TMSDataDirect
XTVD Schema Definition
Version 1.3.6

Table of Contents

1 Overview

The purpose of this document is to describe the TMS standard Extensible TV Data (XTVD) schema and its relation to the TV Schedules and Channel Lineups data. Also, refer to the following files for more details regarding this schema:

- XTVD schema – tmsxtvd.xsd (version 1.3)
- Common data-types schema – tmsxg.xsd
- Sample XTVD file with data - gold_sample.xml

2 Glossary

- Extensible TV Data schema (XTVD) – a document in XML format that contains station, lineup, schedule, program, cast and crew, genre and advisory information customized to a specific user's preferences.
- All dates and times are specified in UTC.
- Date Time format - ISO 8601 pattern for date+time information : YYYY-MM-DDThh:mm:ssZ.
- Date format - ISO 8601 pattern for date: YYYY-MM-DD.
- Time format - ISO 8601 pattern for time of day : hh:mm:ss.

3 XTVD Element Relationships

The diagram below illustrates the relationships between the elements of the XTVD schema.
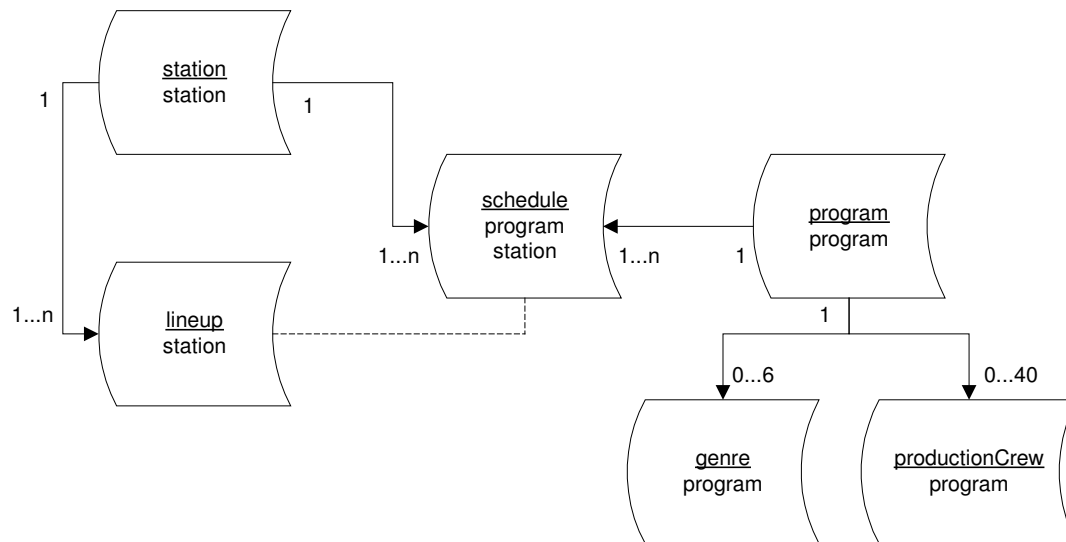
4   XTVD Data Definitions

Data Location	Value	Definition
XTVD Document		
xtvd/@from	YYYY-MM-DDThh:mm:ssZ	Starting date/time of the document in UTC as specified in the request. All schedule records will have an airtime greater than or equal to this value.
xtvd/@to	YYYY-MM-DDThh:mm:ssZ	Ending date/time of the document in UTC as specified in the request. All schedule records will have an airtime less than or equal to this value.
xtvd/@schemaVersion	n.n (e.g. 1.1)	Current version of the XTVD schema.
Stations – collection of user selected station elements across all lineups. If a station appears on more than one lineup, it will only be displayed once here.		
xtvd/stations/station/@id	Field length minimum 1, maximum 12 (e.g. 11259)	Unique station id number. Only unique selected stations for a user will be displayed.
xtvd/stations/station/callSign	Field length minimum 1, maximum 10 (e.g. HBO, WABC, WBBM-DT)	Mnemonic or FCC-recognized call sign for long name of a station. Digital stations will carry the suffix of "DT".
xtvd/stations/station/name	Field length maximum 40 (e.g. Home Box Office, WABC-TV)	Long name of a station.
xtvd/stations/station/affiliate	Field length maximum 25 (e.g. PAY, ABC Affiliate)	Optional. Network, cable or broadcasting group with which a station is associated.
xtvd/stations/station/fccChannelNumber	Field length maximum 8 (e.g. 4, 7, 9)	Optional. FCC channel number of a broadcast station.
Lineups – collection of lineups selected by the user that associates stations to channels.		
xtvd/lineups/lineup/@name	Field length	Name of the lineup's

Data Location	Value	Definition
	maximum 100 (e.g. Comcast Cable)	headend the user selected.
xtvd/lineups/lineup/@userLineupName	Field length maximum 50.	User-defined name for a lineup. This will be useful if a user decides to add the same lineup to their subscription more than once.
xtvd/lineups/lineup/@location	Field length maximum 28. See appendix for list of values.	Community where the lineup's physical equipment is located.
xtvd/lineups/lineup/@device	Field length maximum 30. See appendix for list of values.	Optional. The default device will not have a value in this field. For instance, a standard cable lineup will be blank.
xtvd/lineups/lineup/@type	Field length maximum 20. See appendix for list of values.	The type of lineup the user selected.
xtvd/lineups/lineup/@postalCode	Field length maximum 6 (e.g. 90210, M1M1M1)	Optional. Zip or postal code associated with this lineup.
xtvd/lineups/lineup/@id	Field length maximum 12 (e.g. IL53277:X).	Unique identifier of the lineup.
xtvd/lineups/lineup/map/@station	Field length minimum 1, maximum 12 (e.g. 11259)	Station id number. This references the unique station id number in the xtvd/stations element, but a given station can be mapped to multiple channel numbers over multiple lineups.
xtvd/lineups/lineup/map/@channel	Field length maximum 5 (e.g. 081, 1013, G5-13, C3101)	Physical location of a station or a cable network on a lineup. If this field is blank, it is channel 000. Note: C-BAND lineup - Digits 1 and 2 are the

Data Location	Value	Definition
		satellite position, digit 3 is a "-", and digits 4 and 5 are the channel position. 4DTV lineup - Digits 1 and 2 are the satellite position, and digits 3, 4 and 5 are the channel position. For over the air digital channels, this is the Channel Major As described in ATSC Doc. A/65.
xtvd/lineups/lineup/map/@channelMinor	Field length maximum 1 (e.g. 1, 2, 3, 4, 5, 6)	The major channel (the channel attribute) number is used to group all services associated with a broadcaster's NTSC brand, for example Channel 4. The minor channel number specifies a particular channel within that group. Zero (0) is reserved for the NTSC channel; all other values (1-999) are allowed for digital services. One common approach is to start with 1 and to continue numerically for different programming services. As described in ATSC Doc. A/65.
xtvd/lineups/lineup/map/@from	Field length maximum 8 (format YYYY-MM-DD)	Optional. The date from which the station is effective on this lineup.
xtvd/lineups/lineup/map/@to	Field length maximum 8 (format YYYY-MM-DD)	Optional. The date from which the station has expired on this lineup.

Data Location	Value	Definition
xtvd/lineups/lineup/map/onAir/ @from	Not currently being distributed (format hh:mm:ss).	Optional. For channels that are only on a lineup for a partial day.
xtvd/lineups/lineup/map/onAir/ @to	Not currently being distributed (format hh:mm:ss).	Optional. For channels that are only on a lineup for a partial day.
Schedules – contains all schedule records across all selected lineups.		
xtvd/schedules/schedule/@program	Field length minimum 12, maximum 12 (e.g. MV1234560000, SH0123450000)	Unique description identifier necessary to reference movies, shows, episodes, sports from the programs data. First two digits are alphanumeric and correspond to movies (MV), shows (SH), episodes (EP) and sports (SP). For shows beginning with EP, the next 6 digits represent the series ID, with the last 4 digits representing the episode id. If episode information is not available, the program will appear as type SH, the next 6 digits as the series id and the last 4 digits as zeros.
xtvd/schedules/schedule@station	Field length minimum 1, maximum 12 (e.g. 11259)	Unique station id number. Only unique selected stations for a user will be displayed.
xtvd/schedules/schedule@time	Format YYYY-MM-DDThh:mm:ssZ	UTC date and time of day the program airs.
xtvd/schedules/schedule@duration	Format PThhHmmM	The duration of the program.
xtvd/schedules/schedule/@repeat	Field length maximum 4 (e.g. true)	Optional. Designates a program which has aired previously. Set to 'True' if it is a repeat. Otherwise, this

Data Location	Value	Definition
		will not be displayed.
xtvd/schedules/schedule/@stereo	Field length maximum 4 (e.g. true)	Optional. Designates a program which is being broadcast in stereo. Set to 'True' if it is being broadcast in stereo. Otherwise, this will not be displayed.
xtvd/schedules/schedule/@subtitled	Field length maximum 4 (e.g. true)	Optional. Used for foreign movies and shows, if the audio is in a foreign language, the English translation appears on-screen Set to 'True' if it is subtitled. Otherwise, this will not be displayed.
xtvd/schedules/schedule/@hdtv	Field length maximum 4 (e.g. true)	Optional. Designates a program being broadcast in High Definition TV. Set to 'True' if it is being broadcast in HDTV. Otherwise, this will not be displayed.
xtvd/schedules/schedule/@closeCaptioned	Field length maximum 4 (e.g. true)	Optional. Designates a program which is being closed-captioned. Set to 'True' if it is being closed-captioned. Otherwise, this will not be displayed.
xtvd/schedules/schedule/@tvRating	Field length maximum 5. See appendix for list of values.	Optional. TV Parental Guidelines in text form.
xtvd/schedules/schedule/@dolby	Field length maximum 30. See appendix for list of values.	Optional. Designates a program in Dolby (analog) or Dolby Digital (any digital signal with the Dolby flag).
xtvd/schedules/schedule/part/@number	Field length maximum 2. See	Optional. Designates which part, when a

Data Location	Value	Definition
	appendix for list of values.	program is split into two or more viewings. Only will display if there is more than one part for a program. For flexibility, this is at the schedule level rather than the program level. Each part may have its own unique program id with different episodic details. In some cases (e.g. a movie being shown in two parts), the program id may be the same.
xtvd/schedules/schedule/part/@total	Field length maximum 2. See appendix for list of values.	Optional. Total number pf parts when a program is split into two or more viewing parts. Only will display if there is more than one part for a program.
Programs – contains all the program records that are referenced by the schedule records.		
xtvd/programs/program/@id	Field length minimum 12, maximum 12 (e.g. MV1234560000, SH0123450000)	Unique description identifier necessary to reference movies, shows, episodes, sports from the programs data. First two digits are alphanumeric and correspond to movies (MV), shows (SH), episodes (EP) and sports (SP).
xtvd/programs/program/series	Field length maximum 12 (e.g. SH0168270000 for an episode for program EP0168270054).	Optional. For an episode program (begins with EP), designates the series id.
xtvd/programs/program/title	Field length maximum 120 (e.g. In	Official name by which a movie, show, episode

Data Location	Value	Definition
	the Heat of the Night)	or sports event is shown.
xtvd/programs/program/subtitle	Field length maximum 150 (e.g. The Puffy Shirt; Super Bowl XXXVII: Oakland Raiders vs. Tampa Bay Buccaneers)	Optional. Descriptive title within an episode; team vs. team can be located here.
xtvd/programs/program/description	Field length maximum 255 (e.g. A tornado whisks Kansas farm girl Dorothy (Judy Garland) and her dog, Toto, to a magical land populated by odd characters (Ray Bolger) (Bert Lahr))	Optional. Word string that describes the show, episode or movie content and includes embedded actors within the description.
xtvd/programs/program/mpaaRating	Field length maximum 5. See appendix for list of values.	Optional. Rating supplied by the Motion Picture Association of America; for movies only.
xtvd/programs/program/starRating	Field length maximum 5. See appendix for list of values.	Optional. In movies, an arbitrary critical rating from ½ to 4 stars.
xtvd/programs/program/runTime	Format PThhHmmM	Optional. Actual length of time of any programming airs. Not the same as duration; for movies only.
xtvd/programs/program/year	Field length maximum 4 (e.g. 2001)	Optional. The year in which the feature film was released; for movies only.
xtvd/programs/program/showType	Field length maximum 30. See appendix for list of values.	Optional. Distinguishes how a program was originally produced and/or distributed.
xtvd/programs/program/colorCode	Field length maximum 20. See appendix for list of	Optional. Designates the color code of a program. This field

Data Location	Value	Definition
	values.	will not be displayed for programs with the colorCode of Color. The code 'Color and B & W' indicates a program that contains both color and black and white footage (e.g. WWII special with war footage and veteran interviews).
xtvd/programs/program/originalAirDate	Format YYYY-MM-DD	Optional. Original air date for the program.
xtvd/programs/program/syndicatedEpisodeNumber	Field length maximum 20 (e.g. 809)	Optional. Distributor-designated number corresponding to an episode of a specific show.
xtvd/programs/program/advisories/advisory	Field length maximum 30. See appendix for list of values.	Optional. Displays advisories for movies, shows and episodes. Up to six advisories may be specified for each program.
Production Crew		
xtvd/productionCrew/crew/@program	Field length minimum 12, maximum 12 (e.g. MV1234560000, SH0123450000)	Unique description identifier necessary to reference movies, shows, episodes, sports from the programs data. First two digits are alphanumeric and correspond to movies (MV), shows (SH), episodes (EP) and sports (SP).
xtvd/productionCrew/crew/member/role	Field length maximum 30. See appendix for list of values.	Optional. Designates cast or production crew role for a program. Up to 40 roles may be specified for each program.

Data Location	Value	Definition
xtvd/productionCrew/crew/member/givenname	Field length maximum 20 (e.g. Tom).	First name of the member listed in the cast or crew. When no first name information is available, the following will appear, <givenname xsi:nil='true'/>.
xtvd/productionCrew/crew/member/surname	Field length maximum 20 (e.g. Hanks).	Last name of the member listed in the cast or crew. When no first name information is available, the following will appear, <surname xsi:nil='true'/>.
Genres		
xtvd/genres/programGenre/@program	Field length minimum 12, maximum 12 (e.g. MV1234560000, SH0123450000)	Unique description identifier necessary to reference movies, shows, episodes, sports from the programs data. First two digits are alphanumeric and correspond to movies (MV), shows (SH), episodes (EP) and sports (SP).
xtvd/genres/programGenre/genre/class	Field length maximum 30. See appendix for list of values.	Word or group of words that classifies a show, episode, movie or sports event. Up to six genre classes may be specified for each program.
xtvd/genres/programGenre/genre/relevance	Field length maximum 1. See appendix for list of values.	Displays the relevance of each genre class.

5 Appendix

5.1 Lineups

5.1.1 xtvd/lineups/lineup/@device

Value
Cable A
Cable B
Rebuild
Device D
Non-addressable
Hamlin converter
Jerrold converter
Digital Rebuild
Pioneer converter
Cable Ready
Cable Ready Cable A
Cable Ready Cable B
Scientific-Atlanta
Digital
Zenith converter

5.1.2 xtvd/lineups/lineup/@type

Value
Cable
CableDigital
Satellite
LocalBroadcast

5.2 Schedules

5.2.1 xtvd/schedules/schedule/@tvRating

Value
TV-Y
TV-Y7
TV-G
TV-PG
TV-14
TV-MA

5.2.2 xtvd/schedules/schedule/@dolby

Value
Dolby
Dolby Digital

5.2.3 xtvd/schedules/schedule/part/@number

Value
1,2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

5.2.4 xtvd/schedules/schedule/part/@total

Value
2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

5.3 Programs

5.3.1 xtvd/programs/program/mpaaRating

Value
AO
G
NC-17
NR
PG
PG-13
R

5.3.2 xtvd/programs/program/starRating

Value
*
*+
**
**+

Value
***
***+
****

5.3.3 xtvd/programs/program/showType

Value
Limited Series
Miniseries
Paid Programming
Serial
Series
Short Film
Special

5.3.4 xtvd/programs/program/colorCode

Value
B & W
Colorized
Color and B & W
Color

5.3.5 xtvd/programs/program/advisories/advisory

Value
Adult Situations
Adolescentes y Adultos
Adultos
Brief Nudity
Graphic Language
Graphic Violence
Language
Mild Violence
Nudity
Publico General
Rape
Strong Sexual Content
Violence

5.4 Production Crew

5.4.1 xtvd/productionCrew/crew/member/role

Value
Actor
Guest Star
Host
Director
Producer
Executive Producer
Writer

5.5 Genres

5.5.1 xtvd/genres/genre/class

Value
Action
Adults only
Adventure
Aerobics
Agriculture
Animals
Animated
Anime
Anthology
Archery
Arm wrestling
Art
Arts/crafts
Auction
Auto
Auto racing
Aviation
Awards
Badminton
Ballet
Baseball
Basketball
Beach soccer
Beach volleyball
Biathlon
Bicycle

Value
Bicycle racing
Billiards
Biography
Blackjack
Boat
Boat racing
Bobsled
Bodybuilding
Bowling
Boxing
Bullfighting
Bus./financial
Canoe
Card games
Cheerleading
Children
Children-special
Children-talk
Children-music
Collectibles
Comedy
Comedy-drama
Community
Computers
Consumer
Cooking
Cricket
Crime
Crime drama
Curling
Dance
Darts
Debate
Diving
Docudrama
Documentary
Dog racing
Dog show
Dog sled
Drag racing
Drama
Educational
Entertainment
Environment

Value
Equestrian
Event
Exercise
Extreme
Fantasy
Fashion
Fencing
Field hockey
Figure skating
Fishing
Football
French
Fundraiser
Gaelic football
Game show
Gay/lesbian
Golf
Gymnastics
Handball
Health
History
Historical drama
Hockey
Holiday
Holiday-children
Holiday-children special
Holiday music
Holiday music special
Holiday special
Home improvement
Horror
Horse
House/garden
How-to
Hunting
Hurling
Hydroplane racing
Indoor soccer
Interview
Intl basketball
Intl hockey
Intl soccer
Kayaking
Lacrosse

Value
Law
Luge
Martial arts
Medical
Miniseries
Motorsports
Motorcycle
Motorcycle racing
Mountain biking
Music
Music special
Music talk
Musical
Musical comedy
Mystery
Nature
News
Newsmagazine
Olympics
Opera
Outdoors
Parade
Paranormal
Parenting
Pelota vasca
Performing arts
Playoff sports
Politics
Poker
Polo
Pool
Pro wrestling
Public affairs
Racquet
Reality
Religious
Ringuette
Rodeo
Roller derby
Romance
Romance-comedy
Rowing
Rugby
Running

Value
Sailing
Science
Science fiction
Self improvement
Shooting
Shopping
Sitcom
Skateboarding
Skating
Skeleton
Skiing
Snooker
Snowboarding
Snowmobile
Soap
Soap special
Soap talk
Soccer
Softball
Spanish
Special
Speed skating
Sports event
Sports non-event
Sports talk
Squash
Standup
Sumo wrestling
Surfing
Suspense
Swimming
Table tennis
Talk
Tennis
Theater
Track/field
Triathlon
Travel
Variety
Volleyball
War
Watersports
Water polo
Water skiing

Value
Weather
Weightlifting
Western
Wrestling
Yacht racing

5.5.2 xtvd/genres/genre/relevance

Value
0,1, 2, 3, 4, 5