



GRid

Global Release Identifier (GRid) Standard

Version 2.1

Date of Publication: 26th February 2007

Copyright and Disclaimer Notice

All Material in this document is protected by copyright and other relevant intellectual property laws. As such, all Material is subject to the intellectual property rights of IFPI; IFPI expressly reserves and retains all its rights in relation to the Material. Subject to the specific exception below, no part of the Material may be reproduced or otherwise exploited by any electronic, mechanical or other means without the prior written consent of IFPI at the absolute discretion of IFPI.

You may download this document and make a reasonable number of unchanged electronic and physical copies for the use of your organisation and its business partners for the purposes solely of deciding whether or not to implement the GRid specifications or preparing for the implementation of the GRid specifications.

No representations or warranties (either express or implied) are made or offered by IFPI with regard to the Standard described in this document. In particular, but without limitation, no representations or warranties are made in relation to:

- a) the suitability or fitness of the Standard for any particular purpose;
- b) the merchantability of the Standard;
- c) the accuracy, completeness, relevance or validity of the Standard; or
- d) the compatibility of the Standard with the intellectual property rights of any third party.

Accordingly, IFPI shall not be liable for any direct, indirect, special, consequential or punitive loss or damages howsoever arising out of or in connection with the use of the Standard.

Users of this Material are cautioned that it is subject to revision. Users are recommended to use the latest version, which is available at www.ifpi.org/grid

Contents

1	Introduction	4
2	Scope	4
3	Normative References	4
4	Terms and Definitions	5
4.1	Check Character	5
4.2	Digital Resource	5
4.3	International GRid Authority	5
4.4	ISRC	5
4.5	Issuer	5
4.6	Issuer Code	5
4.7	ISWC	5
4.8	Material Change	5
4.9	Metadata Repository	6
4.10	Product	6
4.11	Reference Descriptive Metadata	6
4.12	Release	6
4.13	Valid Characters	7
5	Construction of a GRid	7
5.1	Basic Construction	7
5.2	Identifier Scheme Element	7
5.3	Issuer Code Element	7
5.4	Release Number Element	7
5.5	Check Character Element	7
6	Presentation of the GRid	8
7	Interpretation of meaning within the GRid	8
8	Associated Reference Descriptive Metadata	8
9	Administration and Compliance	8
Annex A	(normative) Guidelines on the use of a GRid	10
A.1	Purpose of the Global Release Identifier	10
A.2	Principles of allocation of the Global Release Identifier	10
A.3	Administration	10
A.4	Allocation of GRids	11
A.5	GRid Reference Descriptive Metadata and GRid Metadata Repositories	12
A.6	Implementation guidelines	12
Annex B	(normative) Reference Descriptive Metadata for registration of a Release	14
B.1	General	14
B.2	Reference Descriptive Metadata Set for GRid	14
B.3	ISRC Reference Descriptive Metadata	15
B.4	Metadata for Digital Resources which are not identified with an ISRC	16
Annex C	(informative) Check Character Calculation Algorithm	17
Annex D	(informative) Characters that may be confused in use	19

1 Introduction

The Global Release Identifier (GRid) Standard was originally developed by the member organisations of the Recording Industry Association of America (RIAA) and the International Federation of the Phonographic Industry (IFPI) as part of the Music Industry Integrated Identifiers Project (MI3P). RIAA and IFPI's purpose in creating the GRid was to provide a system for the unique identification of Electronic Music "Releases", to support the more efficient management of those Releases in the network environment. The GRid provides an efficient means of identifying Releases in computer databases, in related documentation and in electronic messages for the exchange of information between record companies, rights societies, music publishers, electronic retailers of music and other interested parties on an international basis.

2 Scope

This Standard specifies a means of uniquely identifying a "Release" (as defined in Clause 4). It standardises and promotes internationally the use of a standard identification code so that Releases can be unambiguously distinguished from one another within computer databases and in related documentation and electronic messages, to support the efficient administration of all types of information about Releases and communication about Releases between record labels and their business partners.

The Global Release Identifier (GRid) identifies Releases as abstract entities representing bundles of one or more Digital Resources compiled for the purpose of electronic distribution. It is *not* used to identify any specific Product which contains such a Release, or individual instances of the Release. Such Products and instances may be the subject of separate standard or proprietary identification systems.

Guidelines for the use of a GRid are given in normative Annex A.

3 Normative References

The following normative documents contain provisions, which through reference in this text constitute provisions of this Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply.

- ISO 646:1991, Information Technology – ISO 7-bit Coded Character Set for Information Exchange
- ISO 3901:2001, Information and documentation – International Standard Recording Code (ISRC)
- ISO 7064:1983, Data Processing – Check Character Systems
- ISO 8601:2004, Data elements and interchange formats – Information interchange – Representation of dates and times
- ISO 15707:2001, Information and documentation - International Standard Musical Work Code (ISWC)
- ISO/IEC 21000-2:2005, Information technology – Multimedia framework – Digital Item Declaration (DID)

4 Terms and Definitions

For the purposes of this Standard, the following terms should be read as having the meanings specified here:

4.1 Check Character

A Check Character is a character which may be used to verify the accuracy of a standard Identifier. An algorithm is used to determine the Check Character according to a mathematical relationship with the other alphanumeric characters contained in it, such that any error in reporting the Identifier will almost certainly result in the computation of an invalid Check Character.

4.2 Digital Resource

A Digital Resource is a digital fixation of an expression of an abstract work, such as a sound recording, an audio-visual recording, a photograph, software, a graphic image or a passage of text.¹

4.3 International GRid Authority

The International GRid Authority is the organisation responsible for maintaining the integrity of the GRid system and for issuing Issuer Codes.

4.4 ISRC

The International Standard Recording Code (ISO 3901:2001)

4.5 Issuer

The Issuer is the organisation responsible for allocating the Global Release Identifier (GRid).

4.6 Issuer Code

The Issuer Code is a unique identifier of the Issuer, issued by the International GRid Authority.

4.7 ISWC

The International Standard Musical Work Code (ISO 15707:2001)

4.8 Material Change

A Material Change exists in the following circumstances:

- (a) Any change to a Release which involves the addition or deletion of any Digital Resource which the Release contains is a Material Change.
- (b) Any change to a Digital Resource identified with an ISRC which, in accordance with the ISRC Standard ISO 3901:2001 and the associated Handbook (http://www.ifpi.org/isrc/isrc_handbook.html), requires the allocation of a new ISRC to that Digital Resource is a Material Change to any Release containing that Digital Resource.
- (c) Any change to a Digital Resource identified with an ISRC which, in accordance with the ISRC Standard ISO 3901:2001 and the associated Handbook (http://www.ifpi.org/isrc/isrc_handbook.html) does not require the allocation of a new ISRC may be a Material Change to a Release containing it. A Material

¹ The term "resource", wherever it is used in this specification, carries the meaning that is defined here. However, this definition is intended to be consistent with the meaning of the same term in ISO/IEC 21000-2 (MPEG-21 Part 2: Digital Item Declaration).

Change exists in these circumstances, only if the Issuer considers that it is necessary to distinguish the newly created Release from another Release.

- (d) The substitution in a Release of a Digital Resource which is identified with an identifier other than an ISRC (including a free text description of the Digital Resource – see Section B.2) is a Material Change if it involves a change of the identifier of that Digital Resource in the Reference Descriptive Metadata. Where it does not involve a change of the identifier used in the Reference Descriptive Metadata, a Material Change exists only if the Issuer considers that it is necessary to distinguish the newly created Release from another Release.
- (e) In the case of a Release which contains only a single Digital Resource, a change in the *context* in which that Digital Resource is made available may be regarded as representing a Material Change. For example, where the same Digital Resource is contained in two different album Releases, but is also made available separately as a single Release, the Issuer may determine that it is necessary to distinguish the two resultant Releases of the single Digital Resource from each other.
- (f) Where the Issuer of the Release considers that the sequence in which Digital Resources are presented to the user is significant, a change in that sequence may be regarded as a Material Change.
- (g) A change of ownership of the intellectual property rights of any of the Digital Resources in the Release, or a change in the distributor of the Release shall not necessarily constitute a Material Change. Such a change of ownership or distribution may be regarded as a Material Change at the discretion of the Issuer currently entitled to issue a GRid to the Release (see Section A.4.3).
- (h) The correction of an error in the Reference Descriptive Metadata of (i) a Release or (ii) a Digital Resource contained in a Release shall not normally be regarded as a Material Change.

4.9 Metadata Repository

A Metadata Repository is a computer system which meets the requirements of the International GRid Authority for Reference Descriptive Metadata storage, maintenance and access. It may be operated by an Issuer or by a third party offering registration services to Issuers.

4.10 Product

A Product is a manifestation of a Release, in the form in which it is made available to consumers. The attributes of a Release in its digital manifestation as a Product may be technical (for example, the codec or bit rate); the way in which it is consumed (for example, downloading or streaming); or a commercial term (for example, the price at which it is made available).

4.11 Reference Descriptive Metadata

Reference Descriptive Metadata is the set of data elements (as specified in Annex B of this Standard) that describes the Release and the Digital Resources it comprises and that shall be stored and maintained in a Metadata Repository.

4.12 Release

A Release is an abstract entity representing a bundle of one or more Digital Resources compiled by an Issuer for the purpose of electronic distribution to individual consumers, directly or through intermediaries. The Digital Resources in Releases are commonly sound recordings or audio-visual recordings, however, they can also include other Digital Resources (including, for example, text, graphics, software). The Release is not itself a Product. Products have more extensive attributes than Releases; one Release may be disseminated in many different Products.

4.13 Valid Characters

Valid Characters are the Arabic numbers 0 to 9 and the Roman alphabet as defined in the International Reference Version (IRV) of ISO 646.

5 Construction of a GRid

5.1 Basic Construction

A GRid consists of 18 characters, made up of an Identifier Scheme element followed by an Issuer Code element, a Release Number element and a Check Character as follows:

- Identifier Scheme element (2 characters)
- Issuer Code element (5 characters)
- Release Number element (10 characters)
- Check Character element (1 character)

When a GRid is written, printed or otherwise visually presented, the four elements of the GRid shall be separated from each other by a hyphen. The hyphens do not form part of the GRid. It is recommended that when a GRid is visually presented, the font used should clearly distinguish between the number 1 and 0, and the letters I and O.

Example: **A1-2425G-ABC1234002-M**

Where: **A1** – Identifier Scheme element
 2425G – Issuer Code element
 ABC1234002 – Release Number element
 M – Check Character element

5.2 Identifier Scheme Element

The Identifier Scheme Element distinguishes the GRid Identifier Scheme from any other Standard identification scheme which adopts the same or a similar structure. It shall be composed of two Valid Characters.

The GRid Identification Scheme shall be 'A1'.

5.3 Issuer Code Element

The Issuer Code uniquely identifies the Issuer of the GRid. It shall be composed of five Valid Characters

5.4 Release Number Element

The Release Number uniquely identifies the specific bundle of Digital Resources compiled by the Issuer. It shall be composed of ten Valid Characters.

5.5 Check Character Element

The Check Character is a character which may be used to verify the accuracy of a GRid. It shall be composed of one Valid Character. The Check Character shall be calculated in accordance with ISO 7064 Mod 37, 36 part of ISO 7064:1983. The algorithm for this calculation can be found in the informative Annex C.

6 Presentation of the GRid

Unless it is clear from its context of use that the identifier is a GRid, a GRid should always be presented in the following format:

GRID:[Identifier]

The prefix "GRid" and the colon do not themselves form part of the GRid, but identify the GRid namespace.

Using the *example* in Clause 5.1, the GRid would be presented as:

GRID:A1-2425G-ABC1234002-M

7 Interpretation of meaning within the GRid

No element of the GRid may be interpreted as having any independent meaning except as explicitly provided for in this Standard. For example, the Issuer Code element identifies only the *original* Issuer of the GRid and has no other value. For the avoidance of doubt, the allocation of a GRid to a Release shall have no meaning or value as legal evidence regarding any intellectual property rights embodied in the Digital Resources contained in the Release or in the Release itself.

8 Associated Reference Descriptive Metadata

A GRid shall be associated with a specified set of data elements (see normative Annex B) describing the Release it identifies. This set of data elements is designated the Reference Descriptive Metadata. The GRid and its Reference Descriptive Metadata shall be stored and maintained in a Metadata Repository approved by the International GRid Authority for this purpose.

The International GRid Authority shall approve GRid Metadata Repositories and manage their compliance with this Standard. The policies and procedures under which access to the Metadata Repositories is provided shall be established by the International GRid Authority. It is clearly recognised that GRid Metadata Repositories will, for many GRid issuers, be a subset of a larger metadata repository which has functionality which extends well beyond what is necessary for the management of GRid Reference Descriptive Metadata and/or ISRC Reference Descriptive Metadata. For the avoidance of doubt, the International GRid Authority shall have no authority with respect to the functionality of such GRid Metadata Repositories beyond the scope of their function as a repository for GRid Reference Metadata.

9 Administration and Compliance

The Registration Authority for this Standard shall be the International GRid Authority. The GRid shall be administered and maintained by the International GRid Authority, which shall publish from time to time appropriate documentation and guidance which enables Issuers to efficiently implement and comply with the Standard and will manage the process by which changes to the Standard can be made. In carrying out its functions, the International GRid Authority shall consult with appropriate stakeholders.

The International GRid Authority may, when circumstances justify, publish specific derogations that apply to all operators of GRid Metadata Repositories whereby for limited periods, defined acts which would otherwise be non-compliant are to be regarded as compliant with the GRid Standard. This will ensure that Issuers can remain compliant with the Standard when it has been shown that it must be revised to take into account changing business requirements.

The International GRid Authority is IFPI Secretariat, based at 54 Regent Street, London W1R 5PJ, UK.

Annex A

(normative)

Guidelines on the use of a GRid

A.1 Purpose of the Global Release Identifier

The Global Release Identifier (GRid) provides a means to identify an abstract entity representing a bundle of one or more Digital Resources for the purpose of electronic distribution to individual consumers (as defined in Clause 4.8). A Release must contain one or more Digital Resources which may include sound recordings, audio-visual recordings, text, still images, graphics and software (and any combination of these).

A.2 Principles of allocation of the Global Release Identifier

Each Release shall be allocated a unique GRid. A Material Change to one or more of the Digital Resources making up a Release shall require the allocation of a new GRid.

A GRid can be allocated to a Release containing just one Digital Resource, such as a single sound recording, a single audio-visual recording or a single digital image. A GRid can also be allocated to an arbitrarily complex Release containing any number of Digital Resources, for example recordings, text, graphics and still images.

The same Digital Resource can be contained in any number of Releases. However, the Digital Resources contained in a Release may not be defined by reference to the identity of another Release. In other words, Reference Descriptive Metadata for one Release should not refer to the GRid of another Release. There is a limited exception to this rule, with respect to single-recording Releases; see Section 4.8(a) and Section B.2.

The same Release may be made available in any number of different Products by any number of disseminators of Products.

A.3 Administration

The Registration Authority for this Standard shall be the International GRid Authority (see Clause 9).

The primary role of the International GRid Authority shall be to grant Issuer Codes to organisations which meet the criteria of eligibility for Issuers of GRids as set out in Clause A.4.1 and as supplemented by any additional rules from time to time approved by the International GRid Authority. The International GRid Authority shall set out the procedure by which organisations wishing to obtain an Issuer Code shall make application for such a Code and make such procedure publicly available. The International GRid Authority shall maintain a database of Issuer Codes as a tool to ensure the uniqueness of each Issuer Code allocated.

The International GRid Authority shall on a regular basis undertake compliance procedures to ensure that Issuers remain in compliance with this specification. In circumstances where an Issuer is found not to be complying the International GRid Authority shall require corrective action. The International GRid Authority shall be responsible for publishing from time to time the form of its compliance procedures and the form of corrective action it would require in the event of the discovery of non-compliance. The International GRid Authority has the power to withdraw Issuer Codes in the event of persistent non-compliance.

A.4 Allocation of GRIDs

A.4.1 Organisations eligible to issue GRIDs

An organisation is eligible to be granted an Issuer Code by the International GRid Authority, and therefore to issue GRIDs, if it claims to be:

- the owner of copyrights in sound and/or music audiovisual recordings
and/or
- exclusive licensees of copyrights in sound and/or music audiovisual recordings

The policies and procedures by which other types of organisations may become eligible to be granted an Issuer Code will be established by the International GRid Authority.

A.4.2 GRid Issuer Codes

The International GRid Authority shall issue a GRid Issuer Code to any eligible organisation that applies for such a code, and agrees to comply with this Standard for implementing the GRid. The International GRid Authority may make a charge for issuing a GRid Issuer code, on a reasonable and non-discriminatory basis, for cost recovery purposes.

A.4.3 Releases to which an Issuer may allocate a GRid

An Issuer shall issue a GRid to a Release only if (with respect to the Digital Resource(s) included in that Release):

- it is the owner of the copyrights in the Digital Resources
or
- it is an exclusive licensee in respect of the copyrights in the Digital Resources
or
- it has been specifically authorised by either the copyright owner or the exclusive licensee to compile a Release containing the Digital Resources

A.4.4 Reference Descriptive Metadata

Each GRid shall have a set of Reference Descriptive Metadata associated with it. This set is defined in normative Annex B.

A.4.5 Process of Allocation of GRIDs

An Issuer may allocate a GRid to each Release for which it is responsible and on making such an allocation shall store and maintain the GRid and the associated Reference Descriptive Metadata in a Metadata Repository. This repository shall fulfil the requirements laid down in Clause A.5 below.

A.4.6 Issuer Compliance

The International GRid Authority shall on a regular basis carry out compliance procedures to ensure that all Issuers remain in compliance with this specification. In circumstances where an Issuer is found not to be in compliance with this standard, the International GRid Authority shall require corrective action.

The International GRid Authority shall be responsible for publishing from time to time the form of its compliance procedures and the form of corrective actions it would require in the event of non-compliance. The International GRid Authority has the power to withdraw an Issuer Code from an Issuer in the event of persistent non-compliance.

The International GRid Authority may, when circumstances justify, publish specific derogations that apply to all Issuers whereby for limited periods, defined acts which would otherwise be non-compliant are to be regarded as compliant with this standard.

A.5 GRid Reference Descriptive Metadata and GRid Metadata Repositories

The International GRid Authority shall accept applications from organisations wishing to operate GRid Metadata Repositories. It shall approve such applications if it determines that the organisation is capable of operating the GRid Metadata Repository in compliance with this specification. In determining the criteria for acceptance as a GRid Metadata Repository, the International GRid Authority shall take into consideration the cost of compliance and any commercial impact on the operator of the prospective GRid Metadata Repository.

The Reference Descriptive Metadata associated with any GRid that has been allocated to a Release shall be stored and maintained in a GRid Metadata Repository, which has been approved by the International GRid Authority. The International GRid Authority shall regularly notify Issuers of approved GRid Metadata Repositories that provide compliant facilities for the registration of GRids and their associated Reference Descriptive Metadata should an Issuer choose not to undertake this obligation on its own behalf.

The International GRid Authority shall on a regular basis carry out compliance procedures to ensure that all approved GRid Metadata Repositories remain in compliance with this specification. In circumstances where a GRid Metadata Repository is found not to be in compliance with this standard, the International GRid Authority shall require corrective action.

The International GRid Authority shall be responsible for publishing from time to time the form of its compliance procedures and the form of corrective actions it would require in the event of non-compliance. In determining the corrective action that is required, the International GRid Authority shall take into consideration the circumstances that led to non-compliance, the cost of implementing the corrective action and the commercial impact on the operator of the non-compliant GRid Metadata Repository. The International GRid Authority has the power to withdraw approval of a GRid Metadata Repository in the event of persistent non-compliance.

The International GRid Authority may, when circumstances justify, publish specific derogations that apply to all operators of GRid Metadata Repositories whereby for limited periods, defined acts which would otherwise be non-compliant are to be regarded as compliant with this Standard.

GRid Metadata Repositories will frequently be a subset of a larger metadata repository with functionality which extends well beyond that necessary for the management of GRid Reference Descriptive Metadata. For the avoidance of doubt, the International GRid Authority shall have no authority with respect to the functionality of such GRid Metadata Repositories beyond their function as a repository for GRid Reference Descriptive Metadata.

A.6 Implementation guidelines

The following sub-sections provide guidelines for Issuers relating to their administration of the allocation of GRids.

A.6.1 New Releases

Each new Release to be managed in compliance with the GRid standard shall be allocated a GRid.

A.6.2 Uniqueness of the GRid

Issuers shall ensure the uniqueness of the GRids they allocate by ensuring that the Release Number element of the GRid is unique within their Issuer Code.

A.6.3 Re-use

No Release Number element once allocated as part of a GRid under one Issuer Code shall be re-allocated as part of another GRid allocated by the same Issuer.

A.6.4 Material Change

Any Material Change (as defined in Clause 4.8) in a Release shall result in the allocation of a new GRid.

A.6.5 Identification of Digital Resources in Releases

Any Digital Resource in a Release which is eligible for identification with an ISRC must be identified with an ISRC. Any Digital Resource in a Release which is eligible for identification with another ISO identifier should preferably be identified using the appropriate ISO identifier. Where no appropriate ISO identifier is available, the means of identification may be either (i) an alternative identifier (not necessarily a standard identifier) for the Digital Resource which forms part of the Release (in the form NAMESPACE:IDENTIFIER) or (ii) a free text description of the Digital Resource.

A.6.6 ISRC Reference Descriptive Metadata

When allocating a GRid to a Release, Issuers shall ensure that all Digital Resources contained in the Release that are eligible to be identified with an ISRC have been allocated an ISRC and that the required Reference Descriptive Metadata associated with the ISRC has been stored and is maintained in a Metadata Repository approved for that purpose and operated by the Issuer (or on behalf of the Issuer). The Reference Descriptive Metadata elements to be ascribed to an ISRC-identified Digital Resource are defined in Clause B.3.

A.6.7 Content of Releases

The Digital Resources contained in a Release may not be defined by reference to the identity of another Release, with the limited exception of reference to the context of their Release (see Section 4.8(a) and Section B.2). In the event that the Digital Resources which constitute an existing Release are to be contained in a new Release containing those Digital Resources with other Digital Resources, the new Release shall be given a new GRid which shall be associated through the Reference Descriptive Metadata directly with each of the Digital Resources, not with the existing GRid.

Annex B (normative)

Reference Descriptive Metadata for registration of a Release

B.1 General

Before allocating a GRid to a Release, an Issuer shall store in a GRid Metadata Repository the Reference Descriptive Metadata for that Release, as described in B.2 below.

For each ISRC declared as part of the metadata set of a GRid, the ISRC must be declared and shall be associated with a specified set of Reference Descriptive Metadata about the sound recording or music audio-visual recording it identifies as described in B.3 below by means of storage of the ISRC and its Reference Descriptive Metadata set in an ISRC Metadata Repository approved for the purpose and operated by the Issuer (or on behalf of the Issuer).

The International GRid Authority shall manage the compliance of the Issuers' Metadata Repositories with regard to GRid and ISRC Reference Descriptive Metadata.

The data elements which make up the Reference Descriptive Metadata of a Release are subject to change at the discretion of the International GRid Authority, in consultation with appropriate stakeholders.

B.2 Reference Descriptive Metadata Set for GRid

The following data elements make up the Reference Descriptive Metadata set associated with a GRid identifying a Release:

No	Name	Mandatory/ Optional	Occurrences	Description and notes
1	Identifier	M	1	The Global Release Identifier (GRid)
2	Title	M	1	The title of the Release (free text)
3	Main artist	O	0 – 1	The name of the Main Artist associated with the Release
4	Sequenced Release	M	1	A "flag" element to indicate whether some or all of the Digital Resources are to be presented to a user of the Release in a mandatory sequence; where the flag is set to "yes", the inclusion in the metadata of at least one Sequenced Resource Group is mandatory.
5	Unsequenced Resource	M if Sequenced Release flag is set to "no"	0 – n	An identifier for each unsequenced Digital Resource in the Release. This can be: <ul style="list-style-type: none"> ➤ The International Standard Recording Code of each Digital Resource contained in the Release which is eligible to be identified with an ISRC (in the form ISRC: IDENTIFIER); ➤ An identifier (not necessarily a standard identifier) for a Digital Resource of each Digital Resource contained in the Release which is not eligible to be identified with an ISRC (in the form NAMESPACE: IDENTIFIER) or ➤ A free text description of a Digital Resource which is not eligible to be identified with an ISRC. The ordering of the Digital Resources within this element is not significant
6	Resource Group	M if Sequenced Release flag is set to "yes"	0 – n	A grouping of Resources. This element has no value of its own; it solely serves to allow elements 6.1 – 6.4 to be grouped.
6.1	Resource Group identifier	M	1	A unique identifier (not necessarily a standard identifier) of the Resource Group within the Release in the form NAMESPACE: IDENTIFIER. (Note: this identifier shall not be a GRid)

No	Name	Mandatory/Optional	Occurrences	Description and notes
6.2	Sequenced Resource Group	M	1	A "flag" element to indicate whether some or all of the Digital Resources within the Resource Group are to be presented to a user of the Release in a mandatory sequence; where the flag is set to "yes", the inclusion in the metadata of at least one Sequenced Resource Group is mandatory.
6.3	Unsequenced Resource in Resource Group	M if Sequenced Resource Group flag is set to "no"	0 – n	An identifier for each unsequenced Digital Resource in the Resource Group. This can be: <ul style="list-style-type: none"> ➤ The International Standard Recording Code of each Digital Resource contained in the Release which is eligible to be identified with an ISRC (in the form ISRC: IDENTIFIER); ➤ An identifier (not necessarily a standard identifier) for a Digital Resource of each Digital Resource contained in the Release which is not eligible to be identified with an ISRC (in the form NAMESPACE: IDENTIFIER); ➤ A free text description of a Digital Resource which is not eligible to be identified with an ISRC or ➤ A Resource Group identifier. The ordering of the Digital Resources within this element is not significant
6.4	Sequenced Resource in Resource Group	M if Sequenced Resource Group flag is set to "yes"	0 – n	An identifier for each sequenced Digital Resource in the Resource Group. This can be: <ul style="list-style-type: none"> ➤ The International Standard Recording Code of each Digital Resource contained in the Release which is eligible to be identified with an ISRC (in the form ISRC: IDENTIFIER); ➤ An identifier (not necessarily a standard identifier) for a Digital Resource of each Digital Resource contained in the Release which is not eligible to be identified with an ISRC (in the form NAMESPACE: IDENTIFIER) or ➤ A free text description of a Digital Resource which is not eligible to be identified with an ISRC or ➤ A Resource Group identifier. The ordering of the Digital Resources within this element is defined by the order within the Resource Group.
7	Resource Context	O	0 – 1	This element is allowed only when the Release comprises a single Digital Resource identified with an ISRC (the Release may also contain other Digital Resources, such as graphics). Where the Issuer decides that the context from which the Resource is released is significant, the context of the release shall be identified here. The means of identification of the context may be either (i) an identifier, normally a GRid (in the form NAMESPACE: IDENTIFIER) or (ii) exceptionally, a free text description of the Context.
8	Release Version Description	O	0 – 1	A comment field to distinguish (descriptively, in free text) different Releases with the same Title.
9	Issuer Name	M	1	The name of the Issuer allocating the GRid, in the form registered with the International GRid Authority.

B.3 ISRC Reference Descriptive Metadata

The following data elements make up the Reference Descriptive Metadata set associated with an ISRC identifying a sound recording or a music audio-visual recording:

No	Name	Mandatory/Optional	Occurrences	Description and notes
1	Identifier	M	1	The International Standard Recording Code (ISRC)
2	Title	M	1	The title of the sound recording or music audio-visual recording
3	Recording Version Description	O	0 – 1	A description to distinguish (descriptively, in free text) different sound recordings or music audio-visual recordings with the same title and Main Artist.

No	Name	Mandatory/ Optional	Occurrences	Description and notes
4	Main artist	M	1 – n	The Main Artist performing the sound recording or music audio-visual recording
5	Date	M	1	1. Where a sound recording, the © date in the form (P)YYYY 2. Where an audiovisual recording, the © date in the form (C)YYYY
6	Duration	M	1	The time of duration of the sound recording or music audio-visual recording in accordance with ISO 8601:2004 (hh:mm:ss)
7	Medium	M	1	One of two values: "SoundRecording" or "MusicAudioVisualRecording"
8	Work Identifier	O	0 – n	The International Standard Work Code (ISWC) for all musical works expressed in the sound recording or music audio-visual recording identified by element (1). Although optional, it is strongly recommended that the ISWC be included in the ISRC minimum metadata set as soon as an authoritative ISRC: ISWC link is available.

B.4 Metadata for Digital Resources which are not identified with an ISRC

This Standard does not define Reference Descriptive Metadata standards for those Digital Resources that may be contained in a Release but which are not eligible for identification with an ISRC.

Where an appropriate ISO identifier standard exists for a class of Digital Resources, and is used to identify a Digital Resource in a Release, the ISO standard shall be followed with respect to Reference Descriptive Metadata.

The International GRid Authority may establish whatever rules it considers necessary for the definition and management of Reference Descriptive Metadata.

Annex C (informative) Check Character Calculation Algorithm

This informative Annex C is provided for completeness only. ISO 7064, Mod 37, 36 is the normative reference.

Users of this Standard are recommended to investigate the possibility of applying the most recent edition of ISO 7064, Mod 37, 36 when creating their systems to implement the allocation of Global Release Identifiers (GRIDs).

The Check Character algorithm referenced has been taken from ISO 7064:1983, Data Processing – Check Character Systems. It maps a string of alphanumeric characters to a single alphanumeric character.

A.1 Formula for Calculating the Check Character

The characters of the GRid are processed character by character from left to right.

$N=18$ is defined as the number of characters including the Check Character in the GRid. The characters of the Identifier (including the Check Character) are numbered from right to left: a_1 is the Check Character and a_2 to a_{18} are the characters of the Identifier as follows. Please see Table 1.

A	1	2	4	2	5	G	A	B	C	1	2	3	4	0	0	2	x
a_{18}	a_{17}	a_{16}	a_{15}	a_{14}	a_{13}	a_{12}	a_{11}	a_{10}	a_9	a_8	a_7	a_6	a_5	a_4	a_3	a_2	a_1

Table 1 – Numbering of GRIDs for Check Character Calculation

The algorithm then comprises five steps:

- Step 1:** Set a_j for $j=n \dots 2$ as follows:
 a_n is the value for the first character of the identifier (see **Table 1**);
 a_{n-1} is the value for the second character of the identifier;
 ...
 a_2 is the value for the last character of the identifier.
- Step 2:** Set $j=1$ and $P_1=36$
- Step 3:** Calculate
 $S_j = P_j |_{37} + a_{(n-j+1)}$
 $P_{(j+1)} = S_j |_{36} \times 2$
- For $j=1 \dots n$, where
 $|_{36}$ is the remainder after division by 36. If the remainder equals zero, then $|_{36} = 36$.
 $|_{37}$ is the remainder after division by 37 (never equals to 0).
 $a_{(n-j+1)}$ is value of a character in the string.
- Step 4:** The Check Character a_1 must be computed so that $S_n |_{36} = 1$.
- Step 5:** Use Table 2 to select the Check Character.

Char	Value	Char	Value	Char	Value
0	0	A	10	N	23
1	1	B	11	O	24
2	2	C	12	P	25
3	3	D	13	Q	26
4	4	E	14	R	27
5	5	F	15	S	28
6	6	G	16	T	29
7	7	H	17	U	30
8	8	I	18	V	31
9	9	J	19	W	32
		K	20	X	33
		L	21	Y	34
		M	22	Z	35

Table 2: Character Table for ISO 7064 Mod 37, 36

Example for A1-2425G-ABC1234002-x

j	Char	$a_{(n+j-1)}$	P_j	$P_j 37$	S_j	$S_j 36$
1			36	36	46	10
2	2	2	20	20	21	21
3	0	0	42	5	7	7
4	0	0	14	14	18	18
5	4	4	36	36	38	2
6	3	3	4	4	9	9
7	2	2	18	18	34	34
8	1	1	68	31	41	5
9	C	12	10	10	21	21
10	B	11	42	5	17	17
11	A	10	34	34	35	35
12	G	16	70	33	35	35
13	5	5	70	33	36	36
14	2	2	72	35	39	3
15	4	4	6	6	6	6
16	2	2	12	12	12	12
17	1	1	24	24	26	26
18	A	10	52	15		

Table 2: Check Character Calculation (Example)

S_{18} is defined as $S_{18} = P_{18}|_{37} + a_1$ (a_1 being the Check Character). Hence, we must find an a_1 , so that $15 + a_1 - 1$ is dividable by 36 without remainder.

This leads to $a_1 = 22$, which represents the character "M". Hence the complete GRid is A1-2425G-ABC1234002-M.

Annex D

(informative)

Characters that may be confused in use

Users may find it helpful if issuers avoid issuing GRids which contain characters that may be confused with one another in use. This is particularly the case where GRids may have to be re-keyed from a printed source. Some issuers may therefore choose to avoid issuing a GRid which includes the letters I and O from the Roman alphabet.

Where this is the case, it is possible that the Check Character calculation will deliver an I or an O as the check digit. In that event, an algorithm should be used which rejects the GRid and increments the Release Number Element in such a way as to change the Check Character from an I or an O.

However, users are cautioned that they may find the letters I and O in a GRid in issue.