

Minutes ETC meeting, February 26th and 27th, 2018	 European forum for energy Business Information eXchange
March 16 th , 2018	ETC – ebIX® Technical Committee

Minutes ETC meeting, February 26th and 27th, 2018

Date: Monday and Tuesday February 26th and 27th, 2018
Time: 13:00 – 17:30 (delayed start due to snow chaos at Arlanda) and 09:00 – 15:30
Place: Helio Solna Business Park (day 1) and Svenska kraftnät's offices (day 2)
Present: Fedder, DK (day 2)
Jan (Convenor), SE (day 2)
Kees, NL
Ove, NO
Pawel, PL

Appendix A: When to use the concept of CCs or inheritance?

Attachments (see ebIX® file manager):

ebIX recommendations for versioning v0r3 20180124.docx: See item 4, Follow up on versioning discussion at previous meeting
IEC TC57 WG-16.pptx; See item 5.1, Report from IEC WG16 meeting in Brussels January 29th to 31st, 2018
HRM_MR_Gateway operator & Communication Gateway - ebIX 20171116.docx: See item 7, Status: HG MR for "MP Gateway"
MR Party Admin - 20180227.docx: See item 8, Status: HG MR for "Party administrator"
Technical presentation.pptx: See item 16, Creation of an ebIX® technical presentation
Modeling for European Electricity Market for ETC 20180226.pptx: See item 5.3, Modelling for European Electricity Market for ETC under AOB
Core Components for European Electricity Market for ETC 20180226.pptx: See item 5.4, Core Components for European Electricity Market for ETC under AOB

1 Approval of agenda

The agenda was approved with the following additions:

- Modelling for European Electricity Market for ETC, see item 5.3;
- Core Components for European Electricity Market for ETC, see item 5.4;
- Rules for UseCase colouring, see item 9.12;
- What levels are different "standards" covering, see item 20.1 under AOB;
- How to use the ebIX® file manager (EFM)? See item 20.2 under AOB;
- 2017-01 version of MagicDraw, see item 20.3 under AOB;
- Requirements for changes in Capacity_MarketDocument due to multi-NEMO arrangement in the Nordic area, see item 20.4 under AOB;
- AS4, see item 20.5 under AOB.

The following items was postponed until day two (Tuesday):

Item 3, Preparations for next ebIX® Forum meeting, April 17th in Vienna;
Item 5, Status: ebIX®/IEC project;
Item 6, Status My Energy Data;
Item 16, Creation of an ebIX® technical presentation.

2 Minutes from previous meetings

The minutes from previous meetings were approved.

3 Preparations for next ebIX® Forum meeting, April 17th in Vienna

A proposal for an ETC presentation for the ebIX® Forum was reviewed and a slide asking for ETC members from countries not currently represented was added.

The item is closed.

4 Follow up on versioning discussion at previous meeting

Conclusion:

The document “ebIX recommendations for versioning v0r3 20180124.docx” will be put at the ebIX® File manager under the folder “Working documents” and we will try to follow the rules described for future updates of the ebIX® model, xml schemas etc.

The item is closed.

5 Status: ebIX®/IEC project

5.1 Report from IEC WG16 meeting in Brussels January 29th to 31st, 2018

A PowerPoint presentation from the IEC WG16 meeting in Brussels January 29th to 31st from Jan (attached to the agenda) was reviewed.

5.2 When to use the concept of CCs or inheritance?

Kees had made a proposal for a structured and consistent answer to the questions if we should use the concept of CCs or inheritance. See also mail exchange in Appendix A regarding the topic.

Let us start from the very beginning:

- Let us differentiate between CIM as the data model for the electricity sector and as the set of CC's/BIE's that we use for the creation of exchange formats (so basically between 61970, 61968 and 62325 as data model and the profiles as sets of CC's/BIE's. It should then be possible to map each BRS to the first three packages (data model), while the BIE's shall be mapped once for all to these three packages (data model) from the other side and therefore linking the BRS's indirectly to the BIE's in a structural way.
- Let us maintain the split between metering and market as we have done so far. As a consequence the register is linked to the UsagePoint in metering and the MarketEvaluationPoint is used in market.
- Then we did already conclude that we need a link between UsagePoint and MarketEvaluationPoint. Not just for this purpose, but also for other purposes. Here I have no doubts about the link itself, but I do have doubts about a link by means of inheritance. I think that one shouldn't use inheritance for completely different types of objects. Therefore probably an association is more correct.

- I intentionally use the phrase “more correct” since I have some doubts here as well. We already encountered this issue when we did the mapping: the structure in CIM is sometimes very complex with many “in-betweens”. And can we just ignore these “in-betweens” when we don’t need these in the BIE’s? Even if all cardinalities for the “in-betweens” are 0..1 or 0..*? We will have the check/verify somehow.
- I agree with the assumptions, that
 - A UsagePoint may support 1..* MarketEvaluationPoint(s)
 - A UsagePoint may be supported by 1..* Register(s)
- I don’t think we should hover between the data model part of CIM and the CC part (ESMP). So we have to find the solution first within 61968-metering. Once we have made sure that mapping to 61968 is complete we can do the same for the CC’s/BIE’s.
- I am a bit confused by the reference to RegisterType. I cannot find it in CIM. So I wonder whether you may mean ReadingType.

Conclusions:

- It must be possible to map all elements in a BRS to the three CIM packages 61968, 61970 and 62325:
 - This concept has been verified in the ebIX®/IEC TR 62325-103;
 - Today you will find the “data model” in the three basic packages 61968, 61970 and 62325 and the ABIEs (“CCs”) in the profiles, e.g. 62351-351.
- RegisterType should have been ReadingType.

Action:

- Kees will ask Christian Huemer (UMM professor from the Technical University of Vienna) if he has any views regarding:
 - The concept of CCs or inheritance;
 - How to specify data types in the CIM packages and the CIM profiles – could they be different, i.e. restricted in the profile?

5.3 Modelling for European Electricity Market for ETC

Kees showed the PowerPoint presentation “Modeling for European Electricity Market for ETC 20180226.pptx”, see EFM (ebIX® File Manager).

See action under item 5.2 above.

The item will be put on the next agenda.

5.4 Core Components for European Electricity Market for ETC

Due to lack of time, there was no time to discuss the topic.

The item will be put on the next agenda.

6 Status My Energy Data

Jan presented some views on the current My Energy Data concept:

- At the “EUMED”-meeting Thursday February 22nd with Eric Lambert (and others), Jan wanted to go a bit more in detail with the idea of using the market part of CIM instead of the distribution

Figure 2: Model based on 62325

- Exactly what of the left side of Figure 2 we still will need, Jan would like to look at. But one thing that is mentioned is the need to specify a “Customer kind”. This Jan would see as an “aggregation criteria”. I.e. for a timeseries you (may) specify a lot of aggregation criteria.
- Example (something like this we aggregate today): The aggregated values for all continuously metered metering points with solar production, with a specified supplier having a specified balance responsible within a specified network area. Or more or less detailed.
- For other purposes you would like perhaps to aggregate all energy values for the category “residential customers”, with continuous meters having the same energy service company. This “residential customers” would, in the “My Energy Data” documentation so far, be a sort of “Customer kind”. However, in some cases things like this are better linked to the Customer Agreement or to the Market Evaluation Point, and not to the customer.
- Jan hope that My Energy Data can support the work of trying to move “My Energy Data” more into the market part of CIM.
- And, by the way, instead of having a “Customer Kind” with values like “residential”, “commercialIndustrial”, “enterprise” (an My Energy Data-value), Jan would like to use codes.
- In Europe we already have a lot of official codes possible to use, and probably we could find what we need there (e.g.
http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC)
- But, such things as using official code lists instead of values listed in CIM can hopefully be solved in the profile. With possible extensions of codes when not found in the official list.

Action:

- Kees will send a mail to WG16 asking for the topic and scope for the WG “EUMED”. In addition, Kees will ask for focus on “Customer consent” instead of exchange of measured data.

7 Status: HG MR for “MP Gateway”

MDS has agreed to postpone the submission of the MP Gateway to the HG:

“Review and consider submission of a MR to the HRM for Gateway and Gateway Operator. The concept is not fully defined in the German market, hence a maintenance request for additions to the HRM has been postponed until summer 2018.”

8 Status: HG MR for “Party administrator”

The MR was reviewed. It was added a link to the “BRS Align characteristics for Customer linked to MP v1r0B.pdf”.

Action:

- Ove will send the updated MR to the HG.

9 ebIX® Business Information Model 2018.A

9.1 Continue review and update of version 2018.A

The item was postponed.

9.2 MDS requests for new and updated enumerations

The item was postponed.

9.3 How to represent the exchange of calorific value in ABIEs

The item was postponed.

9.4 QA of the ebIX® model

The item was postponed.

9.5 Code lists

The item was postponed.

9.6 Use of XOR in combination with cardinalities

The item was postponed.

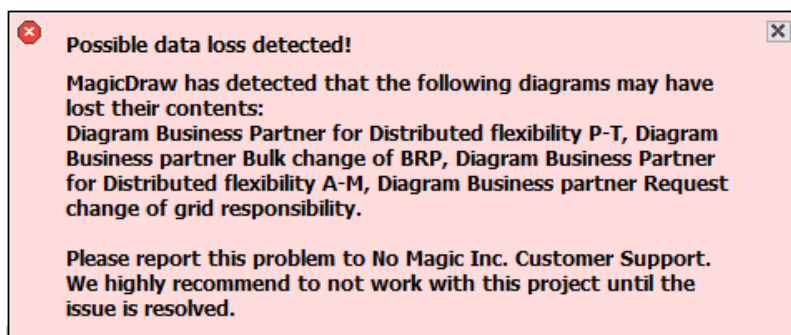
9.7 Magic Draw version 18.2, ebIX® model 2018.A, ebIX® “standard messages”, etc.

The item was postponed.

9.8 Upgrade of MagicDraw

Ove has experienced an abortion of MagicDraw (MD) that resulted in an automatic generated error message to NoMagic. The response to the error message was that the error is fixed in later versions of MD.

Further, when starting MD, Ove always get a list over data losses. The losses always concern “Business Partner diagrams”, normally the three last modified diagrams. Ove has earlier sent an error report to NoMagic regarding this problem, without getting a solution on the problem. It is however not sure that an upgrade of MD will solve this problem.



Ove asked if we should upgrade MD to latest version 18.5 SP3.

Action:

- All that are using MagicDraw (MD) are asked to inform Ove which version they are using and if they will have a problem if we upgrade to the latest MD version, i.e. version 18.5 SP3;
- Ove will raise the same question within MDS;
- A discussion (decision) will be put on the next ETC agenda.

9.9 “Time of Use” vs “Meter Time Frame”

The item was postponed.

9.10 XML documents from TT

The item was postponed.

9.11 Split of MP Characteristics into Administrative- and Physical Characteristics

The item was postponed.

9.12 Rules for UseCase colouring

The item was postponed.

10 ebIX® Rules for the use of UN/CEFACT Modelling Methodology (UMM 2)

The item was postponed.

11 MDS BIMs

The item was postponed.

12 Update of ebIX® position related to addressing in business documents

The item was postponed.

13 Code lists from Magic Draw model in Word format

The item was postponed.

14 Planning for support for new countries that want to use the ebIX® model

The item was postponed.

15 Status for update of the TT (Transformation Tool)

The TT has been updated and works, however we have not received any update documentation.

Action:

- Pawel will contact Pawel Lacinski at In4mates asking for the documentation;
- Kees will try contacting Peter (the second developer of the TT, from Cap Gemini) to see if he can be a candidate to come up with a documentation.

16 Creation of an ebIX® technical presentation

The presentation used in Kiev was reviewed, to see if this presentation, or parts of it, could be used in the ebIX® technical presentation.

Action:

- Jan will review the technical ebIX® PowerPoint presentation shown in Warsaw in November 2015 and the presentation used in Kiev in the autumn 2017, and come up with a proposal for an ebIX® technical presentation.

17 Status for UN/CEFACT project for Alignment of Master Data for Metering Point and of Measured Data

No news.

18 Review of ETC member list

Action:

- Jan will send a mail to Vlatka, asking for a German ETC member, preferably from a German DSO.

19 Next meeting(s), including start and end time.

- Monday and Tuesday May 14th and 15th, in Arnhem or Rotterdam?
- Wednesday and Thursday September 5th and 6th, Warsaw (?)
- Wednesday and Thursday November 21st and 22nd, place to be decided

20 AOB

20.1 What levels are different “standards” covering

The item was postponed and will be put on the next agenda.

20.2 How to use the ebIX® file manager (EFM)?

MDS has started to use the ebIX® File Manager (EFM) and it is time for ETC to do the same. The ETC participants at the meeting were granted access rights to the EFM.

Ove had as action from the latest MDS meeting made a document with some rules for how to use the ebIX® File Manager. The document was reviewed and can be found at the root (home) folder of the EFM.

Action:

- Ove will give the ETC members read/write access to the ETC folder. Observers and CC members will get read access if explicitly asked for.

The item is closed.

20.3 2017-01 version of MagicDraw

Ove had made a MagicDraw profile for the Harmonised Role Model (HRM) 2017-01 version. There are some differences between the EA and MD version of the HRM:

- 1) The MD version requires most of the other profiles used in the ebIX® model, i.e. it is not a “stand alone” MD file.
- 2) The MD version has added stereotypes to the roles and domains;
- 3) The MD version has added the package: "Maintenance"
- 4) The Functional Group (DEPRECATED) is not shown in the EA diagram (but is a part of the model)

Conclusion:

- ebIX® will inform the HG that a MD version of the HRM is available, but currently only as a part of the ebIX® model.

The item is closed.

20.4 Requirements for changes in Capacity_MarketDocument due to multi-NEMO arrangement in the Nordic area

Due to lack of time, there were no time to discuss the topic. The item was intended to be a preparation for the ENTSO-E meeting next week, hence the item is closed.

20.5 AS4

Due to lack of time, there were no time to discuss the topic.

The item is closed.

Appendix A When to use the concept of CCs or inheritance?

Dear Kees,

My mail was not about what Eric wrote. His mail just inspired me to check one of the things that I have had some trouble with in CIM.

I.e. in CIM (the 61968-part) you have Meter readings with IntervalBlock and IntervalReadings. But in the 62325-part there are TimeSeries.

In the 61968-part there is no problem to specify the meter stand (you can use the Reading-class).

But where should we put the meter stand in the market part of CIM?

For MyEnergyData we perhaps don't need to handle the meter stand, but for billing we do.

And I want to see how the "four quadrants" values will look like using the class TimeSeries in CIM. I.e. both directions and both active and reactive values.

BR Jan

Dear Jan,

I did also see Eric's mail yesterday (I assume you refer to that one). For me the mail was enlightening. I see now, that although Eric's body now may be in wg16 for My Energy Data, his mind is still in wg13. He is trying to organize the distribution of data from a smart meter along the lines of the existing data collection systems. Not as market information from one market participant to another, but as a string from one system to another system. Let alone that he can see the relevance of the task he got in the wg16 meeting in Brussels last month for focusing on obtaining and maintaining customers consent as master data for metering point based on a contract. I noticed that both his presentations obviously totally forget about this.

So for me it is now perfectly clear that when you (Jan) mention a meter read, this is a completely different object form the metered data Eric has in mind. And in a completely different format. And as far as I am concerned, I have no problem with this difference. Let it be, when he sticks to the exchange from device/system to device/system and we keep on focusing on exchange between market participants. For us UsagePoint/MarketEvaluationPoint is relevant, for him these are not: devices are the only relevant objects for him. But then of course he shall refrain from market information exchange consequences: his exchange is just from device/system to device/system.

Best regards, Kees

From: Owe, Jan [<mailto:Jan.Owe@svk.se>]

Sent: vrijdag 16 februari 2018 11:56

To: Sparreboom, Kees; Fedder Skovgaard; 'Ove Nesvik'; jean-luc.sanson@noos.fr

Subject: Meter stands in the market part of CIM

Dear all,

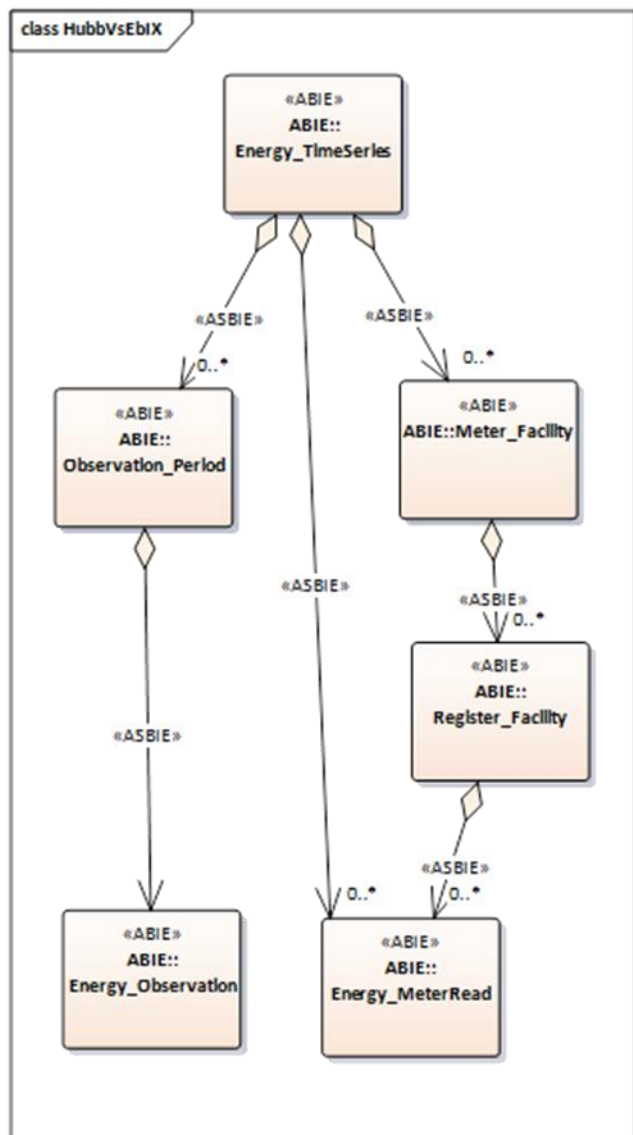
When getting the mail from Eric Lambert (My Energy Data), I am thinking of one issue in my PowerPoint-file that is included. And that is the meter stand.

In the PowerPoint-file I argue that the meter stand is not needed for "My Energy Data", i.e. only energy volumes and then only "Point + Quantity" would be needed. Not the class Meter Reading.

Even if that might be the case for My Energy Data, I would like to look at meter stands within the market part of CIM.

Because, as I write, the meter stands are required in the bills to be sent to the customer and then we need it to be sent to the supplier.

In ebIX® we are sending the meter stands for registers within a meter related to a time series (or directly related to the time series) see next figure.



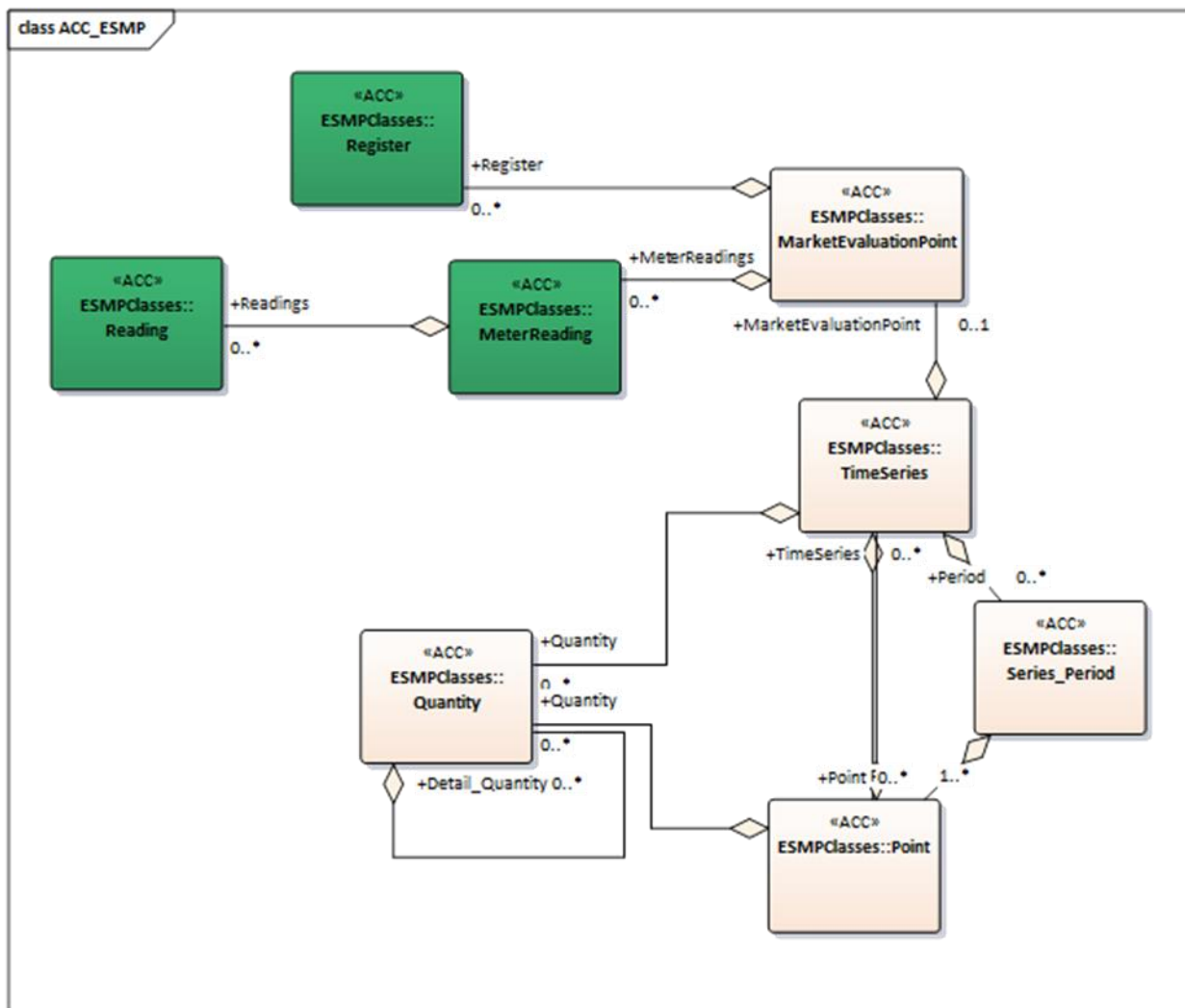
For example a time series for a specific metering point (*MarketEvaluationPoint* in CIM) may include 24 x 31 hourly values + one meter stand (if sent monthly).

And in the technical report IEC TR 662325-103 we made this mapping from the ebIX-model to CIM (ebIX® to the left, CIM at the top):

	TimeSeries	+product : String [0..1]	+unit : Unit [0..*]	+name : String [0..1]	+resolution : Duration [0..1]	+timeInterval : DateTimeInterval [0..1]	+registrationDateTime : TimeSeries [0..1]	+selfTimeSeries : TimeSeries [0..1]	MarketEvaluationPoint	+mRID : String [0..1]	+marketEvaluationPointType [0..1]	+point : Point [0..*]	+position : Integer [0..1]	+quantity : Quantity [0..*]	+quantity : Decimal [0..1]	+meterTimeFrame [0..1]	Reading	+reportedDateTime : DateTime [0..1]	+source : String [0..1]	+value : String [0..1]	Meter	Register
Entities for Measure for Billing	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Validated Data for Billing Energy	1																					
: Observation [1..*]																						
: Validated Data for Billing Energy - additions [0..1]																						
: Validated Data for Billing Energy - async additions [0..1]																						
: Meter [0..*]																						
: MeteringPoint [1]																						
+MeteringPoint Type [1]																						
+Observation period [1]																						
+Product Identifier [1]																						
+Product Measure Unit [1]																						
+Registration DateTime [0..1]																						
+Resolution [0..1]																						
Validated Data for Billing Energy										2			1	1	1	1		1	1	1		
Register Read																		1	1	1		
+Origin [0..1]																						
+Read [1]																						
+Registration DateTime [0..1]																						
Observation														1	1	1	1					
+Meter Time Frame [0..1]																						
+Position [1]																						
+Quantity [1]																						
Validated Data for Billing Energy - async additions										1												
+Reference to Request [0..1]																						
Validated Data for Billing Energy - additions										1												
+Identifier [0..1]																						
Meter										1												1
Meter										1												1
+Identifier [1]																						
+Register : Register [1..*]																						
MeteringPoint										1												
MeteringPoint										1												
+Identifier [1]																						
Register										1								1				
Register										1								1				
: Register Read [1]																						
+Identifier [1]																						

I.e. the meter is mapped to Meter, the register is mapped to Register and the reading (i.e. the meter stand) is mapped to Reading

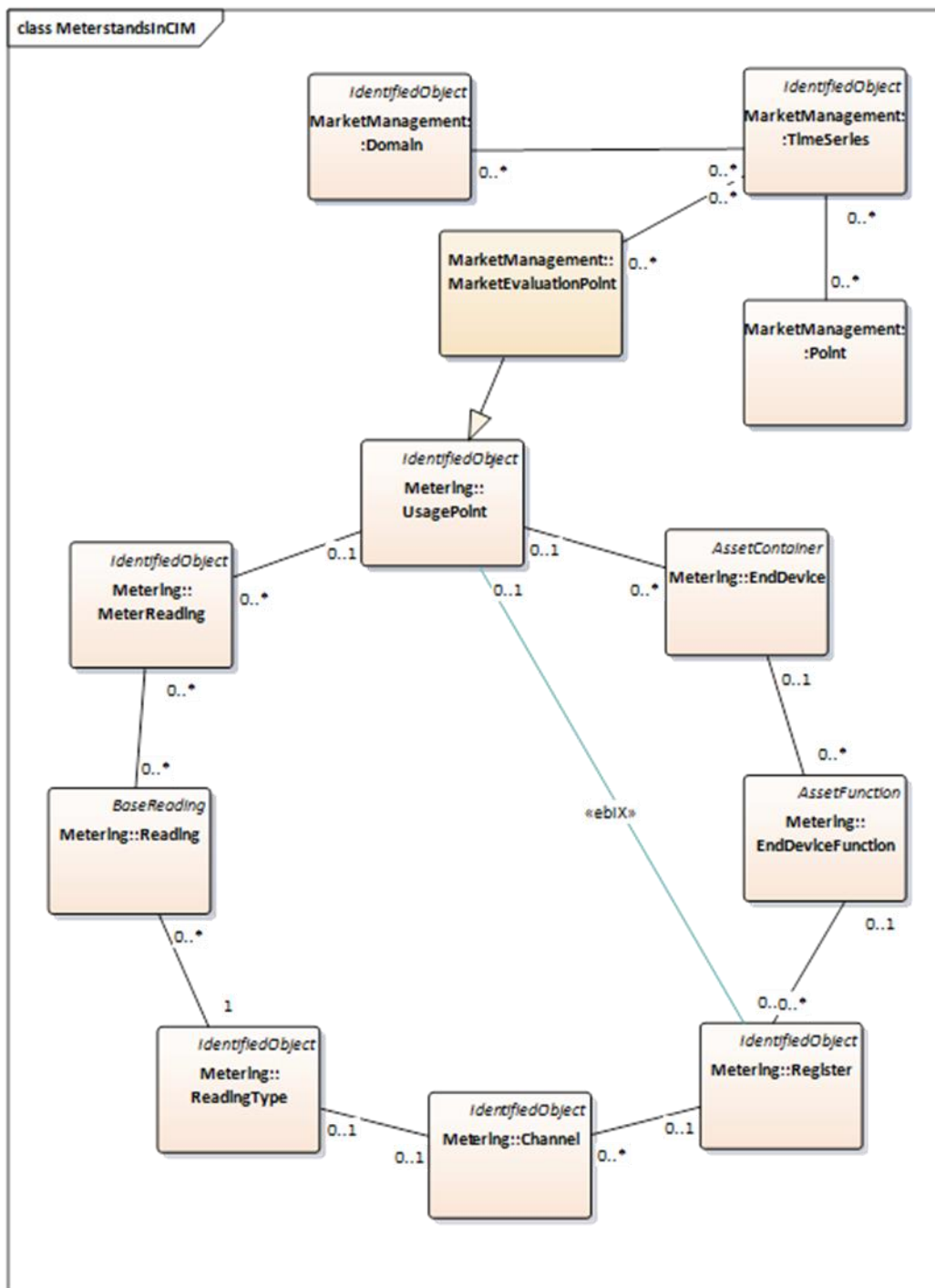
In ESMP (next version of IEC 62325-351) a corresponding set of classes could be



Let me then assume that you are having more than one register in the “UsagePoint”. For example one with the flow to the grid (small scale production, e.g. a solar panel) and another with the flow from the grid (the consumption). Or there are registers with energy values in kWh and kVAr.

There might be more MarketEvaluationPoints than UsagePoints. Anyhow the assumption is: you still end up with more than one Register for the MarketEvaluationPoint. In the ebIX®-model we have an association from the Register to the readings. But how will this be solved in CIM? Well, if you don’t need the register (i.e. there is only one), you can go directly from MarketEvaluationPoint to MeterReading (see the ESMP figure above).

For a Register you can have one or more Channels, but let us assume one. Then you’re almost at the reading for which you specify the Reading Type. See next figure. Or the other way around: For a Reading you specify the ReadingType, and the ReadingType could be associated to a Channel within a Register (or if only one Channel; associated directly to the Register).



So, it seems possible to link the meter stands to the register in CIM, and then also to specify the meter stands. What I don't like, looking into details, is the structure of "RegisterType". See appendix C.3 in IEC 61968-9.

Perhaps we should look into another possibility that would make it easier to handle a meter stand in the market part of CIM, i.e. to provide the meter stand together with the energy volumes. And not "far from the volumes" as described above.

Let us assume that the class Quantity will be used to specify the meter stand.

The Quantity with the meter stand should not be associated to the Point class (because it is not the “25th” value in the sequence of hourly values, or what the resolution and period is).

Within a period you might have more than one meter stand (for example you can have one meter stand that is “read” and another meter stand that is “calculated”). So let us not associate the class Quantity to the class Period.

But we can look at the association from Quantity (the meter stand) to the class TimeSeries. However, how do we then specify the time stamp for the meter stand?

I stop there, there is a class DateAndOrTime, but I don’t know exactly how to solve this. See the figure below. Best regards and have a nice weekend!

Jan

