "basic subclass subject matters"(see section 5(b) of *the Guidelines for Rearrangement of Main Groups According to the Top-Down Sequence*). Thus we propose a following counter proposal in which these points are considered:

Project: R225/03 Subclass: G01C

IPC	Maingroup Title
G01C 22/00	Measuring distance traversed on the ground by vehicles, persons, animals, or other moving solid bodies, e.g. using odometers, using pedometers (counting mechanisms per se G06M)
G01C 19/00	Gyroscopes; Turn-sensitive devices with vibrating masses; Turn-sensitive devices without moving masses
G01C 17/00	Compasses; Devices for ascertaining true or magnetic north for navigation or surveying purposes (using gyroscopic effect G01C 19/00; for geophysical or prospecting purposes G01V 3/00)
G01C 21/00	Navigation; Navigational instruments not provided for in preceding groups (measuring distance traversed on the ground by a vehicle G01C 22/00; measuring linear or angular speed or acceleration G01P; control of position, course, altitude or attitude of vehicles G05D 1/00; traffic control systems G08G)
G01C 23/00	Combined instruments indicating more than one navigational value, e.g. for aircraft; Combined measuring devices for measuring two or more variables of movement, e.g. distance, speed, acceleration
G01C 13/00	Surveying specially adapted to open water, e.g. sea, lake, river, canal (liquid level metering G01F; measuring liquid velocity G01P; determining existence or flow of underground water G01V)
G01C 11/00	Photogrammetry; Photographic surveying (cameras combined with surveying instruments, e.g. with theodolite, G01C 1/00, G01C 3/00, G01C 5/00, G01C 9/00; surveying cameras G03B 37/00)
G01C 7/00	Tracing profiles (by photogrammetry G01C 11/00)
G01C 9/00	Measuring inclination, e.g. by clinometers, by levels
G01C 3/00	Measuring distances in line of sight; Optical rangefinders (tapes, chains, or wheels for measuring length G01B; coupling rangefinders with operating parts of photographic apparatus G03B)

G01C 5/00	Measuring height; Measuring distances transverse to line of sight; Levelling between separated points; Surveyors' levels (G01C 3/20, G01C 3/30 take precedence; tracing profiles G01C 7/00; levels indicating inclination at a single point G01C 9/00)
G01C 1/00	Measuring angles (in compasses G01C 17/00)
G01C 15/00	Surveying instruments or accessories not provided for in groups G01C 1/00 to G01C 13/00
G01C 25/00	Manufacturing, calibrating, cleaning, or repairing instruments or devices referred to in the preceding groups (testing, calibrating, or compensating compasses G01C 17/38)

DE - Rapporteur Proposal

26.03.03

Project: R226/03Subclass: G01D

IPC	Maingroup Title
G01D 4/00	Tariff metering apparatus (tariff meters for measuring the time integral of electric power or current G01R 11/56; in taximeters G07B 13/00; coin-freed mechanisms therefor G07F)
G01D 3/00	Measuring arrangements with provision for the special purposes referred to in the subgroups of this group
G01D 1/00	Measuring arrangements giving results other than momentary value of variable, of general application (G01D 3/00 takes precedence; in tariff metering apparatus G01D 4/00; transducers not specially adapted for a specific variable G01D 5/00; computing G06)
G01D 5/00	Mechanical means for transferring the output of a sensing member; Means for converting the output of a sensing member to another variable where the form or nature of the sensing member does not constrain the means for converting; Transducers not specially adapted for a specific variable (G01D 3/00 takes precedence; specially adapted for apparatus giving results other than momentary value of variable G01D 1/00; sensing members, see the relevant subclasses, e.g. of G01, H01; for converting a single current or a single voltage into a mechanical displacement G01R 5/00; specially adapted for high-voltage or high-current measuring arrangements G01R 15/04, G01R 15/14; measuring currents or voltages using digital measurement techniques G01R 19/25; transmission systems for measured values, control or similar signals G08C, e.g. electrical signals G08C 19/00) [6]
G01D 7/00	Indicating measured values
G01D 9/00	Recording measured values
G01D 11/00	Component parts of measuring arrangements not specially adapted for a specific variable (G01D 13/00, G01D 15/00 take precedence)
G01D 13/00	Component parts of indicators for measuring arrangements not specially adapted for a specific variable
G01D 15/00	Component parts of recorders for measuring arrangements not specially adapted for a specific variable
G01D 18/00	Testing or calibrating of apparatus or arrangements provided for in groups G01D 1/00 to G01D 15/00
G01D 21/00	Measuring or testing not otherwise provided for



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Rapporteur Proposal
11 April 2003

R-project: R227
IPC Subclass: G01F

IPC	Maingroup Title
G01F 25/00	Testing or calibrating of apparatus for measuring volume, volume flow, or liquid level, or for metering by volume
G01F 23/00	Indicating or measuring liquid level, or level of fluent solid material, e.g. indicating in terms of volume, indicating by means of an alarm (in wells E21B 47/04; adaptation to, or mounting on, steam boilers F22B 37/78; level regulation G05D; alarm devices G08B)
G01F 1/00	Measuring the volume flow or mass flow of fluid or fluent solid material wherein the fluid passes through the meter in a continuous flow (measuring a proportion of the volume flow G01F 5/00; measuring speed of flow G01P 5/00; indicating presence or absence of flow G01P 13/00; regulating quantity or ratio G05D) [2]
G01F 3/00	Measuring the volume flow of fluids or fluent solid material wherein the fluid passes through the meter in successive and more or less isolated quantities, the meter being driven by the flow (measuring a proportion of the volume flow G01F 5/00)
G01F 5/00	Measuring a proportion of the volume flow
G01F 7/00	Volume-flow measuring devices with two or more measuring ranges; Compound meters
G01F 9/00	Measuring volume flow relative to another variable, e.g. of liquid fuel for an engine
G01F 11/00	Apparatus requiring external operation adapted at each repeated and identical operation to measure and separate a predetermined volume of fluid or fluent solid material from a supply or container, without regard to weight, and to deliver it
G01F 13/00	Apparatus for measuring by volume and delivering fluids or fluent solid materials, not provided for in the preceding groups
G01F 15/00	Details of, or accessories for, apparatus of the preceding groups insofar as such details or appliances are not adapted to particular types of such apparatus
G01F 17/00	Methods or apparatus for determining the capacity of containers or cavities, or the volume of solid bodies (measuring linear dimensions to determine volume G01B)
G01F 19/00	Calibrated capacity measures for fluids or fluent solid material, e.g. measuring cups
G01F 22/00	Methods or apparatus for measuring volume of fluids or fluent solid material, not otherwise provided for [5]

US Proposal

22 May 2003

Project: R227/03**Subclass: G01F**Proposal for rearranged order of main groups:

MEASURING VOLUME, VOLUME FLOW, MASS FLOW, OR LIQUID LEVEL; METERING BY VOLUME (milk flow sensing devices in milking machines or devices A01J 5/01; measuring or recording blood flow A61B 5/02, A61B 8/06; metering media to the human body A61M 5/168; burettes or pipettes B01L 3/02; arrangements of liquid volume meters or volume-flow meters in liquid-delivering apparatus, e.g. for retail sale purposes, B67D 5/16; pumps, fluid motors, details common to measuring or metering devices and pumps or fluid motors F01 to F04; locating, determining distance or velocity using reflection or reradiation of radio waves, analogous arrangements using other waves G01S; systems for ratio control G05D 11/00) [2,5]

Note

Attention is drawn to the Notes following the title of class G01.

IPC	Maingroup Title	Guideline
	Highly Specialized - calibrating, testing	
G01F 25/00	Testing or calibrating of apparatus for measuring volume, volume flow, or liquid level, or for metering by volume	4
	Basic Subject Matter - measuring volume flow; metering by volume	
G01F 9/00	Measuring volume flow relative to another variable, e.g. of liquid fuel for an engine	7
G01F 7/00	Volume-flow measuring devices with two or more measuring ranges; Compound meters	7
G01F 5/00	Measuring a proportion of the volume flow	7
G01F 3/00	Measuring the volume flow of fluids or fluent solid material wherein the fluid passes through the meter in successive and more or less isolated quantities, the meter being driven by the flow (measuring a proportion of the volume flow G01F 5/00)	7
G01F 1/00	Measuring the volume flow or mass flow of fluid or fluent solid material wherein the fluid passes through the meter in a continuous flow (measuring a proportion of the volume flow G01F 5/00; measuring speed of flow G01P 5/00; indicating presence or absence of flow G01P 13/00; regulating quantity or ratio G05D) [2]	7
G01F 11/00	Apparatus requiring external operation adapted at each repeated and identical operation to measure and separate a predetermined volume of fluid or fluent solid material from a supply or container, without regard to weight, and to deliver it	7b
	Residual apparatus (1/00-11/00); Details, accessories (1/00-13/00)	
G01F 13/00	Apparatus for measuring by volume and delivering fluids or fluent solid materials, not provided for in the preceding groups	8
G01F 15/00	Details of, or accessories for, apparatus of the preceding groups insofar as such details or appliances are not adapted to particular types of such apparatus	8
	Basic Subject Matter - measuring volume	

G01F 17/00	Methods or apparatus for determining the capacity of containers or cavities, or the volume of solid bodies (measuring linear dimensions to determine volume G01B)	7
G01F 19/00	Calibrated capacity measures for fluids or fluent solid material, e.g. measuring cups	7
G01F 22/00	Methods or apparatus for measuring volume of fluids or fluent solid material, not otherwise provided for [5]	8
	Basic Subject Matter - measuring, indicating liquid level	
G01F 23/00	Indicating or measuring liquid level, or level of fluent solid material, e.g. indicating in terms of volume, indicating by means of an alarm (in wells E21B 47/04; adaptation to, or mounting on, steam boilers F22B 37/78; level regulation G05D; alarm devices G08B)	7

Comments:

US agrees with EP that 25/00 is first, because it involves calibrating and testing.

Groups 9/00, 7/00, 5/00, 3/00, 1/00, 13/00 and 15/00 are arranged together since they all relate to measuring volume flow. 1/00 – 9/00 are arranged by decreasing complexity/specialization.

13/00 and 15/00, are residual and details/accessories, respectively, for 1/00 – 9/00.

11/00, metering/dispensing, is placed before 13/00 and 15/00, because they are residual and details/accessories for 11/00 also.

17/00, 19/00 and 22/00 are arranged together because they relate to volume measuring.

23/00, level indicators, is placed last.

No new residual main group is needed because the main groups cover all the types of measuring specified in the subclass title.



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R-project: R228
IPC Subclass: G01G

IPC	Maingroup Title
G01G 1/00	Weighing apparatus involving the use of a counterweight or other counterbalancing mass
G01G 3/00	Weighing apparatus characterised by the use of elastically-deformable members, e.g. spring balances
G01G 5/00	Weighing apparatus wherein the balancing is effected by fluid action
G01G 7/00	Weighing apparatus wherein the balancing is effected by magnetic, electromagnetic, or electrostatic action, or by means not provided for in the preceding groups
G01G 11/00	Apparatus for weighing a continuous stream of material during flow; Conveyer-belt weighers
G01G 13/00	Weighing apparatus with automatic feed or discharge for weighing-out batches of material (for weighing a continuous stream G01G 11/00; check-weighing G01G 15/00; for fluids G01G 17/04; apportioning by weight materials to be mixed G01G 19/22; combinatorial weighing G01G 19/387) [5]
G01G 15/00	Arrangements for check-weighing of materials dispensed into removable containers (packaging aspects B65B)
G01G 17/00	Apparatus for, or methods of, weighing material of special form or property (determining weight by measuring volume G01F)
G01G 9/00	Methods of, or apparatus for, the determination of weight not otherwise provided for
G01G 19/00	Weighing apparatus or methods adapted for special purposes not provided for in the preceding groups
G01G 21/00	Details of weighing apparatus
G01G 23/00	Auxiliary devices for weighing apparatus

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R-project: R229
IPC Subclass: G01H

IPC	Maingroup Title
G01H 13/00	Measuring resonant frequency
G01H 15/00	Measuring mechanical or acoustic impedance [3]
G01H 5/00	Measuring propagation velocity of ultrasonic, sonic or infrasonic waves
G01H 7/00	Measuring reverberation time (measuring absorption of vibrations in a material G01N; arrangements for producing a reverberation G10K 15/08)
G01H 9/00	Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by using radiation-sensitive means, e.g. optical means
G01H 11/00	Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by detecting changes in electric or magnetic properties
G01H 1/00	Measuring vibrations in solids by using direct conduction to the detector (G01H 9/00, G01H 11/00 take precedence)
G01H 3/00	Measuring vibrations by using a detector in a fluid (G01H 7/00, G01H 9/00, G01H 11/00 take precedence)
G01H 17/00	Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves, not provided for in the preceding groups [4]

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R-project: R230
IPC Subclass: G01J

IPC	Maingroup Title
G01J 11/00	Measuring the characteristics of individual optical pulses or of optical pulse trains [5]
G01J 4/00	Measuring polarisation of light (investigating or analysing materials by measuring rotation of plane of polarised light G01N 21/21) [2]
G01J 7/00	Measuring velocity of light
G01J 3/00	Spectrometry; Spectrophotometry; Monochromators; Measuring colours [4]
G01J 9/00	Measuring optical phase difference (devices or arrangements for controlling the phase of light beams G02F 1/01); Determining degree of coherence; Measuring optical wavelength (spectrometry G01J 3/00) [3]
G01J 5/00	Radiation pyrometry (photometry in general G01J 1/00; spectrometry in general G01J 3/00)
G01J 1/00	Photometry, e.g. photographic exposure meter (spectrophotometry G01J 3/00; specially adapted for radiation pyrometry G01J 5/00)

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R-project: R231
IPC Subclass: G01K

IPC	Maingroup Title
G01K 15/00	Testing or calibrating of thermometers
G01K 13/00	Adaptations of thermometers for specific purposes
G01K 3/00	Thermometers giving results other than momentary value of temperature (G01K 7/42 takes precedence) [6]
G01K 7/00	Measuring temperature based on the use of electric or magnetic elements directly sensitive to heat (giving results other than momentary value of temperature G01K 3/00; measuring electric or magnetic variables G01R)
G01K 9/00	Measuring temperature based on movements caused by redistribution of weight, e.g. tilting thermometer (not giving momentary value of temperature G01K 3/00)
G01K 5/00	Measuring temperature based on the expansion or contraction of a material (G01K 9/00 takes precedence; giving other than momentary value of temperature G01K 3/00; of vapour arising from a liquid G01K 11/02; thermally-actuated switches H01H)
G01K 11/00	Measuring temperature based on physical or chemical changes not covered by group G01K 3/00, G01K 5/00, G01K 7/00, or G01K 9/00
G01K 1/00	Details of thermometers not specially adapted for particular types of thermometer (circuits for reducing thermal inertia G01K 7/42) [6]
G01K 19/00	Testing or calibrating calorimeters
G01K 17/00	Measuring quantity of heat (measuring temperature by calorimetry G01K 3/00 to G01K 11/00; specially adapted for measuring thermal properties of materials, e.g. specific heat, heat of combustion, G01N)

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R-project: R232
IPC Subclass: G01L

IPC	Maingroup Title
G01L 23/00	Devices or apparatus for measuring or indicating or recording rapid changes, such as oscillations, in the pressure of steam, gas, or liquid; Indicators for determining work or energy of steam, internal-combustion, or other fluid-pressure engines from the condition of the working fluid
G01L 27/00	Testing or calibrating of apparatus for measuring fluid pressure [2]
G01L 21/00	Vacuum gauges
G01L 17/00	Devices or apparatus for measuring tyre pressure or the pressure in other inflated bodies (specially adapted for mounting on vehicles or tyres B60C 23/00; connection of valves to inflatable elastic bodies B60C 29/00)
G01L 13/00	Devices or apparatus for measuring differences of two or more pressure values
G01L 15/00	Devices or apparatus for measuring two or more pressure values simultaneously
G01L 9/00	Measuring steady or quasi-steady pressure of a fluid or a fluent solid material by electric or magnetic pressure-sensitive elements; Transmitting or indicating the displacement of mechanical pressure-sensitive elements, used to measure the steady or quasi-steady pressure of a fluid or fluent solid material, by electric or magnetic means (measuring differences of two or more pressure values G01L 13/00; measuring two or more pressure values simultaneously G01L 15/00; vacuum gauges G01L 21/00)
G01L 7/00	Measuring the steady or quasi-steady pressure of a fluid or a fluent solid material by mechanical or fluid pressure-sensitive elements (transmitting or indicating the displacement of mechanical pressure-sensitive elements by electric or magnetic means G01L 9/00; measuring differences of two or more pressure values G01L 13/00; measuring two or more pressure values simultaneously G01L 15/00; measuring tyre pressure or the pressure of other inflated bodies G01L 17/00; vacuum gauges G01L 21/00; hollow bodies deformable or displaceable under internal pressure per se G12B 1/04)
G01L 11/00	Measuring steady or quasi-steady pressure of a fluid or a fluent solid material by means not provided for in group G01L 7/00 or G01L 9/00
G01L 19/00	Details of, or accessories for, apparatus for measuring steady or quasi-steady pressure of a fluent medium insofar as such details or accessories are not special to particular types of pressure gauges
G01L 25/00	Testing or calibrating of apparatus for measuring force, torque, work, mechanical power, or mechanical efficiency [2]
G01L 5/00	Apparatus for, or methods of, measuring force, e.g. due to impact, work, mechanical power, or torque, adapted for special purposes (measuring pressure of a fluent medium G01L 7/00 to G01L 21/00; measuring rapid changes of pressure in steam, gas, or liquid G01L 23/00)
G01L 1/00	Measuring force or stress, in general (measuring force due to impact G01L 5/00; measuring fluid pressure G01L 7/00 to G01L 27/00; measuring deformation of bodies as a result of stress by using gauges G01B) [4]
G01L 3/00	Measuring torque, work, mechanical power, or mechanical efficiency, in general

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RU rapporteur proposal	
Project/subject : R 233/03 Rearrangement of main groups	Date: 04.03.2003
Subclass : G01M	

IPC	Maingroup Title
G01M 11/00	Testing of optical apparatus; Testing structures by optical methods not otherwise provided for
G01M 1/00	Testing static or dynamic balance of machines or structures (balancing rotary bowls of centrifuges B04B 9/14; apparatus characterised by the means for holding wheels or parts thereof B60B 30/00; determining stability factors of ships B63B; stabilising of aircraft B64C 17/00; control systems for balancing automatically in operation G05; balancing rotors of dynamo-electric machines H02K 15/16)
G01M 3/00	Investigating fluid tightness of structures (investigating permeability of porous material, investigating the presence of flaws in general G01N)
G01M 9/00	Aerodynamic testing; Arrangements in or on wind tunnels (building aspects section E; investigating properties of materials in general G01N)
G01M 10/00	Hydrodynamic testing; Arrangements in or on ship-testing tanks or water tunnels (building aspects section E; investigating properties of materials in general G01N)
G01M 5/00	Investigating the elasticity of structures, e.g. deflection of bridges, aircraft wings (G01M 9/00 takes precedence; strain gauges G01B)
G01M 7/00	Vibration-testing of structures; Shock-testing of structures (G01M 9/00 takes precedence)
G01M 13/00	Testing of machine parts (investigating the cutting power of tools G01N, e.g. G01N 3/58)
G01M 15/00	Testing of engines (testing fuel-injection apparatus F02M 65/00; testing of internal-combustion engine ignition, e.g. timing, F02P 17/00; detecting or indicating knocks in internal-combustion engines G01L 23/22) [4]
G01M 17/00	Testing of vehicles (G01M 15/00 takes precedence; testing fluid tightness G01M 3/00; testing elastic properties of bodies or chassis, e.g. torsion-testing, G01M 5/00; testing alignment of vehicle head-lighting devices G01M 11/06)
G01M 19/00	Testing of structures or of apparatus, not provided for in the preceding groups



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R-project: R234
IPC Subclass: G01N

IPC	Maingroup Title
G01N 31/00	Investigating or analysing non-biological materials by the use of the chemical methods specified in the subgroups (testing the effectiveness or completeness of sterilisation procedures without using enzymes or microorganisms A61L 2/28; measuring or testing processes involving enzymes or micro-organisms C12Q 1/00); Apparatus specially adapted for such methods [4]
G01N 3/00	Investigating strength properties of solid materials by application of mechanical stress (strain gauges G01B; measuring stress in general G01L 1/00)
G01N 7/00	Analysing materials by measuring the pressure or volume of a gas or vapour
G01N 9/00	Investigating density or specific gravity of materials; Analysing materials by determining density or specific gravity (weighing apparatus G01G)
G01N 5/00	Analysing materials by weighing, e.g. weighing small particles separated from a gas or liquid (G01N 9/00 takes precedence)
G01N 11/00	Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties
G01N 13/00	Investigating surface or boundary effects, e.g. wetting power; Investigating diffusion effects; Analysing materials by determining surface, boundary, or diffusion effects; Investigating or analysing surface structures in atomic ranges [1,7]
G01N 15/00	Investigating characteristics of particles; Investigating permeability, pore-volume or surface-area of porous materials (identification of micro-organisms C12Q) [4]
G01N 17/00	Investigating resistance of materials to the weather, to corrosion, or to light
G01N 19/00	Investigating materials by mechanical methods (G01N 3/00 to G01N 17/00 take precedence)
G01N 21/00	Investigating or analysing materials by the use of optical means, i.e. using infra-red, visible, or ultra-violet light (G01N 3/00 to G01N 19/00 take precedence; measuring stress in general G01L 1/00; optical elements of measuring instruments G02B; image analysis by data processing G06T)
G01N 24/00	Investigating or analysing materials by the use of nuclear magnetic resonance, electron paramagnetic resonance or other spin effects (arrangements or instruments for measuring magnetic resonance effects G01R 33/20) [3,4,5]
G01N 22/00	Investigating or analysing materials by the use of microwaves (G01N 3/00 to G01N 17/00, G01N 24/00 take precedence) [3]
G01N 23/00	Investigating or analysing materials by the use of wave or particle radiation not covered by group G01N 21/00 or G01N 22/00, e.g. X-rays, neutrons (G01N 3/00 to G01N 17/00 take precedence; measuring stress in general G01L 1/00; measurement of nuclear or X-radiation G01T; introducing objects or materials into nuclear reactors, or removing them therefrom, or storing them after treatment therein G21C; construction or operation of X-ray apparatus or circuits therefor H05G)

G01N 25/00	Investigating or analysing materials by the use of thermal means (G01N 3/00 to G01N 23/00 take precedence)
G01N 27/00	Investigating or analysing materials by the use of electric, electro-chemical, or magnetic means (G01N 3/00 to G01N 25/00 take precedence; measurement or testing of electric or magnetic variables or of electric or magnetic properties of materials G01R)
G01N 29/00	Investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves; Visualisation of the interior of objects by transmitting ultrasonic or sonic waves through the object (G01N 3/00 to G01N 27/00 take precedence; measuring or indicating of ultrasonic, sonic or infrasonic waves in general G01H; systems using the reflection or reradiation of acoustic waves, e.g. acoustic imaging, G01S 15/00; obtaining records by techniques analogous to photography using ultrasonic, sonic or infrasonic waves G03B 42/06) [4]
G01N 30/00	Investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography (G01N 3/00 to G01N 29/00 take precedence; separation for the preparation or production of components B01D 15/00, B01D 53/02, B01D 53/14) [4]
G01N 33/00	Investigating or analysing materials by specific methods not covered by the preceding groups
G01N 35/00	Automatic analysis not limited to methods or materials provided for in a single one of the preceding groups; Handling materials therefor [3]
G01N 1/00	Sampling; Preparing specimens for investigation (handling materials for automatic analysis G01N 35/00)
G01N 37/00	Details not covered by any preceding group [3]

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US Rapporteur Proposal

20 March 2003

Project: R235/03**Subclass: G01P**Proposal for rearranged order of main groups:

G01P MEASURING LINEAR OR ANGULAR SPEED, ACCELERATION, DECELERATION, OR SHOCK; INDICATING PRESENCE, ABSENCE, OR DIRECTION, OF MOVEMENT (measuring or recording blood flow A61B 5/02, A61B 8/06; monitoring speed or deceleration of electrically-propelled vehicles B60L 3/00; vehicle lighting systems adapted to indicate speed B60Q 1/54; determining position or course in navigation, measuring ground distance in geodesy or surveying G01C; combined measuring devices for measuring two or more variables of movement G01C 23/00; measuring velocity of sound G01H; measuring velocity of light G01J 7/00; determining direction or velocity of solid objects by reflection or reradiation of radio or other waves and based on propagation effects, e.g. Doppler effect, propagation time, direction of propagation, G01S; measuring speed of nuclear radiation G01T; measuring acceleration of gravity G01V)

IPC	Maingroup Title	Guideline
G01P 21/00	Testing or calibrating of apparatus or devices covered by groups G01P 1/00 to G01P 15/00	4
G01P 7/00	Measuring speed by integrating acceleration (measuring travelled distance by double integration of acceleration G01C 21/16)	7b
G01P 15/00	Measuring acceleration; Measuring deceleration; Measuring shock, i.e. sudden change of acceleration	7a
G01P 11/00	Measuring average value of speed (by determining time taken to traverse a fixed distance G01P 3/64, G01P 5/18)	7b
G01P 5/00	Measuring speed of fluids, e.g. of air stream; Measuring speed of bodies relative to fluids, e.g. of ship, of aircraft (application of speed-measuring devices for measuring volume of fluids G01F)	7c
G01P 9/00	Measuring speed by using gyroscopic effect, e.g. using gas, using electron beam (gyroscopes or turn-sensitive devices per se G01C 19/00)	7c
G01P 3/00	Measuring linear or angular speed; Measuring differences of linear or angular speeds (G01P 5/00 to G01P 11/00 take precedence; counting mechanisms G06M)	7c
G01P 13/00	Indicating or recording presence, absence, or direction, of movement (counting moving objects G06M 7/00; electric switches H01H)	1b, 7b
G01P 1/00	Details of instruments	9

Comments:

21/00 is instrument calibration, which is highly specialized

7/00 is a calculation of speed, which requires that acceleration be measured twice or more

15/00 is acceleration measurement, which is time rate of change of speed, more complex than speed alone

11/00 is a calculation of speed, which requires that speed be measured twice or more

5/00 is speed measurement, specialized to fluids, and also includes speed of bodies relative to fluid

9/00 is speed measurement using gyroscopic effect

3/00 is basic speed measurement (5/00 to 11/00 have precedence)

13/00 indicates or records movement (presence, absence or direction)

1/00 details of instruments

No new residual maingroup is needed because 15/00, 3/00 and 13/00 cover the subclass title.



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R-project: R236
IPC Subclass: G01R

IPC	Main group Title
G01R 35/00	Testing or calibrating of apparatus covered by the preceding groups [2]
G01R 31/00	Arrangements for testing electric properties; Arrangements for locating electric faults; Arrangements for electrical testing characterised by what is being tested not provided for elsewhere (measuring leads, measuring probes G01R 1/06; indicating electrical condition of switchgear or protective devices H01H 71/04, H01H 73/12, H02B 11/10, H02H 3/04; testing or measuring semiconductors or solid state devices during manufacture H01L 21/66; testing line transmission systems H04B 3/46)
G01R 33/00	Arrangements or instruments for measuring magnetic variables
G01R 9/00	Instruments employing mechanical resonance
G01R 5/00	Instruments for converting a single current or a single voltage into a mechanical displacement (vibration galvanometers G01R 9/02)
G01R 7/00	Instruments capable of converting two or more currents or voltages into a single mechanical displacement (G01R 9/00 takes precedence)
G01R 11/00	Electromechanical arrangements for measuring time integral of electric power or current, e.g. of consumption (other arrangements therefor G01R 22/00; monitoring electric consumption of electrically-propelled vehicles B60L 3/00)
G01R 13/00	Arrangements for displaying electric variables or waveforms (display by mechanical displacement only G01R 5/00, G01R 7/00, G01R 9/00; recording frequency spectrum G01R 23/18) [4]
G01R 1/00	Details of instruments or arrangements of the types included in groups G01R 5/00 to G01R 13/00 (constructional details particular to arrangements for measuring the electric consumption G01R 11/02) [3]
G01R 3/00	Apparatus or processes specially adapted for the manufacture of measuring instruments
G01R 17/00	Measuring arrangements involving comparison with a reference value, e.g. bridge
G01R 19/00	Arrangements for measuring currents or voltages or for indicating presence or sign thereof (G01R 5/00 takes precedence; for measuring bioelectric currents or voltages A61B 5/04) [4]
G01R 21/00	Arrangements for measuring electric power or power factor (G01R 7/12 takes precedence) [4]
G01R 22/00	Arrangements for measuring time integral of electric power or current, e.g. by electronic methods (electromechanical arrangements G01R 11/00; monitoring electric consumption of electrically-propelled vehicles B60L 3/00) [4]
G01R 23/00	Arrangements for measuring frequencies; Arrangements for analysing frequency spectra (frequency discriminators H03D)
G01R 25/00	Arrangements for measuring phase angle between a voltage and a current or between voltages or currents (measuring power factor G01R 21/00; measuring position of individual pulses in a pulse train G01R 29/02; phase discriminators H03D) [2]
G01R 27/00	Arrangements for measuring resistance, reactance, impedance, or electric characteristics derived therefrom

G01R 29/00	Arrangements for measuring or indicating electric quantities not covered by groups G01R 19/00 to G01R 27/00
G01R 15/00	Details of measuring arrangements of the types provided for in groups G01R 17/00 to G01R 29/00 and G01R 33/00 to G01R 35/00 (details of instruments G01R 1/00; measuring leads, measuring probes G01R 1/06; overload protection arrangements G01R 1/36; circuits for correcting the transfer function G01D 3/02)

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DE Rapporteur Proposal

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Project: R237/03 Subclass: G01S

IPC	Maingroup Title
G01S 15/00	Systems using the reflection or reradiation of acoustic waves, e.g. sonar systems [3]
G01S 17/00	Systems using the reflection or reradiation of electromagnetic waves other than radio waves [3]
G01S 13/00	Systems using the reflection or reradiation of radio waves, e.g. radar systems; Analogous systems using reflection or reradiation of waves whose nature or wavelength is irrelevant or unspecified (using acoustic waves G01S 15/00; using electromagnetic waves other than radio waves G01S 17/00) [3]
G01S 11/00	Systems for determining distance or velocity not using reflection or reradiation (direction-finders G01S 3/00; position-fixing by co-ordinating two or more distance determinations G01S 5/00) [2]
G01S 1/00	Beacons or beacon systems transmitting signals having a characteristic or characteristics capable of being detected by non-directional receivers and defining directions, positions, or position lines fixed relatively to the beacon transmitters; Receivers co-operating therewith (position-fixing by co-ordinating a plurality of determinations of direction or position lines G01S 5/00) [2]
G01S 3/00	Direction-finders for determining the direction from which infrasonic, sonic, ultrasonic, or electromagnetic waves, or particle emission, not having a directional significance, are being received (position-fixing by co-ordinating a plurality of determinations of direction or position lines G01S 5/00; for geophysical measurement G01C; telescope mountings G02B)
G01S 5/00	Position-fixing by co-ordinating two or more direction or position-line determinations; Position-fixing by co-ordinating two or more distance determinations [2]
G01S 7/00	Details of systems according to groups G01S 13/00, G01S 15/00, G01S 17/00

DE Rapporteur Proposal

20 March 2003

Project: R239/03 Subclass: G01V

IPC	Maingroup Title
G01V 15/00	Tags attached to, or associated with, an object, in order to enable detection of the object (record carriers for use with machines G06K 19/00; signs, labels G09F) [6]
G01V 11/00	Prospecting or detecting by methods combining techniques covered by two or more of main groups G01V 1/00 to G01V 9/00
G01V 1/00	Seismology; Seismic or acoustic prospecting or detecting
G01V 3/00	Electric or magnetic prospecting or detecting; (by optical means G01V 8/00); Measuring magnetic field characteristics of the earth, e.g. declination, deviation (for navigation, for surveying G01C) [2,4]
G01V 5/00	Prospecting or detecting by the use of nuclear radiation, e.g. of natural or induced radioactivity (determining the properties of materials G01N; measuring nuclear radiation G01T)
G01V 7/00	Measuring gravitational fields or waves; Gravimetric prospecting or detecting
G01V 8/00	Prospecting or detecting by optical means (measurement of characteristics of light G01J; optical scanning systems G02B 26/10; discharge tubes detecting the presence of radiation H01J 40/00, H01J 47/00; semiconductor devices sensitive to light H01L 31/00) [6]
G01V 13/00	Manufacturing, calibrating, cleaning, or repairing instruments or devices covered by the preceding groups
G01V 9/00	Prospecting or detecting by methods not provided for in groups G01V 1/00 to G01V 8/00 [6]



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R-project: R240
IPC Subclass: G01W

IPC	Maingroup Title
G01W 1/00	Meteorology

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R-project: R242
IPC Subclass: G02B

IPC	Maingroup Title
G02B 26/00	Optical devices or arrangements using movable or deformable optical elements for controlling the intensity, colour, phase, polarisation or direction of light, e.g. switching, gating, modulating (mechanically operable parts of lighting devices for the control of light order F21V; specially adapted for measuring characteristics of light G01J; devices or arrangements, the optical operation of which is modified by changing the optical properties of the medium of the devices or arrangements G02F 1/00; control of light in general G05D 25/00; control of light sources H01S 3/10, H05B 37/00 to H05B 43/00) [4]
G02B 1/00	Optical elements characterised by the material of which they are made (compositions of optical glasses C03C 3/00); Optical coatings for optical elements
G02B 6/00	Light guides; Structural details of arrangements comprising light guides and other optical elements, e.g. couplings [4,6]
G02B 3/00	Simple or compound lenses (artificial eyes A61F 2/14; spectacle lenses or contact lenses for the eyes G02C; watch or clock glasses G04B 39/00)
G02B 5/00	Optical elements other than lenses (light guides G02B 6/00; optical logic elements G02F 3/00) [4]
G02B 7/00	Mountings, adjusting means, or light-tight connections, for optical elements
G02B 15/00	Optical objectives with means for varying the magnification (anamorphic objectives G02B 13/08)
G02B 13/00	Optical objectives specially designed for the purposes specified below (with variable magnification G02B 15/00)
G02B 9/00	Optical objectives characterised both by the number of the components and their arrangements according to their sign, i.e. + or – (G02B 13/00, G02B 15/00 take precedence)
G02B 11/00	Optical objectives characterised by the total number of simple and compound lenses forming the objective and their arrangement (G02B 9/00 takes precedence; having only one simple lens G02B 3/00)
G02B 19/00	Condensers (for microscopes G02B 21/08)
G02B 17/00	Systems with reflecting surfaces, with or without refracting elements (microscopes G02B 21/00; telescopes, periscopes G02B 23/00; beam shaping not otherwise provided for G02B 27/09; for beam splitting or combining G02B 27/10; for optical projection G02B 27/18) [6]
G02B 25/00	Eyepieces; Magnifying glasses (simple lenses G02B 3/00)
G02B 21/00	Microscopes (eyepieces G02B 25/00; polarising systems G02B 27/28; measuring microscopes G01B 9/04; microtomes G01N 1/06; investigating or analysing surface structures in atomic ranges using scanning-probe techniques, e.g. techniques employing scanning tunnelling or scanning near-field optical microscopes G01N 13/10; details of scanning-probe apparatus, in general G12B 21/00) [1,7]

G02B 23/00	Telescopes, e.g. binoculars (measuring telescopes G01B 9/06); Periscopes; Instruments for viewing the inside of hollow bodies (diagnostic instruments A61B); Viewfinders (objectives G02B 9/00, G02B 11/00, G02B 15/00, G02B 17/00; eyepieces G02B 25/00); Optical aiming or sighting devices (non-optical aspects of weapon aiming or sighting devices F41G) [4]
G02B 27/00	Other optical systems; Other optical apparatus (means for bringing-about special optical effects in shop-windows, showcases A47F, e.g. A47F 11/06; optical toys A63H 33/22; designs or pictures characterised by special light effects B44F 1/00)

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US Rapporteur Proposal

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Project: R242/03**Subclass: G02C**Proposal for rearranged order of main groups:

G02C **SPECTACLES; SUNGLASSES OR GOGGLES INsofar AS THEY HAVE THE SAME FEATURES AS SPECTACLES** (trial frames for testing the eyes A61B 3/04; goggles or eyeshields not having the same features as spectacles A61F 9/00)

IPC	Maingroup Title	Guideline
G02C 3/00	Special supporting arrangement for lens assemblies or monocles (lenses therefor G02C 7/00)	4
G02C 11/00	Non-optical adjuncts; Attachment thereof (G02C 7/16 takes precedence; cases A45C 11/04)	5a
G02C 1/00	Assemblies of lenses with bridges or browbars	6a
G02C 7/00	Optical parts (characterised by the material G02B 1/00)	7b
G02C 9/00	Attaching auxiliary optical parts (auxiliary optical parts G02C 7/08 to G02C 7/16)	7b
G02C 5/00	Constructions of non-optical parts	8a
G02C 13/00	Assembling (producing spectacle frames from plastics or from substances in a plastic state B29D 12/02); Repairing; Cleaning (disinfection or sterilisation of contact lenses A61L 12/00)	2b

Comments:

3/00 is highly specialized, since the spectacles are supported in unusual ways, and is placed first to ensure the art is collected together.

11/00 is the combination of basic subclass subject matter with subject matter which by itself would be proper for another subclass.

1/00 is the basic subject matter or the subclass – spectacle assemblies.

7/00 includes optical parts, and is placed before non-optical parts.

9/00 is placed after 7/00 because it involves attaching the auxiliary optical parts covered by 7/08-7/16, and is therefore closely related to 7/00.

5/00 involves non-optical parts

13/00 is placed last because it involves assembling or maintaining the basic subject matter of the subclass.

No new residual maingroup is needed because “assemblies”, “optical parts” and “non-optical parts” appear to cover all possibilities.



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R-project: R243
IPC Subclass: G02F

IPC	Maingroup Title
G02F 7/00	Optical analogue/digital converters
G02F 3/00	Optical logic elements (electric-pulse generators using opto-electronic devices as active elements H03K 3/42; logic circuits using opto-electronic devices H03K 19/14); Optical bistable devices [5]
G02F 2/00	Demodulating light; Transferring the modulation of modulated light; Frequency-changing of light (G02F 1/35 takes precedence; photoelectric detecting or measuring devices G01J, H01J 40/00, H01L 31/00; demodulating laser arrangements H01S 3/10; demodulation or transference of modulation of modulated electromagnetic waves in general H03D 9/00) [2]
G02F 1/00	Devices or arrangements for the control of the intensity, colour, phase, polarisation or direction of light arriving from an independent light source, e.g. switching, gating or modulating; Non-linear optics (thermometers using change of colour or translucency G01K 11/12, using changes in fluorescence G01K 11/32; light guide devices G02B 6/00; optical devices or arrangements using movable or deformable elements for controlling light independent of the light source G02B 26/00; control of light in general G05D 25/00; visible signalling systems G08B 5/00; indicating arrangements for variable information by selection or combination of individual elements G09F 9/00; control arrangements or circuits for visual indicators other than cathode-ray tubes G09G 3/00; control of light sources H01S 3/10, H05B 33/08, H05B 35/00 to H05B 43/00) [2,4]

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ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
1	G04B03700	G04B 37/00	Cases
2	G04B04700	G04B 47/00	Time-pieces combined with other articles which do not interfere with the running or the time-keeping of the time-piece (G04B 37/12 takes precedence; writing or drawing implements with devices for indicating time B43K 29/087; combined with cameras, projectors, or photographic printing apparatus G03B 29/00)
3	G04B00700	G04B 7/00	Combined normal and automatic winding-up
4	G04B02500	G04B 25/00	Indicating the time by other means or by combined means (electric or electromechanical indicating G04C)
5	G04B04500	G04B 45/00	Time-pieces of which the indicating means or cases provoke special effects, e.g. aesthetic effect (ornamental shaping of dials G04B 19/10)
6	G04B04900	G04B 49/00	Time-pieces using the position of the sun, moon, or stars
7	G04B03500	G04B 35/00	Adjusting the gear train, e.g. the backlash of the arbors, depth of meshing of the gears
8	G04B03900	G04B 39/00	Watch crystals; Fastening or sealing crystals; Clock glasses
9	G04B04100	G04B 41/00	Locking or holding devices for pendulums, chimes, or the like, for use during transport
10	G04B04300	G04B 43/00	Protecting clockworks by shields or other means against external influences, e.g. magnetic fields
11	G04B01500	G04B 15/00	Escapements (electric or magnetic means for converting oscillatory to rotary motion in electromechanical time-pieces G04C 5/00)
12	G04B01700	G04B 17/00	Mechanisms for stabilising frequency [3]
13	G04B02700	G04B 27/00	Mechanical devices for setting the time-indicating means
14	G04B03300	G04B 33/00	Calibers
15	G04B01800	G04B 18/00	Mechanisms for setting frequency [3]
16	G04B01900	G04B 19/00	Indicating by visual means (by electric lamps G04C 17/02; display arrangements in general G09)
17	G04B02300	G04B 23/00	Arrangements producing acoustic signals at preselected times (metronomes G04F 5/02; sound-producing apparatus per se G10)
18	G04B02100	G04B 21/00	Indicating by acoustic means (at preselected times G04B 23/00; by electro-acoustic means G04C 21/04; sound-producing apparatus per se G10)

19	G04B01100	G04B 11/00	Click devices; Stop clicks; Clutches
20	G04B01300	G04B 13/00	Gearwork
21	G04B02900	G04B 29/00	Frameworks
22	G04B03100	G04B 31/00	Bearings; Point suspensions or counter-point suspensions; Pivot bearings; Single parts therefor (bearings in general F16C)
23	G04B00100	G04B 1/00	Driving mechanisms
24	G04B00500	G04B 5/00	Automatic winding-up
25	G04B00300	G04B 3/00	Normal winding of clockworks by hand or mechanically; Winding-up several mainsprings or driving weights simultaneously
26	G04B00900	G04B 9/00	Supervision of the state of winding, e.g. indicating the amount of winding

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
1	G04C01100	G04C 11/00	Synchronisation of independently-driven clocks
2	G04C01500	G04C 15/00	Clocks driven by synchronous motors
3	G04C00300	G04C 3/00	Electromechanical clocks or watches independent of other time-pieces and in which the movement is maintained by electric means
4	G04C02300	G04C 23/00	Clocks with attached or built-in means operating any device at preselected times or after preselected time-intervals (if restricted to producing acoustic time signals by electrical means G04C 21/00; mechanical alarm clocks G04B 23/02; apparatus which can be set and started to measure-off predetermined intervals G04F 3/06; time or time-programme switches which automatically terminate their operation after the programme is completed H01H 43/00)
5	G04C00500	G04C 5/00	Electric or magnetic means for converting oscillatory to rotary motion in time-pieces, i.e. electric or magnetic escapements (regulators G04C 3/00) [3]
6	G04C01300	G04C 13/00	Driving mechanisms for clocks by master clocks
7	G04C00900	G04C 9/00	Electrically-actuated devices for setting the time-indicating means (of slave clocks G04C 13/03; mechanical setting devices G04B 27/00) [3]
8	G04C01900	G04C 19/00	Producing optical time signals at prefixed times by electric means
9	G04C00100	G04C 1/00	Winding mechanical clocks electrically (winding mechanically G04B 3/00)
10	G04C01000	G04C 10/00	Arrangements of electric power supplies in time-pieces [3]
11	G04C01700	G04C 17/00	Indicating the time optically by electric means (G04C 19/00 takes precedence; liquid crystal materials C09K 19/00; by mechanical means G04B 19/00, G04B 19/20) [3]
12	G04C02100	G04C 21/00	Producing acoustic time signals by electrical means

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
1	G04D00900	G04D 9/00	Demagnetising devices (demagnetising in general H01F 13/00)
2	G04D00500	G04D 5/00	Oiling devices; Special lubricant containers for watchmakers
3	G04D00100	G04D 1/00	Gripping, holding, or supporting devices
4	G04D00300	G04D 3/00	Watchmakers' or watch-repairers' machines or tools for working materials
5	G04D00700	G04D 7/00	Measuring, counting, calibrating, testing, or regulating apparatus

US Proposal

21 May 2003

Project: R246/03**Subclass: G04D**Proposal for rearranged order of main groups:

APPARATUS OR TOOLS SPECIALLY DESIGNED FOR MAKING OR MAINTAINING CLOCKS OR WATCHES (machine tools in general B23, B24; hand tools in general B25)

IPC	Maingroup Title	Guideline
	Highly Specialized - calibrating; demagnetising; oiling	
G04D 7/00	Measuring, counting, calibrating, testing, or regulating apparatus	4
G04D 9/00	Demagnetising devices (demagnetising in general H01F 13/00)	4
G04D 5/00	Oiling devices; Special lubricant containers for watchmakers	4
	Basic Subject Matter	
G04D 3/00	Watchmakers' or watch-repairers' machines or tools for working materials	7
G04D 1/00	Gripping, holding, or supporting devices	7

Comments:

7/00 includes calibrating, testing and regulating, which is placed first because it's subject matter is highly specialized and complex.

9/00 and 5/00 are highly specialized, specific and limited in scope. We agree with CH that 9/00 comes before 5/00.

3/00 and 1/00, as better understood by the subgroups in both the IPC and ECLA, cover the basic subject matter of the subclass. The entries under 3/00 are more complex since they work materials (e.g. lathes), while those under 1/00 seem more directed at assembly (e.g. hand tools). No new residual main group is needed because 3/00 and 1/00, considering their subgroups, appear to cover the subclass title.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
1	G04F00500	G04F 5/00	Apparatus for producing preselected time intervals for use as timing standards (generating clock signals for electric digital computers G06F 1/04; automatic frequency control or stabilisation of generators in general H03L)
2	G04F00100	G04F 1/00	Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals without driving mechanisms, e.g. egg timer (time or time-programme switches which automatically terminate their operation after the programme is completed H01H 43/00)
3	G04F01000	G04F 10/00	Apparatus for measuring unknown time intervals by electric means [2]
4	G04F00300	G04F 3/00	Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals with driving mechanisms, e.g. dosimeter with clockwork (time or time-programme switches which automatically terminate their operation after the programme is completed H01H 43/00)
5	G04F00700	G04F 7/00	Apparatus for measuring unknown time intervals by non-electric means (G04F 13/06 takes precedence) [2]
6	G04F00800	G04F 8/00	Apparatus for measuring unknown time intervals by electromechanical means [2]
7	G04F01300	G04F 13/00	Apparatus for measuring unknown time intervals by means not provided for in groups G04F 5/00 to G04F 10/00 [2]

US Proposal

7 May 2003

Project: R247/03**Subclass: G04F**Proposal for rearranged order of main groups:

TIME-INTERVAL MEASURING (measuring pulse characteristics G01R, e.g. G01R 29/02; in radar or like systems G01S; masers H01S 1/00; generation of oscillations H03B; generation or counting of pulses, frequency dividing H03K; analogue/digital conversion in general H03M 1/00) [2]

IPC	Maingroup Title	Guideline
	Highly Specialized - timing standards	
G04F 5/00	Apparatus for producing preselected time intervals for use as timing standards (generating clock signals for electric digital computers G06F 1/04; automatic frequency control or stabilisation of generators in general H03L)	4
	Basic Subject Matter - predetermined or adjustably-fixed time intervals	
G04F 3/00	Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals with driving mechanisms, e.g. dosimeter with clockwork (time or time-programme switches which automatically terminate their operation after the programme is completed H01H 43/00)	4, 7
G04F 1/00	Apparatus which can be set and started to measure-off predetermined or adjustably-fixed time intervals without driving mechanisms, e.g. egg timer (time or time-programme switches which automatically terminate their operation after the programme is completed H01H 43/00)	4, 7
	Basic Subject Matter - measuring unknown time interval	
G04F 8/00	Apparatus for measuring unknown time intervals by electromechanical means [2]	7
G04F 10/00	Apparatus for measuring unknown time intervals by electric means [2]	7
G04F 7/00	Apparatus for measuring unknown time intervals by non-electric means (G04F 13/06 takes precedence) [2]	7
	Residual for measuring unknown time intervals	
G04F 13/00	Apparatus for measuring unknown time intervals by means not provided for in groups G04F 5/00 to G04F 10/00 [2]	9

Comments:

5/00 is highly specialized, and US agrees with CH that it belongs at the top.

1/00 and 3/00 cover devices which measure-off predetermined or adjustably-fixed time intervals, and are grouped together, with 3/00 first because it includes driving mechanisms.

7/00-10/00 are grouped together because they cover measurement of unknown time intervals. 8/00 is specific to electromechanical means and is placed above the others. 10/00 (electric means) and 7/00 (non-electric means) seem at first to cover everything else. However, they do not, as shown by the subgroups of 13/00.

13/00 also needs to be adjacent 7/00 to alert the user that “non-electric” does not include everything one might think it does. There is a precedence note to 13/06, and the titles of 13/02 and 13/04 specify other means not covered by 7/00, such as optical means.

No new residual main group is needed because 13/00 is residual for basic subject matter of unknown time intervals, and 1/00 and 3/00 cover all the apparatus specialized to predetermined or adjustably-fixed time intervals.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
1	G04G00900	G04G 9/00	Visual time or date indication means [3]
2	G04G00300	G04G 3/00	Producing timing pulses (driving circuits for stepping motors G04C 3/14; producing preselected time intervals for use as timing standards G04F 5/00; pulse technique in general H03K; control, synchronisation, or stabilisation of generators in general H03L) [3]
3	G04G00500	G04G 5/00	Setting, i.e. correcting or changing, the time-indication [3]
4	G04G00700	G04G 7/00	Synchronisation [3]
5	G04G01100	G04G 11/00	Producing optical signals at preselected times [3]
6	G04G01300	G04G 13/00	Producing acoustic time signals [3]
7	G04G01500	G04G 15/00	Time-pieces comprising means to be operated at preselected times or after preselected time intervals (G04G 11/00, G04G 13/00 take precedence; pulse delay circuits H03K 5/13; electronic time-delay switches H03K 17/28; electronic time-programme switches which automatically terminate their operation after the programme is completed H03K 17/296; time programming for television signal recording H04N 5/761) [3]
8	G04G01900	G04G 19/00	Electric power supply circuits specially adapted for use in electronic time-pieces [7]
9	G04G01700	G04G 17/00	Structural details; Housings [7]
10	G04G00100	G04G 1/00	Subject matter not provided for in groups G04G 3/00 to G04G 19/00 [3,7]

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06C02900	G06C 29/00	Combinations of computing machines with other machines, e.g. with typewriter, with money-changing apparatus
	G06C02700	G06C 27/00	Computing machines characterised by the structural interrelation of their functional units, e.g. invoicing machines
	G06C00700	G06C 7/00	Input mechanisms (pin carriage G06C 13/02)
	G06C01100	G06C 11/00	Output mechanisms (marking record carriers in general, visual presentation in general of results of the mathematical operations G06K)
	G06C01500	G06C 15/00	Computing mechanisms; Actuating devices therefor (mechanisms for operating automatically upon more than two numbers otherwise than by repeated addition or subtraction G06C 21/00)
	G06C00900	G06C 9/00	Transfer mechanisms, e.g. for transmitting figures from the input mechanism into the computing mechanism (G06C 7/10, G06C 11/00, G06C 15/00 take precedence)
	G06C01300	G06C 13/00	Storage mechanisms (mechanical counters with input only to the lowest order G06M; information storage in general G11)
	G06C01700	G06C 17/00	Mechanisms for converting from one notational system to another, i.e. radix conversion
	G06C01900	G06C 19/00	Decimal-point mechanisms; Analogous mechanisms for non-decimal notations
	G06C02100	G06C 21/00	Programming-mechanisms for determining the steps to be performed by the computing machine, e.g. when a key or certain keys are depressed (mechanisms merely for producing multiplication by repeated addition G06C 15/08)
	G06C02300	G06C 23/00	Driving mechanisms for functional elements
	G06C02500	G06C 25/00	Auxiliary functional arrangements, e.g. interlocks (interlocks in keyboards G06C 7/04) [2]
	G06C00500	G06C 5/00	Non-functional elements
	G06C00300	G06C 3/00	Arrangements for table look-up, e.g. menstruation table
	G06C00100	G06C 1/00	Computing aids in which the computing members form at least part of the displayed result and are manipulated directly by hand, e.g. abacus, pocket adding device

US Proposal

20 May 2003

Project: R249/03**Subclass: G06C**Proposal for rearranged order of main groups:

DIGITAL COMPUTERS IN WHICH ALL THE COMPUTATION IS EFFECTED MECHANICALLY (score computers for card games A63F 1/18; construction of keys, printing mechanisms, or other parts of general application to the typewriting or printing art B41; keys or printing mechanisms for special applications, see the relevant subclass, e.g. G05G, G06K; cash registers G07G 1/00) [4]

Note

This subclass does not cover details of mechanisms covered by main groups 9/00, 11/00 or 15/00, which are applicable to mechanical counters driven only through the lowest denomination. Such details are covered by subclass G06M.

IPC	Maingroup Title	Guideline
	Highly Specialized – hand manipulated; programmable; notation conversion; table look-up	
G06C 1/00	Computing aids in which the computing members form at least part of the displayed result and are manipulated directly by hand, e.g. abacus, pocket adding device	4
G06C 21/00	Programming-mechanisms for determining the steps to be performed by the computing machine, e.g. when a key or certain keys are depressed (mechanisms merely for producing multiplication by repeated addition G06C 15/08)	4
G06C 17/00	Mechanisms for converting from one notational system to another, i.e. radix conversion	4
G06C 3/00	Arrangements for table look-up, e.g. menstruation table	4
	External Combination - with other machines	
G06C 29/00	Combinations of computing machines with other machines, e.g. with typewriter, with money-changing apparatus	5
	Basic Subject Matter - mechanical digital computers	
G06C 27/00	Computing machines characterised by the structural interrelation of their functional units, e.g. invoicing machines	4, 7
G06C 15/00	Computing mechanisms; Actuating devices therefor (mechanisms for operating automatically upon more than two numbers otherwise than by repeated addition or subtraction G06C 21/00)	7
	Basic Subject Matter - components	
G06C 19/00	Decimal-point mechanisms; Analogous mechanisms for non-decimal notations	4, 7
G06C 13/00	Storage mechanisms (mechanical counters with input only to the lowest order G06M; information storage in general G11)	7, 9
G06C 7/00	Input mechanisms (pin carriage G06C 13/02)	7, 9
G06C 11/00	Output mechanisms (marking record carriers in general, visual presentation in general of results of the mathematical operations G06K)	7, 9
G06C 9/00	Transfer mechanisms, e.g. for transmitting figures from the input mechanism into the computing mechanism (G06C 7/10, G06C 11/00, G06C 15/00 take precedence)	7, 9
G06C 23/00	Driving mechanisms for functional elements	7, 9
	Details - ancillary	

G06C 25/00	Auxiliary functional arrangements, e.g. interlocks (interlocks in keyboards G06C 7/04) [2]	9
G06C 5/00	Non-functional elements	9

Comments:

The most significant difference between this proposal and the SE proposal is in the groups that have been designated Highly Specialized and placed above combination group 29/00.

Group 1/00 is highly specialized because of the uniqueness of such devices with respect to other subclass devices even though they may be very simple structurally. Group 21/00 is highly specialized because these devices are programmable or condition-responsive. Group 17/00 is highly specialized because of the distinctive computation involved. Group 3/00 is highly specialized because of the distinctiveness of look-up tables.

The order of the Component groups also differ somewhat from the SE proposal. Groups 13/00 and 19/00 appear highest in this category because they appear to be cases of “special” components, i.e. they might not necessarily appear in all computing devices of the subclass type.

No new residual main group is needed because main group 15/00 appears to be residual for all mechanisms of the subclass type not excluded by the subclass Note.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06D00700	G06D 7/00	Computing devices characterised by the combination of hydraulic or pneumatic functional elements with at least one other type of functional element
	G06D00300	G06D 3/00	Computing devices characterised by the interrelationship of the functional units and having at least one moving part
	G06D00500	G06D 5/00	Computing devices characterised by the interrelationship of the functional units and having no moving parts
	G06D00100	G06D 1/00	Details, e.g. functional units (individual logic elements F15C; valves F16K)

US Proposal

21 May 2003

Project: R250/03**Subclass: G06D**Proposal for rearranged order of main groups:**DIGITAL FLUID-PRESSURE COMPUTING DEVICES****Note**

This subclass covers all devices in which at least one computing function is performed by hydraulic or pneumatic means.

IPC	Maingroup Title	Guideline
	Combined with non-fluid functional element	
G06D 7/00	Computing devices characterised by the combination of hydraulic or pneumatic functional elements with at least one other type of functional element	5
	Basic subject matter	
G06D 3/00	Computing devices characterised by the interrelationship of the functional units and having at least one moving part	7c
G06D 5/00	Computing devices characterised by the interrelationship of the functional units and having no moving parts	7c
	Details	
G06D 1/00	Details, e.g. functional units (individual logic elements F15C; valves F16K)	9

Comments:

This rearrangement is the same as that proposed by SE.

No new residual main group is needed because 3/00, 5/00 and 1/00 cover all subject matter of the subclass.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06E00100	G06E 1/00	Devices for processing exclusively digital data [5]
	G06E00300	G06E 3/00	Devices not provided for in group G06E 1/00, e.g. for processing analogue or hybrid data [5]

US Proposal

21 March 2003

Project: R251/03**Subclass: G06E**Proposal for rearranged order of main groups:

OPTICAL COMPUTING DEVICES (optical logic elements per se G02F 3/00; computer systems based on specific computational models G06N; digital storage using optical elements G11C 13/04) [5]Notes

(1) This subclass covers all devices in which at least one computing function is performed by optical means. [5]

(2) If other aspects, for example mechanical, fluid pressure or electrical computing, are of interest, classification is also made in the relevant subclass for such aspects. [5]

IPC	Maingroup Title	Guideline
	Basic Subject Matter	
G06E 1/00	Devices for processing exclusively digital data [5]	7
G06E 3/00	Devices not provided for in group G06E 1/00, e.g. for processing analogue or hybrid data [5]	7

Comments:

This rearrangement agrees with the one proposed by SE.

No new residual main group is needed because all subject matter of the subclass type is covered by the two main groups.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06F01100	G06F 11/00	Error detection; Error correction; Monitoring
	G06F00900	G06F 9/00	Arrangements for programme control, e.g. control unit (programme control for peripheral devices 13/10)
	G06F00700	G06F 7/00	Methods or arrangements for processing data by operating upon the order or content of the data handled
	G06F00500	G06F 5/00	Methods or arrangements for data conversion without changing the order or content of the data handled
	G06F01200	G06F 12/00	Accessing, addressing or allocating within memory systems or architectures
	G06F00300	G06F 3/00	Input arrangements for transferring data to be processed into a form capable of being handled by the computer; Output arrangements for transferring data from processing unit to output unit, e.g. interface arrangements
	G06F01300	G06F 13/00	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 3/00; multi-processor systems 15/16)
	G06F01700	G06F 17/00	Digital computing or data processing equipment or methods, specially adapted for specific functions
	G06F01900	G06F 19/00	Digital computing or data processing equipment or methods, specially adapted for specific applications (17/00 takes precedence)
	G06F01500	G06F 15/00	Digital computers in general (details 1/00 to 13/00); Data processing equipment in general
	G06F00100	G06F 1/00	Details not covered by groups 3/00 to 13/00 (architectures of general purpose stored programme computers 15/76)
	G06F10100	G06F 101/00	Type of function generated
	G06F15100	G06F 151/00	For invoicing
	G06F15300	G06F 153/00	For inventory purposes; For order filling
	G06F15500	G06F 155/00	For betting on the outcome of an event, e.g. a race, an election; For totalisation
	G06F15700	G06F 157/00	For bank or analogous accounting; For calculating earned income
	G06F15900	G06F 159/00	For medical or biological purposes
	G06F16100	G06F 161/00	For game playing
	G06F16300	G06F 163/00	For traffic control
	G06F16500	G06F 165/00	For guiding a vehicle, missile or the like along a course, e.g. carried on vehicle
	G06F16700	G06F 167/00	For nuclear physics or engineering, e.g. radiation-hardened
	G06F16900	G06F 169/00	For meteorology
	G06F17100	G06F 171/00	For gun laying; For bomb aiming

Comments

Although G06F17/00 and 19/00 are “specially adapted for specific applications/functions”, they often serve as a residual group, therefore they have been put at the lower part of the list.

No rearranging has been done to the index groups, since this does not seem meaningful.

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06G00500	G06G 5/00	Devices in which the computing operation is performed by means of fluid-pressure elements
	G06G00700	G06G 7/00	Devices in which the computing operation is performed by varying electric or magnetic quantities
	G06G00100	G06G 1/00	Hand-manipulated computing devices
	G06G00300	G06G 3/00	Devices in which the computing operation is performed mechanically (G06G 1/00 takes precedence)

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06J00100	G06J 1/00	Hybrid computing arrangements
	G06J00300	G06J 3/00	Systems for conjoint operation of complete digital and complete analogue computers

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
Recognition of Data			
	G06K00500	G06K 5/00	Methods or arrangements for verifying the correctness of markings on a record carrier; Column-detection devices
	G06K01100	G06K 11/00	Methods or arrangements for graph-reading or for converting the pattern of mechanical parameters, e.g. force or presence, into electrical signals (combined with character or pattern recognition 9/00)
	G06K00900	G06K 9/00	Methods or arrangements for reading or recognising printed or written characters or for recognising patterns, e.g. fingerprints
	G06K00700	G06K 7/00	Methods or arrangements for sensing record carriers (G06K 9/00 takes precedence)
	G06K02100	G06K 21/00	Information retrieval from punched cards designed for manual use or handling by machine (G06K 19/00 takes precedence); Apparatus for handling such cards, e.g. marking or correcting
Presentation of Data			
	G06K00300	G06K 3/00	Methods or arrangements for printing of data in the shape of alphanumeric or other characters from a record carrier, e.g. interpreting, printing-out from a magnetic tape
	G06K01500	G06K 15/00	Arrangements for producing a permanent visual presentation of the output data
Handling Record Carriers			
	G06K00100	G06K 1/00	Methods or arrangements for marking the record carrier in digital fashion (interpreting G06K 3/02)
	G06K01300	G06K 13/00	Conveying record carriers from one station to another, e.g. from stack to punching mechanism
	G06K01700	G06K 17/00	Methods or arrangements for effecting co-operative working between equipments covered by two or more of the preceding main groups, e.g. automatic card files incorporating conveying and reading operations
Record Carriers			
	G06K01900	G06K 19/00	Record carriers for use with machines and with at least a part designed to carry digital markings

Comments

Even though G06K17/00 is a combination main group, it is placed low since it concerns two or more of the *preceding* main groups.

Secondary Sort Key	IPCID	IPC	Maingroup Title
Counting of Objects			
	G06M00700	G06M 7/00	Counting of objects carried by a conveyer
	G06M00900	G06M 9/00	Counting of objects in a stack thereof
	G06M01100	G06M 11/00	Counting of objects distributed at random, e.g. on a surface
Counting Mechanisms			
	G06M00300	G06M 3/00	Counters with additional facilities (generating electric pulses at random intervals H03K 3/84)
	G06M00100	G06M 1/00	Design features of general application

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06N00300	G06N 3/00	Computer systems based on biological models
	G06N00700	G06N 7/00	Computer systems based on specific mathematical models
	G06N00500	G06N 5/00	Computer systems utilizing knowledge based models
	G06N00100	G06N 1/00	Computer systems not provided for in groups G06N 3/00 to G06N 7/00

ANNEX 1

Secondary Sort Key	IPCID	IPC	Maingroup Title
	G06T00500	G06T 5/00	Image enhancement or restoration, e.g. from bit-mapped to bit-mapped creating a similar image
	G06T01500	G06T 15/00	Three dimensional (3D) image rendering, e.g. from a model to a bit-mapped image
	G06T01700	G06T 17/00	Three dimensional (3D) modelling, e.g. data description of 3D objects
	G06T01300	G06T 13/00	Animation effects in two dimensional (2D) images, e.g. using sprites
	G06T01100	G06T 11/00	Two dimensional (2D) image generation, e.g. from a description to a bit-mapped image
	G06T00900	G06T 9/00	Image coding, e.g. from bit-mapped to non bit-mapped
	G06T00700	G06T 7/00	Image analysis, e.g. from bit-mapped to non bit-mapped
	G06T00300	G06T 3/00	Geometric image transformation in the plane of the image, e.g. from bit-mapped to bit-mapped creating a different image
	G06T00100	G06T 1/00	General purpose image data processing



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Rapporteur Proposal
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R-project: R259
IPC Subclass: G07B

IPC	Maingroup Title
G07B 13/00	Taximeters (measuring distance travelled G01C; measuring time G04)
G07B 15/00	Arrangements or apparatus for collecting fares, tolls, or entrance fees at a control point (coin-handling aspects G07D; vending or hiring apparatus actuated by tokens or tickets G07F 7/00, G07F 17/00)
G07B 17/00	Franking apparatus (printing aspects B41)
G07B 1/00	Machines for printing and issuing tickets (printing mechanisms per se B41; output mechanisms of digital computers G06C 11/00)
G07B 3/00	Machines for issuing preprinted tickets
G07B 11/00	Apparatus for validating or cancelling issued tickets [2]
G07B 5/00	Details of, or auxiliary devices for, ticket-issuing machines (for validating inserted tickets G07B 11/02)
G07B 7/00	Holders providing direct manual access to the tickets
G07B 9/00	Ticket punches (perforating pliers B26F 1/36; marking record carriers in digital fashion by punching G06K 1/02)

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Rapporteur Proposal
11 April 2003

R-project: R260
IPC Subclass: G07C

IPC	Maingroup Title
G07C 13/00	Voting apparatus
G07C 15/00	Generating random numbers; Lottery apparatus (digital computer arrangements for generating random or pseudo-random numbers G06F 7/58; generating electric pulses at random intervals H03K 3/84) [3]
G07C 9/00	Individual entry or exit registers
G07C 1/00	Registering, indicating, or recording the time of events or elapsed time, e.g. time-recorders for work people (registering or indicating the working of machines or vehicles G07C 3/00, G07C 5/00)
G07C 5/00	Registering or indicating the working of vehicles (for measuring distance travelled or combinations of speed and distance G01C; engine indicators G01L; devices for measuring speed or acceleration G01P)
G07C 3/00	Registering or indicating the condition or the working of machines or other apparatus, other than vehicles (engine indicators G01L; testing apparatus incident to its manufacture G01M; signalling arrangements per se, indicating undesired or abnormal working conditions G08B)
G07C 7/00	Details or accessories common to the registering or indicating apparatus of groups G07C 3/00 and G07C 5/00
G07C 11/00	Arrangements, systems, or apparatus for checking, e.g. the occurrence of a condition, not provided for elsewhere (for checking lottos or bingo games A63F 3/06; signalling or alarm arrangements G08B)

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Rapporteur Proposal
11 April 2003

R-project: R261
IPC Subclass: G07D

IPC	Maingroup Title
G07D 5/00	Testing specially adapted to determine the identity or genuineness of coins, e.g. for segregating coins which are unacceptable or alien to a currency (apparatus separating a mixed bulk of currency into its denominations G07D 3/00) [1,7]
G07D 7/00	Testing paper currency, securities, bonds, or similar valuable papers for genuineness (methods or arrangements for verifying the correctness of markings on a record carrier G06K 5/00) [2]
G07D 11/00	Devices accepting coins or paper currencies, e.g. depositing machines (coin-freed or like apparatus G07F, e.g. complete banking systems G07F 19/00) [5]
G07D 3/00	Apparatus separating a mixed bulk of currency into its denominations (sorting by coin weight G01G) [1,7]
G07D 1/00	Coin deliverers
G07D 9/00	Miscellaneous devices for facilitating the handling of coins (of paper currency B65H); Devices for counting coins (counting by weighing G01G; counting paper currency G06M)
G07D 13/00	Handling coins or paper currencies characterised by a combination of mechanisms not covered by a single one of groups G07D 1/00 to G07D 11/00 (handling coins or paper currencies in combination with coin-freed or like apparatus G07F) [5]

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R-project: R262
IPC Subclass: G07F

IPC	Maingroup Title
G07F 1/00	Coin inlet arrangements; Coins specially adapted to operate coin-freed mechanisms (coins in general A44C)
G07F 5/00	Coin-actuated mechanisms; Interlocks
G07F 7/00	Mechanisms actuated by objects other than coins to free or to actuate vending, hiring, coin or paper currency dispensing or refunding apparatus (complete banking systems G07F 19/00; handling coins or paper currencies apart from coin-freed or like apparatus G07D) [2]
G07F 9/00	Details other than those peculiar to special kinds or types of apparatus (coin inlet arrangements G07F 1/00; coin-actuated mechanisms, interlocks G07F 5/00)
G07F 11/00	Coin-freed apparatus for dispensing, or the like, discrete articles
G07F 13/00	Coin-freed apparatus for controlling dispensing of fluids, semiliquids or granular material from reservoirs
G07F 15/00	Coin-freed apparatus with meter-controlled dispensing of liquid, gas, or electricity (tariff-metering apparatus in general G01D 4/00)
G07F 17/00	Coin-freed apparatus for hiring articles; Coin-freed facilities or services (picture juke-boxes G03B; prepayment telephone systems H04M 17/00)
G07F 19/00	Complete banking systems; Coded card-freed arrangements adapted for dispensing or receiving monies or the like and posting such transactions to existing accounts, e.g. automatic teller machines (mechanisms in general actuated by objects other than coins G07F 7/00; data processing equipment for bank accounting G06F 17/60, G06F 19/00; handling coins or paper currencies apart from coin-freed or like apparatus G07D) [5]

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Rapporteur Proposal
11 April 2003

R-project: R263
IPC Subclass: G07G

IPC	Maingroup Title
G07G 3/00	Alarm indicators, e.g. bells
G07G 1/00	Cash registers (alarm indicators G07G 3/00)
G07G 5/00	Receipt-giving machines (cash registers giving receipts G07G 1/00)

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Rapporteur Proposal
19 May 2003

R-project: R264
IPC Subclass: G08B

IPC	Maingroup Title
G08B 29/00	Checking or monitoring of signalling or alarm systems; Prevention or correction of operating errors, e.g. preventing unauthorised operation
G08B 9/00	Order telegraph apparatus, i.e. means for transmitting one of a finite number of different orders at the discretion of the user, e.g. bridge to engine room orders in ships (signalling devices in mines E21F 17/18)
G08B 7/00	Signalling systems according to more than one of groups G08B 3/00 to G08B 6/00 (combinations of display arrangements with audible advertising G09F 27/00); Personal calling systems according to more than one of groups G08B 3/00 to G08B 6/00
G08B 1/00	Systems for signalling characterised solely by the form of transmission of the signal
G08B 3/00	Audible signalling systems; Audible personal calling systems (audible indication of time signals G04B 21/00, G04C 21/00)
G08B 5/00	Visible signalling systems, e.g. personal calling systems, remote indication of seats occupied (display of time signals G04B 19/00, G04C 17/00, G04C 19/00, G04G 9/00; for display of alphanumeric information G09F; flags, banners G09F)
G08B 6/00	Tactile signalling systems, e.g. personal calling systems (indication of time by feeling G04B 25/02; deaf-aid sets H04R 25/00) [6]
G08B 19/00	Alarms responsive to two or more different undesired or abnormal conditions, e.g. burglary and fire, abnormal temperature and abnormal rate of flow
G08B 13/00	Burglar, theft, or intruder alarms (vehicle theft alarms B60R 25/10; cycle theft alarms B62H 5/00)
G08B 15/00	Identifying, scaring, or incapacitating burglars, thieves, or intruders, e.g. by explosives (burglar traps, or the like, on safes E05G 5/02)
G08B 17/00	Fire alarms; Alarms responsive to explosion (temperature-responsive elements G01K)
G08B 21/00	Alarms responsive to a single specified undesired or abnormal condition and not otherwise provided for
G08B 25/00	Alarm systems in which the location of the alarm condition is signalled to a central station, e.g. fire or police telegraphic systems
G08B 27/00	Alarm systems in which the alarm condition is signalled from a central station to a plurality of substations
G08B 26/00	Alarm systems in which substations are interrogated in succession by a central station
G08B 31/00	Predictive alarm systems characterised by extrapolation or other computation using updated historic data [5]
G08B 23/00	Alarms responsive to unspecified undesired or abnormal conditions

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R-project: R265
IPC Subclass: G08C

IPC	Maingroup Title
G08C 25/00	Arrangements for preventing or correcting errors; Monitoring arrangements
G08C 21/00	Systems for transmitting the position of an object with respect to a predetermined reference system, e.g. tele-autographic system (converting the pattern of mechanical parameters, e.g. force or presence, into electrical signals G06K 11/00) [5]
G08C 19/00	Electric signal transmission systems (G08C 17/00 takes precedence)
G08C 23/00	Non-electric signal transmission systems, e.g. optical systems
G08C 15/00	Arrangements characterised by the use of multiplexing for the transmission of a plurality of signals over a common path (multiplex transmission in general H04J)
G08C 17/00	Arrangements for transmitting signals characterised by the use of a wireless electrical link [6]
G08C 13/00	Arrangements for influencing the relationship between signals at input and output, e.g. differentiating, delaying (transferring the output of a sensing member to measuring arrangements giving results not yielding momentary value G01D 1/00; systems for control of position involving comparison between actual and desired values G05D 3/00; computing in general G06)

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R-project: R266
IPC Subclass: G08G

IPC	Maingroup Title
G08G 7/00	Traffic control systems for simultaneous control of two or more different kinds of craft [2]
G08G 1/00	Traffic control systems for road vehicles
G08G 3/00	Traffic control systems for marine craft (marking of navigational route B63B 22/16, B63B 51/00)
G08G 5/00	Traffic control systems for aircraft [2]
G08G 9/00	Traffic control systems for craft where the kind of craft is irrelevant or unspecified [2]

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R-project: R267
IPC Subclass: G09B

IPC	Maingroup Title
G09B 27/00	Planetaria; Globes
G09B 29/00	Maps; Plans; Charts; Diagrams, e.g. route diagram (star maps G09B 27/04; devices for holding or supporting maps A47B 97/02; for computing purposes G06G 1/14, G06G 1/16; display boards G09F)
G09B 21/00	Teaching, or communicating with, the blind, deaf or mute (audible presentation of material to be studied G09B 5/04; devices or methods for replacing direct visual or auditory perception by another kind of perception A61F 9/08, A61F 11/04; audible indication of meter readings or of colour G01D 7/12; watches for blind persons G04B 25/02; methods or arrangements for reading or recognising printed or written characters G06K 9/00; speech analysis, speech recognition G10L; sound-recording or reproducing, per se G11B) [2,4]
G09B 11/00	Teaching hand-writing, shorthand, drawing, or painting
G09B 13/00	Teaching typing
G09B 15/00	Teaching music (metronomes G04F 5/02)
G09B 17/00	Teaching reading (teaching lip-reading G09B 21/06)
G09B 9/00	Simulators for teaching or training purposes (for the use of weapons F41; computing aspects G06)
G09B 7/00	Electrically-operated teaching apparatus or devices working with questions and answers (mechanically- operated G09B 3/00; computing arrangements G06F)
G09B 5/00	Electrically-operated educational appliances (working with questions and answers G09B 7/00; simulators G09B 9/00; advertising or displaying in general G09F) [2]
G09B 3/00	Manually- or mechanically-operated teaching appliances working with questions and answers (electrically-operated G09B 7/00; advertising or displaying in general G09F)
G09B 1/00	Manually- or mechanically-operated educational appliances using elements forming or bearing symbols, signs, pictures, or the like which are arranged or adapted to be arranged in one or more particular ways (puzzle-games A63F 9/00; advertising or displaying in general G09F)
G09B 23/00	Models for scientific, medical, or mathematical purposes, e.g. full-sized device for demonstration purposes (in the nature of toys A63H)
G09B 25/00	Models for purposes not provided for in group G09B 23/00, e.g. full-sized devices for demonstration purposes (model vehicles, tracks therefor, models in the nature of toys A63H)
G09B 19/00	Teaching not covered by other main groups of this subclass (teaching or practice apparatus for gun-aiming or gun-laying F41G 3/26)



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R-project: R268
IPC Subclass: G09C

IPC	Maingroup Title
G09C 3/00	Typewriters for ciphering or deciphering cryptographic text (marking record carriers G06K)
G09C 1/00	Apparatus or methods whereby a given sequence of signs, e.g. an intelligible text, is transformed into an unintelligible sequence of signs by transposing the signs or groups of signs or by replacing them by others according to a predetermined system (cryptographic typewriters G09C 3/00)
G09C 5/00	Ciphering apparatus or methods not provided for in the preceding groups, e.g. involving the concealment or deformation of graphic data such as designs, written or printed messages

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14 April 2003

R-project: R269
IPC Subclass: G09D

IPC	Maingroup Title
G09D 1/00	Railway or like time or fare tables; Indicating or reading aids therefor (essentially incorporating maps or route diagrams G09B; railway routing charts G09B; display devices, e.g. railway indicator boards, G09F)
G09D 3/00	Perpetual calendars

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11 April 2003

R-project: R270
IPC Subclass: G09F

IPC	Maingroup Title
G09F 1/00	Cardboard or like show-cards of foldable or flexible material
G09F 3/00	Labels, tag tickets, or similar identification or indication means (medals or badges A44C 3/00; making labels B31D 1/02; sheets temporarily attached together B42F; labelling B65C; tags attached to, or associated with, an object, in order to enable detection of the object G01V 15/00; labels on record carriers G11B 23/38); Seals; Postage or like stamps
G09F 5/00	Means for displaying samples
G09F 7/00	Signs, name or number plates, letters, numerals, or symbols (vehicle registration number plates B60R 13/10); Panels or boards (show-cards G09F 1/00; indicating arrangements for variable information G09F 9/00, G09F 11/00; illuminated signs G09F 13/00; boards for notices or posters G09F 15/00)
G09F 15/00	Boards, hoardings, pillars, or like structures for notices, placards, posters, or the like
G09F 17/00	Flags; Banners; Mountings therefor (devices specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34)
G09F 9/00	Indicating arrangements for variable information in which the information is built-up on a support by selection or combination of individual elements (in which the variable information is permanently attached to a movable support G09F 11/00; light guides G02B 6/00; abacus G06C 1/00; slide rules G06G 1/00)
G09F 11/00	Indicating arrangements for variable information in which the complete information is permanently attached to a movable support which brings it to the display position (using static means to present variable information G09F 9/00; showcases or show-cabinets with arrangements for continuously or intermittently moving the merchandise A47F 3/08)
G09F 13/00	Illuminated signs; Luminous advertising (G09F 9/00, G09F 11/00 take precedence; control of displays in general using static means to present variable information G09G)
G09F 21/00	Mobile visual advertising
G09F 23/00	Advertising on or in specific articles, e.g. ashtrays, letter-boxes (on or in vehicles G09F 21/00; containers, packaging-elements, or packages, with auxiliary means or provisions for displaying articles B65D)
G09F 25/00	Audible advertising (sound-recording or reproducing in general G11B; public address systems H04R 27/00)
G09F 27/00	Combined visual and audible advertising or displaying, e.g. for public address
G09F 19/00	Miscellaneous advertising or display means not provided for elsewhere



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R-project: R271
IPC Subclass: G09G

IPC	Maingroup Title
G09G 1/00	Control arrangements or circuits, of interest only in connection with cathode-ray tube indicators (cathode-ray oscilloscopes G01R 13/20; television H04N) [3]
G09G 3/00	Control arrangements or circuits, of interest only in connection with visual indicators other than cathode-ray tubes (optical scanning systems in general G02B 26/10) [3]
G09G 5/00	Control arrangements or circuits for visual indicators common to cathode-ray tube indicators and other visual indicators (image data processing or generation, in general G06T) [5]

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28 March 2003

Project: R272/03**Subclass: G10B**Proposal for rearranged order of main groups:

G10B **ORGANS; HARMONIUMS** (mouth organs or accordions G10D; aspects of automatic actuation G10F; combinations of microphones, pick-ups or amplifiers with musical instruments, electronic organs G10H)

IPC	Maingroup Title	Guideline
G10B 1/00	General design of organs, harmoniums, or like wind-actuated musical instruments	7a
G10B 3/00	Details of, or accessories for, organs, harmoniums, or the like	9a

Comments:

3/00 details come after 1/00 basic subject matter.

No new residual maingroup is needed because 1/00 and 3/00 cover the subclass title.

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28 March 2003

Project: R273/03**Subclass: G10C**Proposal for rearranged order of main groups:

G10C **PIANOS** (non-musical aspects of toy pianos A63H 5/00; aspects of automatic actuation G10F; combinations of microphones, pick-ups or amplifiers with musical instruments G10H)

IPC	Maingroup Title	Guideline
G10C 5/00	Combinations of pianos with other musical instruments, e.g. with bells, with xylophone	5a
G10C 1/00	General design of pianos or like stringed musical instruments with keyboard	7a
G10C 3/00	Details of, or accessories for, pianos or the like	9a
G10C 9/00	Special tools or methods for the manufacture or maintenance of pianos	2c

Comments:

5/00 is a combination of subclass subject matter with external subject matter.

1/00 basic subject matter comes before 3/00 details.

9/00 includes methods of making pianos and comes after the product (pianos).

No new residual maingroup is needed because 1/00 and 3/00 cover the subclass title.

US Rapporteur Proposal

28 March 2003

Project: R274/03**Subclass: G10D**Proposal for rearranged order of main groups:

G10D **MUSICAL INSTRUMENTS NOT OTHERWISE PROVIDED FOR** (aspects of automatic actuation G10F; combinations of microphones, pick-ups or amplifiers with musical instruments G10H; sound-producing devices not regarded as musical instruments or parts thereof G10K)

IPC	Maingroup Title	Guideline
G10D 15/00	Combinations of different musical instruments (combinations with pianos G10C)	5a, 6a
G10D 1/00	General design of stringed musical instruments (pianos or similar instruments with keyboard G10C)	7a
G10D 3/00	Details of, or accessories for, stringed musical instruments	8a
G10D 11/00	Accordions, concertinas, or the like; Keyboards therefor (keyboards for musical instruments in general G10C 3/12)	4
G10D 7/00	General design of wind-actuated musical instruments (accordions G10D 11/00; organs, harmoniums G10B; whistles G10K)	7a
G10D 9/00	Details of, or accessories for, wind-actuated musical instruments	8a
G10D 13/00	Percussive musical instruments	7a
G10D 17/00	Musical instruments not provided for in any of the preceding groups, e.g. Aeolian harp, singing-flame musical instrument	9a

Comments:

15/00 is placed first because it relates to combinations

1/00 and 3/00 both relate to stringed instruments and are kept together, with 3/00 covering details.

11/00, 7/00 and 9/00 relate to wind instruments and are kept together, with 11/00 being specific to accordions and placed above "general" wind instruments. This allows the accordion art to collect in one place, and not be included with other wind instruments.

7/00 is before 9/00 because it is general, and 9/00 is details.

13/00 is the last of the "general" subclass subject matter.

17/00 covers residual subject matter, and is placed at the end of the scheme.

No new residual maingroup is needed because 17/00 is residual.

US Rapporteur Proposal

28 March 2003

Project: R275/03**Subclass: G10F**Proposal for rearranged order of main groups:

G10F **AUTOMATIC MUSICAL INSTRUMENTS** (non-musical aspects of toy instruments A63H 5/00; sound-recording or reproducing G11B; associated working with recording or reproducing apparatus G11B 31/02)

IPC	Maingroup Title	Guideline
G10F 3/00	Independent players for keyboard instruments	4
G10F 1/00	Automatic musical instruments	7a
G10F 5/00	Details of, or accessories for, automatic musical instruments	9a

Comments:

3/00 is placed first because it is specialized and collects all the “independent players” which might otherwise end up in 1/00.

1/00 is before 5/00 because it is general, and 5/00 is details.

No new residual maingroup is needed because 1/00 covers the subclass title.

US Rapporteur Proposal

28 March 2003

Project: R276/03**Subclass: G10G**Proposal for rearranged order of main groups:G10G **AIDS FOR MUSIC** (metronomes G04F 5/02; teaching music G09B 15/00)

IPC	Maingroup Title	Guideline
G10G 3/00	Recording music in notation form, e.g. recording the mechanical operation of a musical instrument	4
G10G 1/00	Means for the representation of music	7a
G10G 5/00	Supports for musical instruments	7a
G10G 7/00	Other auxiliary devices, e.g. separate holder for resin, strings, conductors' batons	9a

Comments:

3/00 is placed first because it involves specialized subject matter, as indicated by the example of recording the mechanical operation of an instrument.

1/00 and 5/00 are both basic subject matter.

7/00 is last because it is residual for auxiliary devices.

No new residual maingroup is needed because 7/00 seems residual, although it uses the word "devices" while the subclass title is "aids".

US Rapporteur Proposal

28 March 2003

Project: R277/03**Subclass: G10H**Proposal for rearranged order of main groups:

G10H

ELECTROPHONIC MUSICAL INSTRUMENTS (electronic circuits in general H03) - Note: This subclass covers musical instruments in which individual notes are constituted as electric oscillations under the control of a performer and the oscillations are converted to sound-vibrations by a loud-speaker or equivalent instrument.

IPC	Maingroup Title	Guideline
G10H 7/00	Instruments in which the tones are synthesised from a data store, e.g. computer organs (synthesis of acoustic waves not specific to musical instruments G10K 15/02, G10L) [3,5]	7a, 7c
G10H 5/00	Instruments in which the tones are generated by means of electronic generators (G10H 7/00 takes precedence) [3]	7a, 7c
G10H 3/00	Instruments in which the tones are generated by electromechanical means	7a, 7c
G10H 1/00	Details of electrophonic musical instruments (keyboards applicable also to other musical instruments G10B, G10C; arrangements for producing a reverberation or echo sound G10K 15/08) [5]	9a
?	Accessories for electrophonic musical instruments	

Comments:

7/00, 5/00 and 3/00 cover basic subject matter of the subclass.

7/00 is above 5/00 by precedence note.

3/00 is less complex than 7/00 and 5/00 (synthesis, electronic generators), and comes after.

1/00 is last because it covers details.

A new residual maingroup may be needed to cover accessories and ancillary devices for electrophonic musical instruments.

Alternatively, the beginning of the title of 1/00 could be changed to "Details of, or accessories for, ..." as is done in G10F.

US Rapporteur Proposal

28 March 2003

Project: R278/03**Subclass: G10K**Proposal for rearranged order of main groups:

G10K **SOUND-PRODUCING DEVICES** (sound-producing toys A63H 5/00; musical instruments or parts thereof, see the relevant subclass, e.g. G10D); **ACOUSTICS NOT OTHERWISE PROVIDED FOR** (fluid oscillators or pulse generators for fluid-pressure systems F15B 21/12; systems using the reflection or reradiation of acoustic waves G01S 15/00; generating seismic energy G01V 1/02; signalling or calling arrangements, alarm arrangements G08B; piezo-electric, electrostrictive or magnetostrictive elements in general H01L 41/00; transmission systems using infrasonic, sonic, or ultrasonic waves H04B 11/00; loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers H04R) **[6]** - **Note:** (1) This subclass covers arrangements for generating mechanical vibrations in fluids. [6] (2) This subclass covers also the production of sounds which may not be audible to human beings but which are audible to animals. (3) In this subclass, the following terms are used with the meanings indicated: [6] – "acoustics" and "sound" cover the technical field dealing with mechanical vibrations at all infrasonic-, sonic- and ultrasonic frequencies. However, generation or transmission of mechanical waves, in general, is covered by subclass B06B, subject to the exception specified in Note (1) above. [6]

IPC	Maingroup Title	Guideline
	Sound Producing Devices	
G10K 7/00	Sirens	4
G10K 5/00	Whistles	4
G10K 3/00	Rattles or like noise-producing devices	4
G10K 1/00	Devices in which sound is produced by striking a resonating body, e.g. bell, chimes, gong (combinations with clocks or watches G04B, G04C; carillons G10F 1/10)	7a, 7c
G10K 9/00	Devices in which sound is produced by vibrating a diaphragm or analogous element, e.g. fog horn, vehicle hooter, buzzer (loudspeakers or like acoustic electromechanical transducers H04R)	7a, 7c
	Non-sound Producing Acoustic Methods and Devices	
G10K 11/00	Methods or devices for transmitting, conducting or directing sound in general; Methods or devices for protecting against, or for damping, noise or other acoustic waves in general (sound insulation for vehicles B60R 13/08; sound insulation for aircraft B64C 1/40; sound insulating materials, see the relevant places, e.g. C04B 26/00 to C04B 38/00; reduction of noise on permanent way E01B 19/00; absorption of air-transmitted noise from road or railway traffic E01F 8/00; noise insulation, absorption or reflection in buildings E04B 1/74; room acoustics E04B 1/99; sound insulation in floors E04F 15/20; gas-flow silencers or exhaust apparatus for machines or engines in general, for internal-combustion engines F01N; intake silencers for internal-combustion engines F02M 35/00; suppression of undesired vibrations F16F 7/00 to F16F 15/00; preventing noise in valves F16K 47/02; noise absorbers in pipes F16L 55/02; arrangements for suppressing noise in direct-contact trickle coolers F28C 1/10; silencers for weapons F41)	7b
	Details	
G10K 13/00	Cones, diaphragms, or the like, for emitting or receiving sound in general (for electromechanical transducers H04R 7/00)	9a

	Residual	
G10K 15/00	Acoustics not otherwise provided for [4]	9a

Comments:

1/00 – 9/00 all involve the production of sound, and are grouped together

7/00 and 5/00 cover specific devices, with sirens being more complex than whistles.

3/00 covers rattles “or the like”, which is specific type, which includes door-knockers according to ECLA, and should be above 1/00 which includes producing sound by striking a resonate body.

1/00 covers resonate bodies, which is less specific than 3/00, but still narrow.

9/00 covers a device which utilizes a vibrating diaphragm “or analogous element”, which is relatively broad limitation compared to 1/00 – 7/00.

11/00 is methods or devices covering many aspects of sound other than producing sound.

13/00 covers specific elements (details) which could be for both 11/00 and other maingroups above it. It is placed under all those to which it could apply.

15/00 is residual, and is placed at the end of the scheme (see below).

No new residual main group is needed because 15/00 is residual for “acoustics”, which includes 15/04 sound-producing devices.

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27 March 2003

Project: R279/03**Subclass: G10L**Proposal for rearranged order of main groups:

G10L **SPEECH ANALYSIS OR SYNTHESIS; SPEECH RECOGNITION** (sound input/output for computers G06F 3/16; digital data processing methods or equipment specially adapted for handling natural language data G06F 17/20; teaching or communicating with the blind, deaf or mute G09B 21/00; telephonic communication H04M) [4]

IPC	Maingroup Title	Guideline
G10L 17/00	Speaker identification or verification [7]	4
G10L 15/00	Speech recognition (G10L 17/00 takes precedence) [7]	7b
G10L 19/00	Speech analysis-synthesis techniques for redundancy reduction, e.g. in vocoders; Coding or decoding of speech [7]	7b
G10L 21/00	Processing of the speech signal to produce another audible or non-audible signal, e.g. visual, tactile, in order to modify its quality or its intelligibility (G10L 19/00 takes precedence) [7]	7b
G10L 11/00	Determination or detection of speech characteristics not restricted to a single one of groups G10L 15/00 to G10L 21/00 [7]	8a
G10L 13/00	Speech synthesis; Text to speech systems (electroponic musical instruments G10H) [7]	7a, 9a

Comments:

17/00 is first because it is highly specialized to identification.

15/00 is specialized to recognition, and has a precedence note to 17/00.

19/00 and 21/00 are specialized to specific functions, and 21/00 has a precedence note to 19/00.

11/00 is placed after 15/00-21/00 because it seems to be a residual for subject matter not covered by them or useful to several of them. For example, 11/04 covers pitch determination of speech signals, which can be part of the specialized 17/00 and 15/00.

13/00 "speech synthesis" serves as a residual for that subject matter, and cannot be before 19/00 which covers some speech synthesis for a specific purpose.

No new residual main group is needed because 11/00, 13/00 and 15/00 cover the title.

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20 March 2003

Project: R280/03 Subclass: G12B

IPC	Maingroup Title
G12B 21/00	Details of apparatus using scanning-probe techniques [7]
G12B 17/00	Screening (insulation or other protection of buildings E04B; emergency protection of apparatus in general F16P 7/00; in connection with acoustic waves G10K 11/00; in connection with nuclear radiation G21F)
G12B 15/00	Cooling (by refrigeration, e.g. circulation of refrigerated fluid, F25D; heat-exchange or heat-transfer details of general application F28F)
G12B 7/00	Compensating for the effects of temperature (by cooling G12B 15/00)
G12B 1/00	Sensitive elements capable of producing movement or displacement for purposes not limited to measurement; Associated transmission mechanisms therefor
G12B 3/00	Details of movements not otherwise provided for (details of apparatus using scanning-probe techniques G12B 21/00; damping of shock or vibrations in general F16F; avoiding out-of-balance forces F16F 15/00; testing balance G01M) [1,7]
G12B 5/00	Adjusting position or attitude, e.g. level, of instruments or other apparatus, or of parts thereof (levels per se G01C 9/00); Compensating for the effects of tilting or acceleration, e.g. for optical apparatus
G12B 9/00	Housing or supporting of instruments or other apparatus
G12B 11/00	Indicating elements; Illumination thereof
G12B 13/00	Calibrating of instruments or apparatus (calibrating of measuring instruments G01)

IPC	Maingroup Title
G21B 1/00	Alleged controlled-fusion reactors

ANNEX 1

IPC	Maingroup Title
G21C 17/00	Monitoring; Testing (measuring in general G01)
G21C 9/00	Emergency protection arrangements structurally associated with the reactor (emergency cooling arrangements G21C 15/18)
G21C 23/00	Adaptations of reactors to facilitate experimentation or irradiation [3]
G21C 7/00	Control of nuclear reaction
G21C 15/00	Cooling arrangements within the pressure vessel containing the core; Selection of specific coolants
G21C 11/00	Shielding structurally associated with the reactor
G21C 1/00	Reactors
G21C 19/00	Arrangements for treating, for handling, or for facilitating the handling of, fuel or other materials which are used within the reactor, e.g. within its pressure vessel [2]
G21C 21/00	Apparatus or processes specially adapted to the manufacture of reactors or parts thereof (in general, section B, e.g. B23)
G21C 13/00	Pressure vessels; Containment vessels; Containment in general (for chemical or physical processes B01J 3/00; pressure vessels in general F16J 12/00)
G21C 3/00	Reactor fuel elements or their assemblies; Selection of substances for use as reactor fuel elements
G21C 5/00	Moderator or core structure; Selection of materials for use as moderator

ANNEX 1

IPC	Maingroup Title
G21D 3/00	Control of nuclear power plant (control of nuclear reaction in general G21C 7/00)
G21D 7/00	Arrangements for direct production of electric energy from fusion or fission reactions (obtaining electric energy from radioactive sources G21H 1/00)
G21D 5/00	Arrangements of reactor and engine in which reactor-produced heat is converted into mechanical energy
G21D 9/00	Arrangements to provide heat for purposes other than conversion into power, e.g. for heating buildings
G21D 1/00	Details of nuclear power plant (control G21D 3/00)

ANNEX 1

IPC	Maingroup Title
G21F 5/00	Transportable or portable shielded containers
G21F 7/00	Shielded cells or rooms (chambers provided with manipulating devices in general B25J)
G21F 3/00	Shielding characterised by its physical form, e.g. granules, or shape of the material
G21F 1/00	Shielding characterised by the composition of the material
G21F 9/00	Treating radioactively contaminated material; Decontamination arrangements therefor [2,5]

ANNEX 1

IPC	Maingroup Title
G21G 5/00	Alleged conversion of chemical elements by chemical reaction
G21G 1/00	Arrangements for converting chemical elements by electromagnetic radiation, corpuscular radiation, or particle bombardment, e.g. producing radioactive isotopes (separation of different isotopes of the same element B01D 59/00) [2]
G21G 4/00	Radioactive sources (producing neutrons or other subatomic particles, X- or gamma rays, in fusion reactors G21B, in nuclear reactors G21C, by cosmic radiation G21H 7/00, in accelerators H05H; X-ray tubes H01J 35/00; gamma masers H01S 4/00) [2]

ANNEX 1

IPC	Maingroup Title
G21H 3/00	Arrangements for direct conversion of radiation energy from radioactive sources into forms of energy other than electric energy, e.g. light (lasers H01S 3/00)
G21H 1/00	Arrangements for obtaining electrical energy from radioactive sources, e.g. from radioactive isotopes
G21H 5/00	Applications of radiation from radioactive sources or arrangements therefor (producing mutation in plants A01H 1/06; preservation of dairy products A23C; preservation of foodstuffs A23L 3/26; for therapeutic purposes A61N 5/10; in chemical, physical or physicochemical processes in general B01J 19/08; in electrostatic separation B03C 3/38; for after-treatment of coatings applied as liquids or other fluent materials B05D 3/06; for action between electric vehicles and tracked apparatus B61L 1/10, B61L 3/06; introducing isotopes into organic compounds C07B 59/00; for preparation of organic chemical compounds C07, C08, e.g. C08F 2/46; for treating macromolecular substances or articles made therefrom B29C 71/04, C08J 3/28, C08J 7/18; for cracking of hydrocarbon oils C10G 15/00, C10G 32/04; for reforming naphtha C10G 35/16; preservation or ageing of products obtained from fermentation processes C12H 1/06, C12H 1/16; for bleaching fibres D06L 3/04; measuring G01; irradiation devices, gamma- or X-ray microscopes G21K; in discharge tubes H01J; apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere, H01T 23/00; for carrying-off electrostatic charges H05F 3/06)
G21H 7/00	Use of effects of cosmic radiation

ANNEX 1

IPC	Maingroup Title
G21J 5/00	Detection arrangements for nuclear explosions (individual measuring devices G01)
G21J 3/00	Peaceful applications of nuclear explosive devices
G21J 1/00	Nuclear explosive devices

ANNEX 1

IPC	Maingroup Title
G21K 1/00	Arrangements for handling radiation or particles, e.g. focusing, moderating (radiation filters G21K 3/00) [2]
G21K 4/00	Conversion screens for the conversion of the spatial distribution of X-rays or particle radiation into visible images, e.g. fluoroscopic screens (photographic processes using X-ray intensifiers G03C 5/17; discharge tubes comprising luminescent screens H01J 1/62; cathode ray tubes for X-ray conversion with optical output H01J 31/50) [3]
G21K 3/00	Radiation filters, e.g. X-ray filters [2]
G21K 5/00	Irradiation devices (adaptations of reactors to facilitate irradiation G21C 23/00; discharge tubes for irradiating H01J 33/00, H01J 37/00) [2]
G21K 7/00	Gamma- or X-ray microscopes [2]



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R-project: R289
IPC Subclass: H01B

IPC	Maingroup Title
H01B 12/00	Superconductive or hyperconductive conductors, cables, or transmission lines (superconductors characterised by the ceramic-forming technique or the ceramic composition C04B 35/00; details or devices using superconductivity or hyperconductivity characterised by the material H01L 39/12) [2,4]
H01B 1/00	Conductors or conductive bodies characterised by the conductive materials; Selection of materials as conductors (superconductive or hyperconductive conductors, cables, or transmission lines characterised by the materials H01B 12/00; resistors H01C; details of devices using superconductivity or hyperconductivity, characterised by the material H01L 39/12) [4]
H01B 9/00	Power cables
H01B 11/00	Communication cables or conductors (waveguides H01P)
H01B 5/00	Non-insulated conductors or conductive bodies characterised by their form
H01B 7/00	Insulated conductors or cables characterised by their form
H01B 13/00	Apparatus or processes specially adapted for manufacturing conductors or cables
H01B 3/00	Insulators or insulating bodies characterised by the insulating materials; Selection of materials for their insulating or dielectric properties (selection of piezo-electric or electrostrictive materials H01L 41/00)
H01B 17/00	Insulators or insulating bodies characterised by their form (section insulators for electric traction B60M 1/18; insulating rail-joints E01B 11/54)
H01B 19/00	Apparatus or processes specially adapted for manufacturing insulators or insulating bodies
H01B 15/00	Apparatus or processes for salvaging material from cables (insulated conductors or cables with arrangements for facilitating removal of insulation H01B 7/38; methods or apparatus specially adapted for removing insulation from conductors H02G 1/12)

Roberto Iasevoli

US Proposal

20 May 2003

Project: R289/03**Subclass: H01B**Proposal for rearranged order of main groups:

H01B CABLES; CONDUCTORS; INSULATORS; SELECTION OF MATERIALS FOR THEIR CONDUCTIVE, INSULATING, OR DIELECTRIC PROPERTIES (selection for magnetic properties H01F 1/00; waveguides H01P; installation of cables or lines, or of combined optical and electric, cables or lines H02G)

Notes

- (1) Group H01B 12/00 takes precedence over groups H01B 5/00 to H01B 11/00.
- (2) Cables including at least one electrical conductor together with optical fibres are classified in group H01B 11/22. [4]

IPC	Maingroup Title	Guideline
	Highly Specialized – superconductive or hyperconductive	
H01B 12/00	Superconductive or hyperconductive conductors, cables, or transmission lines (superconductors characterised by the ceramic-forming technique or the ceramic composition C04B 35/00; details or devices using superconductivity or hyperconductivity characterised by the material H01L 39/12) [2,4]	4
	Highly Specialized – communication or power cables	
H01B 11/00	Communication cables or conductors (waveguides H01P)	4
H01B 9/00	Power cables	4
	Basic Subject Matter – conductors or cables	
H01B 7/00	Insulated conductors or cables characterised by their form	7
H01B 5/00	Non-insulated conductors or conductive bodies characterised by their form	7
H01B 1/00	Conductors or conductive bodies characterised by the conductive materials; Selection of materials as conductors (superconductive or hyperconductive conductors, cables, or transmission lines characterised by the materials H01B 12/00; resistors H01C; details of devices using superconductivity or hyperconductivity, characterised by the material H01L 39/12) [4]	7
	Basic Subject Matter – insulators	
H01B 17/00	Insulators or insulating bodies characterised by their form (section insulators for electric traction B60M 1/18; insulating rail-joints E01B 11/54)	7
H01B 3/00	Insulators or insulating bodies characterised by the insulating materials; Selection of materials for their insulating or dielectric properties (selection of piezo-electric or electrostrictive materials H01L 41/00)	7
	Separate Category of Invention – manufacture	
H01B 13/00	Apparatus or processes specially adapted for manufacturing conductors or cables	2
H01B 19/00	Apparatus or processes specially adapted for manufacturing insulators or insulating bodies	2

H01B 15/00	Apparatus or processes for salvaging material from cables (insulated conductors or cables with arrangements for facilitating removal of insulation H01B 7/38; methods or apparatus specially adapted for removing insulation from conductors H02G 1/12)	2
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Comments:

We agree in general with the EP rearrangement proposal.

- Main Group 12/00, covering super conductive or hyper conductive devices, very specialized, is positioned on top of the scheme. Also, Note (1) justifies the position of 12/00.
- Communications and power cables are highly specialized and positioned high in the scheme. Communication is more complex than power delivery, therefore 11/00 comes before 9/00.
- The main groups of two areas of basic subject matter, conductors and insulators, are collected together. The main groups “characterized by form” are placed before those “characterized by materials” in the respective areas.
- Apparatus and method for manufacturing are positioned after basic subject matter devices.
- No new residual main group is needed because the main groups under the “Basic Subject Matter” headings appear to cover the subclass title.



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R-project: R290
IPC Subclass: H01C

IPC	Maingroup Title
H01C 10/00	Adjustable resistors [2]
H01C 11/00	Non-adjustable liquid resistors [2]
H01C 3/00	Non-adjustable metal resistors made of wire or ribbon, e.g. coiled, woven, or formed as grids
H01C 8/00	Non-adjustable resistors consisting of loose powdered or granular conducting, or powdered or granular semi-conducting material [2]
H01C 7/00	Non-adjustable resistors formed as one or more layers or coatings; Non-adjustable resistors made from powdered conducting material or powdered semi-conducting material with or without insulating material (consisting of loose powdered or granular material H01C 8/00; resistors with a potential-jump barrier or surface barrier, e.g. field effect resistors, H01L 29/00; semiconductor devices sensitive to electromagnetic or corpuscular radiation, e.g. photoresistors, H01L 31/00; devices using superconductivity or hyperconductivity H01L 39/00; devices using galvano-magnetic or similar magnetic effects, e.g. magnetic-field-controlled resistors, H01L 43/00; solid state devices for rectifying, amplifying, oscillating, or switching without a potential-jump barrier or surface barrier H01L 45/00; bulk negative resistance effect devices H01L 47/00) [2]
H01C 13/00	Resistors not provided for elsewhere
H01C 1/00	Details
H01C 17/00	Apparatus or processes specially adapted for manufacturing resistors (providing fillings for housings or enclosures H01C 1/02; reducing insulation surrounding a resistor to powder H01C 1/03; manufacture of thermally variable resistors H01C 7/02, H01C 7/04) [2]

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R-project: R291
IPC Subclass: H01F

IPC	Maingroup Title
H01F 13/00	Apparatus or processes for magnetising or demagnetising (for degaussing ships B63G 9/06; for clocks or watches G04D 9/00; demagnetising arrangements for colour television H04N 9/29)
H01F 6/00	Superconducting magnets; Superconducting coils [6]
H01F 5/00	Coils (superconducting coils H01F 6/06; fixed inductances of the signal type H01F 17/00)
H01F 3/00	Cores, yokes, or armatures (magnetic materials H01F 1/00; permanent magnets H01F 7/02)
H01F 7/00	Magnets (superconducting magnets H01F 6/00; for separation of solid materials from solid materials or fluids B03C 1/00; for bench or like work-holders B23B 31/28, B23Q 3/00; work-holding devices B25B 11/00; lifting magnets B66C 1/00; for electric meters G01R; for relays H01H; for dynamo-electric machines H02K)
H01F 10/00	Thin magnetic films, e.g. of one-domain structure (magnetic record carriers G11B 5/00; thin-film magnetic stores G11C)
H01F 1/00	Magnets or magnetic bodies characterised by the magnetic materials therefor; Selection of materials for their magnetic properties (thin magnetic films characterised by their composition H01F 10/10)
H01F 36/00	Transformers with superconductive windings or with windings operating at cryogenic temperatures (superconducting magnets or superconducting coils H01F 6/00) [3]
H01F 17/00	Fixed inductances of the signal type (coils in general H01F 5/00)
H01F 37/00	Fixed inductances not covered by group H01F 17/00 [6]
H01F 19/00	Fixed transformers or mutual inductances of the signal type (H01F 36/00 takes precedence) [3]
H01F 30/00	Fixed transformers not covered by group H01F 19/00 [6]
H01F 21/00	Variable inductances or transformers of the signal type (H01F 36/00 takes precedence) [3]
H01F 29/00	Variable transformers or inductances not covered by group H01F 21/00
H01F 27/00	Details of transformers or inductances, in general [6]
H01F 38/00	Adaptations of transformers or inductances for specific applications or functions [6]
H01F 41/00	Apparatus or processes specially adapted for manufacturing or assembling the devices covered by this subclass

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19 May 2003

R-project: R292
IPC Subclass: H01G

IPC	Maingroup Title
H01G 9/00	Electrolytic capacitors, rectifiers, detectors, switching devices, light-sensitive or temperature-sensitive devices; Processes of their manufacture [2]
H01G 4/00	Fixed capacitors; Processes of their manufacture (electrolytic capacitors H01G 9/00) [2]
H01G 5/00	Capacitors in which the capacitance is varied by mechanical means, e.g. by turning a shaft; Processes of their manufacture [2]
H01G 7/00	Capacitors in which the capacitance is varied by non-mechanical means; Processes of their manufacture [2]
H01G 15/00	Structural combinations of capacitors or other devices covered by at least two different main groups of this subclass with each other [6]
H01G 17/00	Structural combinations of capacitors or other devices covered by at least two different main groups of this subclass with other electric elements, not covered by this subclass, e.g. RC combinations (thin- or thick-film circuits H01L 27/00; RC-filters H03H) [6]
H01G 2/00	Details applicable to more than one of groups H01G 4/00 to H01G 9/00 [6]
H01G 13/00	Apparatus specially adapted for manufacturing capacitors; Processes specially adapted for manufacturing capacitors not provided for in groups H01G 4/00 to H01G 9/00 [2]

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R-project: R294
IPC Subclass: H01J

IPC	Maingroup Title
	DISCHARGE LAMPS
H01J 65/00	Lamps without any electrode inside the vessel; Lamps with at least one main electrode outside the vessel
H01J 61/00	Gas- or vapour-discharge lamps (use for sterilising milk products A23C; use for medical purposes A61N 5/00; use for disinfecting water C02F; use for lighting F21; circuits therefor H05B; arc lamps with consumable electrodes H05B; electroluminescent lamps H05B)
H01J 63/00	Cathode-ray or electron-stream lamps (flying-spot tubes H01J 31/10; magic-eye tuning indicators H01J 31/14; lamps with incandescent body heated by the ray or stream H01K)
	SPECIAL TUBES
H01J 41/00	Discharge tubes and means integral therewith for measuring gas pressure (vacuum gauge systems using such tubes G01L 21/30); Discharge tubes for evacuation by diffusion of ions
H01J 43/00	Secondary-emission tubes; Electron-multiplier tubes (dynamic electron-multiplier tubes H01J 25/76; secondary-emission detectors for measurement of nuclear or X-radiation G01T 1/28)
H01J 45/00	Discharge tubes functioning as thermionic generators
H01J 49/00	Particle spectrometers or separator tubes (for measuring gas pressure H01J 41/10) [3]
H01J 40/00	Photoelectric discharge tubes not involving the ionisation of a gas (H01J 49/00 takes precedence; cathode-ray or image-pick-up tubes H01J 31/26) [3]
H01J 47/00	Tubes for determining the presence, intensity, density or energy of radiation or particles (photoelectric discharge tubes not involving the ionisation of a gas H01J 40/00) [3]
H01J 33/00	Discharge tubes with provision for emergence of electrons or ions from the vessel (particle accelerators H05H); Lenard tubes
	VACUUM TUBES
H01J 25/00	Transit-time tubes, e.g. klystrons, travelling-wave tubes, magnetrons (details of transit-time tubes H01J 23/00; particle accelerators H05H)
H01J 35/00	X-ray tubes (X-ray lasers H01S 4/00; X-ray technique in general H05G)
H01J 37/00	Discharge tubes with provision for introducing objects or material to be exposed to the discharge, e.g. for the purpose of examination or processing thereof (H01J 33/00, H01J 40/00, H01J 41/00, H01J 47/00, H01J 49/00 take precedence; investigating or analysing surface structures in atomic ranges using scanning-probe techniques G01N 13/10, e.g. scanning tunnelling microscopy G01N 13/12; contactless testing of electronic circuits using electron beams G01R 31/305; details of scanning-probe apparatus, in general G12B 21/00) [2,5]
H01J 31/00	Cathode-ray tubes; Electron-beam tubes (H01J 25/00, H01J 33/00, H01J 35/00, H01J 37/00 take precedence; details of cathode-ray tubes or of electron-beam tubes H01J 29/00; cathode-ray or electron-stream lamps H01J 63/00)
H01J 27/00	Ion beam tubes (H01J 25/00, H01J 33/00, H01J 37/00 take precedence; particle accelerators H05H)

H01J 21/00	Vacuum tubes (H01J 25/00, H01J 31/00 to H01J 40/00, H01J 43/00, H01J 47/00, H01J 49/00 take precedence; details of vacuum tubes H01J 19/00; cathode-ray or electron-stream lamps H01J 63/00)
	GAS-FILLED TUBES
H01J 11/00	Gas-filled discharge tubes without any main electrode inside the vessel; Gas-filled discharge tubes with at least one main electrode outside the vessel (lamps H01J 65/00)
H01J 13/00	Discharge tubes with liquid-pool cathodes, e.g. metal-vapour rectifying tubes (lamps H01J 61/00)
H01J 15/00	Gas-filled discharge tubes with gaseous cathodes, e.g. plasma cathode (lamps H01J 61/62)
H01J 17/00	Gas-filled discharge tubes with solid cathode (H01J 25/00, H01J 27/00, H01J 31/00 to H01J 41/00 take precedence; gas or vapour discharge lamps H01J 61/00; gas filled spark gaps H01T; Marx converters H02M 7/26; tubes for generating potential differences by charges carried in a gas stream H02N)
	DETAILS
H01J 23/00	Details of transit-time tubes of the types covered by group H01J 25/00
H01J 29/00	Details of cathode-ray tubes or of electron-beam tubes of the types covered by group H01J 31/00
H01J 19/00	Details of vacuum tubes of the types covered by group H01J 21/00
H01J 3/00	Details of electron-optical or ion-optical arrangements or of ion traps common to two or more basic types of discharge tubes or lamps
H01J 1/00	Details of electrodes, of magnetic control means, of screens, or of the mounting or spacing thereof, common to two or more basic types of discharge tubes or lamps (details of electron-optical arrangements or of ion traps H01J 3/00)
H01J 5/00	Details relating to vessels or to leading-in conductors common to two or more basic types of discharge tubes or lamps
H01J 7/00	Details not provided for in the preceding groups and common to two or more basic types of discharge tubes or lamps
	MANUFACTURE; REPAIR; REGENERATION; RECOVERY OF MATERIAL
H01J 9/00	Apparatus or processes specially adapted for the manufacture of electric discharge tubes, discharge lamps, or parts thereof (manufacture of vessels or containers from metal B21, e.g. B21D 51/00, from glass C03B); Recovery of material from discharge tubes or lamps [1,7]

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Rapporteur Proposal
19 May 2003

R-project: R295
IPC Subclass: H01K

IPC	Maingroup Title
H01K 13/00	Lamps having an incandescent body which is substantially non-conductive until heated, e.g. Nernst lamp
H01K 11/00	Lamps having an incandescent body which is not conductively heated, e.g. heated inductively, heated by electronic discharge (H01K 13/00 takes precedence; heated by light-emitting discharge H01J 61/98)
H01K 9/00	Lamps having two or more incandescent bodies separately heated (H01K 11/00, H01K 13/00 take precedence; incandescent-filament-type indicating arrangements affected by the combination of a number of individual lamps G09F 9/307)
H01K 5/00	Lamps for general lighting (H01K 9/00 to H01K 13/00 take precedence)
H01K 7/00	Lamps for purposes other than general lighting (H01K 9/00 to H01K 13/00 take precedence)
H01K 1/00	Details
H01K 3/00	Apparatus or processes adapted to the manufacture, installing, removal, or maintenance of incandescent lamps or parts thereof (manufacture of vessels from glass C03B)

Roberto Iasevoli

US Proposal

20 May 2003

Project: R295/03**Subclass: H01K**Proposal for rearranged order of main groups:

H01K	ELECTRIC INCANDESCENT LAMPS (details or apparatus or processes for manufacture applicable to both discharge devices and incandescent lamps H01J; light sources using a combination of incandescent and other types of light generation H01J 61/96, H05B 35/00; circuits therefor H05B) Note In this subclass, the following term is used with the meaning indicated: - "lamp" includes tubes emitting ultra-violet or infra-red light.	
IPC	Maingroup Title	Guideline
	Highly specialized – incandescent body is heated	
H01K 13/00	Lamps having an incandescent body which is substantially non-conductive until heated, e.g. Nernst lamp	4
H01K 11/00	Lamps having an incandescent body which is not conductively heated, e.g. heated inductively, heated by electronic discharge (H01K 13/00 takes precedence; heated by light-emitting discharge H01J 61/98)	4
H01K 9/00	Lamps having two or more incandescent bodies separately heated (H01K 11/00, H01K 13/00 take precedence; incandescent-filament-type indicating arrangements affected by the combination of a number of individual lamps G09F 9/307)	4
	Basic subject matter – incandescent lamps	
H01K 5/00	Lamps for general lighting (H01K 9/00 to H01K 13/00 take precedence)	7
H01K 7/00	Lamps for purposes other than general lighting (H01K 9/00 to H01K 13/00 take precedence)	7
H01K 1/00	Details	9
	Separate category of invention – manufacture	
H01K 3/00	Apparatus or processes adapted to the manufacture, installing, removal, or maintenance of incandescent lamps or parts thereof (manufacture of vessels from glass C03B)	2

Comments:

- We agree with EPO's proposal for the H01K rearrangement.
- 13/00, 11/00, 9/00, 5/00, and 7/00 are positioned in accordance to precedence reference notes in 5/00, 7/00, 9/00, and 11/00.
- 3/00 (Apparatus or processes ...) is positioned last because it covers production of basic subject matter.
- No new residual Main group is needed because 5/00, 7/00 and 1/00 cover the subclass title.

DEUTSCHES PATENT- UND MARKENAMT German Patent and Trade Mark Office	Class/Subcl.: H01L
	Date : 02.04.03
DE Rapporteur Proposal — R296 /03	

IPC	Maingroup Title
H01L 35/00	Thermoelectric devices comprising a junction of dissimilar materials, i.e. exhibiting Seebeck or Peltier effect with or without other thermoelectric effects or thermomagnetic effects; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; refrigerating machines using electric or magnetic effects F25B 21/00; measuring temperature based on thermoelectric or thermomagnetic elements G01K 7/00; obtaining energy from radioactive sources G21H) [2]
H01L 37/00	Thermoelectric devices without a junction of dissimilar materials; Thermomagnetic devices, e.g. using Nernst-Ettinghausen effect; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; measuring temperature based on thermoelectric or thermomagnetic elements G01K 7/00; selection of materials for magnetography, e.g. for Curie-point writing, G03G 5/00) [2]
H01L 39/00	Devices using superconductivity or hyperconductivity; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; superconductors characterised by the ceramic-forming technique or the ceramic composition C04B 35/00; superconductive or hyperconductive conductors, cables, or transmission lines H01B 12/00; superconductive coils or windings H01F; amplifiers using superconductivity H03F 19/00) [2,4]
H01L 41/00	Piezo-electric elements in general; Electrostrictive elements in general; Magnetostrictive elements in general; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00) [2]
H01L 43/00	Devices using galvano-magnetic or similar magnetic effects; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; devices with potential-jump barrier or surface barrier controllable by variation of a magnetic field H01L 29/82) [2]

H01L 45/00	Solid state devices adapted for rectifying, amplifying, oscillating, or switching without a potential-jump barrier or surface barrier, e.g. dielectric triodes; Ovshinsky-effect devices; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; devices using superconductivity or hyperconductivity H01L 39/00; piezo-electric elements H01L 41/00; bulk negative resistance effect devices H01L 47/00) [2]
H01L 47/00	Bulk negative resistance effect devices, e.g. Gunn-effect devices; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00) [2]
H01L 25/00	Assemblies consisting of a plurality of individual semiconductor or other solid state devices (devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; assemblies of photoelectronic cells H01L 31/042; generators using solar cells or solar panels H02N 6/00; details of complete circuit assemblies provided for in another subclass, e.g. details of television receivers, see the relevant subclass, e.g. H04N; details of assemblies of electrical components in general H05K) [2,5]
H01L 27/00	Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate (processes or apparatus adapted for the manufacture or treatment thereof or of parts thereof H01L 21/70, H01L 31/00 to H01L 49/00; details thereof H01L 23/00, H01L 29/00 to H01L 49/00; assemblies consisting of a plurality of individual solid state devices H01L 25/00; assemblies of electrical components in general H05K) [2]
H01L 31/00	Semiconductor devices sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength, or corpuscular radiation and adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof (H01L 51/00 takes precedence; devices consisting of a plurality of solid state components formed in, or on, a common substrate, other than combinations of radiation-sensitive components with one or more electric light sources, H01L 27/00; roof covering aspects of energy collecting devices E04D 13/18; production of heat using solar heat F24J 2/00; measurement of X-radiation, gamma radiation, corpuscular radiation or cosmic radiation with semiconductor detectors G01T 1/24, with resistance detectors G01T 1/26; measurement of neutron radiation with semiconductor detectors G01T 3/08; couplings of light guides with optoelectronic elements G02B 6/42; obtaining energy from radioactive sources G21H) [2,6]
H01L 33/00	Semiconductor devices with at least one potential-jump barrier or surface barrier adapted for light emission, e.g. infra-red; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof (couplings of light guides with optoelectronic elements G02B 6/42; semiconductor lasers H01S 5/00; electroluminescent light sources H05B 33/00) [2]

H01L 51/00	Solid state devices adapted for rectifying, amplifying, oscillating or switching, or capacitors or resistors with at least one potential-jump barrier or surface barrier, using organic materials as the active part, or using a combination of organic materials with other material as the active part; Processes or apparatus specially adapted for the manufacture or treatment of such devices, or of parts thereof (processes or apparatus for treatment of inorganic semiconductor bodies involving formation or treatment of organic layers thereon H01L 21/00, H01L 21/312, H01L 21/47) [6]
H01L 29/00	Semiconductor devices adapted for rectifying, amplifying, oscillating, or switching, or capacitors or resistors with at least one potential-jump barrier or surface barrier, e.g. PN-junction depletion layer or carrier concentration layer; Details of semiconductor bodies or of electrodes thereof (H01L 31/00 to H01L 47/00, H01L 51/00 take precedence; processes or apparatus adapted for the manufacture or treatment thereof or of parts thereof H01L 21/00; details other than of semiconductor bodies or of electrodes thereof H01L 23/00; devices consisting of a plurality of solid state components formed in or on a common substrate H01L 27/00; resistors in general H01C; capacitors in general H01G) [2,6]
H01L 23/00	Details of semiconductor or other solid state devices (H01L 25/00 takes precedence) [2,5]
H01L 21/00	Processes or apparatus adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof (processes or apparatus peculiar to the manufacture or treatment of devices provided for in groups H01L 31/00 to H01L 49/00 or of parts thereof, see these groups; single-step processes covered by other subclasses, see the relevant subclasses, e.g. C23C, C30B; photomechanical production of textured or patterned surfaces, materials or originals therefor, apparatus specially adapted therefor, in general G03F) [2]
H01L 49/00	Solid state devices not provided for in groups H01L 27/00 to H01L 47/00 and not provided for in any other subclass; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof (devices consisting of a plurality of solid state devices formed in or on a common substrate H01L 27/00) [2]

Remarks: 35/00 to 47/00: highly specialized
 25/00 to 27/00: combinations
 31/00 to 29/00: basic subclass matter
 23/00: details of basic subclass subject matter
 21/00: production or treatment of basic subclass subject matter
 49/00: miscellaneous

Rainer Anders

Japan Patent Office

April 11 , 2003

Project: R296

Subclass: H01L

JP Comments on Rapporteur Proposal Dated April 2, 2003

Regarding "Basic subclass subject matter," JP proposes to change the order of groups into 51/00, 31/00, 33/00 and 29/00.

The order should be determined according to IPC 8 rather than IPC 7 since the secondary sequence will be applied when IPC 8 becomes effect. The title of H01L51/00 is to be modified in IPC 8, and in maingroups 29/00, 31/00 and 33/00 there are precedence references pointing to a subgroup of 51/00. Therefore, it is proper to place 51/00 at the top of the sequence.

EP Rapporteur proposal

10 March 2003

Project R- -----**Subclass H01M**1. Rapporteur proposal for rearranged order of main groups

IPC	Maingroup Title
H01M 16/00	Structural combinations of different types of electrochemical generators [2]
H01M 12/00	Hybrid cells; Manufacture thereof [2]
H01M 8/00	Fuel cells; Manufacture thereof [2]
H01M 10/00	Secondary cells; Manufacture thereof [2]
H01M 6/00	Primary cells; Manufacture thereof [2]
H01M 14/00	Electrochemical current or voltage generators not provided for in groups H01M 6/00 to H01M 12/00 [2]
H01M 4/00	Electrodes (electrodes for electrolytic processes C25) [2]
H01M 2/00	Constructional details, or processes of manufacture, of the non-active parts [2]

2. Comments:

R-proposal is based on:

- no "place rule", no important references
- secondary cells (rechargeable) being considered more complex than primary cells
- fuel cells considered to be off higher complexity than primary or secondary cells
- 14/00 being a residual group

P. Daeleman

ANNEX 1

IPC	Maingroup Title
H01P 5/00	Coupling devices of the waveguide type (non-reciprocal devices H01P 1/32; for introducing or removing wave energy to or from the discharge in transit-time tubes H01J 23/36)
H01P 3/00	Waveguides; Transmission lines of the waveguide type
H01P 7/00	Resonators of the waveguide type (structurally associated with transit-time tubes and interacting with the discharge therein H01J 23/18; microwave heating devices H05B 6/64)
H01P 9/00	Delay lines of the waveguide type (structurally associated with transit-time tubes and interacting with the discharge therein H01J 23/24)
H01P 1/00	Auxiliary devices (coupling devices of the waveguide type H01P 5/00)
H01P 11/00	Apparatus or processes specially adapted for manufacturing waveguides or resonators, lines, or other devices of the waveguide type (manufacture of coaxial cables H01B 13/00)



EUROPEAN PATENT OFFICE
Principal Directorate Tools And Documentation

Rapporteur Proposal
19 May 2003

R-project: R299
IPC Subclass: H01Q

IPC	Maingroup Title
H01Q 19/00	Combinations of primary active aerial elements and units with secondary devices, e.g. with quasi-optical devices, for giving the aerial a desired directional characteristic
H01Q 23/00	Aerials with active circuits or circuit elements integrated within them or attached to them [3]
H01Q 21/00	Aerial arrays or systems (producing a beam the orientation or the shape of the directional pattern of which can be changed or varied H01Q 3/00; electrically-long aerials H01Q 11/00)
H01Q 7/00	Loop aerials with a substantially uniform current distribution around the loop and having a directional radiation pattern in a plane perpendicular to the plane of the loop
H01Q 13/00	Waveguide horns or mouths; Slot aerials; Leaky-waveguide aerials; Equivalent structures causing radiation along the transmission path of a guided wave (multimode aerials H01Q 25/04)
H01Q 9/00	Electrically-short aerials having dimensions not more than twice the operating wavelength and consisting of conductive active radiating elements (loop aerials H01Q 7/00; waveguide horns or mouths H01Q 13/00; slot aerials H01Q 13/00; combinations of active elements with secondary devices to give desired directional characteristic H01Q 19/00; combinations of two or more active elements H01Q 21/00)
H01Q 11/00	Electrically-long aerials having dimensions more than twice the shortest operating wavelength and consisting of conductive active radiating elements (leaky-waveguide aerials, slot aerials H01Q 13/00; combinations of active elements with secondary devices to give desired directional characteristic H01Q 19/00; aerial arrays or systems H01Q 21/00)
H01Q 25/00	Aerials or aerial systems providing at least two radiating patterns (arrangements for changing or varying the orientation or the shape of the directional pattern H01Q 3/00) [3]
H01Q 1/00	Details of, or arrangements associated with, aerials (arrangements for varying orientation of directional pattern H01Q 3/00)
H01Q 3/00	Arrangements for changing or varying the orientation or the shape of the directional pattern of the waves radiated from an aerial or aerial system
H01Q 5/00	Arrangements for simultaneous operation of aerials on two or more different wavebands (length of elements adjustable H01Q 9/14; combinations of separate active aerial units operating in different wavebands and connected to a common feeder system H01Q 21/30) [3]
H01Q 15/00	Devices for reflection, refraction, diffraction, or polarisation of waves radiated from an aerial, e.g. quasi-optical devices (variable for purpose of altering directivity H01Q 3/00; arrangements of such devices for guiding waves H01P 3/20; variable for purpose of modulation H03C 7/02)
H01Q 17/00	Devices for absorbing waves radiated from an aerial; Combinations of such devices with active aerial elements or systems

Pasquale Foglia



EUROPEAN PATENT OFFICE
Principal Directorate Tools And Documentation

Rapporteur Proposal
19 May 2003

R-project: R300
IPC Subclass: H01R

IPC	Maingroup Title
	CURRENT COLLECTORS
H01R 39/00	Rotary current collectors, distributors, or interrupters (cam-operated switches H01H 19/00; structural associations of current collectors with, or disposition of current collectors in, dynamo-electric motors or generators H02K 13/00)
H01R 41/00	Non-rotary current collectors for maintaining contact between moving and stationary parts of an electric circuit (end pieces terminating in a hook or the like H01R 11/12; current collectors for power supply lines of electrically-propelled vehicles B60L 5/00)
	FLEXIBLE OR TURNABLE LINE CONNECTORS
H01R 35/00	Flexible or turnable line connectors (rotary current collectors, distributors H01R 39/00)
	COUPLING
H01R 12/00	Structural associations of a plurality of mutually-insulated electrical connecting elements, specially adapted for printed circuits, e.g. printed circuit boards (PCBs), flat or ribbon cables, or like generally planar structures, e.g. terminal strips, terminal blocks; Coupling devices specially adapted for printed circuits, flat or ribbon cables, or like generally planar structures; Terminals specially adapted for contact with, or insertion into, printed circuits, flat or ribbon cables, or like generally planar structures (printed connections to, or between, printed circuits H05K 1/11) [7]
H01R 33/00	Coupling devices specially adapted for supporting apparatus and having one part acting as a holder providing support and electrical connection via a counterpart which is structurally associated with the apparatus, e.g. lamp holders; Separate parts thereof (structural association of counterpart with specific apparatus, see the relevant subclass for the apparatus)
H01R 31/00	Coupling parts supported only by co-operation with counterpart
H01R 24/00	Two-part coupling devices, or either of their cooperating parts, characterised by their overall structure (specially adapted for printed circuits, flat or ribbon cables, or like structures H01R 12/00; specially adapted for supporting apparatus H01R 33/00) [7]
H01R 25/00	Coupling parts adapted for simultaneous co-operation with two or more identical counterparts, e.g. for distributing energy to two or more circuits (supported only by co-operation with a counterpart H01R 31/00; with a holder adapted for supporting apparatus to which its counterpart is attached H01R 33/88)
H01R 27/00	Coupling parts adapted for co-operation with two or more dissimilar counterparts (supported only by co-operation with a counterpart H01R 31/00; with a holder adapted for supporting apparatus to which its counterpart is attached H01R 33/90)
H01R 29/00	Coupling parts for selective co-operation with a counterpart in different ways to establish different circuits, e.g. for voltage selection, for series/parallel selection

H01R 13/00	Details of coupling devices of the kinds covered by groups H01R 12/14 or H01R 24/00 to H01R 33/00 [1,7]
	ELECTRICAL CONNECTIONS
H01R 4/00	Electrically-conductive connections between two or more conductive members in direct contact, i.e. touching one another; Means for effecting or maintaining such contact; Electrically-conductive connections having two or more spaced connecting locations for conductors and using contact members penetrating insulation (details of contacts of coupling devices H01R 13/00; coupling devices H01R 12/14, H01R 24/00 to H01R 33/00; flexible or turnable line connectors H01R 35/00 non-rotary current collectors H01R 41/00) [3]
H01R 9/00	Structural associations of a plurality of mutually-insulated electrical connecting elements, e.g. terminal strips, terminal blocks; Terminals or binding posts mounted upon a base or in a case; Bases therefor (details of direct connections or connections using contact members penetrating insulation H01R 4/00; specially adapted for printed circuits, flat or ribbon cables, or like generally planar structures H01R 12/00; coupling devices H01R 12/14, H01R 24/00 to H01R 33/00; flexible or turnable line connectors H01R 35/00) [3]
H01R 11/00	Individual connecting elements providing two or more spaced connecting locations for conductive members which are, or may be, thereby interconnected, e.g. end pieces for wires or cables supported by the wire or cable and having means for facilitating electrical connection to some other wire, terminal, or conductive member, blocks of binding posts (connections between members in direct contact H01R 4/00; structural associations of a plurality of mutually-insulated electrical connecting elements H01R 9/00; coupling devices H01R 12/14, H01R 24/00 to H01R 29/00, H01R 33/00; flexible or turnable line connectors H01R 35/00) [3]
H01R 3/00	Electrically-conductive connections not otherwise provided for
	MANUFACTURE
H01R 43/00	Apparatus or processes specially adapted for manufacturing, assembling, maintaining, or repairing of line connectors or current collectors or for joining electric conductors (of trolley lines B60M 1/28; joining cables H02G 1/14)

Roberto Iasevoli

US Proposal

7 May 2003

Project: R300/03**Subclass: H01R**Proposal for rearranged order of main groups:

ELECTRICALLY-CONDUCTIVE CONNECTIONS; STRUCTURAL ASSOCIATIONS OF A PLURALITY OF MUTUALLY-INSULATED ELECTRICAL CONNECTING ELEMENTS; COUPLING DEVICES; CURRENT COLLECTORS (switches, fuses H01H; coupling devices of the waveguide type H01P 5/00; switching arrangements for the supply or distribution of electric power H02B; installations of electric cables or lines, or of combined optical and electric cables or lines, or of auxiliary apparatus H02G; printed means for providing electric connections to or between printed circuits H05K)

IPC	Maingroup Title	Guideline
	Highly Specialized - current collectors	
H01R 39/00	Rotary current collectors, distributors, or interrupters (cam-operated switches H01H 19/00; structural associations of current collectors with, or disposition of current collectors in, dynamo-electric motors or generators H02K 13/00)	4
H01R 41/00	Non-rotary current collectors for maintaining contact between moving and stationary parts of an electric circuit (end pieces terminating in a hook or the like H01R 11/12; current collectors for power supply lines of electrically-propelled vehicles B60L 5/00)	4
	Highly Specialized - flexible or turnable connectors	
H01R 35/00	Flexible or turnable line connectors (rotary current collectors, distributors H01R 39/00)	4
	Highly Specialized - printed circuit coupling devices and connections	
H01R 12/00	Structural associations of a plurality of mutually-insulated electrical connecting elements, specially adapted for printed circuits, e.g. printed circuit boards (PCBs), flat or ribbon cables, or like generally planar structures, e.g. terminal strips, terminal blocks; Coupling devices specially adapted for printed circuits, flat or ribbon cables, or like generally planar structures; Terminals specially adapted for contact with, or insertion into, printed circuits, flat or ribbon cables, or like generally planar structures (printed connections to, or between, printed circuits H05K 1/11) [7]	4
	Basic Subject Matter - coupling devices and parts	
H01R 33/00	Coupling devices specially adapted for supporting apparatus and having one part acting as a holder providing support and electrical connection via a counterpart which is structurally associated with the apparatus, e.g. lamp holders; Separate parts thereof (structural association of counterpart with specific apparatus, see the relevant subclass for the apparatus)	7
H01R 31/00	Coupling parts supported only by co-operation with counterpart	7
H01R 24/00	Two-part coupling devices, or either of their cooperating parts, characterised by their overall structure (specially adapted for printed circuits, flat or ribbon cables, or like structures H01R 12/00; specially adapted for supporting apparatus H01R 33/00) [7]	7
H01R 29/00	Coupling parts for selective co-operation with a counterpart in different ways to establish different circuits, e.g. for voltage selection, for series/parallel selection	7

H01R 27/00	Coupling parts adapted for co-operation with two or more dissimilar counterparts (supported only by co-operation with a counterpart H01R 31/00; with a holder adapted for supporting apparatus to which its counterpart is attached H01R 33/90)	7
H01R 25/00	Coupling parts adapted for simultaneous co-operation with two or more identical counterparts, e.g. for distributing energy to two or more circuits (supported only by co-operation with a counterpart H01R 31/00; with a holder adapted for supporting apparatus to which its counterpart is attached H01R 33/88)	7
	Details of coupling devices and parts	
H01R 13/00	Details of coupling devices of the kinds covered by groups H01R 12/14 or H01R 24/00 to H01R 33/00 [1,7]	9
	Basic Subject Matter - electrical connections and connecting elements	
H01R 4/00	Electrically-conductive connections between two or more conductive members in direct contact, i.e. touching one another; Means for effecting or maintaining such contact; Electrically-conductive connections having two or more spaced connecting locations for conductors and using contact members penetrating insulation (details of contacts of coupling devices H01R 13/00; coupling devices H01R 12/14, H01R 24/00 to H01R 33/00; flexible or turnable line connectors H01R 35/00 non-rotary current collectors H01R 41/00) [3]	7
H01R 9/00	Structural associations of a plurality of mutually-insulated electrical connecting elements, e.g. terminal strips, terminal blocks; Terminals or binding posts mounted upon a base or in a case; Bases therefor (details of direct connections or connections using contact members penetrating insulation H01R 4/00; specially adapted for printed circuits, flat or ribbon cables, or like generally planar structures H01R 12/00; coupling devices H01R 12/14, H01R 24/00 to H01R 33/00; flexible or turnable line connectors H01R 35/00) [3]	7
H01R 11/00	Individual connecting elements providing two or more spaced connecting locations for conductive members which are, or may be, thereby interconnected, e.g. end pieces for wires or cables supported by the wire or cable and having means for facilitating electrical connection to some other wire, terminal, or conductive member, blocks of binding posts (connections between members in direct contact H01R 4/00; structural associations of a plurality of mutually-insulated electrical connecting elements H01R 9/00; coupling devices H01R 12/14, H01R 24/00 to H01R 29/00, H01R 33/00; flexible or turnable line connectors H01R 35/00) [3]	7
	Details of electrical connections and connecting elements	
H01R 3/00	Electrically-conductive connections not otherwise provided for	9
	Separate Category of Invention – manufacture	
H01R 43/00	Apparatus or processes specially adapted for manufacturing, assembling, maintaining, or repairing of line connectors or current collectors or for joining electric conductors (of trolley lines B60M 1/28; joining cables H02G 1/14)	2

Comments:

US notes that the above rearrangement is the same as the one done by EP except for the relative positions of three adjacent Main groups.

29/00 is very specific and recites “selective” cooperation in “different ways”, so is placed above 27/00 and 25/00.

27/00 recites cooperation with two or more “dissimilar” counterparts, which seems more complex than cooperation with “identical” counterparts, so is placed above 25/00. It is noted that both provide for “simultaneous” cooperation (27/02).

No new residual Main group is needed because:
3/00 and 13/00 provide for all of residual electrical couplings and connections;
39/00 and 41/00 provide for all current collectors;
9/00 and 12/00 provide for all structural associations of a plurality of mutually-insulated electrical connecting elements.



EUROPEAN PATENT OFFICE
Principal Directorate Tools And Documentation

Rapporteur Proposal
19 May 2003

R-project: R301
IPC Subclass: H01S

IPC	Maingroup Title
H01S 5/00	Semiconductor lasers [7]
H01S 3/00	Lasers, i.e. devices for generation, amplification, modulation, demodulation, or frequency-changing, using stimulated emission, of infra-red, visible, or ultra-violet waves (semiconductor lasers H01S 5/00)
H01S 1/00	Masers, i.e. devices for generation, amplification, modulation, demodulation, or frequency-changing, using stimulated emission, of electromagnetic waves of wavelength longer than that of infra-red waves
H01S 4/00	Devices using stimulated emission of wave energy other than those covered by groups H01S 1/00, H01S 3/00 or H01S 5/00, e.g. phonon maser, gamma maser

Roberto Iasevoli



EUROPEAN PATENT OFFICE
Principal Directorate Tools And Documentation

Rapporteur Proposal
19 May 2003

R-project: R302
IPC Subclass: H01T

IPC	Maingroup Title
H01T 15/00	Circuits specially adapted for spark gaps, e.g. ignition circuits (ignition circuits for internal-combustion engines F02P; electric spark ignition for combustion apparatus F23Q; protection circuits using spark gaps H02H 9/06) [4]
H01T 2/00	Spark gaps comprising auxiliary triggering means (triggering circuits H01T 15/00) [4]
H01T 13/00	Sparking-plugs (testing sparking-plugs G01M 19/02)
H01T 7/00	Rotary spark gaps, i.e. devices having one or more rotating electrodes
H01T 9/00	Spark gaps specially adapted for generating oscillations
H01T 11/00	Spark gaps specially adapted as rectifiers
H01T 4/00	Overvoltage arresters using spark gaps (H01T 2/00 takes precedence; overvoltage protection circuits using spark gaps H02H 9/06) [4]
H01T 14/00	Spark gaps not provided for in groups H01T 2/00 to H01T 13/00 (devices providing for corona discharge H01T 19/00) [4]
H01T 1/00	Details of spark gaps
H01T 21/00	Apparatus or processes specially adapted for the manufacture or maintenance of spark gaps or sparking plugs
H01T 23/00	Apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere (discharge tubes with provision for emergence of ions from the vessel H01J 33/00; generating plasma H05H) [4]
H01T 19/00	Devices providing for corona discharge (for charging electrographic elements G03G 15/02) [4]

Roberto Iasevoli

**IPC Rearrangement project R303/03, Subclass H 02 B**

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02B 15/00	Supervisory desks or panels for centralised control or display (desks in general A47B)
H02B 7/00	Enclosed substations, e.g. compact substations [5]
H02B 5/00	Non-enclosed substations; Substations with enclosed and non-enclosed equipment
H02B 11/00	Switchgear having carriage withdrawable for isolation
H02B 13/00	Arrangement of switchgear in which switches are enclosed in, or structurally associated with, a casing, e.g. cubicle (in association with main transformer H02B 5/00, H02B 7/00; switchgear having carriage withdrawable for isolation H02B 11/00) [5]
H02B 1/00	Frameworks, boards, panels, desks, casings; Details of substations or switching arrangements [5]
H02B 3/00	Apparatus specially adapted for the manufacture, assembly, or maintenance of boards or switchgear

Notes etc. in the scheme give some indications:

5/00, 11/00, 13/00 and 15/00 go above 1/00

5/00, 7/00 and 11/00 go above 13/00.

15/00 deals with equipment for centralized control or display, and seems to fit in the “highly specialized” part in the standardized sequence of main groups. Therefore this main group goes at the top. 1/00 seems to deal mostly with details, and is therefore considered to be at the lower end of the scheme. 3/00 deals with manufacture etc. of basic subclass matter, and according to the standardized sequence 3/00 goes below 1/00. Compared with the other main groups, 3/00 and 1/00 is considered to be the last two main groups (according to the Secondary Sort Key) in the scheme. This gives the preliminary sequence:

15/00

5/00, 7/00, 11/00

13/00

1/00

3/00

5/00 deals with non-enclosed substations and substations with both enclosed and non-enclosed equipment. The pure non-enclosed part of the main group is at exactly the same level as main group 7/00. The part covering both enclosed and non-enclosed equipment is combinations of subject matter found in different main groups of the subclass, and should therefore be above 7/00. The main group 11/00 seems to be dealing with a bit more general basic subject matter than 5/00 and 7/00, and is considered to go in the scheme below these two main groups.

Olav A. Aasen

**IPC Rearrangement project R304/03, Subclass H 02 G**

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02G 13/00	Installations of lightning conductors; Fastening thereof to supporting structure (indicating, counting or recording lightning strokes G01; lightning arrestors H01C 7/12, H01C 8/04, H01G 9/18, H01T; earth plates, pins or other contacts H01R)
H02G 11/00	Arrangements of electric cables or lines between relatively-movable parts (current collectors H01R)
H02G 5/00	Installations of bus-bars
H02G 7/00	Overhead installations of electric lines or cables (installations of bus-bars H02G 5/00; trolley wires or contact lines for electric railways B60M; fastening conductors to insulators H01B 17/00, e.g. H01B 17/06, H01B 17/16, H01B 17/22; protection against abnormal electric conditions H01H; hook contacts for temporary connections to overhead lines H01R 11/14)
H02G 9/00	Installations of electric cables or lines in or on the ground or water (cathodic protection C23F 13/02; detection of buried cables G01V)
H02G 3/00	Installations of electric cables or lines or protective tubing therefor in or on buildings, equivalent structures or vehicles (installations of bus-bars H02G 5/00; overhead installations H02G 7/00; installations in or on the ground H02G 9/00; channels or vertical ducts for receiving utility lines E04F 17/08; wiring of electric apparatus in general H05K)
H02G 15/00	Cable fittings
H02G 1/00	Methods or apparatus specially adapted for installing, maintaining, repairing, or dismantling electric cables or lines

Preference notes in the titles of 5/00, 7/00 and 9/00 places these main-groups ahead of 3/00. Preference note in the title of 5/00 places the main-group ahead of 7/00. The main-groups 7/00 and 9/00 are quite similar, and it is therefore considered correct to place 5/00 ahead of 9/00 as well. The order of 7/00 and 9/00 seems to be of no importance at all, the alphanumerical order is therefore used between these main-groups.

The main-groups 11/00 and 13/00 is of more specialized nature than 3/00 to 9/00, and is therefore considered to be ahead of those main-groups. Main-group 13/00 seems to be more specialized than 11/00, and is therefore placed ahead of 11/00.

Main-group 15/00 deals with details connected to main-groups 3/00 to 13/00, and are therefore placed below those main-groups in the scheme.

Main-group 1/00 deals with methods or apparatus for installation, which is regarded as “Production or treatment of basic subclass matter”, and therefore goes towards the end of the scheme, below the detail-groups.

Olav A. Aasen

**IPC Rearrangement project R305/03, Subclass H 02 H**

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02H 11/00	Emergency protective circuit arrangements for preventing the switching-on in case an undesired electric working condition might result
H02H 6/00	Emergency protective circuit arrangements responsive to undesired changes from normal non-electric working conditions using simulators of the apparatus being protected, e.g. using thermal images [3]
H02H 7/00	Emergency protective circuit arrangements specially adapted for specific types of electric machines or apparatus or for sectionalised protection of cable or line systems, and effecting automatic switching in the event of an undesired change from normal working conditions (structural association of protective devices with specific machines or apparatus and their protection without automatic disconnection, see the relevant subclass for the machine or apparatus)
H02H 5/00	Emergency protective circuit arrangements for automatic disconnection directly responsive to an undesired change from normal non-electric working conditions with or without subsequent reconnection (using simulators of the apparatus being protected H02H 6/00; specially adapted for specific types of electric machines or apparatus or for sectionalised protection of cable or line systems H02H 7/00) [3]
H02H 3/00	Emergency protective circuit arrangements for automatic disconnection directly responsive to an undesired change from normal electric working condition, with or without subsequent reconnection (specially adapted for specific types of electric machines or apparatus or for sectionalised protection of cable or line systems H02H 7/00; systems for change-over to standby supply H02J 9/00)
H02H 9/00	Emergency protective circuit arrangements for limiting excess current or voltage without disconnection (structural association of protective devices with specific machines or apparatus, see the relevant subclass for the machine or apparatus)
H02H 1/00	Details of emergency protective circuit arrangements

References in the scheme of 3/00 place main-group 7/00 ahead of 3/00.

References in 5/00 indicate that 6/00 and 7/00 should be ahead of 5/00.

Main-group 6/00 seems to be more specialized than 7/00, and should therefore be ahead of 7/00 in the scheme.

Main-group 11/00 is highly specialized, and should be at the top of the scheme.

Main-group 1/00 is details of apparatus, and should be placed below main-groups 3/00 to 11/00.

Main-groups 3/00, 5/00 and 7/00 all deals with emergency protective arrangements with automatic disconnection/switching, and 9/00 deals with emergency protective arrangements without disconnection/switching. It is by no way clear which of these who are the most specialized, and they are therefore regarded as being at the same specialized level. 9/00 could therefore be placed both direct ahead of or direct below 3/00, 5/00 and 7/00. It seems that placing 9/00 ahead of those main-groups will cause some “disruption” in the scheme; therefore it is proposed to place 9/00 below these main-groups.

Olav A. Aasen

**IPC Rearrangement project R306/03, Subclass H 02 J**

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02J 7/00	Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries
H02J 9/00	Circuit arrangements for emergency or stand-by power supply, e.g. for emergency lighting (with provision for charging standby battery H02J 7/00)
H02J 11/00	Circuit arrangements for providing service supply to auxiliaries of stations in which electric power is generated, distributed, or converted (emergency or standby arrangements H02J 9/00)
H02J 13/00	Circuit arrangements for providing remote indication of network conditions, e.g. an instantaneous record of the open or closed condition of each circuitbreaker in the network; Circuit arrangements for providing remote control of switching means in a power distribution network, e.g. switching in and out of current consumers by using a pulse code signal carried by the network
H02J 17/00	Systems for supplying or distributing electric power by electromagnetic waves [3]
H02J 3/00	Circuit arrangements for ac mains or ac distribution networks
H02J 1/00	Circuit arrangements for dc mains or dc distribution networks
H02J 5/00	Circuit arrangements for transfer of electric power between ac networks and dc networks (H02J 3/36 takes precedence)
H02J 4/00	Circuit arrangements for mains or distribution networks not specified as ac or dc [2]
H02J 15/00	Systems for storing electric energy (mechanical systems therefor F01 to F04; in chemical form H01M) [2]

This subclass has a two-part title:

Circuit arrangements or systems for supplying or distributing electric power
Systems for storing electric energy

The first part of title covers main groups 1/00 to 13/00 and 17/00, while the second part of the title covers only one main group; 15/00. When using the existing order in the subclass title, main group 15/00 will appear as the last main group when using the secondary sort key.

Of the other main groups, there are notes etc. giving some guidance on the order.

7/00 goes above 9/00, which in turn goes above 11/00, thus resulting in the following order of these three main groups: 7/00, 9/00, 11/00

Main groups 1/00 and 3/00 is at the exact same level, while 4/00 is residual to 1/00 and 3/00 and 5/00 as well. One of the subgroups in 3/00 (3/36) is preferably placed ahead of 1/00, because a DC link is involved in distribution of AC mains. Main group 17/00 is highly specialized, and should be places ahead of 1/00 to 5/00. 13/00 deals with indication and control and should be placed before 17/00.

Main groups 1/00 to 5/00, 13/00 and 15/00 deals with distribution of electric power generally, while main groups 7/00 to 11/00 deals with supplying electric power to specific applications. The latter should therefore go in the scheme on top.

Olav A. Aasen

**IPC Rearrangement project R307/03, Subclass H 02 K**

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02K 55/00	Dynamo-electric machines having windings operating at cryogenic temperatures [3]
H02K 16/00	Machines with more than one rotor or stator [2]
H02K 53/00	Alleged dynamo-electric perpetua mobilia
H02K 44/00	Machines in which the dynamo-electric interaction between a plasma or flow of conductive liquid or of fluid-borne conductive or magnetic particles and a coil system or magnetic field converts energy of mass flow into electrical energy or vice versa [3]
H02K 47/00	Dynamo-electric converters
H02K 51/00	Dynamo-electric gears, i.e. dynamo-electric means for transmitting mechanical power from a driving shaft to a driven shaft and comprising structurally interrelated motor and generator parts
H02K 49/00	Dynamo-electric clutches; Dynamo-electric brakes (electrically or magnetically actuated clutches or brakes F16D 27/00, F16D 29/00, F16D 65/34, F16D 65/36; magnetic-particle clutches F16D 37/02; adapted for use as dynamometers G01L)
H02K 41/00	Propulsion systems in which a rigid body is moved along a path due to dynamo-electric interaction between the body and a magnetic field travelling along the path
H02K 24/00	Machines adapted for the instantaneous transmission or reception of the angular displacement of rotating parts, e.g. synchro, selsyn
H02K 26/00	Machines adapted to function as torque motors, i.e. to exert a torque when stalled
H02K 39/00	Generators specially adapted for producing a desired non-sinusoidal waveform
H02K 37/00	Motors with rotor rotating step by step and without interrupter or commutator driven by the rotor, e.g. stepping motors
H02K 33/00	Motors with reciprocating, oscillating, or vibrating magnet, armature, or coil system (arrangements for handling mechanical energy structurally associated with motors H02K 7/00, e.g. H02K 7/06)
H02K 35/00	Generators with reciprocating, oscillating, or vibrating coil system, magnet, armature, or other part of the magnetic circuit (arrangements for handling mechanical energy structurally associated with generators H02K 7/00, e.g. H02K 7/06)
H02K 31/00	Acyclic motors or generators, i.e. dc machines having a drum or disc armature with continuous current collectors
H02K 25/00	Dc interrupter motors or generators
H02K 29/00	Motors or generators having non-mechanical commutating devices, e.g. discharge tubes, semiconductor devices

H02K 23/00	Dc commutator motors or generators having mechanical commutator; Universal ac/dc commutator motors
H02K 27/00	Ac commutator motors or generators having mechanical commutator (universal ac/dc motors H02K 23/64)
H02K 21/00	Synchronous motors having permanent magnet; Synchronous generators having permanent magnet (stator cores with permanent magnets H02K 1/17; rotor cores with permanent magnets H02K 1/27)
H02K 19/00	Synchronous motors or generators (having permanent magnet H02K 21/00)
H02K 17/00	Asynchronous induction motors; Asynchronous induction generators
H02K 57/00	Dynamo-electric machines not provided for in groups H02K 17/00 to H02K 55/00 [3]
H02K 11/00	Structural association with measuring or protective devices or electric components, e.g. with resistor, with switch, with suppressor for radio interference
H02K 1/00	Details of the magnetic circuit (magnetic circuits or magnets in general, magnetic circuits for transformers for power supply H01F; magnetic circuits for relays H01H 50/16)
H02K 3/00	Details of windings (coils in general H01F 5/00)
H02K 9/00	Systems for cooling or ventilating (channels or ducts in parts of the magnetic circuit H02K 1/20, H02K 1/32; channels or ducts in or between conductors H02K 3/22, H02K 3/24)
H02K 7/00	Arrangements for handling mechanical energy structurally associated with the machine, e.g. structural association with mechanical driving motor or auxiliary dynamo-electric machine
H02K 5/00	Casings; Enclosures; Supports (casings for electric apparatus in general H05K 5/00)
H02K 13/00	Structural associations of current collectors with motors or generators, e.g. brush mounting plates, connections to windings (supporting or protecting brushes or brush holders in motor casings or enclosures H02K 5/14); Disposition of current collectors in motors or generators; Arrangements for improving commutation
H02K 15/00	Methods or apparatus specially adapted for manufacturing, assembling, maintaining, or repairing dynamo-electric machines (manufacture of current collectors in general H01R 43/00)

Brief explanation of the proposed order of main groups:

Note after 16/00 gives that 16/00 will go ahead of 17/00 to 53/00, but not necessarily ahead of 55/00. It seems quit clear that all machines having windings operating at cryogenic temperature should be classified in 55/00 even if they should have more than one rotor or stator. The right position of 55/00 should therefore be above 16/00. 57/00 is residual to main groups 17/00 to 55/00, and goes after these main groups.

Main groups 1/00 – 13/00 is dealing with details, and should therefore go below 16/00 – 57/00. Main group 15/00 are dealing with manufacture, and should go after details (according to the standardized sequence). Within 1/00 to 13/00, 11/00 seam to be the highest placed according to the standardized sequence because of the measuring aspect.

1/20, 1/32, 3/22, 3/24 should be ahead of 9/00, therefore 1/00 and 3/00 is placed before 9/00 in the “new scheme”. 5/00 should probably go below 9/00 due to reference in 5/12. It seems to me that means etc. for handling mechanical energy etc. should be classified in 7/00 rather than 5/00 if it is possible to classify in both main groups. Therefore 7/00 goes ahead of 5/00. Reference in 13/00 indicates that 13/00 should be below 5/00. This gives the following sequence:

55/00
16/00
17/00 – 53/00 (order is yet to be determined)
57/00
11/00
1/00
3/00
9/00
7/00
5/00
13/00
15/00

Order of main groups 17/00 to 53/00.

Notes, references etc. from the scheme give some indications:

21/00 takes precedence over 19/00, and should therefore be ahead of 19/00.

47/00 should be above 17/00.

23/00 covers dc commutator motors or generators alone, and universal ac/dc commutator motors (23/64), while 27/00 covers only ac commutator motors or generator. According to the standardized order 23/00 should therefore be ahead of 27/00.

In the subclass index main groups 24/00, 26/00, 41/00, 44/00, 47/00, 49/00, 51/00 and 53/00 is considered to be special dynamo-electric apparatus, while main groups 17/00, 19/00, 21/00, 23/00, 25/00, 27/00, 29/00, 31/00, 33/00, 35/00, 37/00 and 39/00 are considered to be of a bit more general nature of generators or motors. Main groups 24/00, 26/00, 41/00, 44/00, 47/00, 49/00, 51/00 and 53/00 should therefore go above main groups 17/00, 19/00, 21/00, 23/00, 25/00, 27/00, 29/00, 31/00, 33/00, 35/00, 37/00 and 39/00 according to the standardized sequence of main groups.

Order of main groups 24/00, 26/00, 41/00, 44/00, 47/00, 49/00, 51/00 and 53/00:

Taking into account the complexity and the specialised/general nature of the main groups, an intellectual consideration results in the following proposed order:

53/00
44/00
47/00
51/00
49/00
41/00
24/00
26/00

Order of main groups 17/00, 19/00, 21/00, 23/00, 25/00, 27/00, 29/00, 31/00, 33/00, 35/00, 37/00 and 39/00:

Taking into account the complexity and the specialised/general nature of the main groups, an intellectual consideration results in the following proposed order:

39/00
37/00
33/00
35/00
31/00

25/00
23/00
27/00
21/00
19/00
17/00

Olav A. Aasen


IPC Rearrangement project R308/03, Subclass H 02 M

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02M 1/00	Details of apparatus for conversion
H02M 3/00	Conversion of dc power input into dc power output
H02M 5/00	Conversion of ac power input into ac power output, e.g. for change of voltage, for change of frequency, for change of number of phases
H02M 7/00	Conversion of ac power input into dc power output; Conversion of dc power input into ac power output
H02M 9/00	Conversion of dc or ac input power into surge output power [2]
H02M 11/00	Power conversion systems not covered by the preceding groups [4]

Main groups 3/00 to 11/00 deals with power conversion systems, while 1/00 covers details of such systems. In my opinion this should lead to the conclusion that 1/00 is placed after all the other main groups. 11/00 is a residual main group, but it cannot be seen that it is residual to 1/00.

Main group 9/00 covers a specific application, while the other main groups are of a more general nature. Therefore 9/00 is placed on the top of the scheme. Main groups 3/00, 5/00 and 7/00 are primarily equal. In order to prevent conversion systems of the type dc-ac-dc or ac-dc-ac being placed in main group 7/00 instead of 3/22 or 5/40, main group 7/00 should be placed after 3/00 and 5/00. I choose to use the existing order of 3/00 and 5/00, since these main groups have no overlaps and are equally placed in the standardized sequence.

Olav A. Aasen



IPC Rearrangement project R309/03, Subclass H 02 N

8 March 2003

The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02N 3/00	Generators in which thermal or kinetic energy is converted into electrical energy by ionisation of a fluid and removal of the charge therefrom (discharge tubes functioning as thermionic generators H01J 45/00) [3]
H02N 6/00	Generators in which light radiation is directly converted into electrical energy (solar cells or assemblies thereof H01L 25/00, H01L 31/00) [4]
H02N 10/00	Electric motors using thermal effects [3]
H02N 1/00	Electrostatic generators or motors using a solid moving electrostatic charge carrier
H02N 13/00	Clutches or holding devices using electrostatic attraction, e.g. using Johnson-Rahbek effect
H02N 2/00	Electric machines in general using piezo-electric effect, electrostriction or magnetostriction (generating mechanical vibrations in general B06B; piezo-electric, electrostrictive or magnetostrictive elements in general H01L 41/00) [4]
H02N 15/00	Holding or levitation devices using magnetic attraction or repulsion, not otherwise provided for (electric or magnetic devices for holding work on machine tools B23Q 3/15; sliding or levitation devices for railway systems B61B 13/08; material handling devices associated with conveyers incorporating devices with electrostatic or magnetic grippers B65G 47/92; separating thin or filamentary articles from piles using magnetic force B65H 3/16; delivering thin or filamentary articles from magnetic holders by air blast or suction B65H 29/24; bearings using magnetic or electric supporting means F16C 32/04; relieving bearing loads using magnetic means F16C 39/06; magnets H01F 7/00; dynamo-electric clutches or brakes H02K 49/00) [3]
H02N 11/00	Generators or motors not provided for elsewhere; Alleged perpetua mobilia obtained by electric or magnetic means (by hydrostatic pressure F03B 17/04; by dynamo-electric means H02K 53/00)

The main-groups consists of two separate schemes which do not intercept with each other 1/00 to 10/00 13/00 and 15/00 and, finally, the main-group 11/00, which is residual to all of these main-groups.

2/00 (electric machines in general) seems to be of a residual nature regarding main-groups 1/00 and 3/00 to 10/00 (generators of motors or both), and are therefore placed below these main-groups.

11/00 are residual even to 2/00, and goes below 2/00 in the scheme.

Of the main-groups 1/00 to 10/00, 3/00 is considered to be the most complex main-group, followed by 6/00 and 10/00 in that order. Then we got 1/00 followed by 2/00 and finally 11/00.

15/00 seems to be of a more residual nature than 13/00, and is therefore placed after 13/00. 2/00 seems to be of a residual nature regarding 13/00; as a result 13/00 goes above 2/00 in the scheme. 15/00 is considered to be of a residual nature regarding main-group 2/00.

Olav A. Aasen

**IPC Rearrangement project R310/03, Subclass H 02 P**

8 March 2003

The rearrangement is made on basis of the new scheme of H 02 P, as approved by the Committee of Experts in February 2003. The Rapporteur proposes the following rearranged order of the main groups:

IPC	Maingroup Title
H02P 13/00	Arrangements for controlling transformers, reactors or choke coils, for the purpose of obtaining a desired output (regulation systems using transformers, reactors or choke coils G05F; transformers H01F; feeding a network in conjunction with a generator or a converter H02J; control or regulation of converters H02M) [4]
H02P 21/00	Arrangements or methods for the control of electric machines by vector control, e.g. by control of field orientation
H02P 8/00	Arrangements for controlling dynamo-electric motors rotating step by step (vector control 21/00) [2,6]
H02P 6/00	Arrangements for controlling synchronous motors or other dynamo-electric motors with electronic commutators in dependence on the rotor position; Electronic commutators therefor (stepping motors 8/00; vector control 21/00 [3,4,6])
H02P 1/00	Arrangements for controlling synchronous motors or other dynamo-electric motors with electronic commutators in dependence on the rotor position; Electronic commutators therefor (stepping motors 8/00; vector control 21/00 [3,4,6])
H02P 9/00	Arrangements for controlling electric generators for the purpose of obtaining a desired output (Ward-Leonard arrangements 7/34; vector control 21/00; feeding a network by two or more generators H02J; for charging batteries H02J 7/14)
H02P 3/00	Arrangements for stopping or slowing electric motors, generators, or dynamo-electric converters (stopping of synchronous motors with electronic commutators 6/24; stopping dynamo-electric motors rotating step by step 8/24; vector control 21/00)
H02P 11/00	Arrangements for controlling dynamo-electric converters (starting 1/00; stopping or slowing 3/00; vector control 21/00, feeding a network in conjunction with a generator or another converter H02J) [4]
H02P 17/00	Arrangements for controlling dynamo-electric gears (vector control 21/00)
H02P 7/00	Arrangements for regulating or controlling the speed or torque of electric motors (starting 1/00; stopping or slowing 3/00; vector control 21/00)
H02P 4/00	Arrangements specially adapted for regulating or controlling the speed or torque of electric motors that can be connected to two or more different voltage or current supplies (starting 1/00; stopping or slowing 3/00; vector control 21/00)
H02P 5/00	Arrangements specially adapted for regulating or controlling the speed or torque of two or more electric motors (starting 1/00; stopping or slowing 3/00; vector control 21/00)
H02P 29/00	Arrangements for regulating or controlling electric motors, appropriate for both ac- and dc-motors (starting 1/00; stopping or slowing 3/00; control of motors that can be connected to two or more different voltage or current supplies 4/00; vector control 21/00)
H02P 23/00	Arrangements or methods for the control of ac-motors characterised by a control method other than vector control (starting 1/00; stopping or slowing 3/00; of two or more motors 5/00; of synchronous motors with electronic commutators 6/00; of dc-motors 7/00; of stepping motors 8/00)

H02P 25/00	Arrangements or methods for the control of ac-motors characterised by the kind of ac-motor or by structural details (starting 1/00; stopping or slowing 3/00; of two or more motors 5/00; of synchronous motors with electronic commutators 6/00; of dc-motors 7/00; of stepping motors 8/00)
H02P 27/00	Arrangements or methods for the control of ac-motors characterised by the kind of supply voltage (starting 1/00; stopping or slowing 3/00; of two or more motors 5/00; of synchronous motors with electronic commutators 6/00; of dc-motors 7/00; of stepping motors 8/00)
H02P 15/00	Arrangements for controlling dynamo-electric brakes or clutches (controlling speed of dynamo-electric motors by means of a separate brake 29/04, vector control 21/00)
H02P 31/00	Arrangements for regulating or controlling electric motors not provided for in groups 1/00 to 5/00, 7/00 or 21/00 to 29/00

Notes, references etc. extracted from the scheme, give some indications:

6/00, 8/00 and 21/00 ahead of 1/00
6/00, 8/00 and 21/00 ahead of 3/00
1/00, 3/00 and 21/00 ahead of 4/00
1/00, 3/00 and 21/00 ahead of 5/00
8/00 and 21/00 ahead of 6/00 \Rightarrow 8/00 ahead of 6/00
1/00, 3/00, 4/00 and 21/00 ahead of 29/00
1/00, 3/00 and 21/00 ahead of 7/00
21/00 ahead of 8/00
7/00 and 21/00 ahead of 9/00
1/00, 3/00 and 21/00 ahead of 11/00
29/00 and 21/00 ahead of 15/00
21/00 ahead of 17/00
1/00, 3/00, 5/00, 6/00, 7/00 and 8/00 ahead of 23/00
1/00, 3/00, 5/00, 6/00, 7/00 and 8/00 ahead of 25/00
1/00, 3/00, 5/00, 6/00, 7/00 and 8/00 ahead of 27/00
1/00, 3/00, 4/00 and 21/00 ahead of 29/00
1/00, 3/00, 4/00, 5/00, 7/00, 21/00, 23/00, 25/00, 27/00 and 29/00 go ahead of 31/00.
31/00 goes to the bottom of the scheme due to its residual nature.

From this, some rearranging can be made.

21/00
8/00
6/00
1/00, 3/00
11/00, 17/00
4/00
5/00
23/00, 25/00, 27/00, 29/00
15/00
31/00

Further ordering of the main groups is made on an intellectual basis, taking into account the standardized order of main groups and the proposed Guidelines from the USPTO.

Olav A. Aasen

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU rapporteur proposal	
Project/subject : R 311/03 Rearrangement of main groups	Date: 28.02.2003
Subclass : H04B	

IPC	Maingroup Title
H04B 17/00	Monitoring; Testing [2]
H04B 15/00	Suppression or limitation of noise or interference (by means associated with receiver H04B 1/10)
H04B 3/00	Line transmission systems (combined with near-field transmission systems H04B 5/00; constructional features of cables H01B 11/00)
H04B 5/00	Near-field transmission systems, e.g. inductive loop type
H04B 7/00	Radio transmission systems, i.e. using radiation field (H04B 10/00, H04B 15/00 take precedence)
H04B 10/00	Transmission systems employing beams of corpuscular radiation, or electromagnetic waves other than radio waves, e.g. light, infra-red (optical coupling, mixing or splitting G02B; light guides G02B 6/00; switching, modulation, demodulation of light beams G02B, G02F; devices or arrangements for the control, e.g. modulation, of light beams G02F 1/00; devices or arrangements for demodulating light, transferring the modulation or changing the frequency of light G02F 2/00; optical multiplex systems H04J 14/00) [5]
H04B 11/00	Transmission systems employing ultrasonic, sonic or infrasonic waves
H04B 13/00	Transmission systems characterised by the medium used for transmission, not provided for in groups H04B 3/00 to H04B 11/00
H04B 14/00	Transmission systems not characterised by the medium used for transmission (details thereof H04B 1/00) [4]
H04B 1/00	Details of transmission systems, not covered by a single one of groups H04B 3/00 to H04B 13/00; Details of transmission systems not characterised by the medium used for transmission (tuning resonant circuits H03J) [4]

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RU rapporteur proposal	
Project/subject : R 312/03 Rearrangement of main groups	Date: 28.02.2003
Subclass : H04H	

IPC	Maingroup Title
H04H 9/00	Recording the use made of the broadcast service
H04H 1/00	Broadcast distribution systems
H04H 5/00	Stereophonic broadcast systems (multiplex systems in general H04J)
H04H 3/00	Common-wave systems, i.e. using separate transmitters operating on substantially the same frequency
H04H 7/00	Studio equipment (for television H04N); Interconnection of studios (arrangements for producing a reverberation or echo sound G10K 15/08) [5]

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU rapporteur proposal	
Project/subject : R 313/03 Rearrangement of main groups	Date: 28.02.2003
Subclass : H04J	

IPC	Maingroup Title
H04J 14/00	Optical multiplex systems (optical coupling, mixing or splitting, per se G02B) [5]
H04J 13/00	Code multiplex systems [2]
H04J 4/00	Combined time-division and frequency-division multiplex systems (H04J 13/00 takes precedence) [2]
H04J 9/00	Multiplex systems in which each channel is represented by a different type of modulation of the carrier
H04J 3/00	Time-division multiplex systems (H04J 14/00 takes precedence; relay systems H04B 7/14; selecting techniques H04Q) [4,5]
H04J 1/00	Frequency-division multiplex systems (H04J 14/00 takes precedence) [5]
H04J 11/00	Orthogonal multiplex systems (H04J 13/00 takes precedence) [2]
H04J 7/00	Multiplex systems in which the amplitudes or durations of the signals in individual channels are characteristic of those channels
H04J 15/00	Multiplex systems not otherwise provided for [2]

ANNEX 1

IPC	Maingroup Title
H05B 11/00	Heating by combined application of processes covered by two or more of groups H05B 3/00 to H05B 7/00 (H05B 7/20 takes precedence)
H05B 7/00	Heating by electric discharge (electron beam or ion beam tubes for localised treatment of objects H01J 37/30; plasma torches H05H 1/26)
H05B 6/00	Heating by electric, magnetic, or electromagnetic fields (for therapeutic purposes A61N 5/00; joining of preformed parts by heating of plastics or substances in a plastic state B29C 65/02) [3]
H05B 3/00	Ohmic-resistance heating
H05B 1/00	Details of electric heating devices
H05B 35/00	Electric light sources using a combination of different types of light generation
H05B 33/00	Electroluminescent light sources (discharge lamps H01J 61/00 to H01J 65/00; semi-conductor devices with at least one particular jump barrier or surface barrier adapted for light emission H01L 33/00; compositions per se, see the relevant subclasses)
H05B 31/00	Electric arc lamps (regulating electric characteristics of arcs G05F 1/02; with non-consumable electrodes H01J 61/00)
H05B 41/00	Circuit arrangements or apparatus for igniting or operating discharge lamps
H05B 39/00	Circuit arrangements or apparatus for operating incandescent light sources and not adapted to a particular application
H05B 37/00	Circuit arrangements for electric light sources in general
H05B 43/00	Circuit arrangements for light sources, not otherwise provided for (H05B 37/00 takes precedence)

IPC	Maingroup Title
H05C 1/00	Circuits or apparatus for generating electric shock effects
H05C 3/00	Other circuits

ANNEX 1

IPC	Maingroup Title
H05F 7/00	Use of naturally-occurring electricity
H05F 3/00	Carrying-off electrostatic charges (from living beings A61N 1/14)
H05F 1/00	Preventing the formation of electrostatic charges

ANNEX 1

IPC	Maingroup Title
H05G 1/00	X-ray apparatus involving X-ray tubes; Circuits therefor
H05G 2/00	Apparatus or processes specially adapted for producing X-rays, not involving X-ray tubes, e.g. involving generation of a plasma (X-ray lasers H01S 4/00; plasma technique in general H05H) [5]

ANNEX 1

IPC	Maingroup Title
H05H 1/00	Generating plasma; Handling plasma
H05H 5/00	Direct voltage accelerators; Accelerators using single pulses (H05H 3/06 takes precedence) [5]
H05H 11/00	Magnetic induction accelerators, e.g. betatrons
H05H 13/00	Magnetic resonance accelerators; Cyclotrons
H05H 9/00	Linear accelerators (H05H 11/00 takes precedence)
H05H 7/00	Details of devices of the types covered by groups H05H 9/00 to H05H 13/00 (targets for producing nuclear reactions H05H 6/00) [3]
H05H 15/00	Methods or devices for acceleration of charged particles not otherwise provided for [4]
H05H 3/00	Production or acceleration of neutral particle beams, e.g. molecular or atomic beams [3]
H05H 6/00	Targets for producing nuclear reactions (supports for targets or objects to be irradiated G21K 5/08) [3]

ANNEX 1

IPC	Maingroup Title
H05K 1/00	Printed circuits (assemblies of a plurality of individual semiconductor or solid state devices H01L 25/00; devices consisting of a plurality of solid state components formed in or on a common substrate, e.g. integrated circuits, thin-film or thick-film circuits, H01L 27/00)
H05K 3/00	Apparatus or processes for manufacturing printed circuits (photomechanical production of textured or patterned surfaces, materials or originals therefor, apparatus specially adapted therefor, in general G03F; involving the manufacture of semiconductor devices H01L) [3]
H05K 7/00	Constructional details common to different types of electric apparatus (casings, cabinets, drawers H05K 5/00)
H05K 5/00	Casings, cabinets or drawers for electric apparatus (in general A47B; radio receiver cabinets H04B 1/08; television receiver cabinets H04N 5/64)
H05K 13/00	Apparatus or processes specially adapted for manufacturing or adjusting assemblages of electric components
H05K 9/00	Screening of apparatus or components against electric or magnetic fields (devices for absorbing radiation from an aerial H01Q 17/00)
H05K 10/00	Arrangements for improving the operating reliability of electronic equipment, e.g. by providing a similar stand-by unit
H05K 11/00	Combinations of a radio or television receiver with apparatus having a different main function