

GENERAL SPECIFICATION

GEOINFORMATION

GS EP GIN 307

Unique identifier and seismic data indexing

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Rev.	Date	Purpose of the revision

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Managing entity: EXPLO/GTS/IGEO

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1. Scope

This document defines the requirements for creating unique identifiers and indexing seismic data, in Head offices and affiliates.

Its purpose is to standardize the way all E&P seismic data is identified and indexed.

This document is intended for data indexing operators, whether they are data managers in affiliates or contractors providing indexing services for Head offices or affiliates.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
Not applicable	

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

Reference	Title
GS EP GIN 122	Deliverables and Delivery Procedure for Surface Seismic Acquisition and Processing Data

3. Definitions

The following definitions serve for the purposes of this document only.

Database: collection of data, generally structured in fields, organized in such a way that it can be used by software programs with specific applications (management, searching, sorting, mapping, etc.). Data is grouped in a structured way and managed by a Database Management System (DBMS) to facilitate the independent upgrade of data and programs.

Field: description zone containing a particular category of data of the same nature, consistent and homogeneous.

Functional Data Administrator: information and seismic data specialist who manages the corporate seismic database. E.g. this person updates the values to be used when entering data in the fields.

Tool: this term designates the software application used to manage the corporate seismic database.

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4. Glossary

AICP: Availability, Integrity, Confidentiality, Proof.

Cube: volume defining the extent of a 3D seismic acquisition along the directions x, y and z (depth).

Envelope: geographical scope of a 3D seismic campaign.

GIS: Geographic Information System.

Header: header of an IT file containing information on the data to be found in that file.

IDA (Acquisition ID): Unique seismic identifier of acquisition data

IDT (Processing ID): Unique seismic identifier of processing data (the IDT is always linked to the parent IDA).

SEGD: digital format in which seismic acquisitions are saved.

SEGY: digital format in which seismic acquisitions and processing are saved.

Swath: group of similarly oriented seismic lines acquired during a 3D seismic survey.

5. Roles and responsibilities

The **Project Manager** is in charge of leading a project (acquisition/purchase, interpretation, indexing, etc.) and making sure it runs smoothly. S/he is responsible for:

- Initiating seismic data indexing by requesting the creation of seismic identifiers (IDA or IDT).
- Providing the data's level of confidentiality.

The **Data Provider** is responsible for:

- Providing the data set and the information needed for indexing (metadata, contract, etc.).

Note: The Data Provider can also be the Project Manager.

The **Identifier Creator** is in charge of creating unique seismic identifiers. S/he is responsible for:

- Creating seismic identifiers.
- Monitoring the creation of identifiers.

Note: This person can also be the Indexer.

The **Indexer** is a specialist in seismic information who analyzes and describes the data in the corporate seismic database. S/he is responsible for:

- Checking the compliance of data and information received.
- Entering the indexation attributes.
- Loading the database.

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The **Indexation Controller** is a specialist in seismic information. S/he is responsible for checking the indexation carried out by the Indexer. This person reports to the Database Manager.

The **Database Manager** is the guarantor of indexation quality.

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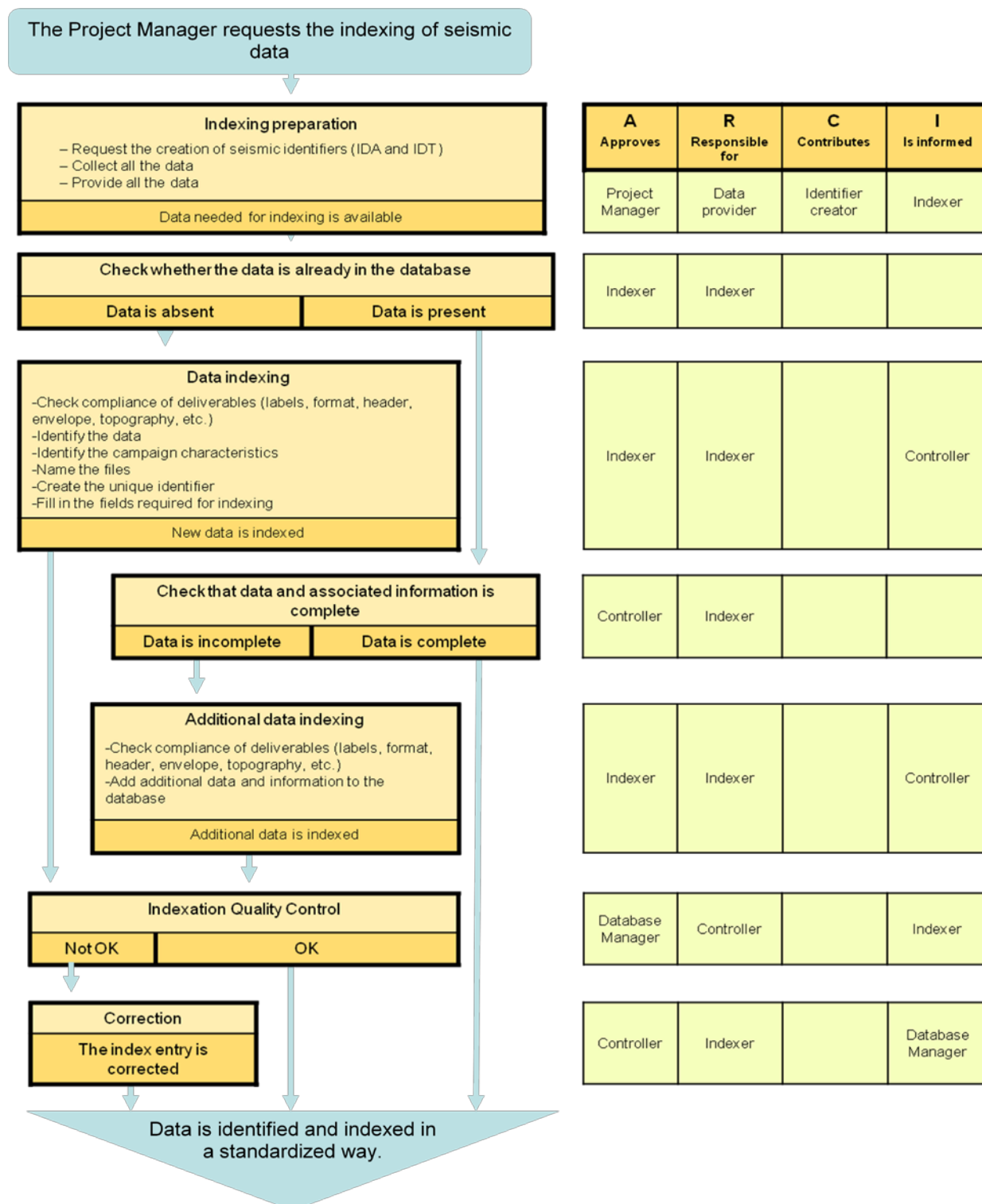
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6. Seismic data indexing process

Purpose of the process: Ensure that all E&P seismic data is indexed in a standardized way.



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7. Seismic data indexed in corporate databases

{Rule 1:

At the request of disciplines, all seismic data shall be stored in the corporate seismic database.}

This concerns the following seismic data:

- Data from seismic acquisitions and associated documents (navigation data, observer logs, static surveys, operator reports, etc.).
- Processed or reprocessed data and associated documents (topography, velocities, etc.).
- Micro-seismic data (passive seismic acquisition).
- Seismic data from "site survey".

Seismic data from wells, and implementation and monitoring reports are outside the scope of this GS.

Well seismic data is saved and indexed in corporate well databases. Implementation reports are indexed in the corporate database.

8. Key steps

To ensure that data in the corporate database is organized and standardized, it is necessary to:

1. Attribute a unique identifier to each campaign. This ID serves to interconnect all the data from a single campaign.
2. Fill in the required fields for an efficient indexing.
3. Have an intrinsic quality-control mechanism in the DB tool.

8.1 The unique seismic identifier

{Rule 2:

Every seismic data shall be identified by a unique seismic identifier. }

It is important that data indexing is planned from the beginning of the project that will produce the seismic data involved.

{Rule 3:

The unique seismic identifier shall be created by DEC/DS entity. }

In compliance with **GS EP GIN 122**, the Project Manager is responsible for requesting a unique seismic identifier (IDA for acquisition or IDT for processing) from DEC/DS entity, as soon as the acquisition contractor has been selected or the project has been launched in-house.

The unique identifier appears:

- In the acquisition implementation contract.
- In the headers of all data produced and on all associated documents.
- In all the acquisition or processing reports.
- On the labels of all the seismic data title blocks.

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- In the headers of associated data: static, topographic, bathymetric, navigation, etc.

{Rule 4:

The unique seismic identifier (IDA or IDT) shall be composed of 12 characters and have the following structure: PPZZTXYCCSS. }

The unique identifier is made up of the following elements:

- **PP:** country code
If the data acquired or processed spans several countries, the country code selected is the one in which most of the data is located.
- **ZZ:** region code:
The list of region codes used in Head offices is available upon request from DEC/DS entity.
- **T:** data type (**A** for acquisition, **T** for processing, **R** for reprocessing, **S** for refraction)
- **X:** 2 for 2D, 3 for 3D, 4 for 4D and E for "echo sounder/site survey"
- **YY:** year (of acquisition, processing or reprocessing)
- **CC:** contractor code
- **SS:** number incremented in the year

Example:

EC	NP	A	2	91	SD	01
Ecuador	Region code: NP	This is acquisition data	2D	Year of the acquisition campaign	Contractor code: Seismic Delta **	Sequential No.

In this case, the unique identifier is: ECNPA291SD01.

To be able to create this identifier, the person in charge of doing so is required to systematically fill in certain fields.

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{Rule 5:

To create the unique identifier, the identifier creator shall complete the following fields with the values mentioned in the document to be indexed:

- Survey Name
- IDA/IDT
- Activity *
- Survey type *
- Operator **
- Contractor **
- Environment *
- Line Prefix
- Acquisition/Processing start date
- Acquisition/Processing end date. }

* See the list of values in Appendix 2.

** The list of operators and contractors is available upon request from DEC/DS entity.

The defined date format is YYYY-MM-DD (Format used by Head offices and most of the affiliates).

If the value is missing in the document, the Identifier Creator is required to enter the default value indicated in brackets for each of the following fields:

- Operator (UNKNOWN COMPANY)
- Contractor (UNKNOWN COMPANY)
- Start date (1111-11-11)
- End date (1111-11-11)

To create the unique identifier, the Identifier Creator is also required to complete the following fields, if the information is available.

If the information is not available, s/he does not enter a default value, but leaves the field empty.

- Length (cumulated length of 2D lines or surface covered by a 3D survey)
- Units for length (km or km²)
- Crew number number or name of the crew/boat that participated in the acquisition
- Created by name of the Identifier Creator (the name can be managed in a list, depending on the tool used),
- Created on creation date
- Source *