RadioTV-NewsML 0.1
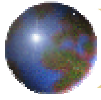
RadioTV-NewsML Team

Good morning everyone. My name is Onishi. I am representing RadioTV-NewsML team in Japan.

It is really honored that you let me give a presentation here today.
On behalf of our team, I really appreciate it.

Now I'd like to propose RadioTV-NewsML which our team is concerning to use in Japan.

What I purpose here with this presentation,

we suggest one way to unify handling of program information in the world.

And I'd like IPTC to subject and adopt it in the global standard.

I'll show you outline of our team's proposal,

and details by Miss Okudaira.

I would appreciate your questions after the presentation.

Contents

- TV/Radio program data delivery in Japan
- Features and benefits of RadioTV-NewsML
- Comparison with XMLTV
- metadata and TopicSet

BBC1
5.35am FILM: Time Wariior: Planet of the Dino knights(1995) (T) (8527060)
7.00 ChuckleVision(r)(T)(3994824)
7.20 Woody Woodpecker(r)(9291172)
7.45 Rugrats (r) (T) (7049911)
8.05 Smart (6850379)

This is a part of TV Listing in newspapers.

in our presentation, we call lump of them Program Table.

One of the things that we've done is

to consider standard distribution by NewsML for TV-Radio Listings in newspapers.
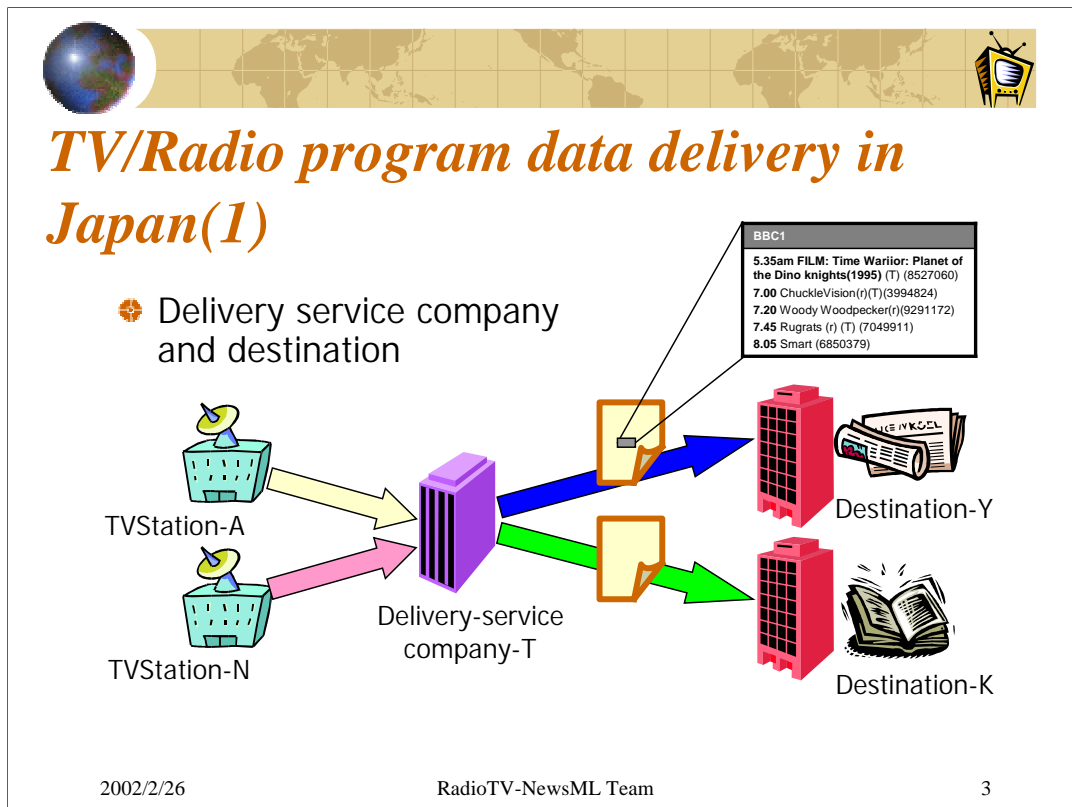
Now/ we'd like to make a proposal RadioTV-NewsML.

Let me show you the contents of our presentation.

First, outline TV program distribution in Japan.

Then, explain features, benefit, and distinction, showing how we got to this RadioTV-NewsML format.

Finally, describe details of Metadata elements and TopicSet elements of RadioTV-NewsML.

TV/Radio program data delivery in Japan(1)

◆ Delivery service company and destination

BBC1

5.35am FILM: Time Wariior: Planet of the Dino knights(1995) (T) (8527060)
7.00 ChuckleVision(r)(T)(3994824)
7.20 Woody Woodpecker(r)(9291172)
7.45 Rugrats (r) (T) (7049911)
8.05 Smart (6850379)

TVStation-A

TVStation-N

Delivery-service company-T

Destination-Y

Destination-K

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This is Japanese circumstances of program data distribution.

Many newspaper and magazine companies entrust delivery of program data/ to delivery-service companies
to reduce the efforts and costs of manufacturing, and enhance program table contents.

from stations,

the delivery-service companies receive information

and edit program tables and commentaries in various format,

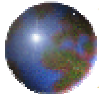then deliver them to their destinations.

At the present time,

Information is sent in fixed text format.
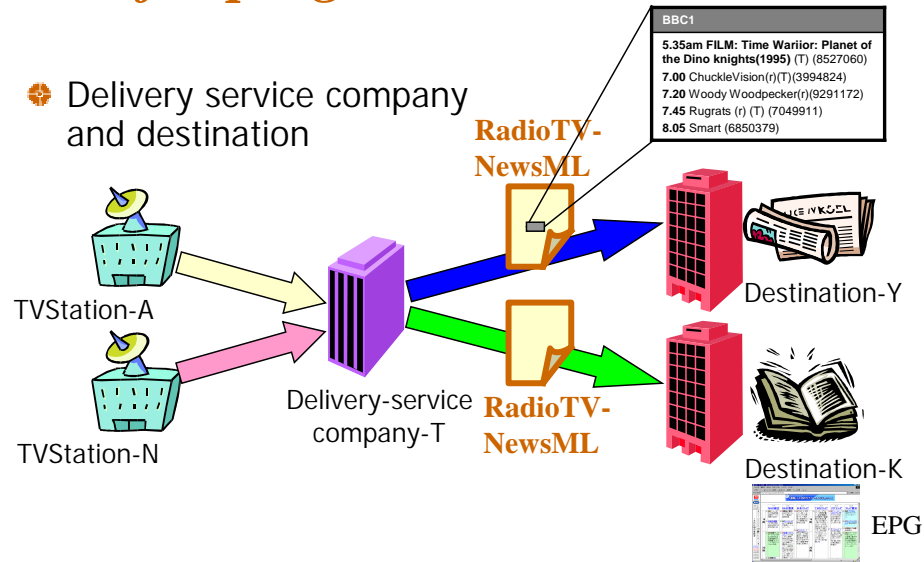
It is not unified.

Not speedy.

Not fluid.

We could hardly expand services with existing data format.

Future for program data distribution

♦ Delivery service company and destination
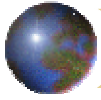
BBC1

5.35am FILM: Time Wariior: Planet of the Dino knights(1995) (T) (8527060)
7.00 ChuckleVision(r)(T)(3994824)
7.20 Woody Woodpecker(r)(9291172)
7.45 Rugrats (r) (T) (7049911)
8.05 Smart (6850379)

RadioTV-NewsML

TVStation-A

TVStation-N

Delivery-service company-T

RadioTV-NewsML

Destination-Y

Destination-K

EPG

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We aim to use RadioTV-NewsML

Here for distribution.

They can be utilized for other systems, like EPG,

which means Electronic Program Guide.

EPG handles,

Details on programs, date and time, channel, and so on in digital form.

Interface with information terminals,

and set up recording easily.

TV/Radio program data delivery in Japan(2)

- Main destinations
  - Newspaper companies
  - Magazine companies
  - Electronic media
- Main style of program table delivered
  - Daily program table/commentary
  - Weekly program table/commentary
  - Program table by category

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For delivery-service companies,

The main customers are

newspapers, magazines, and the electronic media.

There are three main styles in which they deliver program table and commentary.

Daily one.

Weekly one.

And program table by category.

That's Japanese transmission circumstance.

From here,

I would like to turn this over to Miss Okudaira.

Relax, her English is better.

Program table example

This sample is not related to this specification

Program

Program Table

Program Picture

Program Commentary

Thank you Mr.Onishi. I'm Shoko Okudaira.

First, I'd like to begin with confirmation of terms.
Please look over the newspapers that we have passed out.

This is a general TV listing form the Yomiuri Shimbun, a Japanese Newspaper.
Here, we name each components parts.

This presents the Program Table,
It lists groups of programs divided by TV stations and listed chronological order.

This presents the Program,
information for each program, including time, title, subtitle, and credits.
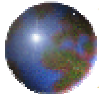
This is the Program Picture,
images of program. Here is a sample of one image of one scene in a program.

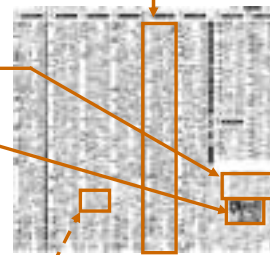This is the Program Commentary.
description on a program.

They appears in newspapers today.

RadioTV-NewsML consists of
5 NewsML types

- For newspaper publishing
  - ProgramTable-NewsML
    - Gives groups of programs (program table) for each station in newspaper
  - ProgramCommentary-NewsML
    - Gives commentary of programs
  - ProgramPicture-NewsML
    - Gives pictures used in commentary
  - BroadcastNews-NewsML
    - Gives news related to broadcasting programs
- For program services
  - Program-NewsML
    - Gives information per program for Internet, etc.

EPG

We classify RadioTV-NewsML into 5 types.

Each of them has its own use.

The first 4 of these are for newspaper publishing.

they are combined to layout one sheet of TV listing page.

This one is versatile.

By itself, it contains all the information about a certain single program.

So it can be utilized (mainly in systems other than NewsML).

one ProgramTable-NewsML has data of one column of program table.

one ProgramCommentary-NewsML has data of one lump of descriptions.

one ProgramPicture-NewsML has data of picture which is used in Commentary.

one BroadcastNews-NewsML has data of news related to broadcasting program, like information for production side, or promotion copies.
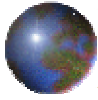
And,

Program-NewsML presents respective programs.

One Program-NewsML corresponds to one single program.

We can use it for other systems, Internet, network devices and something like that.

And this, is important part of our proposal.

Why need to classify into 5 types?

- ● Necessary for newspaper publishing system
  (ProgramTable-NewsML, ProgramPicture-NewsML, ProgramCommentary-NewsML, BroadcastNews-NewsML)
  - ■ To send commentary articles and program pictures only in advance.
  - ■ To distribute especially arranged data.
- ● To present individual program canonically(Program-NewsML)
  - ■ Possible to handle each programs

Broadcast Start Time

Program Title

Director

Performer

Video Plus Code
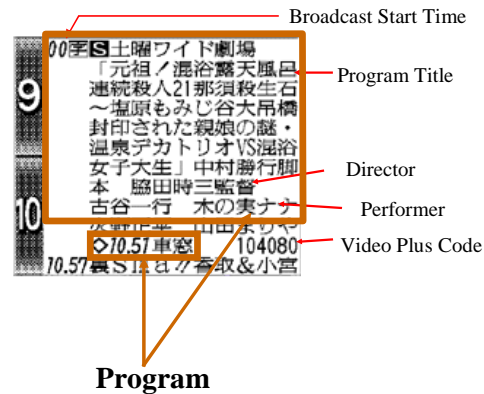
Program

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Why have 5 types of classified NewsML?

As I mentioned before,

4 of these, are necessary for paper publishing.

　　　sometimes, publishers want to recompose the data.

　　　so it will do to send Commentary and ProgramPicture prior to program information.

　　　it's much convenient.

　　　that's why we manage them individually.

　　　Layouts can vary depends on TV station, region, and country.

　　　Sometimes especially arranged data could appear, formatting many programs in one frame.

　　　We put more than two programs together and handle it as a single group of data.

　　　4 of these make a point of layouts, they are not equal for each program.

In other method,

it's important to provide information for respective programs, not to handle in lump.

It'll bring serviceability.

For handling and expressing each programs, canonically individual program information is required.
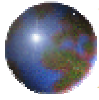
That's why we suggest Program-NewsML aside from 4 of those above.

More about Progaram-NewsML

Then, let me show you more about Program-NewsML.

Information of TV/Radio programs in newspapers

Broadcast Start Time

Program Title

Director

Performer

Video Plus Code

9:00 (S) Suspense Drama: Ganso, Konyoku Roten-buro Renzoku Satsujin
10:51 (S) See the World by Train, :57 (S) Guide

Example in Japanese newspaper

Example in English newspaper

Take a look at the inside of the frame in the newspaper.
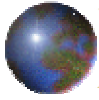
This is broadcast start time.

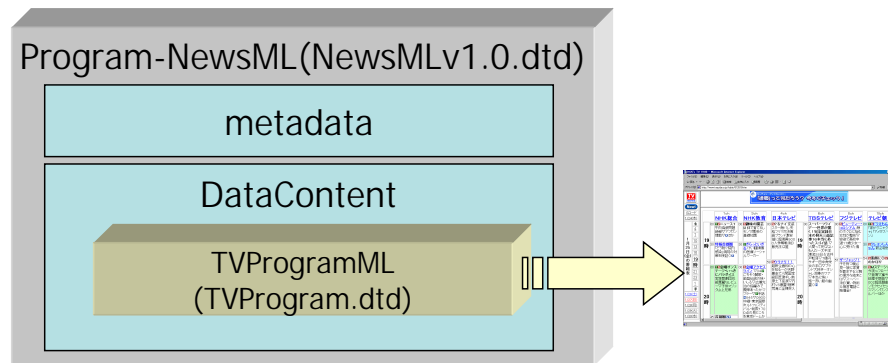This is program title.

This is director.

This is performer.

This is video plus code.

They are included in Program-NewsML.

Data organization of Program-NewsML

- Program-NewsML contains TVProgramML (TVProgram.dtd) in DataContent

Program-NewsML(NewsMLv1.0.dtd)

metadata

DataContent

TVProgramML
(TVProgram.dtd)

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This presents a graphical representation of the entire Program-NewsML.

Inside of the DataContent, we created original DTD named TVProgramML.

We name this NewsML Program-NewsML which includes this TVProgram.dtd inside.

The structure of entire Program-NewsML is identical to the structure of NewsML defined by IPTC.

All the details on program is only here in TVProgramML, not spread all over in the NewsML.

What we purpose here is to extract only DataContent and handle program information for other systems.

And with it, all recipients can pick them out and re-combine them freely.
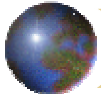
Why TVProgramML needed?

- Data structure is needed to present required information for each programs.
  - How to charge (Pay Per View, etc.)
  - Age Limit for Audience (Parental Guidance)
- Program information coding in XML could make "one source, multi use" possible. (Searching and sampling by a certain concept)

What's made us get this idea is

the fact that we need to present information about each program when delivered.

Such as the way to charge and what age can watch certain programs.

Plus,

By Program info encoding in XML, "one source, multi use" will make come true.

We could do searching and extracting by a certain concept through various programs.

Easy to create, say, "sports-only-program-table" or "movie-only-program-table".

I'll show you some samples.

We represent TVProgramML by original Style Sheet on trial.

This style sheet is one of NewsML style sheet.

I'll show you some samples.

Representing by orignal StyleSheet on trial

English Mode

Japanese Mode

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We represent TVProgramML by original StyleSheet on trial.

This StyleSheet is one of NewsML StyleSheet.
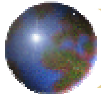
Application of TVProgramML

- Personalized program list
- Diversification of program searching
- Program DB
- EPG

Here are examples on how to use TVProgramML.

Users could customize program table.

Through various channels and program contents, they can pick whatever they like,

by setting program categories or original extraction criterion.

With Program DataBase, it'll be possible to store information and video data all together.

so we could tap into it and search for many kinds of information or data.

And they could be utilized secondarily.

Something like information terminals/ read Electronic Program Guide and we can set up recording of programs easily.

TVProgramML and XMLTV(1)

XMLTV: refer http://www.oasis-open.org/cover/xmltv.html

- XMLTV seems to be…
  - for audiences
  - received info to edit and customize
  - already-broadcasted programs
- TVProgramML is designed as…
  - for info delivery companies
  - all requirements to transmit
  - going-to-be-broadcasted programs

Concerning this TVProgramML,

we weighed it with XMLTV shown by the OASIS web sight.
TVProgramML and XMLTV share certain features but

there are some specific differences.

We can take XMLTV as for audiences so that they could manage program information.

Audiences could edit and customize program info, which is received from delivery service company.
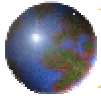
program info and video data or streaming media contents are available, if they are already broadcasted in the past.

In comparison with XMLTV,

TVProgramML is designed including the viewpoint of info delivery companies.

It can put all necessary information when companies transmitting them.

We consider it to be based on info about program which is going to be broadcast in the future.

TVProgramML and XMLTV(2)

- ◆ XMLTV lacks…
  - ■ Information on sport matches
  - ■ Modes related to broadcast(voice, video, extra)
  - ■ Accounting information
  - ■ Postponement, cancellation
- ◆ TVProgram doesn't hold…
  - ■ Icon details
  - ■ Pointers to actual video data
  - ■ Audience rating information, star-rating
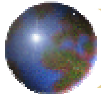
In XMLTV, there is something missing for us.

Minimum sport match information, like what team v.s. what team,

broadcasting modes, like voice, video

accounting information,

postponement, and cancellation. We need to describe them somehow

but XMLTV lacks them and only TVProgram can hold them.

Just for confirmation, I will show you some items that only XMLTV has.

Icon details, related to programs and channels

pointers to actual video data,

audience rating and star-rating

TVProgramML doesn't hold them but XMLTV does.

TVProgramML and XMLTV(3)

- **Incompatibility**
  - Difference of designing concept
    - Icon information
    - System specific requirements (subtitles/@teletext, etc.)
    - Ratings
- **To realize compatibility**
  - Store them in NewsML Property
  - Alter DTD of both
  - Create another DTD to compensate for lacks

How both differ?

Could we realize compatibility between TVProgramML and XMLTV?

It's possible, but it's difficult. Because of the difference on designing concept.

      Such as icon information, system specific requirements, and ratings,

      These are mutually incompatible.

But,

In case dare want to put them into each other, there are some ways.

      We could store such data in NewsML Property,

      alter DTD both of TVProgramML and XMLTV.

      Or to compensate for lacked parts,

      it would be practical to create another DTD in another ContentItem

      and append it under the same one NewsComponent.

Which is more convenient?

It depends on by who, and how to use them. So both could coexist.

But I insist that TVProgramML is much suitable for distribution.

RadioTV-NewsML Common Matter

Not to limit to Program-NewsML,

next I'd like to talk about the common matters

in whole RadioTV-NewsML, all 5 types of NewsML.

Relationship between each types of RadioTV-NewsML

```
ProgramTable-NewsML
    └── ProgramCommentary-NewsML
            └── ProgramPicture-NewsML
```

```
Program-NewsML
    TVProgramML
        Program    Program        ProgramPicture(Jpeg….)
                   Commentary
```
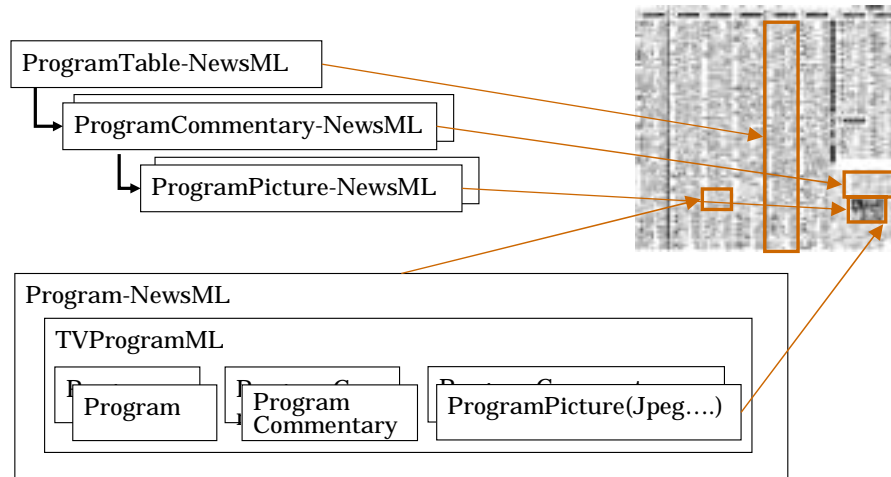
This shows relationship between 5 types of NewsML.

to provide one sheet of newspaper TV listing,
each necessary NewsML is composed connectedly by AssociatedWith elements.

Program-NewsML has an independent style.

    To present a single program by itself,
    it includes pictures, commentary, all information and details.
    They are unified and managed in TVProgramML.
That's why we use it independently.

Specification of RadioTV-NewsML

● Complies NewsML spec

NewsML
> **RadioTV-NewsML**
>> **Program-NewsML**
>>
>> | ProgramPicture-NewsML | ProgramCommentary-NewsML |
>> |---|---|
>> | BroadcastNews-NewsML | ProgramTable-NewsML |

TVProgramML
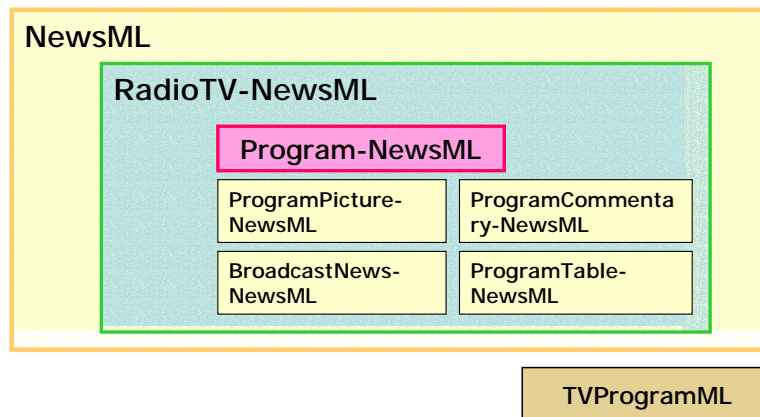
Talking about the specification, from the point of inclusion.

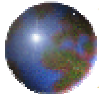This shows the spec of RadioTV-NewsML.

RadioTV-NewsML complies with NewsML spec defined by IPTC.

RadioTV-NewsML is a generic name for 5 types of NewsML,

So they also comply them NewsML spec.

Only TVProgramML,

it has particular DTD and complies with particular specification.

So, in this diagram, it's apart from NewsML.

Actual data composition is inside the RadioTV-NewsML

I want to say with this/ that spec for TVProgramML is different from NewsML.

So that they could be utilized by itself.

Features and benefits

- ⚙ Delivery of program information by NewsML
  - ▪ possible to pull out and handle only TVProgramML.
    - • program tables by category
    - • search by performers and key information.
- ⚙ Easy shifting to NewsML in newspaper and magazine publishing systems
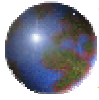- ⚙ Possible to handle news related to programs (BroadcastNews)
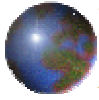
One special feature of RadioTV-NewsML is that it can deliver all kinds of data by NewsML.

Info about programs to be broadcasted, from Radio, TV, satellite, and cable data.

Besides that, additional function is to pull out and handle only TVProgramML.

it can be used to create program tables by category, or search programs by performers or key information.

We also consider easy shifting to NewsML system,

from current newspaper or magazine publishing systems.

And today, distributors cover news related to TV programs, too.

So we made it possible to handle them.

Significance of defining NewsML meta data of RadioTV-NewsML

- ◆ To enable all newspaper companies to handle received RadioTV-NewsML:
  - ◼ RadioTV-NewsML should be identified
  - ◼ included content outline recognized only by reading metadata
- ◆ Desirable to define other parts of NewsML except DataContent
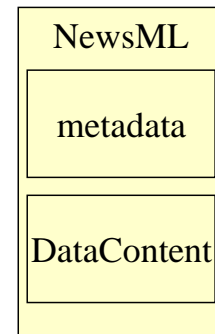
NewsML
metadata
DataContent

We are planning to define metadata which is contained in RadioTV-NewsML.

Because we aim to let all companies handle received RadioTV-NewsML in their own systems.

Contents inside the DataContents can be diverse,
so RadioTV-NewsML should be identified before analyzing the inside.

If it's possible,

Only by reading metadata, included content outline would be recognized.

RadioTV-NewsML implemented companies could read metadata and dispatch to analyze the inside.

Even non-implemented companies might be able to distinguish what kind of data it is.

In order to do it, it's desirable to handle by common metadata,
means how to present outside of the DataContent element in NewsML.

Representative items existing outside of DataContent
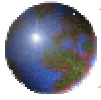
- in NewsEnvelope/NewsService
  - identifier to signify RadioTV-NewsML
  - <NewsService FormalName="RadioTV-NewsML"/>
- in NewsItem/NewsComponent/Metadata
  - broadcasting service name
  - broadcasting date for channels (see next page)
    - Channel # is not proper because it is not unique
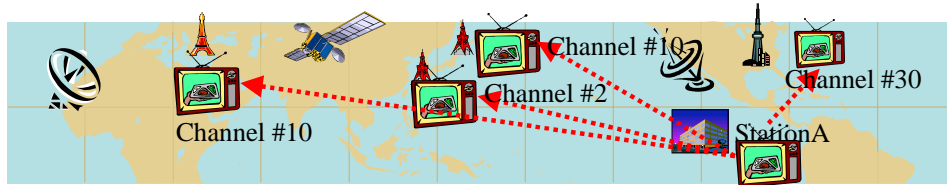
Now let me explain main contents to be described outside of the DataContent element.

We've set an identifier that signify RadioTV-NewsML in NewsService element.

In Metadata element,

we have set broadcasting service name, scheduled broadcasting date, and so on.

We tried to enter channel number,

but it's not unique, depends on each district.

For example, NHK in Tokyo area is channel #1, but in Osaka area it is channel #2.

So we defined broadcasting service name instead of channel number.

In this way, we have to settle TopicSet for a unified vocabulary.

Let us show you concrete idea next.
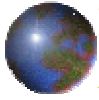
Broadcasting service name TopicSet

❖ Manage broadcasting service names by FormalName elements

```
<TopicSet Duid="radiotv" FormalName="BroadcastService">
 <Topic Duid="Form7">
  <TopicType Scheme="RadiotvTopicType" FormalName="BroadcastService"/>
  <FormalName Scheme="BsDigital">StationA-Tokyo</FormalName>
  <Description xml:lang="ja">TVStationA</Description>
  <Property FormalName="ServiceArea" Value="Tokyo"/>
  <Property FormalName="Media" Value="TV"/>
  <Property FormalName="MediaDetail" Value="BsDigital"/>
  <Property FormalName="CallSign" Value=""/>
  <Property FormalName="Url" Value="http://..."/>
  <Property FormalName="Tel" Value="03-3456-7890"/>
 </Topic>
```

We want to use the "service name" as a controlled vocabulary.

We define TopicType for RadioTV-NewsML, in its TopicSet.

And in FormalName element, we set broadcasting service name.

Together with this FormalName, Scheme gives unique broadcasting service name.

> In this example, formal name is StationA-Tokyo,
>
> And Scheme is BsDigital.

Details are set in Property elements.

Each country's regional information is possible to be added if you like.

Like ServiceArea, Media, CallSign in this example, universal Property FormalName is necessary for common use.

Resident Metadata in RadioTV-NewsML

◆ MetadataType: RadiotvMetadata

```
<Metadata>
    <!-- Indicates RadioTV-NewsML resident Metadata -->
    <MetadataType FormalName="RadiotvMetadata"/>
    <Property FormalName="BroadcastServiceName" Value="StationA-Tokyo"/>
    <!-- For Program table, date of main broadcasting (CCYYMMDD) -->
    <!-- For Program commentary, Program picture, and Program, scheduled
    broadcasting starting date (CCYYMMDD) -->
    <Property FormalName="BroadcastDate" Value="20011105"/>
    <!-- Used for showing the same program every week -->
    <Property FormalName="BroadcastDay" Value="Monday"/>
</Metadata>
```

Metadata elements, which always exist in RadioTV-NewsML,
can be described this way:

For MetadataType, we set RadioTVMetadata
And For Property FormalNameelement we set BroadcastServiceName,
This is the ControlledVocabulary we mentioned in the previous page.

To other property elements, we set scheduled broadcasting start date, and so on.

ARIB GenreCode and IPTC SubjectCode

- **ARIB GenreCode**
  - Included in DataContent
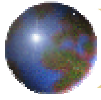 - Classifying basis differs from IPTC
- **IPTC SubjectCode**
  - Set in DescriptiveMetadata/SubjectCode.
  - [problem]
    - difficulty to convert ARIB code into IPTC code

ARIB   http://www.arib.or.jp/index_English.html
- Association of Radio Industries and Businesses in Japan
- ARIB defines standards of wave utilization system in communication and broadcasting field as well as performing other activities
- ARIB defines about a hundred of category codes for broadcasting industries

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Now I'll explain our paradigm to classify programs.

there is an organization which define standards for radio industries.

ARIB set up original category code in Japan.

we tried to map ARIB GenreCode and IPTC SubjectCode each other.

Then we fond that there are some disagreement to automatic convert.

IPTC SubjectCode is much ramified.

And besides that,

Classifying basis for categorizing differs between both of them.

ARIB GenreCode is alike mixture of both of SubjectCode and Genre for NewsML.

So we adopt IPTC SubjectCode for category classification.

Then, diffused ARIB's code, we could store them in the RadioTV-NewsML DataContent element for need to utilize them.

We made correspondence list but still don't know automatic convert is possible or not,

So we would be grateful for your advice on how to deal with this.
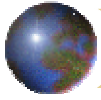
About "RadioTV-NewsML Team"

- News delivery industry in Japan also is starting to use NewsML.
- RadioTV-NewsML Team was organized to consider NewsML for the delivery of TV and radio program tables.

Finally, let me introduce our RadioTV-NewsML team to you.

This team was organized to enter in delivery of Radio and TV program data

with NewsML which is being adopted by the Japanese news-delivery industry.

We have appendix A, tree view of TVProgram.dtd.

Appendix B, TV/Radio circumstances in Japan.

Appendix C, XMLTV captured web sight.

Appendix A: TVProgram.dtd

tv.program

management info,
rights info,
description info

Program contents;
title, subtitle

program fix
schedule info
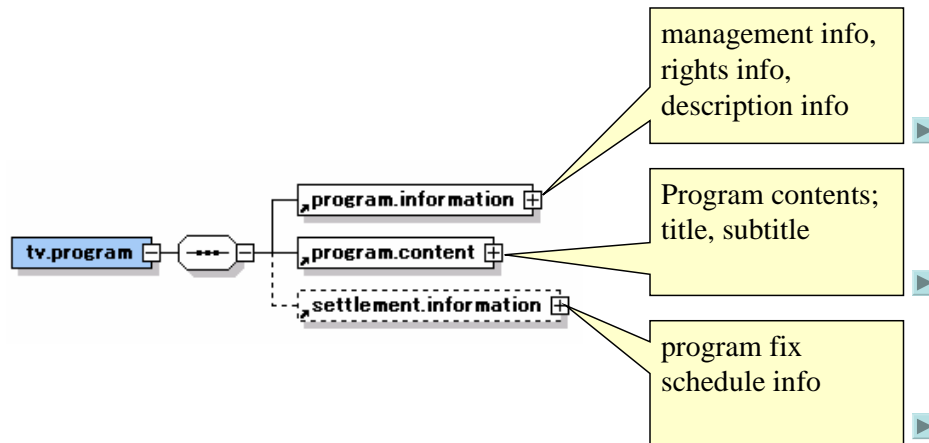
=====================tv.program=======================

The "dtd" extension is used to describe programs on radio, TV, satellite, CS and cable broadcasting, and so on.

================= program.information====================

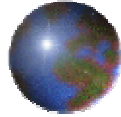The "program.id" attribute is an ID to distinguish programs to be broadcast on the same day. If there are more than one programs on different stations' lists which, however, have the same ID, those programs are identical. Such an ID consists of the date of broadcast (CCYYMMDD), the name of a medium (radio, TV, Satellite, etc.) and serial number. The "xml:lang" attribute is the language used in this administrative information.

================= program.content======================

The contents of a program (title, subtitle, extended title, contents, starring characters, movie information and G-code)

===============settlement.information =======================

The lists of programs which have been released by TV stations are displayed.

program.information

Language the program broadcast in

Administrative info;TV station, start time

Rights info; copyright, royalty

Descriptive info; genre, installments

language

administrative.information

program.information

rights.information

descriptive.information

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---

program.information elements has already explained.

===================== language========================

The languages used in programs, which are the languages used in the broadcasting mode or the main voice of bilingual broadcast. For instance, set Japanese as the language for Japanese-English bilingual English converation lesson programs, while set English as the one for CNN programs broadcast on CS, etc. Enter the ISO's language code should be used for the "newsml_code" attribute.

================administrative.information===================

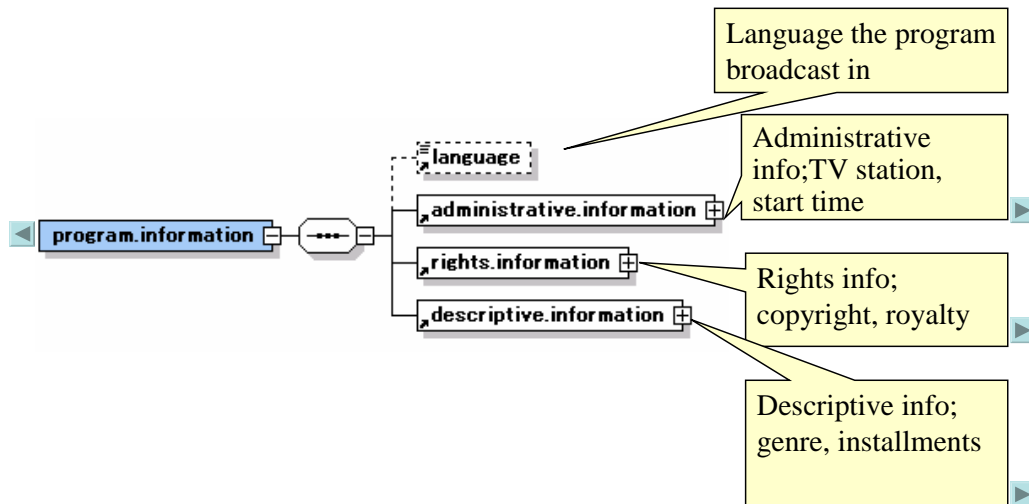Administrative information (date of broadcasting, starting and ending dates, length of programs, medium, mode, charge, additional broadcasting details and URL).

The "parentalrate" attribute indicates whether or not the program has age limits.

00 = No limit. Anybody can watch/listen to this program ragardless of age.

(There are no specific limits for infants of three years old and younger.)

01 = Four years olds and younger are prohibited from watching/listening to this program.

02 = Five years olds and younger are prohibited from watching/listening to this program.

03 = Six years olds and younger are prohibited from watching/listening to this program.

04 = Seven years olds and younger are prohibited from watching/listening to this program.

05 = Eight years olds and younger are prohibited from watching/listening to this program.

06 = Nine years olds and younger are prohibited from watching/listening to this program.

07 = Ten years olds and younger are prohibited from watching/listening to this program.

08 = Eleven years olds and younger are prohibited from watching/listening to this program.

09 = Twelve years olds and younger are prohibited from watching/listeinig to this program.

10 = Thirteen years olds and younger are prohibited from watching/listening to this program.

11 = Fourteen years olds and younger are prohibited from watching/listening to this program.

12 = Fifteen years olds and younger are prohibited from watching/listening to this program.

13 = Sixteen years olds and younger are prohibited from watching/listening to this program.

14 = Seventeen years olds and younger are prohibited from watching/listening to this program.

15 = Eighteen years olds and younger are prohibited from watching/listening to this program.

16 = Nineteen years olds and younger are prohibited from watching/listening to this program.

17 = Twenty years olds and younger are prohibited from watching/listening to this program.

===================rights.information======================

Information on rights (information on copy rights and the rights of users).

================descriptive.information======================

Program description information (genre, the number of episodes, the total number of episodes, the date of the first episode, a new program, the last episode, rebroadcasting, special information and key words)
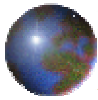
administrative.information
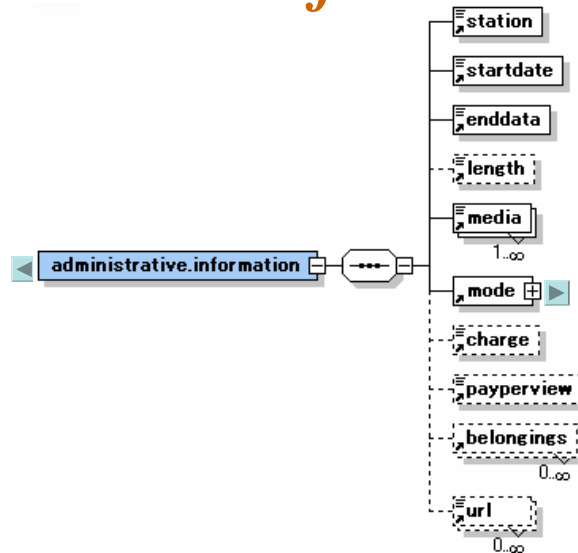
administrative.information element has already been explained.

==================station======================
Broadcasting service name.
Set the name of the broadcasting service, using Topicset. The property of Topicset consists of a medium (TV, radio, sound, image, etc.), a service area (Tokyo, Osaka, etc.), media details (BS analog, BS digital, CS, cable broadcasting, etc.), a call sign, a URL, a telephone number, etc.

==================startdate====================
The starting time and date of the program. In an ISO8601 format. The starting time and date of the program including commercials, which has been announced by the station (CCYYMMDDTHHMMSS{+|-}HHMM).

!!Sorry, "enddata" is not correct. It's mistake. "enddate" is correct.

==================enddata=====================
The ending time and date of the program. In an ISO8601 format. The starting time and date of the program including commercials, which has been announced by the station (CCYYMMDDTHHMMSS{+|-}HHMM). Normally, this ending time and date is identical to the starting time and date of the following program.

=================== length =====================
The duration from the starting date and time to the ending date and time, normally described in minute.

==================media=======================
Medium designation : describes details of media which is designated by the "station" element.

==================mode=======================
Broadcasting mode indicates broadcasting infomation on a program when it is broadcast by a station. Mode (audio, broadcasting, additional and data modes).

==================charge======================
The "monthly" attribute: is information on charged programs and describes the monthly rates for watching such programs (CS and cable broadcasting).
The "unit" attribute: is the monetary unit for such rates.

==================payperview===================
(pay-per-view rates for programs)
The "payperview" attribute: is rates for pay-per-view programs and describes the rates when viewers have to pay for each program (CS and cable). It is usually used when viewers do not have monthly contracts with stations.
The "unit" attribute: is the monetary unit for such rates.

=================== belongings====================
Additional information on programs, shown in codes. It describes additional information on programs.

00 = The program may not be broadcast (for example, when a baseball game is played at a regular outdoor stadium, it may be called off).
01 = The program may be extended (for example, an on-the-spot broadcast of a sport event, which may be extended out of the planned flamework).
02 = The program may be interrupted.
03 = The program may be replaced. Because of the interruption of scheduled program, planned broadcasting order may be replaced.
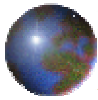04 = Undecided (what program will be broadcast is not decided a few days before the broadcasting day. Usually not used.)
16 = The program may be interrupted with breaking news.
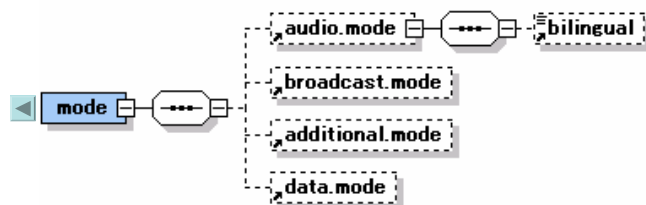17 = The program may be extra broadcasted.

==================url=======================
The URLs of the program and related websits are displayed. The URL of the broadcasting station is described in TopicSet of the "station" element.

mode

mode element has already been explained.

=====================audio.mode======================

(audio mode)

The "soundtype" attribute: describes normal, stereo, B-mode stereo and surround stereo broadcasting.

Surround stereo: the latest audio system - 5.1-channel surround stereo - which produces three-demential audio atmosphere with six speakers.

B-mode stereo: a stereo broadcasting system and its quality is even higher than the CD level.

In case of radio programs, they are usually broadcast in stereo. Such a program is described with an "S" in a TV time table.

The "explanation" attribute: describes the programs with explanatory voice narrations. Using dedicated TV tuners, some programs are broadcast, in addition to normal sound, with narrations which explain scenes and the movements of characters, etc. for those who have difficulties in vision.

The "multiple" attribute: is used to describe sound multiplex broadcast. The programs broadcast with more than one narrations. (For instance, the on-the-spot broadcasting of baseball games and the introduction of baseball players.) In program time tables, the programs with this function are descrived with the Chinese charecter "ta" for "many."

=====================bilingual ======================

This is used to indicate the secondery used language in bilingual program (the main language is stored as element of program.information/language).

=====================broadcast.mode======================

(visual mode)

The SDTV attribute: is used to describe standard TV (SDTV) broadcasting.

The HDTB attribute: is used to describe high-definition TV (HDTV) broadcasting.

The progressive attribute: the prograssive broadcasting method uses all the 525 vertical interlace scanning lines every 1/60 second.

The wide attribute: is used to describe wide-vision broadcasting. There are a variety of screen sizes; however, the vista size (wide: high = 1:1.85), wide (9:16) and cinesco (1: 2.3) are popular among them. The programs broadcase in this wide-vision system are described with a "W."

The multiview attribute: is used to describe multi-view broadcasting. By dividing channels which are normally broadcast in the HDTV method into as many as three SDTV formats, more than one channels of related programs are broadcast in one program.

=================additional.mode======================

(additional mode)

The multiple attribute: is used to describe character multiplex broadcast. This method uses subtitles on the screeen for those who have difficulties in hearing. The programs with this function are listed with the Chinese character "ji" for "character".

The sign language attribute: is to describe the programs in which a sign language service is provided. Such programs are listed with the Chinese character "te" for "hand".

The subtitle attribute: is to describe subtitled programs.

=================data.mode======================

(digital data broadcasting)

The "coupling" attribute: is used when the program is broadcast in linking with digital data related to the program. (For example, if a viwer clicks on the closing of the charecter he/she sees on TV, the information of the closing will be displayed on the screen.)

The "interactive" attribute: is used when the program is broadcast in a two-way data broadcasting system. Such programs allow viewers to download information using remote controllers and to enjoy shopping and quizes by means of using the telephone line.
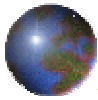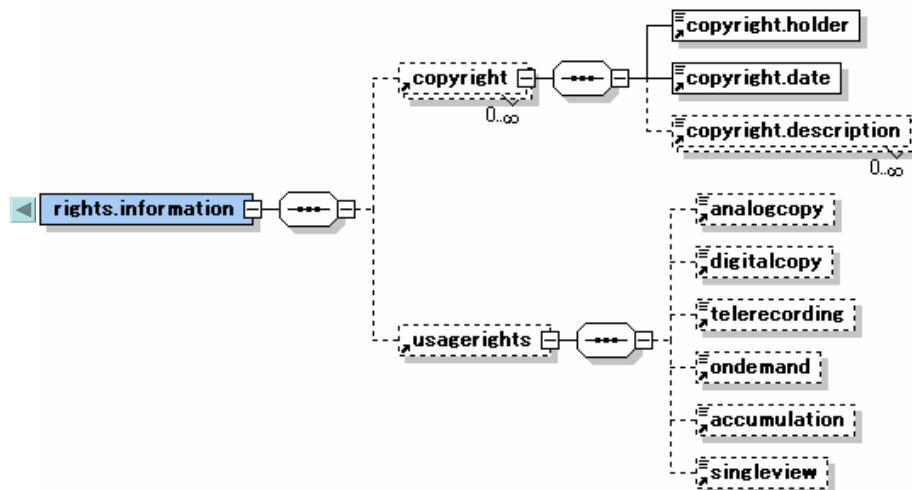
rights.information has already been explained.
====================copyright========================*
The copyright that pertains to a program object.
==================copyright.holder====================
The "copyright.holder" element: is used to describe the broadcasting station which has produced the program.
==================copyright.date=====================
The "copyright.date" element: is used to indicate when the copyright is in effect.
==============copyright.description==================
The "copyright.description" element: is used to describe the contents of the copyright.
====================usagerights========================*
User right information.
====================analogcopy======================
Analog copy flag: is used to have digital recording devices automatically judge if they can accept analog recording.

0 = Analog recording is prohibited.
1 = Analog recording is allowed only one time.
2 = Analog recording is allowed no matter how many times.
====================digitalcopy======================
Digital copy flag: is used to have digital recording devices automatically judge if they can accept digital recording.

0 = Digital recording is prohibited.
1 = Digital recording is allowed only one time.
2 = Digital recording is allowed no matter how many times.
==================== telerecording=======================*
The videotape-recording conditions of a PPV program are set up.
0=Videotape recording forbids.
1=Videotape recording is permitted only once.
2=Videotape recording is permitted.
==================ondemand=====================
Currently, there is no product with this function.
Real-time watching flag: the contents of a program are recorded in a hard disk.
0 = Watching the program while recording it simultaneously is possible.
1 = Watching the program after the it has been recorded in a hard disk is possible. Such programs cannot be watched with TVs which do not have hard disks.
================accumulation=====================
Currently, there is no product with this function.
Accumulatable flag: is used for automatic judgment whether is permited for accumulation into the disk.
0 = Recording on a hard disk is prohibited
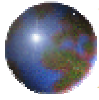1 = Recording on a hard disk is possible.
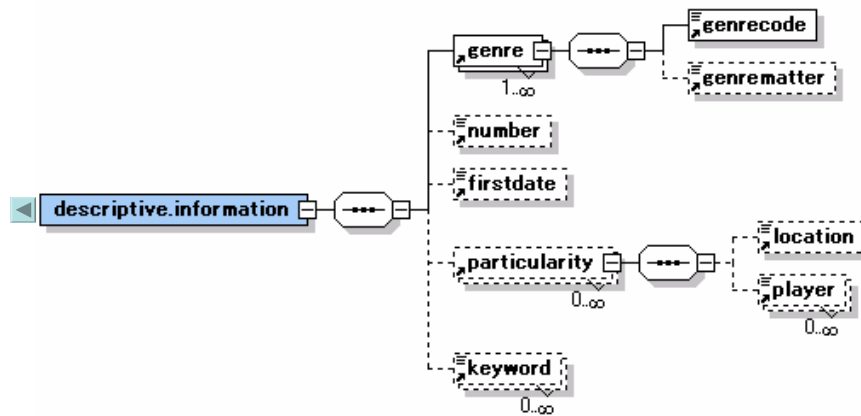==================singleview =======================*
(It is not used.)
The conditions of whether to be able to view and listen independently are set up.
0=The ban on accumulation.
1=Accumulation is possible.

descriptive.information

descriptive.information — genre (1..∞) — genrecode / genrematter
number
firstdate
particularity (0..∞) — location / player (0..∞)
keyword (0..∞)

descriptive.information has already been explained.

====================genre====================

Genre

The genre codes which have been set up by the Association of Radio Industries and Businesses (ARIB) are described, which are different from NewsML's SubjectCode.

====================genrecode====================

Large genre.

====================genrematte====================

Medium genre.

==================== number ====================

The number of episodes is desctibed.

The "totalnumber" attribute: indicates the planned total number of episodes of a program. If a program does not have the specific number of episodes, it will be described as "totalnumber = 'unknown.'".

====================firstdate====================

The data of the first episode of a program.

If the program is rebroadcast, it should be the data of the first episode of its original broadcast (CCYYMMDD).

====================particularity====================

Game information

Information on baseball, soccer games, etc. is described.

The "classification" attribute: is used to describe the type of game - such as baseball and seccor.

====================location ====================

Stadium.
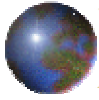
==================== player ====================

The names of teams and players involved in games are displayed.

The "id" attribute: is used to describe the sequence of games.
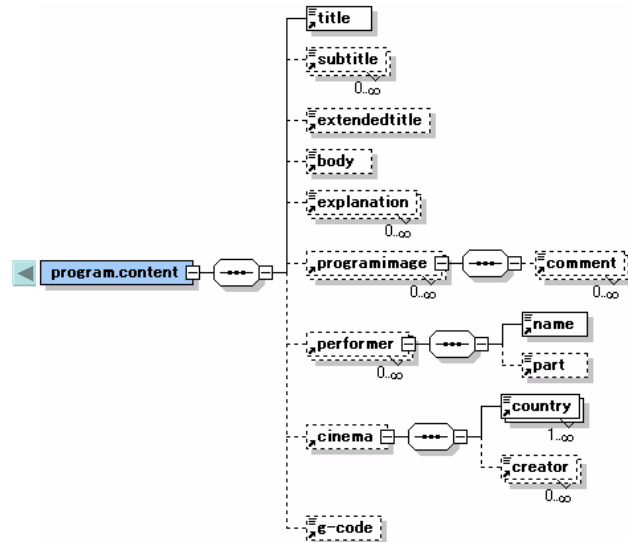
For example, in case of the broadcasting of two games simultaneously, a "location" element: Tokyo Dome, a "player" element: the Hanshin Tigers (id = "1"), a "player" element: the Yomiuri Giants (id = "1"), a "location" element: Nagoya Dome, a "player" element: the Hiroshima Carp (id = "2"), and a "player" element: the Chunichi Dragons (id = "2").

====================keyword====================

EPG search keyword.

program.content

program.content element has already been explained.

=====================title=======================

The title of a program is displayed.

==================== subtitle=======================

The subtitle of a program is displayed.

===================extendedtitle========================

(Japan only)

The title + subtitle of the sake for automatic voice pronunciation. It is set up in katakana.

==================programimage======================*

The photograph related to the program and the program is set up.

A href attribute is used and it is linked to an external image file and program photograph-NewsML.

==================comment======================

comment

==================== performer======================

The information on starring characters is displayed.

=====================name=====================

The names of starring characters are displayed.

=====================part=====================

The roles of starring characters - such as directors, starring characters, authors, scenario writers, producers, those in charge of music, camera crew, narrators guests, commentators, MCs, news casters, reporters, conductors, musical instrument players, composers, DJs, VJs and examiners - are displayed.

==================== cinema======================

The production company of the movie and its native country are displayed.

The "year" attribute: is used to describe when a movie was produced (CCYY).

The "classification" attribute: is used to distinguish a foreign move (1) or a Japanese move (2).

===================country =======================
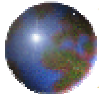
The country of the move.

Enter an ISO-designated code in the "code" attribute.

====================creator =======================

The name of a company which has produced the movie is displayed.

====================g-code======================

Gemster's G-code is displayed.

settlement.information
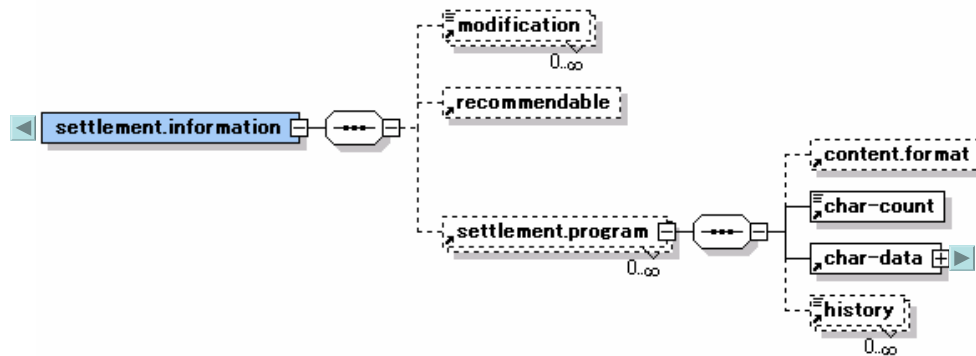
settlement.information element has already been explained.
===================== modification =======================*
The kind of information from a broadcasting station is set up.
In Japanese, it is called "bangumikakuteihyou" or "banngumituiteihyou".
A code attribute sets up change information by code.
==================recommendable ======================*
A broadcasting station sets up the priority of the description to a program table.
================settlement.program======================
Information on radio and TV program time tables.
====================content.format======================*
The kind of program appearance is set up.
Example:Long program appearance.Short program appearance.etc.
====================char-count ====================
The number of characters of a program is set up.
A rwidth attribute sets up the number of characters in the text of one line.

                9=Nine characters.
                10=Ten characters.
                0=A proportional font is used.

A lines attribute sets up the number of lines, when a rwidth attribute is nine characters or ten characters.
====================char-data=====================
The radio and TV time tables which have been designated by stations are displayed.

Time tables are displayed using specific codes (elements), such as those for stereo broadcasting, bilingual and new programs.
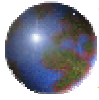For example:

```
<char-data>
  <p>
                    <Stereophonic/>Title Name xxxxx <News/><Weather/>
  </p>
  <p>Program data xxxxxxxxx </p>
</char-data>
```
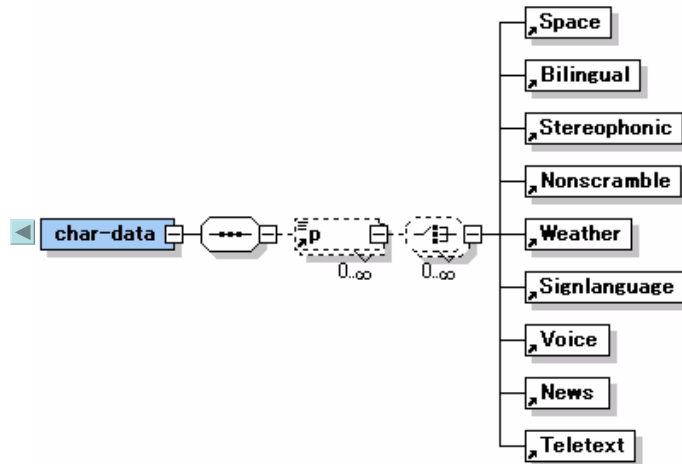===================== history =======================
Past information on each program is displayed.
For example: changes in starring characters and contents, addition of new programs, etc.
The "date" attribute: is used to describe when revisions are made (CCYYMMDDTHHMMSS{+|-}HHMM).

char-data

char-data element has already been explained.

===========p===========

p element means paragraphs.

====================Space=======================*

The space of a English character is defined with <Space count="1"/>.

The space of a Japanese character is defined with <Space count="2"/>.

====================Bilingual======================

Radio and TV time table code: bilingual

====================Stereophonic====================

Radio and TV time table code: stereo

====================Nonscramble=====================

Radio and TV time table code: free program

====================Weather======================

Radio and TV time table code: weather

====================Signlanguage ====================

Radio and TV time table code: sign language

====================Voice ======================

Radio and TV time table code: voice

====================News======================

Radio and TV time table code: news

====================Teletext======================
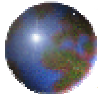
Radio and TV time table code: character multiplex broadcast
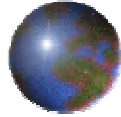
Appendix B: TV/Radio circumstances in Japan

TV/Radio circumstances in Japan(1)
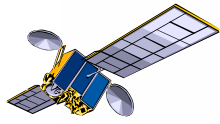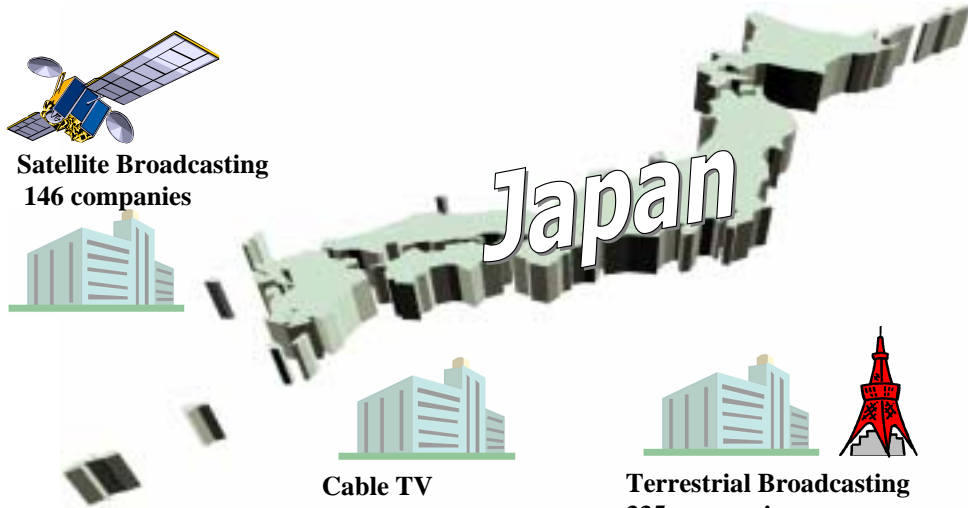
**Satellite Broadcasting
146 companies**

**Cable TV
684 companies**
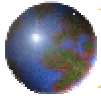
**Terrestrial Broadcasting
335 companies**

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In Japan, TV and radio are on the air by 145 of satellite stations, 684 of CATV stations, and 335 of terrestrial stations.

Total number of broadcasting companies in Japan Data from Communication white paper for 2000

- ◈ Terrestrial Broadcasting (335 companies)
    - ▪ TV   :129
    - ▪ Medium wave (AM radio)   :48 (37 also run TV)
    - ▪ Ultra-short wave (FM radio) :185
    - ▪ Short wave   :2 (1 also runs TV)
    - ▪ FM Teletext dedicated   :1
    - ▪ Multiplex TV, dedicated   :7
- ◈ Terrestrial digital broadcasting starting 2003
    - ▪ Terrestrial analog broadcasting ending 2011

This is the total number of terrestrial broadcasting companies in Japan

TV/Radio circumstances in Japan(3)

Data from Communication white paper for 2000

- **Satellite Broadcasting (146 companies)**
  - BS analog: 2
  - BS digital: 10
  - BS digital data: 8
  - CS, entrusting: 124
  - CS, entrusted: 2
  - Companies newly certified in 1999: CS digital data; 8, CS digital entrusting; 13
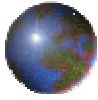- **Cable TV Broadcasting (684 companies)**
  - Independent Cable TV Broadcasting companies (estimation)
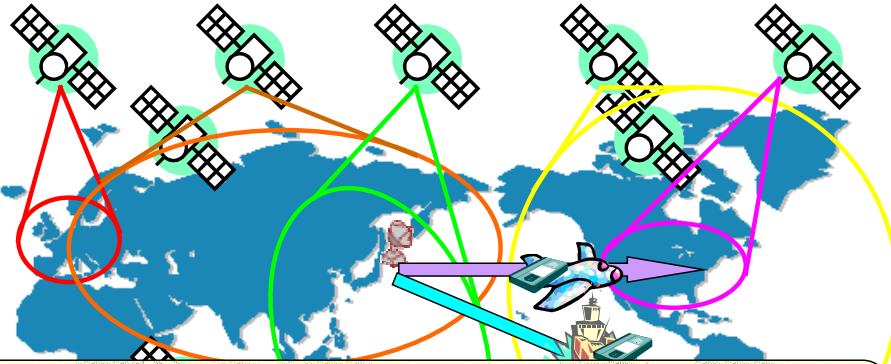
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This is the total number of satellite broadcasting companies and CATV broadcasting companies.
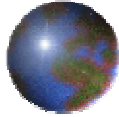
International TV/Radio Services from Japan

International broadcasting services from Japan are provided through data international broadcasting using short-wave international broadcasting and satellite TV broadcasting. Programs for foreign countries are also provided by Japanese broadcasting companies who deliver program to foreign broadcasting companies and cable TV companies.

International broadcasting services from Japan are provided through data international broadcasting using short-wave international broadcasting and satellite TV broadcasting. Programs for foreign countries are also provided by Japanese broadcasting companies who deliver program to foreign broadcasting companies and cable TV companies.

Appendix C: XMLTV

Thank you

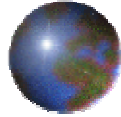We would appreciate your opinion on this.

We aim at unifying handling of program information in the world.

Please subject this for standardization.

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All materials are attached but pardon for my leaving explanation out.

We are working on a document of specifications for RadioTV-NewsML right now.
If you're interested in, please let us know.

If you'd like to admit our suggestion, please subject this for standardization.
We appreciate that let us know what are we going to do with this.

That's all for our presentation.
Thank you again for this opportunity to make a presentation here today.

Are there any questions? We all are ready to answer your questions.