

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1649

DATE: AUGUST 1, 2024

PROJECT MP12346

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Titles Changed:	B60R	21/00
	C05F	Subclass
	G08C	Subclass
DEFINITIONS:		
Definitions New:	B63B	3/30
	B63B	3/52
Definitions Modified:	B60R	21/00
	C05D	Subclass
	C05F	Subclass
	C30B	Subclass
	D21H	Subclass
	F41B	11/66
	G08C	Subclass
	G10L	17/00
	G16H	10/65
	H04L	41/00

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

1. CLASSIFICATION SCHEME CHANGES

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

2. DEFINITIONS

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

3. REVISION CONCORDANCE LIST (RCL)

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

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

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS B60R - VEHICLES, VEHICLE FITTINGS, OR VEHICLE PARTS, NOT OTHERWISE PROVIDED FOR

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	B60R21/00	0	Arrangements or fittings on vehicles for protecting or preventing injuries to occupants or pedestrians in case of accidents or other traffic risks (safety belts or body harnesses in vehicles B60R 22/00; seats constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats, B60N 2/42; energy-absorbing arrangements for hand wheels for steering vehicles B62D 1/11; energy-absorbing arrangements for vehicle steering columns B62D 1/19)	

SUBCLASS C05F - ORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C05C, e.g. FERTILISERS FROM WASTE OR REFUSE }

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	C05F	Subclass	ORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C05C, e.g. FERTILISERS FROM WASTE OR REFUSE	

SUBCLASS G08C - TRANSMISSION SYSTEMS FOR MEASURED VALUES, CONTROL OR SIMILAR SIGNALS

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	G08C	Subclass	TRANSMISSION SYSTEMS FOR MEASURED VALUES, CONTROL OR SIMILAR SIGNALS (fluid pressure transmitting systems F15B; mechanical means for transferring the output of a sensing member into a different variable G01D 5/00; mechanical control systems G05G)	

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

NOTES:

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

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2. A. DEFINITIONS (new)

B63B3/30

Glossary of terms

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

bilge knee, beam knee	a part to reinforce the connection between two structural elements of a hull
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B63B3/52

Glossary of terms

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

deck girder	longitudinal reinforcement to increase the strength of decks
pillar	vertically arranged beam to support decks or superstructures, e.g. web beams

2. A. DEFINITIONS (Modified)

B60R21/00

Definition statement

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

Vehicles of this subclass that include specially adapted arrangements, devices or fittings attachable to or forming part of vehicles for:

- preventing or reducing direct-impact type injuries to occupants of vehicles (e.g. air bags);
- otherwise directly protecting occupants of vehicles (e.g. from a physical attack); or
- preventing or reducing direct-impact type injuries to people who are not occupying vehicles (e.g. bumper mounted pedestrian air bags).

References

Limiting references

Delete: The second row AND the last row from the Limiting references table so that the updated table appears as follows.

Safety belts or body harnesses in vehicles	B60R 22/00
Crash or safety seats constructed to protect the occupant from the effect of abnormal g-forces	B60N 2/42
Energy-absorbing arrangements for hand wheels for steering vehicles	B62D 1/11
Energy-absorbing arrangements for vehicle steering columns	B62D 1/19

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C05D

Definition statement

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

Materials that affect the growth of plants solely by supplying nutrients ordinarily required for growth or materials that are used to prevent or cure mineral deficiencies in plants as listed below:

- Inorganic fertilisers containing potassium; manufacture from potassium chloride or sulphate or double or mixed salts thereof; from minerals or volcanic rocks;
- Calcareous fertilisers; from limestone, calcium carbonate, calcium hydrate, slaked lime, calcium oxide or waste calcium compounds;
- Inorganic fertilisers containing magnesium;
- Fertilisers producing carbon dioxide, e.g., comprising bicarbonates;
- Other inorganic fertilisers, for example fertilisers containing trace elements;
- Mixtures of inorganic fertilisers covered by more than one of main groups [C05D 1/00](#) - [C05D 9/00](#).

Preparation, treatment or modification of any of the materials above: e.g., by chemical means (e.g. addition of stabilisers, preservatives), physical means (e.g., irradiation, concentration, purification, separation) or combination of both chemical and physical means, with the proviso that the resultant product is proper for classification in this subclass.

Methods of preparing inorganic fertilisers or fertilisers that produce carbon dioxide covered by this subclass in general.

Relationships with other classification places

Replace: The existing Relationships text with the following updated text.

In contrast to fertilisers ([C05](#)), plant growth regulators ([A01N](#)) are those materials which alter a plant through chemical modification of plant metabolism, for example auxins.

Soil-conditioning materials or soil-stabilising materials are classified in group [C09K 17/00](#) and covers mixtures of soil-conditioning materials or soil-stabilising

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materials with fertilisers where the composition in question is characterised by the soil-conditioning or soil-stabilising properties.

Mixtures of soil-conditioning materials or soil-stabilising materials with fertilisers where the composition in question is characterised by the fertilising activity are classified in subclass [C05G](#).

While the subject matter of subclass [C05D](#) deals with inorganic fertilisers not covered by subclasses [C05B](#) and [C05C](#) per se, group [A01C 3/00](#) deals with methods of treating manure/methods of manuring per se and group [A01C 21/00](#) deals with methods of fertilising per se.

Any apparatus for preparing fertilisers may be classified in those areas of class [C05](#) that are specific for such apparatus – e.g. in group [C05B 1/10](#) – apparatus for the manufacture of superphosphates. Otherwise, individual apparatus should be classified in the relevant area of the IPC, e.g. in group [F26B 17/00](#).

References

Delete: The Limiting references section.

Insert: The following new References out of a residual place section.

References out of a residual place

Examples of places in relation to which this place is residual:

Phosphatic fertilisers	C05B
Nitrogenous fertilisers	C05C

Informative references

Replace: The text in the following three rows in the Informative references section.

Fertiliser distributors	A01C 15/00
Horticulture; Cultivation of vegetables, flowers, rice, fruit, vines, hops or seaweed; Forestry; Watering	A01G
Processes or devices for granulating materials, in general	B01J 2/00

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Insert: The following two new rows in the Informative references section.

Organic fertilisers not covered by subclasses C05B or C05C, e.g. fertilisers from waste or refuse	C05F
Soil-conditioning or soil-stabilising materials	C09K 17/00

Special rules of classification

Replace: The existing Special rules text with the following updated text.

- An ingredient in a mixture of fertilisers, or a single fertiliser which contains more than one of the chemical elements on which the subdivision into subclasses is based, is classified only in the first of the appropriate places. Thus, a nitrophosphate or an ammoniated superphosphate is classified in subclass C05B but not in subclass C05C, magnesium phosphate is classified in subclass C05B but not in subclass C05D, and calcium cyanamide in subclass C05C but not in subclass C05D.
- Information relative to the form in which the fertiliser is presented, e.g. granulation, coating, etc. is always given in addition to the chemical composition of the fertilisers.
- Any ingredient in a mixture that is considered to present information of interest for search is also classified using a combination of classification symbols. If a document concerns embodiments comprising mixtures whose elements are covered individually by different subclasses, groups or subgroups, the document is classified with C-Sets.

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The following rules apply:

- The first element of the C-Sets corresponds to the first relevant (sub)group mentioned in the classification scheme independently of the importance or relevance of the element in the whole fertiliser mixture.
- The following element or elements of the C-Sets are added sequentially in the order in which they appear in the classification scheme to the first element using a ",".

Example: a fertiliser containing a mixture of superphosphate (C05B 1/02), ammonium nitrate (C05C 1/00) and potassium chloride (C05D 1/02) will be given the C-Sets C05B 1/02, C05C 1/00, C05D 1/02.

Example: a fertiliser containing a mixture of either superphosphate (C05B 1/02) or ammonium nitrate (C05C 1/00) with potassium chloride (C05D 1/02) will be given the C-Sets C05B 1/02, C05D 1/02 and C05C 1/00, C05D 1/02.

Glossary of terms

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

fertiliser (fertiliser material)	natural or artificial substance containing the chemical elements that improve growth and productiveness of plants.
inorganic compound	a compound devoid of a carbon atom and containing a non-metallic element or a compound containing a carbon atom, and satisfying one of the following criteria: the compound cannot have a carbon atom having direct bonding to another carbon atom, or the compound cannot have direct bonding between a carbon atom and a halogen or hydrogen atom, or the compound cannot have direct bonding between a carbon atom and a nitrogen atom by a single or double bond. The following are exceptions to the above and are to be considered as inorganic compounds: compounds consisting of only carbon atoms, (e.g. fullerenes), cyanogen, cyanogen halides, cyanamide, phosgene, thiophosgene, hydrocyanic acid, isocyanic acid, isothiocyanic acid, fulminic acid, unsubstituted carbamic acid, and salts of the previously mentioned acids and which contain the same limitations as to a carbon atom.

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Synonyms and Keywords

Replace: The existing Synonyms section with the following updated text.

In patent documents, the following words/expressions are often used as synonyms:

- “amendment”, “plant food”, “plant nutrient”, “agricultural chemical”, “enrichment” and “fertiliser”

In patent documents, the following words/expressions are often used with the meaning indicated:

enrichment	fertiliser
soil amendment	composition capable of modifying the chemical (pH) or physical (structure) condition of soils for agricultural purposes

C05F

Definition statement

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

Materials affecting the growth of plants solely by supplying nutrients ordinarily required for growth or materials which are used to prevent or cure mineral deficiencies in plants as listed below:

- Fertilisers made from animal corpses or parts thereof;
- Fertilisers from human or animal excrements, e.g. manure;
- Fertilisers from distillery waste, e.g., molasses, vinasses, sugar plant or similar wastes or residues;

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- Fertilisers from waste water, e.g. sewage sludge, sea slime, ooze or similar masses;
- Fertilisers from household or town refuse;
- Other organic fertilisers, e.g. peat or brown coal.

Preparation of fertilisers characterised by the composting step or apparatus therefor.

Preparation, treatment or modification of any of the materials above: e.g. by chemical means (e.g. addition of stabilisers or preservatives), physical means (e.g. irradiation, concentration, purification or separation) or combination of both chemical and physical means, with the proviso that the resultant product is proper for classification in this subclass.

Methods of preparing fertilisers from waste or refuse in general.

Apparatus for the manufacture thereof.

Relationships with other classification places

Replace: The existing Relationships text with the following updated text.

In contrast to fertilisers (C05), plant growth regulators (A01N) are those materials that alter a plant through chemical modification of plant metabolism, for example auxins.

Soil-conditioning materials or soil-stabilising materials are classified in group C09K 17/00 and cover mixtures of soil-conditioning materials or soil-stabilising materials with fertilisers where the composition in question is characterised by the soil-conditioning or soil-stabilising properties.

Mixtures of fertilisers are covered individually by different subclasses of class C05, while mixtures of soil-conditioning materials or soil-stabilising materials with fertilisers where the composition in question is characterised by the fertilising activity and fertilisers characterised by their form are classified in subclass C05G.

Whilst the subject matter of subclass C05F deals with organic fertilisers not covered by subclasses C05B and C05C per se, group A01C 3/00 deals with methods of treating manure/methods of manuring per se and group A01C 21/00 deals with methods of fertilising per se.

Inorganic fertilisers not covered by subclasses C05B or C05C and fertilisers producing carbon dioxide are classified in subclass C05D.

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Apparatus relevant to the class [C05](#) (if no specific entry for apparatus is provided, e.g. group [C05F 1/02](#) - apparatus for the manufacture of fertilisers from animal corpses or parts thereof) are classified in the place dealing with the process or in the place dealing with the products as such. Additionally, individual or specific types of apparatus should be classified in the relevant area of the IPC, e.g. in group [F26B 17/00](#).

References

Insert: The following new References out of a residual place section.

References out of a residual place

Examples of places in relation to which this place is residual:

Phosphatic fertilisers	C05B
Nitrogenous fertilisers	C05C

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Insert: The following new Informative references section.

Informative references

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

Harrows with means for distributing fertilisers	A01B 25/00
Fertiliser distributors	A01C 15/00
Mowers combined with dispensing apparatus, e.g. for fertilisers	A01D 43/14
Horticulture; Cultivation of vegetables, flowers, rice, fruit, vines, hops or seaweed; Forestry; Watering	A01G
Root feeders; Injecting fertilisers into the roots	A01G 29/00
Earthworms	A01K 67/0332
Processes or devices for granulating materials, in general	B01J 2/00
Destroying solid waste or transforming solid waste into something useful or harmless	B09B 3/00
Methods or installations for de-watering, drying or incineration of sludge	C02F 11/00
Soil-conditioning or soil-stabilising materials	C09K 17/00

Special rules of classification

Replace: The existing Special rules text with the following updated text.

- An ingredient in a mixture of fertilisers, or a single fertiliser which contains more than one of the chemical elements on which the subdivision into subclasses is based, is classified only in the first of the appropriate places. Thus, a nitrophosphate or an ammoniated superphosphate is classified in subclass C05B but not in subclass C05C, magnesium phosphate is classified in subclass C05B but not in subclass C05D, and calcium cyanamide in subclass C05C but not in subclass C05D.
- Information relative to the form in which the fertiliser is presented, e.g. granulation, coating, etc. is always given in addition to the chemical composition of the fertilisers.
- Any ingredient in a mixture, which is considered to present information of interest for search, is also classified using a combination of classification symbols. If a document concerns embodiments comprising mixtures whose elements are covered individually by different subclasses, groups or subgroups, the document is classified with a C-Set.

The following rules apply:

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- The first element of the C-Set corresponds to the first relevant (sub)group mentioned in the classification scheme independently of the importance or relevance of the element in the whole fertiliser mixture.
- The following element or elements of the C-Set are added sequentially in the order in which they appear in the classification scheme to the first element using a ",".

Example: a fertiliser containing a mixture of superphosphate (C05B 1/02), ammonium nitrate (C05C 1/00) and potassium chloride (C05D 1/02) will be given the C-Sets C05B 1/02, C05C 1/00, C05D 1/02.

Example: a fertiliser containing a mixture of either superphosphate (C05B 1/02) or ammonium nitrate (C05C 1/00) with potassium chloride (C05D 1/02) will be given the C-Sets C05B 1/02, C05D 1/02 and C05C 1/00, C05D 1/02.

- Processes where the composting step is the characterising feature, or apparatus therefor, are classified in groups C05F 17/00 or C05F 17/90.

Glossary of terms

Replace: The capital "F" in "Fertiliser" with a lowercase "f" and the capital "N" in "Natural" with a lowercase "n", so that the Glossary of terms table appears as follows.

fertiliser (fertiliser material)	natural or artificial substance containing the chemical elements that improve growth and productiveness of plants.
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Synonyms and Keywords

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

In patent documents, the following words/expressions are often used as synonyms:

- "amendment", "plant food", "plant nutrient", "agricultural chemical", "enrichment" and "fertiliser"

In patent documents, the following words/expressions are often used with the meaning indicated:

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enrichment	fertiliser
soil amendment	composition capable of modifying the chemical (pH) or physical (structure) condition of soils for agricultural purposes

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C30B

Definition statement

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

Single crystals or homogeneous polycrystalline material with a defined structure; production thereof.

Processes and apparatus used in obtaining these crystals and materials.

Processes and apparatus for the after-treatment of single crystals or homogeneous polycrystalline material with a defined structure.

Insert: The following new Relationships section.

Relationships with other classification places

Where there is a specific reference to a particular device or application using the crystal then the document should be classified in that field. For example, a document mentioning the fabrication of a particular type of transistor using the grown crystal, then the document should be classified in the semiconductor devices, i.e. subclass [H01L](#).

Vapour phase epitaxial growth apparatus is similar to apparatus used for providing non-epitaxial coatings. Therefore, documents concerning apparatus features in these processes should also be classified in [C23C 14/00](#) and [C23C 16/00](#).

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References**Limiting references**

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

Formation of diamonds using ultra-high pressure	B01J 3/06
Casting of metals, casting of other substances by the same processes or devices	B22D
Zone-refining of metals or alloys	C22B
Changing the physical structure of non-ferrous metals or alloys by heat treatment or by hot or cold working	C22F
Semiconductor devices not covered by class H10	H01L
Semiconductor devices; Electric solid-state devices not otherwise provided for	H10

Informative references

Replace: The text in the following four rows in the Informative references table.

Metallic nanometre sized particles	B22F 1/054
Grinding or polishing of crystals	B24B
Cleaving of stone or stone-like materials, e.g. brick or concrete, not provided for elsewhere	B28D 1/32
Mechanical fine working of gems, jewels or crystals	B28D 5/00

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

Modifying the physical structure of ferrous metals	C21D
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Special rules of classification

Replace: The existing Special rules text with the following updated text.

Reference [B29](#) is non-limiting in the subclass [C30B](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

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Looping references between [C30B](#) and [C21D](#) have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as follows: [C30B](#) and [C21D](#) are considered as informative reference.

The preparation of single crystals or a homogeneous polycrystalline material with defined structure of particular materials or shapes is classified in the group for the process as well as in group [C30B 29/00](#).

Where a whole series is mentioned without emphasis on one particular material, for example GaAs, GaInAs, InAs, GaAlAs, GaN, InN, AlN, etc., it is classified in the groups covering the families of materials mentioned, in this case [C30B 29/40](#) and [C30B 29/403](#).

An apparatus specially adapted for a specific process is classified in the appropriate group for the process. Apparatus to be used in more than one kind of process is classified in group [C30B 35/00](#).

Glossary of terms

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

amorphous	description of a solid material not having long-range crystalline lattice structure.
bulk/layer	bulk crystals have dimensions which are comparable in all three dimensions whereas layers have one dimension (thickness) significantly less than the other two dimensions (surface area). Often a bulk layer is grown from a discrete "seed" whereas a layer is grown epitaxially on a substrate.
crystal	description of a solid material having long-range order of atoms or molecules arranged in a regularly-repeating lattice structure.
defined structure	the structure of a solid material with grains which are oriented in a preferential way or have larger dimensions than normally obtained.
epitaxy	the formation of a crystalline layer on a substrate in such a manner that the formed crystal bears a definite crystallographic relationship to the substrate.
eutectic	description of a mixture or solution containing two or more phases at a composition that has the lowest melting point and where the phases simultaneously crystallise from solution at this temperature.
grains	crystalline regions in a solid material, each grain generally being a single crystalline region.

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homogeneous polycrystalline material	a solid material with crystal particles, all of which have the same chemical composition.
lattice	an ordered arrangement of atoms or molecules within a solid material.
nanocrystals	single crystals having at least one dimension less than 100 nm. The term includes nanowires, nanotubes, nanorods etc.
oriented crystal	a polycrystalline structure in which the grains are generally aligned in a preferential direction such as obtained in columnar growth.
seed	a material, usually itself a small single-crystal, upon which a single-crystal is grown, the seeded crystal growth proceeding by the alignment of atoms or molecules or clusters into a thermodynamically favoured arrangement determined by the nature of the seed.
single-crystal	description of a solid material having long-range order of atoms or molecules in a regularly-repeating lattice structure. Also includes twin crystals and a predominantly single crystal product.
superlattice	a single-crystal having an internal structure of more than two layers, each layer having a composition different from the next adjacent layer.
twin crystal	a crystalline material in which the adjoining crystalline lattices have a mirror-image symmetrical relationship, the interface between the adjoining crystals being termed the twin plane.
whiskers/needles	discrete solid crystalline particles of generally elongated shape. Dimensions are superior to 100 nm and are not considered as nanocrystals (nanowires, nanorods etc.)
zone melting	description of a process in which a crystallised body is formed by melting a zone of a starting material with subsequent cooling and crystallisation while either the zone or the starting product is displaced so that all or part of the starting material is converted into the crystallised body.

Synonyms and Keywords

Replace: The initial capital letter in the second column of the following four rows with a lowercase, so that the updated rows appear as follows. And replace “re-crystallization” with “re-crystallisation”.

SSR	solid state re-crystallisation
EFG	edge defined film-fed growth
TSSG	top-seeded solution growth
CVD	chemical vapour deposition

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D21H

Definition statement

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

Pulp compositions and preparation thereof including after-treatment not covered by subclasses [D21B](#), [D21C](#), [D21D](#): (a) from cellulose or lignocellulose fibres of natural origin, (b) from synthetic cellulose or non-cellulose fibres or web-forming material, or (c) non-fibrous material added to the pulp.

Coated paper characterised by: (a) coating material, (b) paper substrate, or (c) comprising more than one coating.

Processes or apparatus for adding material to the pulp or to the paper (processes for making continuous lengths of paper [D21F 11/00](#)).

Treatment of finished paper not covered by class [B31](#) or subclass [D21G](#).

Special paper not otherwise provided for, i.e. paper with special properties or applications which are only partially or not at all provided for elsewhere in the classification, e.g. made by multi-step processes. Whenever possible, however, these papers are classified according to the criteria used in the other groups of this subclass.

Paper-impregnating material characterised by its constitution.

Relationships with other classification places

Replace: The existing Relationships text with the following updated text.

Subclass [D21B](#), further processes from the wood chips to the pulp, usually mechanical processes.

Subclass [D21C](#), further processes from the wood chips to the pulp, usually chemical processes.

Subclass [D21D](#), further mechanical processing of cellulose containing materials after initial pulp preparation to cellulose, and before processing it in paper-making machines.

Subclass [D21F](#) covers methods of producing paper.

Subclass [D21G](#), further treatment of finished paper, e.g. in calendars.

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Class [B31](#) covers making paper articles and working paper, where subclass [B31B](#) covers boxes, cartons, envelopes or bags, subclass [B31C](#) covers wound articles and subclass [B31D](#) covers other articles not covered by class [B31](#), as well as subclass [B31F](#) covers mechanical working or deformation of paper or cardboard.

References

Limiting references

Delete: The Limiting references section.

Insert: The following new References out of a residual place section.

References out of a residual place

Examples of places in relation to which this place is residual:

Making paper articles; Working paper	B31
Processes from the wood chips to the pulp, usually chemical processes	D21C
Mechanical processing of cellulose containing materials after initial pulp preparation to cellulose, and before processing it in paper-making machines	D21D
Treatment of finished paper, e.g. in calendars	D21G

Insert: The following new Informative references section.

Informative references

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

Self-supporting filtering material	B01D 39/14
Applying liquids or other fluent materials to surfaces, in general	B05
Securities; Bank notes	B42D 25/29
Layered products	B32B
Printing processes to produce watermarks	B41M 3/10
Printing processes to produce security printing	B41M 3/14
Printing processes to produce particular kinds of wallpapers	B41M 3/18

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Recording sheets characterised by the coating used to improve ink, dye or pigment receptivity	B41M 5/50
Books, book covers, loose leaves, printed matter	B42D
Identification or security features, e.g. for preventing forgery	B42D 25/30
Decorative panels	B44C 5/04
Paperhanging	B44C 7/00
Wood grain effects	B44F 9/02
Packaging materials of special type or form	B65D 65/38
Adhesives	C09J
Adhesives in the form of paper or textile fabric	C09J 7/21
Chemical features in the manufacture of artificial filaments and fibres	D01F
Non-woven fabrics formed of relatively short fibres	D04H 1/00
Treating fibres with macromolecular compounds	D06M 15/00
Mechanical treatment of fibrous raw materials by dry methods	D21B 1/06
Methods of producing watermarking devices	D21F 1/44
Dryer section of machines for making continuous webs of paper	D21F 5/00
Complete machines for making continuous webs of paper	D21F 9/00
Processes for making continuous lengths of paper	D21F 11/00
Patterned paper prepared on the paper-making machines	D21F 11/10
Coated fibreboard	D21J 1/08
Anti-coiling photographic support	G03C 1/81
Testing valuable papers, e.g. banknotes, for genuineness	G07D 7/00

Special rules of classification

Replace: The existing Special rules text with the following updated text.

In groups [D21H 11/00](#) - [D21H 15/00](#), in the absence of an indication to the contrary, classification is made in the last appropriate place.

In groups [D21H 17/01](#) - [D21H 17/63](#), in the absence of an indication to the contrary, a material is classified in the last appropriate place.

In groups [D21H 27/30](#) - [D21H 27/42](#), layered products classified in this group are also classified in subclass [B32B](#).

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

binder or binding agent	usually a macromolecular product used to bind the paper-making fibres together in order to give cohesion to the final paper sheet, e.g. starchy materials, latexes, etc.
coating	layer of material applied to the paper substrate. Although part of this material may penetrate through the substrate, a coated paper is characterised by the presence of said layer on its surface.
fibres	under paper-making fibres are meant short fibres (maximum length in the range of the mm). Papers also comprising long fibres or filaments are classified in D21H 15/00 .
filler or pigment	usually designating fine particles added to the pulp (very often inorganic materials such as talc, kaolin, silica, calcium carbonate, etc.).
finished paper	paper after passing to the finishing process, creating a surface characteristic of a sheet created by either on-machine or off-machine papermaking processes. Popular text and cover finishes include smooth, vellum, felt, laid, and linen.
impregnation	application of a liquid material to a paper substrate wherein the liquid material penetrates substantially the substrate, e.g. by submerging the substrate into a bath containing the liquid material.
pulp	a dispersion, e.g. an aqueous suspension comprising paper-making fibres and optional additives, which is to be processed, and covers the term "stock"; it also means dry paper-making fibres which are to be made into paper by either wet or dry processes.
sizing agent or hydrophobising agent	substances used during paper manufacture to reduce the paper's tendency when dry to absorb liquid, allowing inks and paints to remain on the surface of the paper and to dry there, rather than be absorbed into the paper or agent added in order to increase the hydrophobicity of the paper.
stock or paper stock	term used to define pulp after mechanical (refining or beating) and/or chemical treatment (sizing, loading, dyeing, etc.) in the paper making process, e.g. the pulp ready to make paper.

Synonyms and KeywordsDelete: The quotation marks (“”) around the word in each column so that the table appears as follows.

fibres	fibers
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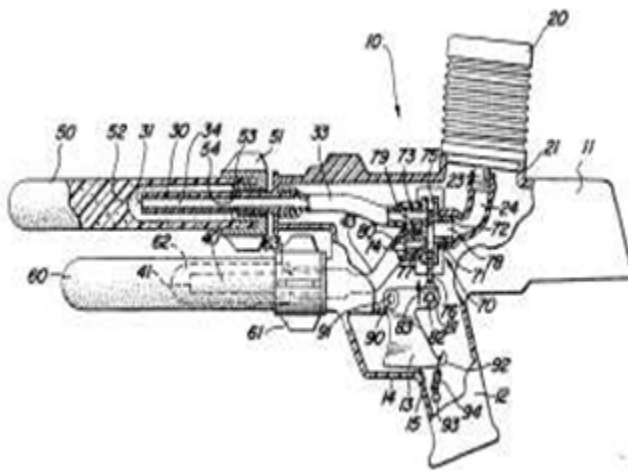
F41B11/66

Definition statement

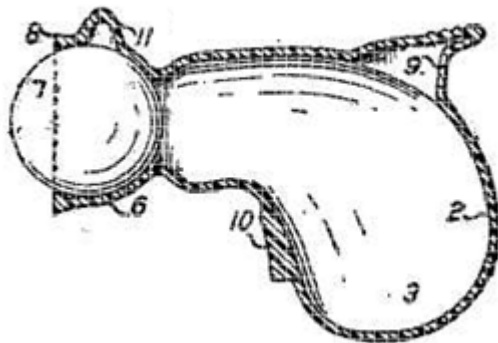
Insert: After the first paragraph, the following updated text and images.

Illustrative examples of subject matter classified in this place:

1.



2.



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References

Informative references

Replace: The existing text in the left column of the Informative references table with the following updated text.

Pumping arrangements activated by bellows or deformable chambers for pre-compressing air for storing it in a pressurised air storage tank	F41B 11/681
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G08C

Definition statement

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

In the context of transmission systems for remotely controlling devices where the transmission systems are for measured values, control signals or the like:

- processing signals, e.g. differentiating or delaying;
- details of transmission systems: multiplexing, electric wired, wireless link, nonelectric (e.g. acoustic or optical);
- systems for transmitting the position of an object with respect to a predetermined reference system, e.g. tele-autographic systems;
- monitoring, preventing or correcting errors.

Insert: The following new Relationships section.

Relationships with other classification places

Subclass [H04B](#) covers the transmission of information-carrying signals, in general, the transmission being independent of the nature of the information.

Subclass [G08C](#) refers to transmission systems specially adapted for measured values, control signals or the like.

Subclass [H04L](#) covers transmission of signals having been supplied in digital form and includes telegraphic communication.

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The borderline between subclasses [H04L](#) and [G08C](#) lies on whether subject matter is digital transmission techniques per se ([H04L](#)) or the transmission system combined with measurement or control ([G08C](#)).

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ReferencesInsert: The following new Application-oriented references section.***Application-oriented references***

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

Devices for measuring tyre pressure or temperature, specially adapted for vehicles mounted on the wheel or tyre	B60C 23/04
Means for transmitting measuring-signals from a borehole or a well to the surface, e.g. for logging while drilling	E21B 47/12
Transmitting seismic signals to recording or processing apparatus	G01V 1/22
Radiosondes for meteorological purposes	G01W 1/08
Signalling or calling systems	G08B
Order telegraph systems	G08B 9/00

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

Measuring for diagnostic purposes	A61B 5/00
Remote-control arrangements specially adapted for toys, e.g. for toy vehicles	A63H 30/00
Measuring arrangements giving results other than momentary value of variable	G01D
Indicating or recording devices, for measuring volume or volume flow, e.g. for remote indication	G01F
Devices or apparatus for measuring force, stress, torque, work, mechanical power, mechanical efficiency or fluid pressure	G01L
Arrangements for measuring electric or magnetic variables	G01R
Systems involving sampling of the variable controlled	G05B
Position control in general	G05D
Input arrangements for transferring data to be processed into a form capable of being handled by the computer	G06F 3/00
Error detection; Monitoring on computers	G06F 11/00
Methods or arrangements for graph-reading or for converting the pattern of mechanical parameters, e.g. force or presence, into electrical signals	G06K 11/00
Individual entry or exit registers	G07C 9/00

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Electronic locks operated with unidirectional data transmission between data carriers and locks	G07C 9/00182
Electronic locks operated with bidirectional data transmission between data carriers and locks	G07C 9/00309
Displaying; Advertising; Signs, Labels or name-plates; Seals	G09F
Generating electric pulses	H03K
Coding, decoding or code conversion, in general	H03M
Details of transmission systems, by remote control	H04B 1/202
Transmission systems employing electromagnetic waves other than radio waves, e.g. light, infrared	H04B 10/00
Monitoring for transmission systems in general	H04B 17/00
Detecting and preventing errors in digital transmission systems	H04L 1/00
Arrangements for remote connection or disconnection of substations or of equipment thereof	H04L 12/12
Home automation networks	H04L 12/2803
Controlling appliance services of a home automation network by calling their functionalities	H04L 12/2816
Reporting information sensed by appliance or service execution status of appliance services in a home automation network	H04L 12/2823
Monitoring for digital data switching networks	H04L 43/00
Telephone substation equipment for remote control of appliances	H04M 1/72415
Metering arrangements for telephonic communication	H04M 15/00
Details of television systems, whereby additional information being controlled by a remote control apparatus	H04N 21/42204
Special aspect of "selecting", i.e. arrangements in telecontrol or telemetry systems for selectively calling a substation from a main station	H04Q 9/00
Power saving techniques per se	H04W 52/02
Circuit arrangements for electric light sources in general, linked via wireless transmission	H05B 47/19

Glossary of terms

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

transmission	the dispatching, for reception elsewhere, of a signal, message or other form of information
tele-autographic system	system which transmits the handwriting
wireless	relating to a system of communication that does not use hardwired connections

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G10L17/00

Definition statement

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

- Recognition, identification of a speaker
- Verification, authentication of a speaker
- Preprocessing operations, e.g. segment selection; Pattern representation or modelling, e.g. based on linear discriminant analysis [LDA], principal components; Feature selection or extraction
- Dialog, prompts, passwords for identification
- Training, model building or enrolment
- Decision making techniques, pattern matching strategies
- Multimodal identification including voice
- Hidden Markov Models
- Artificial neural networks, connectionist approaches
- Pattern transformations and operations aimed at increasing system robustness, e.g. against channel noise, different working conditions
- Identification in noisy condition
- Interactive procedures, man-machine interface, e.g. user prompted to utter a password or predefined text
- Recognition of special voice characteristics, e.g. for use in a lie detector; recognition of animal voices
- Imposter detection

References

Informative references

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

User authentication in security arrangements for restricting access by using biometric data, e.g. voice prints	G06F 21/32
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Insert: The following three new rows to the Informative references table.

Machine learning	G06N 20/00
Secret secure communication including means for verifying the identity or authority of a user	H04L 9/32

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Centralised arrangements for answering calls; Centralised arrangements for recording messages for absent or busy subscribers	H04M 3/50
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Glossary of terms

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

speaker verification or authentication	refers to verifying that the user claimed identity is real, he is otherwise an impostor. Speaker recognition, or identification, aims at determining who the user is among a closed (finite number) set of users. He is otherwise unknown.
impostor	someone actively trying to counterfeit someone else's identity.

Synonyms and Keywords

Delete: The space between “Multi” and “layer” in the last row of the Synonyms and Keywords table so that the updated row appears as follows.

MLP	Multilayer perceptron
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Insert: The following text after the Synonyms and Keywords table.

In patent documents, the following words/expressions are often used as synonyms:

- “goat” and “sheep”
- “predator” and “wolf”

In patent documents, the following words/expressions are often used with the meaning indicated:

A goat or sheep	often refers to a person whose voice is easy to counterfeit.
A wolf or predator	often refers to a person who can easily counterfeit someone else's voice or is often identified as someone else.

G16H10/65

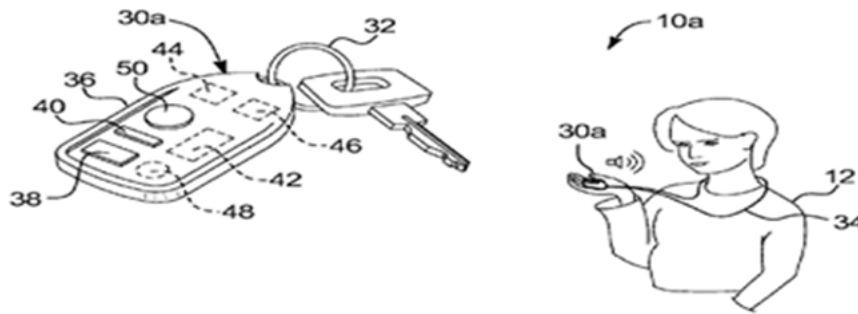
Definition statement

Insert: The following text and updated images below the first two paragraphs in the Definition statement.

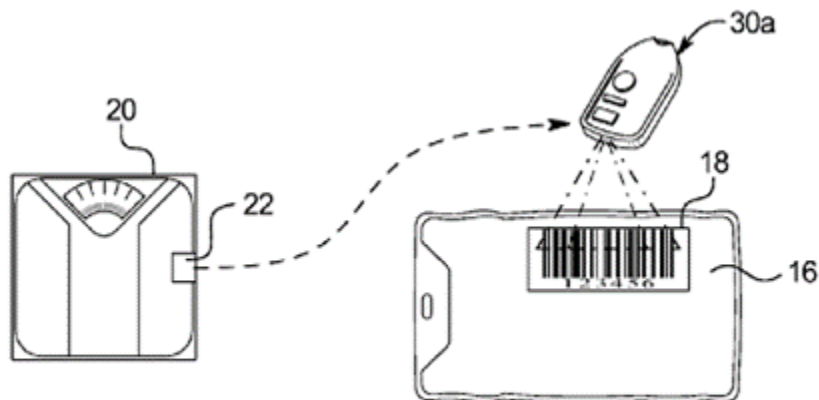
Illustrative example of subject matter classified in this place:

Healthcare Informatics (30a), i.e. Information and Communication Technology or ICT

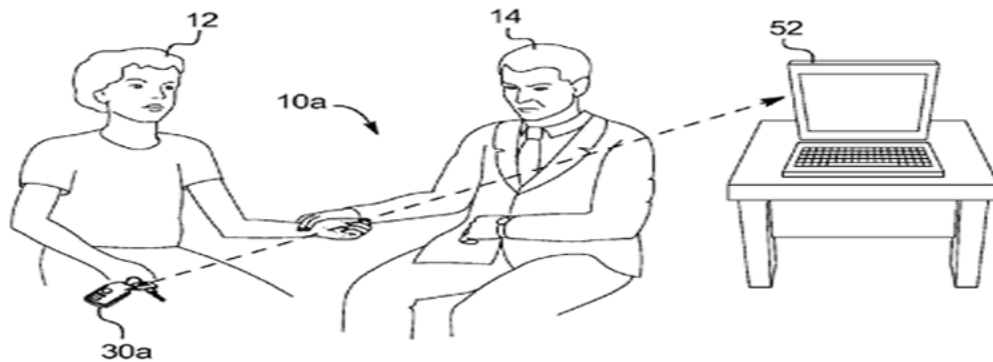
1a.



1b.



1c.



Glossary of terms

Replace: The capital letters in the righthand column of the Glossary of terms table with lowercase, so that the updated table appears as follows.

RFID	radio-frequency identification
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H04L41/00

Definition statement

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

Arrangements for the operation, administration, maintenance or provisioning [OAMP] or troubleshooting [OAMPT] of heterogeneous data packet networks, e.g. IP, Ethernet, Next Generation Network or Home Networks, using proprietary or standardised network management architectures (e.g. SDN, NFV) or protocols (e.g. TMN, SNMP, OMA-DM), irrespective of the physical transport medium, the type of service carried or the type of virtualisation (e.g. VNFs, cloud).

Glossary of terms

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

administration	keeping track of resources in the network and how they are assigned. It includes all the "housekeeping" that is necessary to keep the network under control.
agent	a software module that performs management functions requested by a manager.
maintenance	performing repairs and upgrades—for example, when equipment must be replaced, when a router needs a patch for an operating system image, when a new switch is added to a network. Maintenance also involves corrective and preventive measures to make the managed network run "better", such as adjusting device configuration parameters.
network element	manageable logical entity uniting one or more physical devices which are networked. Network elements usually have management agents responsible for interfacing with the network manager. They can be any type of device, including, but not limited to: nodes, routers, switches, bridges, hubs, network interface controller [NIC] hosts, gateways, servers, modem, IP telephones, IP video cameras, data-centres, computer hosts and printers. A network element can also comprise virtual components and can be partially or completely virtualised.
network function, NF; Virtual NF, VNF; Physical NF, PNF	functional blocks within a network infrastructure with external interfaces which can be implemented as a virtual network function, VNF or a physical network function, PNF.

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network management, NM	methods, systems, procedures and tools that pertain to the operation, administration, maintenance, provisioning, analysis and troubleshooting of networked systems.
network management functions	functions that are performed as part of network management including fault management, configuration, accounting, performance, security management [FCAPS]. For virtualised network functions in networked systems NM functions comprise management and orchestration functions for these virtualised network functions.
network management system, orchestrator network management system	entity that acts in a network manager role for performing network management functions.
operation	keeping the network up and running smoothly.
provisioning	configuring resources in the network to support a given service. For example, this might include setting up the network so that a new customer can receive the requested service.
quality of service	quality measurement or description of the performance of a service, the quality measurement relating to specific network parameters of the network packets related to the service which describe the treatment experienced by the packets while passing through the network, e.g. packet loss, bit errors, bit rate, throughput, goodput, delay, availability or jitter.
service level agreement	part of a service contract where the level of service between a service provider and a service user is formally defined.
troubleshooting	maintenance carried out as a result of fault or failure determination, and may result in emergency workarounds until a permanent fix can be carried out.

Synonyms and Keywords

Replace: In the first table in Synonyms and Keywords, the word “management” with the word “maintenance” in the following two rows.

In patent documents, the following abbreviations are often used:

OA&M, OAM	Operation, administration and maintenance
OAM&P, OAMP	Operation, administration, maintenance and provisioning

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

In patent documents, the following words/expressions are often used with the meaning indicated:

configured to	adapted to or suitable for defining functional features of structural elements
managed device or managed node	network element [NE]
managed object	an abstract representation of network resources of the network element that is managed
management	controlling, commanding or operating
network manager	Network Management System