entsoe

European Network of
Transmission System Operators
for Electricity

FILENAME CONVENTION

FOR INDIVIDUAL AND COMMON GRID MODEL EXCHANGES

FIRST EDITION

5 NOVEMBER 2015
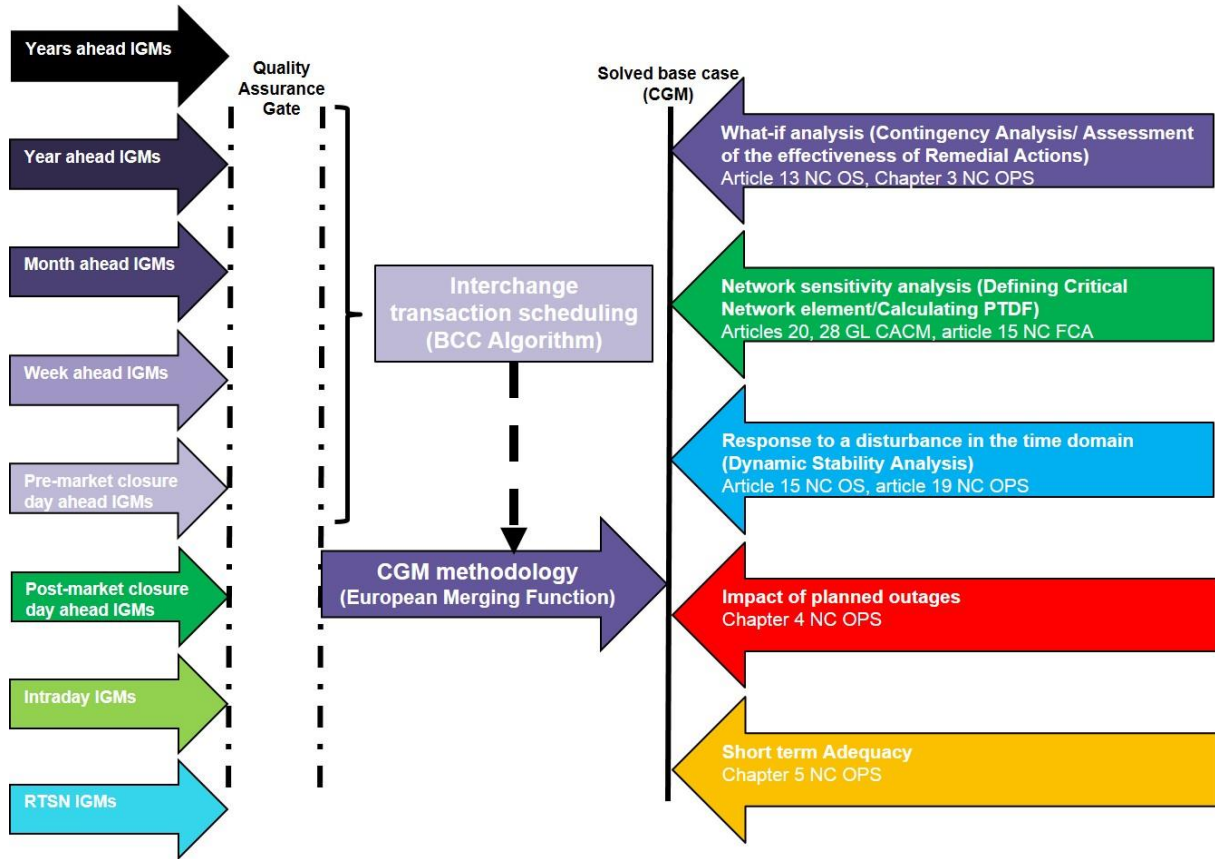
PT COMMON GRID MODEL

CONTEXT

Figure 1.   Use context of the Individual Grid Models (IGMs) and Common Grid Model (CGM).

In the UCTE Data Exchange Format (UCTE DEF) filenames were the only way to identify the purpose and origin of the data. In the data exchanges based on CGMES the data is exchanged via RDF XML files that use a file header (the "envelope") defined in the IEC 61970-552 standard (upcoming edition 2 of this standard is expected to cover all rules as defined in the CGMES). This file header enables machines to interpret the purpose and origin of the data automatically.

According to [R4.6.2] of the CGMES Requirement Specification "There is no naming convention applied to the .xml or .zip file names. Although different business processes may define such a file naming convention, **the applications shall rely solely on the information provided in the file headers in order to process the instance files.**"

This document defines the file name convention which is applied for Individual Grid Models and Common Grid Models exchanged in both UCTE DEF and CGMES for the purpose of the operational planning.

Contents

1   UCTE DEF FILENAME CONVENTION

1.1   UCTE DATA EXCHANGE FORMAT

The UCTE DEF is a column based, fixed width exchange format, based on FORTRAN record definitions. This section describes the UCTE format adopted for data exchange and provides all the necessary instructions about its use. The data refer to load flow and three phase short circuit studies and describe the interconnected extra high voltage network. Equivalent network elements should be avoided as much as possible.

1.2   FILENAME CONVENTION

The file name convention is:

<yyyymmdd>_<HHMM>_<TY><w>_<cc><v>.uct, with

yyyymmdd:	year, month and day,
HHMM:	hour and minute,
TY:	File type (FO = Day Ahead Forecast, SN = Snapshot, RE = Reference, LR = Long Term Reference, 2D = two days ahead forecast, 'hh' = Intraday Forecasts where 'hh' is for example '02' for two hours ahead intraday forecast)
w:	day of the week, starting with 1 for Monday,
cc:	the ISO country-code for national datasets, "UC" for UCTE-wide merged datasets without X nodes and "UX" for UCTE-wide merged datasets with X nodes,
v:	version number starting with 0. If the version is "x", the file is to be ignored.

The filename must be in uppercase for reasons of file management on the ftp-server. Files that do not comply with the file name convention cannot be used in an operational process.

1.3   ISO COUNTRY CODES

The following table provides an overview of the ISO country codes to be used in the UCTE DEF file name convention:

Country Code nodes	ISO Country Code	TSO	Country	Vulcanus Control Block
A	AL	OST	Albania	AL
B	BE	ELIA	Belgium	BE
C	CZ	ČEPS	Czech Republic	CZ

European Network of
Transmission System Operators
for Electricity

Country Code nodes	ISO Country Code	TSO	Country	Vulcanus Control Block
D2	DE	TenneT D	Germany	DE+
D4	DE	TransnetBW	Germany	DE+
D7	DE	Amprion	Germany	DE+
D8	DE	50Hertz	Germany	DE+
E	ES	REE	Spain	ES+
F	FR	RTE	France	FR
G	GR	IPTO	Greece	GR
H	HR	HOPS	Croatia	SHB
I	IT	Terna	Italy	IT
J	RS	EMS	Serbia	SMM
K[1]	DK	Energinet.DK	Denmark	DE+
L	SI	ELES	Slovenia	SHB
M	HU	MAVIR	Hungary	HU
N	NL	TenneT NL	Netherlands	NL
O	AT	APG	Austria	APG
P	PT	REN	Portugal	PT
Q	SK	SEPS	Slovakia	SK
R	RO	Transelectrica	Romania	RO
S	CH	Swissgrid	Switzerland	CH
T	TR	TEIAS	Turkey	TR
U	UA	WPS	Ukraine	PL & UA
V	BG	ESO	Bulgaria	BG
W	BA	NOS BiH	Bosnia Herzegovina	SHB
X	XX	--	Fictitious border node	--
Y	MK	MEPSO	Macedonia	SMM
Z	PL	PSE	Poland	PL & UA
0	ME	CGES AD	Montenegro	SMM
2	MA	ONE	Morocco	ES+
_[2]	KS[3]	KOSTT	Kosovo[4]	KOSTT

---

[1]   If the Danish data is included in the German Control Block pre-merged file, the node code will be D1

[2]   Underscore

[3]   Temporary country code, as a final one is to be appointed by the relevant UN body

[4]   This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo Declaration of Independence

2 CGMES FILE NAME CONVENTION

2.1 GENERAL RULES

- The ISO 8601:2004 standard will be used for designating dates and times
- The days that are referred to in the filenames and the Model.scenarioTime and Model.created attributes in the file headers will be associated with the UTC 00:00-23:59, regardless of the time zone of origin and Day Light Saving time schedules, e.g. for <md:Model.scenarioTime> 2015-01-15T17:00:00.000Z</md:Model.scenarioTime> corresponds with a DateTime reference of "20150115T1700Z" in the filename[5].
- Model part references have no predefined restrictions other than allowed characters[6], but the use of TSO names or HVDC link names is recommended[7]
- EMF (European Merging Function) references have no predefined restrictions other than allowed characters[8], but the use of RSCI names is recommended
- Packages (zipped instance data) are based on the "smallest unit" that can be consumed separately. Typically this is a separate profile instance
- An Individual Grid Model (IGM) is defined by SSH, TP and SV instances that refer to a particular EQ model (an EQ model can be valid for multiple IGMs)
- Version identifiers always use two digits

2.2 YEAR-AHEAD MODELS

2.2.1 INDIVIDUAL MODELS

The following file name convention is applied for the EQ model that includes the projects that are to be effective that in the relevant season:

❑ <YYYYMMDD>T0030Z_YR_<Model part reference>_EQ_<version number>.zip, e.g. "20160101T0030Z_YR_TTN_EQ_01.zip"

The file inside uses the same name, but uses the .xml extension.

The following file name convention is applied for each year ahead scenario:

❑ <YYYYMMDD>T<hhmm>Z_YR_<Model part reference>_<profile>_<version number>.zip, e.g. "20160120T0930Z_YR_TTN_SSH_01.zip"

The file inside uses the same name, but uses the .xml extension.

---

[5] Note that the DateTime inside the file headers use the ISO 8601 extended format, whereas the filename use the ISO 8601 basic format

[6] Note that for the Model part reference only US ASCII characters are allowed

[7] Note that Denmark has two model parts, one for each Synchronous area

[8] Note that for the EMF reference only US ASCII characters are allowed

2.2.2 COMMON MODELS

Common models are exchanged as Solved Cases only. The information in the file headers contain sufficient information for the automatic assembly process.

The following file name convention is applied:

❑ <YYYYMMDD>T<hhmm>Z_YR_<CGM type>[9]_<EMF reference>_SV_<version number>.zip, e.g. "20160120T0930Z_YR_CGMEU_CORESO_SV_01.zip"

The zip file contains **one** of the following:

• SV for whole pan-European region
• SV for CE area
• SV for Nordic area
• SV for Baltic area
• SV for UK area
• SV for I/NI area

The file inside the zip file use the same name as the zip file, but uses the .xml extension.

---

[9]   The following types are allowed:
  • CGMEU
  • CGMCE
  • CGMNO
  • CGMBA
  • CGMUK
  • CGMIN

2.3   MONTH-AHEAD MODELS

2.3.1 INDIVIDUAL MODELS

The following file name convention is applied for the EQ model that includes the projects that are to be effective that month:

❑   <YYYYMMDD>T0030Z_MO_<Model part reference>_EQ_<version number>.zip, e.g. "20150701T0030Z_MO_50Hertz_EQ_02.zip"

The file inside uses the same name, but uses the .xml extension.

The following file name convention is applied for each month ahead scenario:

❑   <YYYYMMDD>T<hhmm>Z_MO_<Model part reference>_<profile>_<version number>.zip, e.g. "20150715T0930Z_MO_50Hertz_TP_02.zip"

The file inside uses the same name, but uses the .xml extension.

2.3.2 COMMON MODELS

Common models are exchanged as Solved Cases only. The information in the file headers contain sufficient information for the automatic assembly process.

The following file name convention is applied:

❑   <YYYYMMDD>T<hhmm>Z_MO_<CGM type>[10]_<EMF reference>_SV_<version number>.zip, e.g. "20150715T0930Z_MO_CGMEUCE_TSCNET_SV_02.zip"

The zip file contains **one** of the following:

• SV for whole pan-European region
• SV for CE area
• SV for Nordic area
• SV for Baltic area
• SV for UK area
• SV for I/NI area

The file inside the zip file use the same name as the zip file, but uses the .xml extension.

---

[10]   The following types are allowed:

• CGMEU
• CGMCE
• CGMNO
• CGMBA
• CGMUK
• CGMIN

2.4   WEEK-AHEAD MODELS

2.4.1 INDIVIDUAL MODELS

The following file name convention is applied for the EQ model that includes the projects that are to be effective that week:

❑   <YYYYMMDD>T0030Z_WK_<Model part reference>_EQ_<version number>.zip, e.g. "20150720T0030Z_WK_RTE_EQ_01.zip"

The file inside uses the same name, but uses the .xml extension.

The following file name convention is applied for each week ahead scenario:

❑   <YYYYMMDD>T<hhmm>Z_WK_<Model part reference>_<profile>_<version number>.zip, e.g. "20150722T07930Z_WK_RTE_SV_02.zip"

The file inside uses the same name, but uses the .xml extension.

2.4.2 COMMON MODELS

Common models are exchanged as Solved Cases only. The information in the file headers contain sufficient information for the automatic assembly process.

The following file name convention is applied:

❑   <YYYYMMDD>T<hhmm>Z_WK_<CGM type>[11]_<EMF reference>_SV_<version number>.zip, e.g. "20150722T0930Z_WK_CGMEU_SCC_SV_01.zip"

The zip file contains **one** of the following:

• SV for whole pan-European region
• SV for CE area
• SV for Nordic area
• SV for Baltic area
• SV for UK area
• SV for I/NI area

The file inside the zip file use the same name as the zip file, but uses the .xml extension.

---

[11]   The following types are allowed:
   • CGMEU
   • CGMCE
   • CGMNO
   • CGMBA
   • CGMUK
   • CGMIN

2.5 EXCHANGE OF MODELS THAT REFER TO AN ENERGY DELIVERY DAY

2.5.1 EQUIPMENT MODELS

The following file name convention is applied for the EQ model that is defining the energy delivery day:

❑ <YYYYMMDD>T<hhmm>[12]Z_<Model part reference>_EQ_<version number>.zip, e.g. "20150720T0030Z_APG_EQ_01.zip"

The file inside uses the same name, but uses the .xml extension.

Subsequent changes that are valid during the day, e.g. when other operational limits[13] are used or when a different equivalent model is used to model DSO grids, can be exchanged via Equipment difference models:

❑ <YYYYMMDD>T<hhmm>Z_<Model part reference>_EQ_DIFF.zip[14]_<version number>, e.g. "20150720T0830Z_APG_EQ_DIFF_01.zip"

2.5.2 INDIVIDUAL MODELS

The following file name convention is applied:

❑ <YYYYMMDD>T<hhmm>Z_<time horizon>_<Model part reference>_<profile>_<version number>.zip, whereas the time horizon is defined as:
  - 2D   two days ahead
  - 1D   one day ahead
  - 23   twenty three hours ahead
  - ..
  - 06   six hours ahead
  - 05   five hours ahead
  - 04   four hours ahead
  - 03   three hours ahead
  - 02   two hours ahead
  - RT   real-time snapshot (i.e. after-the-fact)

The file inside uses the same name, but uses the .xml extension.

---

[12] By Default the value 0030 will be used, however if multiple full EQ models are to be exchanged for the same day, other values can be used.

[13] Note: In the next version of CGMES, changed limit sets (e.g. in case of dynamic line rating) are being exchanged via the SSH profiles

[14] If the changes are only valid for one hour, we have to reverse the changes for the next hour, e.g. have two EQ_DIFF files – one for the start of the hours the new changes are valid for and the second for the next hours when it goes back to default. This is not the same as Forward and Reverse dataset/statement. For only one change will forward and reverse dataset change place in the two EQ_DIFF.

2.5.3 COMMON MODELS

Common models are exchanged as Solved Cases only. The information in the file headers contain sufficient information for the automatic assembly process.

The following file name convention is applied:

❑ <YYYYMMDD>T<hhmm>Z_<time horizon>_<CGM type>[15]_<EMF reference>_SV_<version number>.zip, e.g. "20150722T0930Z_2D_CGMNO_TSCNET_SV_01.zip"

The zip file contains **one** of the following:

- SV for whole pan-European region
- SV for CE area
- SV for Nordic area
- SV for Baltic area
- SV for UK area
- SV for I/NI area

The file inside the zip file use the same name as the zip file, but uses the .xml extension.

---

[15] The following types are allowed:
- CGMEU
- CGMCE
- CGMNO
- CGMBA
- CGMUK
- CGMIN