Software Systems Integration LIFECYCLE (DEFINITION)

(YEAR 2000+) End-User Manual Developer (SIGRITY Inc.)

As a "co-worker", within a CALIFORNIA start-up company, I transformed the existing product documentation, from engineering notes (based in Microsoft-WORD©) into a comprehensive set of End-User documents (based in ADOBE-FrameMaker©). My accomplishments were based on many hours of "hands ON" use of the SIGRITY Engineering Design Automation (EDA) software and interviews with the subject matter experts (SMEs). ALL of the SMEs were PhDs from Mexico, China, India and Pakistan – and, USA English was a second language.

I came to know and respect my co-workers – as (I believe) they did me – during my tenure. I could not have succeeded, at what I was task to do – without their significant help and suggestions. They were (to me) Dr. Fang, Raymond, Bing, Jaime, Winston, Raymond, Teo, Ji, Jin, Ming Jing, Jing Ping, Dr. Sun, Parminder, Raj and others.

I developed and clarified explanations and examples for the software product and created the (SPEED 2000©) EndUsers Manual. The Founder of the company, Dr. Jaiyuan Fang – who is also "the father of American Signal Integrity" - stated, my work "...over-all improved the delivered product..." As an integrated member of the Engineering Team, I played a very active role in the test and verification process for each EDA tool feature. I reported "bugs" that I encountered in the developing software and made suggestions regarding how the User Interface (UI) might be improved. The fact that I helped create the Fishbane Physics **TEXTBOOK** – and, was NOT an Electrical Engineer

– was [actually] very helpful – because, I made no assumptions about what the "Speed2000" End User *should* know. Sigrity's Internet-Based Customer Support function relied upon my work.

That is, my End-User Manual was used to respond to emailed questions which could be answered with an appropriate citation to "where" in the documentation - any question forwarded - was answered in detail. The vast majority of questions (encountered by the Technical Support function) could be answered in this manner. I monitored the Customer Support function daily for insight and inspiration - for ways to improve the documentation. I also produced an extensive and hyperlinked documentation INDEX to make all of the product information content "drillable", expandable and available. And finally, I maintained the SIGRITY company website and participated (as an editor) in the marketing efforts. Dr. Fang (the owner) sold the SIGRITY company software, for $80+ Million dollars, to the CADENCE Company – in 2012. [Extensive published NEWS reports.]

(1999-2000) Manager Technical Publications/Sr. Technical Writer

ICRAS - handheld computers, California (startup company). I worked with Engineering, Marketing, Field Service, Product Management, Support, and other groups to plan, produce, design and deliver End User documentation and Marketing materials. My production schedule paralleled product development.

 (1996+) (SICOM - ASIC development –CDMA) and other wireless communications technologies. (Scottsdale, Arizona – startup company) I worked with Sicom's "Principal Investigator" - also Engineering, Marketing, Field Service, Product Management, Support, and other

groups - to plan, produce, design and deliver End-User documentation. At all times I adhered to development schedules that paralleled product development. The company's initial ASIC semiconductor chip product – suffered an ASIC "hot cook" incident – and, much of the staff was let go – including me. However, the company survives – even today – and, has won many awards for their technology.

(1987-1996) (Hans & Cassady, Inc. – Westerville, Ohio)

Specializing in Digital College-level Textbook Graphics, my "woman-owned" business provided college-level textbook development services to publishers across America: including, Brown Publishing, Prentice Hall, McGraw-Hill, Macmillan... We worked with the client's editors and production staff to conceptualize and design digital graphics that complemented and clarified college-level textbook content. My company grew from one Apple-Macintosh© computer (in the spare bedroom of a suburban home) to a Bank ONE ™ backed company (housed in our own USASBA design/build 8,000 square foot "smart" building) ~ which employed 10 people. See the Hans & CASSADY Office Building - 5761 Chandler Ct.- Westerville, Ohio. I managed and oversaw all aspects of the day-to-day running of the company, including: HR, project pursuit and management, Sales, Marketing, Finance... My husband (Hans Neuhart) was my full partner (in all aspects) and lead Medical and Scientific digital illustrator.

Hans > (see http://www.eig.net) :: https://www.sciencevectorart.com/

(1986+)Programmer/Information Systems Analyst, (Battelle Research – KING AVE. & MREF :West Jefferson, Ohio) I Supported the DOE (Battelle) Scientists that were collecting data, from across the

United States, in preparation to recommend the best location to store nuclear waste - from Weapons and Energy manufacturers. This was SECRET CLASSIFIED WORK. I designed and implemented a document configuration management system protocol which enabled project managers to be assured that geographically scattered scientists were archiving and securing their daily work-products (reports and data). Also, under the auspices of Battelle, and at the direction of the US ARMY, I was task to find a solution that would enable the ARMY personnel to remotely monitor the overall management of a specially designed Medical Research Facility [MREF] (located in West Jefferson, Ohio). The ARMY desired to have a level of transparency and reporting, related to the day-to-day usage of this facility, such that they could easily understand its utilization and capacity and suggest scheduling alternatives (via changes to Atropine research protocols, etc.) My initial review indicated that no off-the-shelf "scheduling system" would provide the capabilities cited as required by the military ~ unless a substantial investment was made to modify the existing 3rd party software. I alternatively proposed that Battelle scientists and programmers should create this unique form of software (which I titled a Facility Scheduling Program). My proposal was accepted and I was internally funded (by Battelle), to capture detailed design requirements, from the ARMY personnel, for the MREF Scheduling Program. I used a combination of interviews and proto-type Graphical User Interfaces (which I created and coded) to engender discussion and comment. My detailed written requirements and the proto-type Graphical User Interface (GUI)were used as the basis of a US ARMY "build-to" specification document. (USA Military Specifications)

(1985+) Technical Writer/Software Analyst & Programmer (General Electric - Simulations Systems) From the GE main simulation systems offices (in Daytona Beach, Florida), I was task to "support GE engineering personnel" as they attempted to "productize" a limited budget (aka "skunk-works") entity known as a Video-Disc-based -Touch-Screen Training System. My work involved learning how to Use this "system", which was evolving daily (that is, the system did not – in fact – exist) and the subsequent "hands-on" support of "trainers" (e.g. persons remotely located – in Texas) that were attempting to develop classroom exercises for USA military pilots in training. I traveled extensively in my duties ~ ranging weekly from Dallas, TX, to Pittsfield, MA, to Daytona Beach, FL. This project was cancelled - by the USA government – RE: Congress funding…; Subsequently, I joined a GE "engineering team" that provided Command and Control software for the DDG-51 class warships. And, because I had both a documentation and programming background, I was task to devise a means to ensure that each military software requirement, stated in the Project Requirements Document (per Mil-Spec #1069), was implemented in the proposed deliverable program work-products (most specifically, the software source code). I proposed the creation of an "automated" Requirements Traceability Matrix capability **[NOTE: this was before the Internet was invented. Thus, the now common idea of tags and "hyper-linking" did not exist yet].** That is, I suggested that "special tags" should be placed into the software code comments, such that these identifiers could be retrieved (with surrounding data) to cite, *where* (in the software code) for Example – military requirement xyz-223678 was met. Specifically, the deliverable

software program's code listings were submitted (as text-files) to an alpha-numeric "parsing engine" that I designed and coded. The output (report) was a matrix listing document that reported the project requirements (xyz-223678 ...) and where (in the source code's segments, lines, sub-routines, etc.) each military software requirement was addressed. I also wrote End-User documentation for the developing software.

 (1982-1985)Software Technical Writer and Engineering & Manufacturing Liaison, (NCR Corporation - Retail Terminal Systems) As a member of the Retail Terminal Systems BASIC (RTSB) API documentation team, I worked with Engineering, Marketing, Field Service, Product Management, Support, and other groups to plan, design, develop and deliver documentation which enabled retail-terminal system software engineers to program and customize NCR Computers, Retail Terminal Systems and their peripherals. I specialized in documenting NCR telecommunications protocols, such as LAN and MIRLAN (which is the Mid-Range Local Area Network protocol). As the only NCR Manufacturing Division Liaison, I supported the "Train-the-Trainer" function, based at NCR World Headquarters (in Dayton, Ohio), by supplying timely development and engineering information, reviewing prepared class-notes and demo presentations and attending to discrepancies and questions posed by the Train-the-Trainer functionaries. In fact, the NCR corporation created the first Retail Terminal Systems programmable and customizable "software platform" – and, was purchased (in 1991) by the AT&T Corporation – related to this "customizable" software platform and its intercontinental transatlantic

cable (ITC) assets.

(1980-1982) University of Wisconsin – Green Bay, WI

I created the UWGB Automated Weather Station software & systems. A recent graduate of several Computer Science programming courses - at the nearby Northeast Wisconsin Technical College (both COBOL and B-A-S-I-C), my skills and abilities were needed to complete a project (at UWGB) – that had been fully funded by the US National Science Foundation (USNSF); This was after the "initially awarded" Graduate Research Assistant was incapacitated by illness. Desirous of earning my Federal "work-study" award, and with the help of my UWGB professors, I removed the recently arrived scientific weather probes (from the boxes – in which they were shipped) and installed them to a UWGB field station – which contained an automatic weather probe "data logger" instrument. My design and implementation provided that - after initial capture (by the probe and mini-logger, the data was transferred to the UWGB main computer systems [IBM & VAX VMS] – and, reports were generated (by COBOL and BASIC software programs that I created. I also documented

(for the National Science Foundation) the UWGB Automated Weather

Station facility – the software [I developed] and its operations. I made a presentation (in follow-up) that was well-received by the United States Government - National Science Foundation inspectors. That is, Senator William Proxmire (D-WI) never negatively commented on the award, UWGB or me; and, my efforts were never found inferior – nor, was the USNSF funding "grant" ever returned.

(1969 – 1977) Wife, Mother, Waitress & Retail Terminal Systems Cashier: The Kroger Company, Holiday Inns of America and Hoffman House Restaurants [USA: Ohio, Pennsylvania, Wisconsin

 Formal EDUCATION:

B.S. (ENVIRONMENTAL SCIENCE & COMMUNICATIONS) University of Wisconsin – Green Bay [UWGB] (1982) Columbus, Ohio Public Schools (Bellows Elementary to Columbus, Ohio Central High School); also, attended Capital University Law School (Business Law, Contracts) also, continuing education at seminars and San Jose State University

 Other: Pregnant at 18. I was married and had a healthy baby (girl) when I was 19 years old. We divorced in the 1970s. I have been married to my present husband – Hans J. Neuhart – for 38+ years.

Born in 1954, I am a retired person; but, **may** consider employment – for the right reasons.

I enjoy writing & maintain a personal web site.

[END]

CONTACT SUSAN by using her "personal" web site
    [http://hansandcassady.org/   ]