

Evan Wagner
Cable TV Technician / Engineer / Project Manager / Consultant
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O B J E C T I V E

Long-term work (as contractor or employee) in an environment with constant challenges where I can learn new skills while improving and utilizing the ones I have. This can include drafting, engineering, or the building, maintaining, and implementing of utility engineering standards applications so that engineering data can be used to help the business in a multitude of ways. The latter has been especially satisfying for me in recent years and I would enjoy being involved in something along these same lines. Although I have been in the Cable TV industry my entire career, I have worked closely with other utility companies over those years and am confident that I can bring the same talents and quality of work to another utility industry such as Power, Telco, or Water.

Q U A L I F I C A T I O N S

I have 28 years of CATV experience with 17½ of those years spent in the field, 17 of which in some sort of Technical capacity. Self taught and then college trained in AutoCAD. Experience with AutoCAD versions 12 - 2002, AutoCAD Map versions 3 - 6, along with Cable Tools and Lode Data CATV design/engineering software. I am currently self-employed as a CATV System CAD Project Manager/Design/Drafting consultant for Comcast.

My 17 years of technical field experience includes 6 years as a Line/Sweep Tech, 2.5 years as a Head-End Tech, and 9 years as my system's Outside Plant Design Engineer. Many times I have engineered a plant extension, helped construct that plant extension, and then "Fired Off" (connect to existing plant) that same plant extension and insured that it was functioning properly so new customers could be activated with service. In total I now have 19 years experience as a Cable TV System Designer/Engineer and Drafter.

I have experience with both inside and outside telecommunications work. This includes Outside Splicing, Plant Trouble Shooting, AutoCAD/Mapping and Engineering, Managing an engineering/drafting staff, and Specialized Engineering Software Development Project Management. The combination of my telecommunication field experience and engineering/AutoCAD experience has made me a very good Project Manager for Cable TV Engineering Software Development over the past 8 years.

Perfect attendance is something that I have always strived for. I'm proud to say that I have 2 long periods of perfect attendance while an employee of a cable TV company. Coincidentally both of these periods were 50 months in length, Dec. 1986 to Feb. 1991, and June 1991 to August 1995, in which I never missed a day. Safety plays a large role in my ability to be available for work every day by avoiding injury and recognizing dangerous situations. This high attendance rate has carried over into the past 10 years of my self-employment.

W O R K H I S T O R Y

Owner, Designer, Drafter, Technical Design & Drafting

Consultant, Project Manager to Comcast for CAD-Engineering Software Development

Chico, Ca (530) 896-8333

March 20, 1999 to Present

Since the fall of 1999 my primary role has been consulting and acting as the Project Manager for CATV Software Development with TCI, AT&T Broadband, and now Comcast. During this time I have overseen the development, maintenance, support, and expansion of a **“Rules Based”** cable TV drafting software application known as @MApp (drafting: also considered outside plant asset documentation or modeling). I have overseen the development of multiple versions of this software, known previously as ATT_MApp and now @MApp, that adheres to Comcast’s drafting standards in an AutoCAD environment. These have included:

- a) ATT_MApp v3.1 (Drafting).
- b) @MAppDR v3.5 (Drafting).
- c) @MAppDR v3.6 (Drafting).
- d) @MAppFM v3.5 (Fiber Module, I was the 3rd & final Project Manager),
- e) @MAppRF v3.65 (CATV Engineering Module, I was the 2nd & final Project Manager).

My duties as @MApp Project Manager have included the creation and maintenance of @MApp User Manuals, Training/Lesson Plans, Administration Tools for all these applications, and the maintenance, upgrade, and/or editing of the @MApp Software applications as needed. I have trained many @MApp users across the nation for both Comcast and independent contractors, and have been the main @MApp Support individual for AT&T Broadband/Comcast nationwide since its original release in August 2000.

The @MApp applications work inside AutoCAD Map to document the assets of the Outside Plant and Fiber Inventory in a “Rules Based” manner. These programs strictly enforce defined drafting standards including Symbolology Verification, Engineering Calculations, System Connectivity, AutoCAD Layer Standardization, Linetype Verification, and System Variable format settings.

If any Comcast drafter or contractor deviates from the defined Drafting Standard with anything in the AutoCAD drawings then the program will either move the object to it’s correct, defined location/format or it will **“Fail”** the drawing during its Quality Assurance (QA) process. All drawings must pass QA at a defined level for Comcast to accept them as delivered. Comcast performs it’s own Batch QA to verify the contractors submitted deliverables. If the drawings don’t pass the Comcast QA check, then the contractor made errors, the submitted drawings don’t meet Comcast’s drafting standards, and Comcast returns the drawing back to the contractor to fix the errors. The software lists the errors for the user and in some cases will zoom the user directly to the error.

Additionally, since 2003 I have been the Webmaster for Comcast on both the @MApp Support Site (<http://www.attmapp.net/>) and the Broadband GIS Leadership Forum (<http://www.broadbandgis.com/>), the latter of which I was a member of the Board of Directors before the recent reorganization efforts.

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Published articles & success stories of the @MApp applications/benefits can be viewed at:
<http://www.techdd.com/PubsMApp/Pub@MApp.htm>

- 1) CED Magazine, Dec. 2001 - **Painting the Big Picture**,
- 2) GeoSpatial, March 2002 - **AT&T Ties IT Together**,
- 3) Autodesk Feb 2007 - **GIS Cuts Costs and Generates \$10 Million in New Annual Revenue**,
- 4) Communication Technology - Sept. 2007 - **Geographical Information Systems - A Call for an HFC Standard**.

I initially was tasked with the creation, maintain, documentation, and inventory of all the current Comcast AutoCAD symbols (blocks) and standards, for TCI, AT&T Broadband, and now Comcast's current needs. To date I maintain an inventory of 397 symbols (blocks) and 189 AutoCAD Layers. I have overseen the development of these software programs and rules with the aid of a Comcast staff that is located in the Seattle, Washington area and an AutoCAD Development company located in Canada.

This strict drawing standards enforcement has allowed Comcast to associate customer addresses to Service Taps, Amplifiers, Power Supplies, Optical Nodes, Optical Busses, Hubs, and the like. All this is extremely valuable information for provisioning of High Speed Data, Telephony, and Video on Demand services. This data is extracted out of the drawings and pushed into customer service/billing system, which the Customer Service Representatives interact with to place orders or add services.

Once Comcast had all their system maps drafted to a known standard I was involved as a consultant in a very successful project to convert and house all of the Comcast Washington Outside Plant & Fiber AutoCAD drawings in an Oracle database. My knowledge and understanding of the Comcast Mapping Application (@MApp) and its requirements was called upon to define exactly what each type of drawing properties the user would require from the Oracle database to render the drawings requested for use in AutoCAD Map and @MApp. All edits are then saved back to the database where these same rendering rules are used to except data back in.

I recently was involved as a consultant in the development of an application known as Network Health (NetHealth or NHx) by which Comcast can render their system outside plant maps in a Web based format from the Oracle database with intelligence associated to the objects. Customer Information, Equipment Location, and Outage tracking with "**Probable Point of Failure**" tracing can be accessed by CSR's, Field Operation Supervisors, Call Centers, Dispatchers, and other field personnel that have access to the company wide Intranet. NetHealth is currently being implemented across the entire Comcast Washington region, with the plan to implement it across the entire Western Division in 2008.

Comcast has also used me to create, research, and document may different engineering needs and/or standards over the past years. This has included subjects such as Fiber Deep Network Architecture, The impact or advantages of using Equalized (EQ) & higher value taps (greater than 23) in new network architectures, Digital Channel Drop and Insertion, and Service Drop Specifications for new network architectures.

Although I have been a self-employed contractor/consultant with AT&T Broadband and Comcast the past 9 years, both companies requested that I represent myself to other MSO's and venders as a company employee. The companies provided me with official company email accounts and business cards to help

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my representation of them and their interests. Below are scanned copies of those company issued business cards.



My combination of 17½ years of Cable TV field experience, 19 years of Cable TV System Design/Engineering experience, and 11 years of AutoCAD experience is what has made me the perfect individual for overseeing the development of these @MApp Telecommunication software applications as well as company wide engineering and drafting standards. I was self-taught in AutoCAD and making a living with it before I ever took my first AutoCAD college course. Those courses proved to make me a faster and better AutoCAD user. I am currently considered an AutoCAD Power User with a very good understanding of its capabilities in many circles.

W O R K H I S T O R Y C O N ' T .

***Supervisor of MDU System Design and CAD,
TCI Network Engineering & Construction,***

Kent, Washington (425) 656-4931

September 1, 1998 to March 19, 1999

My primary job duties began as overseeing the engineering & drafting of all the Multiple Dwelling Units in the Puget Sound 750/860Mhz upgrade. The position evolved into receiving, overseeing, and keeping track/managing all the delivered AutoCAD maps from our contract design houses (file management) along with the Outside Plant System Design/Engineering files that we received from those same contract design houses for the Puget Sound 750/860Mhz upgrade.

I had 2 AutoCAD drafters/programmers and 3 designer/drafters under my supervision and was in the process of recruiting 2 more of each when I left this position. Occasionally I would redesign/re-engineer entire Nodes myself for various reasons as well as prepare hard copy presentations to show the type of problems that my department was finding and/or the status of entire build areas in the process of being upgraded. I was responsible for all the computers and software that my department used to carry out these tasks.

Owner, Designer, Drafter

Technical Design & Drafting, Chico, CA.,

Chico, Ca (530) 893-3124

July 1, 1997 to August 31, 1998

Performed all aspects of Cable TV System Design/Engineering/Mapping. This included system walkout, AutoCAD Drafting, and Electronic Engineering of the Cable TV System. I had completely mapped and designed Burney, California (Century Communications-38 miles of plant) and was in the same process with Susanville, California (Century Communications-approx. 45 of 80 miles completed) when I took a position with TCI Washington. At that time I was serving out their completed system maps in a "Protected Web Based" format that anybody nationwide at Century Communications were able to access, view, and print.

Sweep/Head-End Technician,

Chambers Cable TV, Chico, California

March 1, 1982 to March 3, 1997

My primary duties were to sweep and maintain the trunk & distribution lines throughout the system and keep them in proper operating condition. As the past Head-End Technician, I was also responsible to back up and help the new Head-End Technician in whatever means possible. If there was a problem at the Head-End it was as much my responsibility to respond to it, as it was the new Head-End Technicians responsibility. I was also responsible for the System Design of all new sub-divisions/plant extensions and any rebuilds that were needed during my last 9 years of employment with Chambers Cable TV.

Sweep Technician,

United Cable TV of the Bay Area serving Hayward & San Leandro, California

Oct. 5, 1979 to Feb. 26, 1982

After 6 months as an Installer I was promoted to Service Technician. 1 year later I became a Quality Control Technician. This was a Line/Sweep technician in which I swept all feeder lines and line extenders. After 6 months as a Q.C. technician I left to take a job in Chico, California.

E D U C A T I O N

Pierce Community College, Puyallup, Washington

ENGR 108, Advanced AutoCAD, Dec 1998,
Grade "A"

Butte College, Oroville, California

DFT 32, Intermediate AutoCAD, May 1998,
Grade "A"

Butte College, Oroville, California

DFT 12, Beginning AutoCAD, Dec. 1997,
Grade "B"

(Did "A" work, but lost a grade for attendance.
The attendance problem being I was out of
town operating my business.)

Butte College, Oroville, California

CSCI 60, Microcomputer Applications: May
1997, Grade "A"

N.C.T.I., National Cable Training Institute

Advanced Technician course: Completed
March 16, 1993.

N.C.T.I., National Cable Training Institute

System Technician course: Completed June 4,
1992.

Livermore High School, Livermore, California

Graduated June 1978

Majors: Mathematics, Drafting, Surveying,
and Electronics.

Sports: Lettered in soccer. Also played
baseball and football.

R E F E R E N C E S

Gary Harmon

Cable TV Manager,
Chico, CA 95926
Home: (530) 894-6839
(Former Supervisor)

Larry Thurmond

Manager – Regional Construction
Comcast
4020 Auburn Way N.
Auburn, WA 98002
Office: 253-288-7484
(Former Co-Worker)

Clyde Sies

Technical Representative,
Motorola
Chico, CA 95926
Home: (530) 343-5157
(Former Supervisor)

Curtis Hannah

CAD / GIS Manager
Comcast
410 Valley Ave NW, Suite 12
Puyallup, WA 98371
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