

Accugraph

This video gives a brief overview of the following Telecommunication products provided by Accugraph:

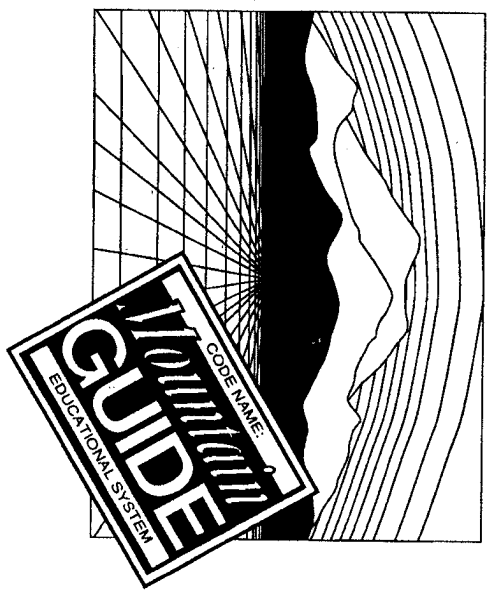
- Show Bay Show Shelf
- Central Office Telephony Shell (COTS)
- Outside Plant Cable Management

18 Minutes
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Telecom Products Overview

18 minutes

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Hi, my name is Monica Duncan and I'm with Accugraph corporation. I'd like to welcome you to this telecommunications presentation.

Before we get started, let me tell you a little bit about Accugraph Corporation. Accugraph has been in business for 22 years and has over 9,000 installations worldwide, providing premier solutions in the areas of: architecture, engineering, configuration management, facility management and telecommunications, which is what we will cover in this demonstration.

Some of the applications that we support in the communications environment include:

- Central Office Engineering
- Land and Buildings Facility Management
- Circuit Information
- Scanned maps including TIFF and GIFF file formats
- Outside Plant Trunking
- and Specialized services including:
 - Call before you dig
 - Traffic Evaluation
 - and the Network Analyst

What we're going to be focusing on today is the Accugraph central office equipment engineering system. The Accugraph COE system is used for inside plant engineering functions with additional outside plant services. This system can:

- Automate all operations from design to the generation of a bill of materials
- Link embedded and external relational database management systems
- and enhance your ability to configure, track and generate installation packages and notes for central office equipment.

Accugraph's system adheres to industry standards such as X-windows, a motif style interface, and open architecture. PCs can be linked to the system through networks providing client server environments. In addition, a fully customizable user interface is provided.

This presentation is going to review the following telecommunication solutions that Accugraph provides:

- Show Bay Show Shelf
- Central Office Telephony Shell
- and Outside Plant Cable Management

Each of these applications are based on having integrated access to an external relational database management system where enterprise wide data is stored and can be accessed not only from our applications - but also from other strategic business systems that are critical to the operation of the typical communications company or equipment provider.

The industry standard databases that we support include:

- Oracle
- Informix
- Ingres
- and Sybase

These databases run in the background storing and maintaining all of the attribute data that we will be demonstrating today.

Show Bay Show Shelf

Let's begin with Show Bay show shelf. With this application paper office drawings and wiring lists become a thing of the past. In particular, show bay show shelf eliminates the need of maintaining hundreds and thousands of drawings and as built by providing real time on-line graphical retrieval and updating of your central office attribute data.

This schematic drawing shows a simple telephone network with central offices and inter-office trunk cables. To view a specific central office, just click on the office and the floor plan drawing of the selected central office is brought to the screen. You may zoom into any section of the office using simple point and click commands.

You can also view cable racks, the contents of a given bay, and measure distances using the same method. Here you see a floor plan layout with a number of bays in it.

The contents of a given bay can be viewed by clicking on the bay, the database queries are initiated into the relational database management system and a real time front elevation view of the bay is displayed.

All of the information you see on the screen is stored in an external relational database and is formatted into this front elevation view in real time.

The contents function allows us to examine what is in a given shelf. The circuit cards within the shelf, along with their status is displayed.

Fuse assignments for this fuse panel may be accessed by using the assignments function. The external database is queried, the fuse assignments along with real time totals are displayed.

A shelf can be moved to a new location simply by clicking it, selecting on the new location and accepting that location. The shelf and all it's associated circuit cards are moved down to the new location. To verify this we select our contents function and see that the circuit cards were indeed moved with it.

You can see that SBSS provides a very efficient way to maintain and manage your corporate inventory data in a graphical format that is much more informative for the user.

COTS

Now let's discuss Accugraph's central office telephony shell, otherwise known as COTS. COTS is a powerful equipment provisioning and configuration tool that automatically generates:

- Document Indexes
- Bill of Materials
- Cable Running Lists
- Strapping Options
- Narratives Installation Sections
- and maintenance of Installation Drawings

In addition, COTS also provides:

- Purchase order requisitions
- Property record updates
- Budget Tracking

In this way enforcement of standardization and complete project management is maintained. Based on my show bay show shelf evaluation I will add a new relay rack. We will accomplish this task by using the COTS application.

First, we select the central office and floor plan from our overall schematic diagram where the work is to take place. Let's zoom into the location where an additional bay with some multiplexing equipment is required.

The next step is to open a new work order. I present the system with a work order number, provide some default work order information, a critical date and a new work order is established. I can enter the necessary material required to complete this work order, whether they are individual piece parts or complete units.

One of the strengths of the product is a series of questions and answers that establish the equipment required to complete the work order. These question and answer sets are organized by discipline with one question automatically leading to another. I have the choice of ordering a fully equipped piece of equipment, spares or individual items. Let's order one that is fully equipped.

Each of my options are based on selected vendors and equipment normally used within my company. In this way standardization is enforced for maximum efficiency. Textual information about the specific rack is also provided.

The question and answer session generates the appropriate work orders, configuration diagrams, cable running lists and installation specifications. The rack is then placed into my bill of materials.

At this point I'm telling it my account code and identifying the location of the rack on my floor plan. The system now prompts if I require end guards. Let's select 'yes'. The rack is now placed in the bill of materials.

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Now let's order a shelf. I want it in a specific mounting location. The system is going to go out and get all of the equipment for the shelf, the back plane, the power supplies, the low speed cards, the high speed cards, the alarm interface cards and place them in the bill of materials.

The system then goes out and retrieves all of the cables and connectors required for that given piece of equipment and places them in the bill of materials as well.

After we've finished ordering we can do a quick evaluation of what material the simple question and answer sets have provided for us. This comprehensive list shows the individual equipment rack down to the circuit cards including cables and connectors.

As you can see, from Accugraph's central office telephony shell, purchase order requisitions, property record updates, budget tracking and project management are fully automated. If this is where we stopped, we'd have a nice configuration tool. But Accugraph provides a complete automation tool which offers a processing function that goes out and collects what we call dependencies. Based on a bill of material order, if a new relay rack is ordered, the system knows what additional materials are necessary without bogging down the engineer with standard details.

This is done with the process spec function. The system provides: cable runs, strapping options, installation notes, maintenance and safety notes. Together, these elements comprise the specification package. All of this information can be edited, including the addition and deletion of text. Most importantly, we can view information that has graphic attribute data associated with it.

Any bill of material item that has a graphic entity can be placed on a drawing through what we call a drive all drawings function.

We're going to place this mux bay on our drawing. Let's identify it as TCR101. The bay symbol can be dynamically rotated and positioned anywhere on your floor plan, in this case it's the start of a new line up. This information can also be output to a printer, or ASCII files for electronic mail transfer. I can also export this data via such mechanisms as an SNA network or other enterprise wide data system.

At this point, let's return to the graphical view of the central office and evaluate what has been placed. By doing a show bay show shelf, the database is queried for the equipment that was ordered and generates the rack profile. It also shows the shelf that was ordered. It's status is engineered, not yet installed.

We can evaluate the contents of the shelf, much like we did with the equipment that was in place and see all of the individual modules and units that were placed by the work order. The central office telephony shell minimizes the processes that typically take place when a manual work order is engineered. Any engineer can now come back and view the work of colleagues in real time and be assured that he or she is viewing the most current information available.

Outside Plant Cable Management

Outside Plant Cable Management is accomplished with Accugraph's inter-office trunking application.

This diagram provides an overall view of the cable routes and central offices in this area.

Using the outside plant route module, trunk routes that connect each of these central offices can be evaluated. By clicking on the cable route, the database is queried, and individual fiber or pair assignments are displayed based on the given cable cross section.

We can look at any circuit assignments that are provided on this cable. The high speed circuit assignments in this case is a fiber optic system, with DS3 inputs. We can navigate and see the low speed inputs to these circuit assignments on a logical basis.

The T1 inputs that feed these DS3's are also displayed. In this fashion we can step down through the multiplexing hierarchy and obtain the circuit assignment from the physical layout of the network.

From this cable cross section we can also examine what customers are provided service on a given cable. We can access a customer list of all priority one customers, segmented by customer priority. This can be used to identify what customers would be affected by loss of service or a potential outage on this cable. You can also link from the customers into a customer database to see what services are actually provided on a given cable.

We can get a summary of cable assignments, simply by clicking on a cable summary function, clicking on a cable, and the database is queried and displays which individual cables, fibers or pairs within the cable cross section are in service. It also gives us a percentage total that we can use to feed fill box analysis routines and accomplish other similar types of planning functions.

A complementary product that Accugraph provides is "Call before you dig." This tool gives the central operator the ability to identify specific cable locations based on a mile marker, street address, or other unique information from a particular region.

An on-line drawing composite of all cable layouts can be accessed with the click of a button based on information provided by any caller in the field. In this way on-line, real time information pertaining to the exact location of the physical plant can be accessed.

Conclusion

By being able to graphically navigate within a central office and outside plant network we have the ability to maintain one central data repository in the relational database for all corporate data sys-

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tems.

This gives us a way to navigate both inside the central office and outside physical plant with respect to circuit assignment and customer information, all using a graphical point and click method.

Accugraph Corporation provides a suite of powerful communication products designed to serve your automation needs both now and in the future. In addition, we offer a wide variety of services which allow your organization to leverage our expertise in the area of implementation.

I'd like to thank you for joining me today. If you'd like to see how Accugraph's communication products can fit into your environment, please contact your local sales representative. Thank you.