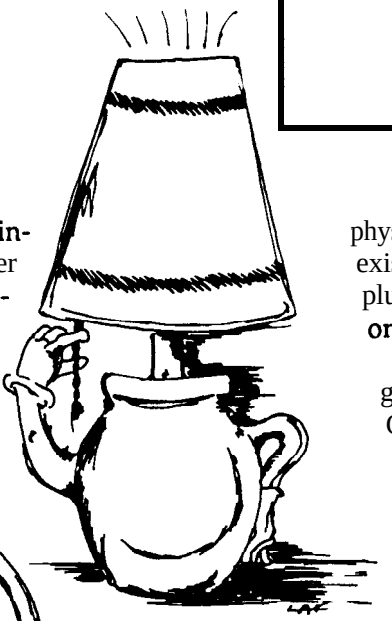
CEBus Comes One Step Closer to Reality

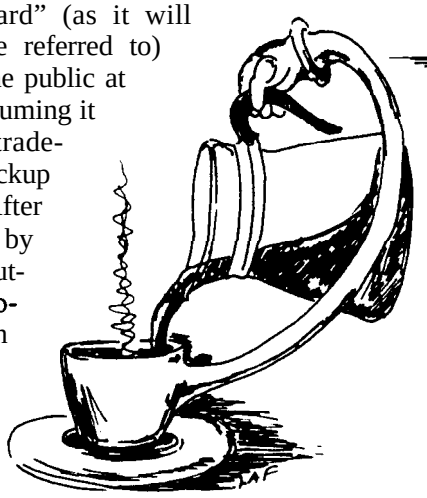
DOMESTIC AUTOMATION

Ken Davidson



Anyone following the home automation industry has no doubt heard of CEBus. Well, after over five years of work, we're finally about to see something official come down the line. I recently got back from the November EIA/CEG CEBus Committee meeting in Sunnyvale and have some interesting events to report.

First of all, we should dispense with all thistalkabout "CEBus." The "EIA Home Automation Standard" (as it will always correctly be referred to) will be known to the public at large as "Synq" (assuming it gets through the trademark search; the backup is "Harmonet"). After extensive research by both EIA and an outside consultant producedalistofadozen or so potential names for the standard, EIA settled on this one. No, it doesn't stand for anything. It's easy to say, conveys an aura of high tech with the "Q" at the end, and should be just what the marketing boys are looking for. Please forgive me if I continue to refer to the standard as CEBus for the time being.



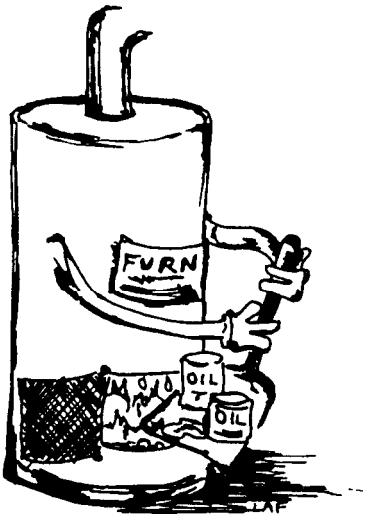
The long-anticipated event, though, was the official release of several portions of the CEBus specification for comment. Before getting into exactly what was released, let me explain EIA's procedure for releasing a specification,

EIA STANDARDS MAKING

When the committee was first put together, several working groups were established to hammer out the details of individual portions of the spec. For example, the language Working Group (LWG) is responsible for the upper network layers including CAL. The Power Line Working Group (PLWG) is responsible for the power line physical layer details. Similar groups exist for the other physical media plus conformance, publicity, and so on.

In charge of all the working groups is the Technical Steering Committee (TSC). The TSC oversees the entire specification-making process, sets policy guidelines, and has the final say in any matter regarding the spec.

Once a working group has a portion of the specification that they feel is ready for public comment, they present it to the TSC for approval. Once approved, the proposed spec is published and goes out for a comment period. During the comment period, anybody who would like to review the proposed spec and make comments on it is free to do so. The intention is to get the spec into the hands of engineers who work for companies that are members of the committee, but haven't necessarily been able to attend meetings. However, anybody who takes the initiative to obtain a copy of the spec may comment. Positive comments are always welcome, but don't affect any final decisions. Negative comments must be accompanied by supporting arguments, and may also include altema tive ideas. Negativecommentswithoutsupportingargumentsareignored. Each comment is acknowledged by the TSC, though they are under no obligation to take action on the comment.



Once all comments have been received and acknowledged, any significant changes that the TSC makes to the spec as a result of the comments are sent out for comment (rather than the whole spec). This cycle continues until everyone is happy with thespecification. At that point, the document becomes a interim EIA speci-

fication that companies can be comfortable in using to put together product.

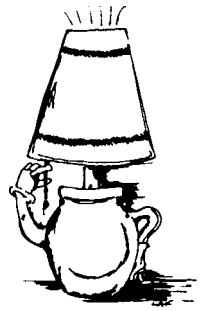
At the November committee meeting, the LWG and PLWG hammered out several last minute details and submitted the power line physical layer (PLBus), the data link layer (which is made up of the node medium access control sublayer [MAC] and the node logical link control sublayer [LLC]), the node network layer, the node application layer, and CAL to the TSC for approval. The TSC gave such approval, so the power line physical layer and all the other network layers have gone out for comment.

The current schedule calls for the initial comment period to close at the end of April, at which time the committee will take a careful look at all the comments and make any necessary changes.

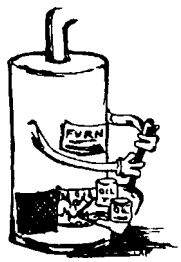
Once the CEBus spec has graduated from being a proposed spec to an interim spec, it will be known as IS60. Once adopted as an official specification, it will be EIA600.

To get your own copy of the proposed CEBus specification and have the opportunity to influence the future of homeautomation, see theinformationboxat the end of the column. EIA is encouraging engineers to scrutinize the proposed spec and make constructive comments. I'm sure they'd love to hear from you.

MORE CEBUS HARDWARE



In issue #10 of CIRCUIT CELLAR INK, I described in my CEBus overview article two hardware implementations of CEBus that are available for engineersinterested in **embedding CEBus** in an upcoming product. Texas Instruments has developed a pair of chips that make implementing a CEBus interface much easier and have a new-generation evaluation board available that uses those chips. The SEM300 (I talked about the SEM200 in the overview article) uses TI's new SN75C080 CEBus controller chip and the SN75081 powerline modem chip to implement a complete PLBus CEBus interface that can be attached to switches, lights, or a processor for smarter control. They also have software available that allowsmonitoringof network traffic, and sending and receiving of packets. Contact TI for more information.



OVERSEAS

In developments overseas, the European community is about to officially announce D²B to the world. D²B is an international standard for control and communication for audio/video devices. Expect to see stereos and VCRs starting to show up in the trade shows in the months ahead sporting D²B interfaces.

WRAP UP

I also just got home from Las Vegas where I attended the Winter Consumer Electronics Show (WCES). Though I didn't see as much as I'd hoped aimed at the home control market, there was enough to be interesting. In the coming months, I'll be going into more detail about what I saw and where the market seems to be headed. And, of course, as soon as we get our hands on some hardware, especially actual chips, we'll be putting it through its paces and showing it to you in these pages. Stay tuned...+

Sources

EIA CEBus Proposed Specification ($35)
EIA Standards Sales Dept.
1722 Eye St. NW
Washington, DC 20006

SEM300
Texas Instruments, Inc.
P.O. Box 809066
Dallas, TX 753804957

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IRS

228 Very Useful
229 Moderately Useful
230 Not Useful