BACnet

Is there a list of known behaviours of controllers not according to the BACnet rules? We stumbled upon a device which used 'relinquish default' instead of 'schedule default' for schedule objects.

David Fisher

• Jelle,
I don't know of any such comprehensive list. Personally I think it would be a bad idea to have one. The problem is, who determines the accuracy of claims regarding behavior? Maybe in your case you were very thorough and were able to prove and document the issue for a given controller. But many of the people we interact with in the field wouldn't take the time to get to the bottom of a problem like that. So there is a great danger of spreading misinformation which could damage a reputation, perhaps undeservingly.

I think it's a better policy, if you run across some behavior that is clearly wrong, to contact the vendor and report it. The BACnet developers I know would all be keen to find out if one of their products was misbehaving. I can tell you it is often hard to get details about this kind of thing.

If you think you've found a problem like that, and despite your attempts to contact the vendor, nobody is listening, let me know and we'll do our best
to pass the word to the right people.

[Jelle Aal](#)

• Hi David,
Thanks for your answer. The device is from a large company and all devices in the project behave like this. I thought they really should know about the standard but it seems they don't. But it's not really surprising to me. I discussed something similar on last BIG-EU plugfest with another large company which put proprietary behaviour in a BACnet device and they clearly told me that they know they don't follow the rules and they don't want to...

[Steve Karg](#)

• There is a list of known controllers that do follow the BACnet rules:
http://www.bacnetinternational.net/btl/

[Jelle Aal](#)

• And this is were it becomes tricky... The device I am speaking about is listed but uses a wrong property not belonging to a schedule object.

[Christoph Jähnigen](#)

• Jelle, then you should get in contact with the BTL manager about that issue. Contact information is to be found at http://www.bacnetinternational.org/associations/8066/btl/?page=41 .

David Fisher

• I would argue with Steve just a little here. BTL listed controllers are NOT known to follow THE rules, because there are MANY rules in BACnet. BTL tests specific collections of BACnet features claimed by a given device. Those features themselves imply the collection of rules to be followed. Two BACnet devices can each follow the proper rules for their particular features, and yet not necessarily have all of the same features in common. As a second point, the BTL tests follow the 135.1 Test standard which itself does not have tests for every possible mismatch.

Back to Jelle's point though. The device that he is talking about has made two "mistakes."
(1) It implements a standard object (Schedule object) but does NOT implement a Required property of the Schedule object, namely the Schedule_Default. If the Protocol_Revision property of its Device object is less than 4, then this is OK. However it is a really OLD doctrine in BACnet terms since this requirement was added in 2001. I bet, if you check, that it claims to be at least a revision 4 device or later, in which case it is not conformant and should not have passed BTL testing.

(2) It implements the intended functionality of Schedule_Default using the standard property Relinquish_Default. It has long been viewed (by some anyway) that standard object types could be extended by including standard properties that are not defined for that object type in the standard. However in recent years this and related policies about extended functionality have been hotly debated by the SSPC. The consensus, though not unanimous, has been that the standard does NOT explicitly allow this kind of extension and therefore it isn't allowed. So it is the absence of permission in the standard
that makes this prohibited, at least in the current thinking.

So two-for-two this device is not conformant to the standard. If it has a BTL listing you could (and should) report that non-conformance to the BTL Manager which may cause those devices to be placed under some scrutiny, at least by BTL.

I would point out that none of this is caused by flaws in BACnet.

Jelle Aal

• Hi all, thanks for your answers. I just checked the revisions. There are 5 devices but all revision 2. The BTL listing has been done with revision 4. Nevertheless this is something that interacting systems have to deal with in order to work properly.