RODE – Recloser Interface Discussion Group Meeting Minutes

April 12, 2022 – Orlando, Florida

Chair: Mark Feltis

Meeting Minutes

1. Call to Order — Mark Feltis

Order was called at 8:03 am

2. Patent and Copyright concerns reminder — Mark Feltis

Reviewed IEEE patent and copyright slides. No response by any attendees.

3. Introduction of Members and Guests — Mark Feltis

Introductions were made

4. Attendance — Mark Feltis

Routed an attendance sheet; 15 attendees total (See Annex 1)

5. Approval of Agenda — Mark Feltis

The agenda for this meeting was reviewed. No corrections/additions were given.

6. Review Minutes — Mark Feltis

Minutes of past Discussion Group meeting (October 12, 2021; online) were reviewed. No corrections/additions were given.
Motion to accept: Harry Hirz; Second: Pete Meyer

7. Action Items from last meeting

The **first** action item from the last meeting of this group on October 12, 2021 (online) was to review the newly written "Report for IEEE Discussion Group on Automatic Circuit Recloser Interfaces" (file: Recloser_Interface_Discussion_ Group_Report_Mar_29_2022.pdf) that covers the six meetings that the group has had, since Fall 2017. The report contains the following:

- scope of the discussion group
- known recloser interfaces in North America
- consensus on definition of 69a and 69b contacts ("69" being the designated number for a permissive control device). Such contacts are controlled by the almost universally available manual operating lever ("yellow operating handle") on the recloser.
- pros and cons of going to a common recloser interface and other interface considerations (like extra pins being used or not in the future)

Ensuing discussion after reviewing the report (various random thoughts given):

There has been a lot of investment in existing reclosers and corresponding controls. Most of the R&D is going into the control, with distribution automation (DA) and fault location, isolation, and service restoration (FLISR) schemes.

A "thumbs up" for a standard interface … if I have a recloser and corresponding control from a certain manufacturer and the control later goes bad (and manufacturer is no longer around or no longer producing a compatible control), where do I get another control?

There are other existing standards for interchangeability of other power system equipment:

- IEEE Std 386-2016 (for separable connectors)
- IEC 60076-21/IEEE Std C57.15-2017 (for step-voltage regulators), clause 11 Universal interface

There is starting to be some movement with the universal interface in IEEE Std C57.15-2017 (e.g., a Brazilian voltage regulator company called ITB uses this universal interface in at least one of their voltage regulator offerings).

A "thumbs down" for extra undefined pins on an interface … ANSI C136 standards address streetlights. 10 V dimming controls for such have extra undefined pins and these pins have never been used.

Question asked: "In existing, available recloser and control installations, is anyone aware of a communications fiber running between the recloser tank to the control?" No one was aware of such being presently available. Mention made that fiber connectors can have robustness problems.

The **second** action item was to think of the various topics/challenges that should be covered in a technical paper on the consideration of a standard recloser interface ... looking more in depth into the various challenges.

For the Fall 2022 meeting:

- Mark Feltis will investigate IEC 61850-9-2, which is a substation standard that involves merging units (MU's) with sampled value (SV) output … see if it has applicability outside the substation fence. This is in the realm of "going beyond pins and metal."
- Travis Johnson will investigate connectors, their strengths and weaknesses, etc.
- Other areas to look into would be such things as signal integrity/interference. **If anyone else would like to provide input to any of these** (or other pertinent areas for the consideration of a standard recloser interface), **they are invited to do so**.

Provide feedback, corrections/additions to these minutes to Mark Feltis (mark_feltis@selinc.com).

Meeting was adjourned at 9:43 am

9. Next Meeting

Fall 2022: Burlington, Vermont

Annex 1

Attendance			
First Name	**Last Name**	**Representing**	**April 12, 2022**
Mark	Feltis	Schweitzer Engineering Labs	x
Kate	Cummings	G&W Electric	x
Pete	Meyer	S&C Electric	x
Brendan	Kirkpatrick	Southern California Edison (SCE)	
Harry	Hirz	G&W Electric	x
Chris	Ambrose	Federal Pacific	x
Ian	Rokser	Eaton	x
Travis	Johnson	Xcel Energy	x
Paul	Found	BC Hydro	
Karla	Trost	G&W Electric	
Srikant	Venkatesh	Schweitzer Engineering Labs	
Frank	DeCesaro	DeCesaro Consulting Services, LLC	x
John	Kapitula	ABB	x
Bob	Behl	ABB	
Christopher	Hastreiter	Eaton	x
Doug	Edwards	Siemens	
Antone	Bonner	consultant	
Charles	Corley	Eaton	
Abraham	Martinez	ABB	
Caryn	Riley	Georgia Tech/NEETRAC	
Ben	Isaak	American Electric Power (AEP)	
Ngoc	Bui	San Diego Gas & Electric (SDG&E)	
Xin	Zhou	Eaton	
Oswaldo	Kaschny	Siemens	
John	Webb	ABB	
Peter	Agliata	S&C Electric	
Dan	Busilan	Dominion Energy	
Francois	Soulard	Hydro-Quebec (HQ)	
Charles	Corley	Eaton	
Michael	Culhane	Eaton	
Roberto	Olivares	Siemens	x
Ryan	Kowdley	Pacific Gas & Electric (PG&E)	
Juliene	Britt	Hubbell Power Systems	x
Chris	Slattery	FirstEnergy	
Nenad	Uzelac	G&W Electric	
Andrew	Swisher	Southern California Edison (SCE)	
Noel	Smith	FortisAlberta	
Russell	Boyce	Eaton	
Ihab	Ibrahim	Pacific Gas & Electric (PG&E)	

Reshma	Ramdoss	Southern California Edison (SCE)	
Edwin	Almeida	Southern California Edison (SCE)	
Donnie	Swing	Powell Industries	
Oswaldo	Kaschny	Siemens	x
Jeff	Gieger	ABB	x
Raj	Nayar	Siemens	x