Parametric Information Schema

Version 1.0

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<u>Table of contents</u>

1.- Introduction :

This paper is about the schema of the NCEDC Database for the parametric information. This schema was designed to be able to store all the information from the CNSS format, following as much as possible the CSS 3.0 schema.

2.- Overview :

The following figure gives an overview of the schema. The schema is composed of nine tables :

1. *Event* : Event table.
2. *Name* : Event name table.
3. *Origin* : Origin table.
4. *Netmag* : Magnitude table.
5. *Arrival* : Phase table.
6. *Assoc* : Association table between origins and phases.
7. *Amp* : Amplitude table.
8. *Mec* : Moment tensor table.
9. *Remark* : Comment table.

3.- Keys :

The following figure shows the links between the different tables. Only primary and foreign keys are shown.

4.- Tables & Fields :

4.1.- Table *Event* : Event information

Field	***Type***	***Description***
evid	int	Event identifier
prefor	int	Preferred origin
prefmag	int	Preferred magnitude
prefmec	int	Preferred mechanism
commid	int	Comment identifier
auth	char(15)	Source/originator
lddate	date	Load date

4.2.- Table *Name* : Event name information

Field	***Type***	***Description***
evid	int	Event identifier
evname	char(15)	Event name

4.3.- Table *Origin* : Hypocenter information

Field	***Type***	***Description***
orid	int	Origin identifier
evid	int	Event identifier
prefmag	int	Preferred magnitude
prefmec	int	Preferred mechanism
commid	int	Comment identifier
date	date	Origin date
lat	float	Latitude
lon	float	Longitude
depth	float	Depth
type	char(2)	Type of location
source	char(3)	Source code of location information
nbtt	int	Number of non-null weighted travel time
gap	int	Azimuthal gap
distance	float	Distance to nearest station
rms	float	RMS residual of phases used in location
ertime	float	Origin time error
erhor	float	Horizontal error
erdepth	float	Depth error
lddate	date	Load date

4.4.- Table *Netmag* : Magnitude information

Field	***Type***	***Description***
magid	int	Magnitude identifier
orid	int	Origin identifier
evid	int	Event identifier
commid	int	Comment identifier
magnitude	float	Magnitude
magtype	char(2)	Magnitude type
source	char(3)	Source code of magnitude information
nbobs	int	Number of observations
ermag	float	Error in magnitude estimate
total	float	Total of magnitude weights
lddate	date	Load date

4.5.- Table *Arrival* : Seismic arrival information

Field	*Type*	*Description*
arid	int	Arrival identifier
evid	int	Event identifier
commid	int	Comment identifier
date	date	Pick date
staname	char(5)	Station name
network	char(2)	Network code
phtype	char(8)	Phase type
source	char(3)	Source code of pick information
instid	int	Instrument identifier
seed	char(3)	SEED stream name
phonset	char(1)	Description of phase onset
fmotion	char(1)	Description of first motion
lddate	date	Load date

4.6.- Table *Assoc* : Data associating arrivals with origins

Field	*Type*	*Description*
orid	int	Origin identifier
arid	int	Arrival identifier
commid	int	Comment identifier
weight	int	Weight code
importance	float	Importance of phase
lddate	date	Load date

4.7.- Table *Amp* : Amplitude information

Field	*Type*	*Description*
orid	int	Origin identifier
evid	int	Event identifier
commid	int	Comment identifier
date	date	Amplitude date
staname	char(5)	Station name
network	char(2)	Network code
amplitude	float	Amplitude
source	char(3)	Source code of amplitude information
instid	int	Instrument identifier
seed	char(3)	SEED stream name
amptype	char(3)	Amplitude type
units	char(4)	Units of amplitude
ampmeas	char(1)	Amplitude measure
frequency	float	Frequency
lddate	date	Load date

4.8.- Table *Mec* : Moment tensor information

Field	*Type*	*Description*
mecid	int	Mechanism identifier
oridin	int	Origin identifier (input)
oridout	int	Origin identifier (output)
evid	int	Event identifier
commid	int	Comment identifier
mechtype	char(2)	Mechanism/moment type
scalar	float	Scalar moment
exp	int	Exp of moment tensor elements
mxx	float	m_xx
myy	float	m_yy
mzz	float	m_zz
mxy	float	m_xy
mxz	float	m_xz
myz	float	m_yz
source	char(3)	Source code of mechanism information
strike1	int	Strike 1 of best double couple
dip1	int	Dip 1 of best double couple
rake1	int	Rake 1 of best double couple
strike2	int	Strike 2 of best double couple
dip2	int	Dip 2 of best double couple
rake2	int	Rake 2 of best double couple
nbsta	int	Number of stations used in solution
percent	int	Percent double couple
date	date	Date solution created
lddate	date	Load date

4.9.- Table *Remark* : Comments

Field	*Type*	*Description*
commid	int	Comment identifier
lineno	int	Comment line number
remark	char(80)	Free format comment
lddate	date	Load date