

1                   **SURREBUTTAL TESTIMONY OF MR. JAMES W. STEGEMAN**  
2                   **ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.**  
3                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                   **DOCKET NO. 990649A-TP**  
5                   **DECEMBER 26, 2001**

6  
7  
8  
9   **Q.   PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.**

10  
11   A.   My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am  
12        testifying on behalf of BellSouth Telecommunications ("BellSouth").

13  
14   **Q.   ARE YOU THE SAME JAMES STEGEMAN WHO PREVIOUSLY FILED**  
15        **TESTIMONY IN THIS PROCEEDING?**

16  
17   A.   Yes, I am.

18  
19   **Q.   WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

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21   A.   I address BSTLM issues raised in the rebuttal testimony of John C. Donovan and Brian F.  
22        Pitkin filed on behalf of AT&T Communications of the Southern States, Inc. ("AT&T")  
23        and MCI WorldCom, Inc. ("MCI") on December 10, 2001.

1 Q. ON PAGES 5 AND 6 OF MR. PITKIN'S REBUTTAL TESTIMONY, HE STATES  
2 THAT THERE WAS AN ERROR INVOLVING THE CALCULATION OF EF&I  
3 COSTS FOR FIBER CABLE. HAVE YOU BEEN ABLE TO VERIFY THIS?  
4

5 A. Yes. First, let me take this chance to thank Mr. Pitkin for finding these formula errors.  
6 While we made every effort to guarantee that the model as filed would be error free, there  
7 is always a chance that in a complex model like the BSTLM an error will make it into the  
8 filed version. I encourage all users of the model to point out any potential flaws so that  
9 the model can be improved over time. In regard to these formula errors, it is important to  
10 note that the impact on the filed BellSouth results is insignificant.  
11

12 As for the specific Fiber Cable EF&I error, I was able to verify that Cells "AD5" through  
13 "AD7" of the "3-Media" sheet in the "InvestLogic.XLS" file of the BSTLM were in  
14 error. Instead of pointing to the fiber placing and splicing costs, the logic was pointing to  
15 the copper placing and splicing costs. However, since Mr. Pitkin did not provide his  
16 modified version of the InvestLogic.xls or the specific Cell code changes, I cannot verify  
17 whether Mr. Pitkin provided the appropriate fix.  
18

19 The filed version of Cells "AD5" through "AD7" read as follows (errors are bolded):

20 **Cell Logic Statement**

21 "AD5"  $N5 * \text{UndergroundFOLoading} + (N5 + N5 * \text{UndergroundFOLoading} +$   
22  $\text{SUM}(\text{AA2:AC2})) * \text{UndergroundFOEngLoad}$

23 "AD6"  $N6 * \text{UndergroundFOLoading} + (N6 + N6 * \text{UndergroundFOLoading} +$   
24  $\text{SUM}(\text{AA2:AC2})) * \text{UndergroundFOEngLoad}$

25 "AD7"  $N7 * \text{UndergroundFOLoading} + (N7 + N7 * \text{UndergroundFOLoading} +$

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SUM(AA2:AC2))\*UndergroundFOEngLoad

The corrected version of Cells “AD5” through “AD7” should read as follows (corrections are bolded and italicized):

**Cell Logic Statement**

“AD5”  $N5 * \text{UndergroundFOLoading} + (N5 + N5 * \text{UndergroundFOLoading} + \text{SUM}(AA5:AC5)) * \text{UndergroundFOEngLoad}$

“AD6”  $N6 * \text{UndergroundFOLoading} + (N6 + N6 * \text{UndergroundFOLoading} + \text{SUM}(AA6:AC6)) * \text{UndergroundFOEngLoad}$

“AD7”  $N7 * \text{UndergroundFOLoading} + (N7 + N7 * \text{UndergroundFOLoading} + \text{SUM}(AA7:AC7)) * \text{UndergroundFOEngLoad}$

**Q. IN REFERENCE TO THIS FIBER EFI REFERENCE ISSUE, DID THE ERROR HAVE A SIGNIFICANT IMPACT ON THE FILED BELLSOUTH RESULTS?**

A. No. If we consider the results for an A.1.1 loop as indicative of the error’s impact, the total investment resulting from the BSTLM changes by less than 50 cents for a service that has a total BSTLM investment of almost \$1000. Thus, while an error was made in the investment logic of BSTLM, the impact of the error is negligible.

**Q. ON PAGE 6 OF MR. PITKIN’S REBUTTAL TESTIMONY, HE STATES THAT THERE WAS AN ERROR REGARDING THE STUB CABLE INVESTMENT. HAVE YOU BEEN ABLE TO VERIFY THIS?**

1 A. No. This is not an error. Rather, it is a difference of opinion as to whether a stub cable is  
2 required for underground placement. As I understand the modular splicing rules and as  
3 BSTLM is subsequently coded, a stub and an additional splice are required to facilitate  
4 CSA, DA, and AA administration.

5

6 **Q. ON PAGE 7 OF MR. PITKIN’S REBUTTAL TESTIMONY, HE STATES THAT**  
7 **THERE WAS AN ERROR INVOLVING THE STRUCTURE SHARING**  
8 **CALCULATION. HAVE YOU BEEN ABLE TO VERIFY THIS?**

9

10 A. Yes. Mr. Pitkin is correct in stating that Cells “I34” through “I41” in the  
11 “StructureConduit Interim Calc” from the “InvestLogic.xls” file point to urban sharing  
12 amounts instead of suburban sharing amounts and that Cells “I47” through “I54” point to  
13 urban sharing amounts instead of rural sharing amounts. Mr. Pitkin is also correct in  
14 stating that Cells “I22” through “I33” in the “StructureBuried Interim Calc” sheet from  
15 the “InvestLogic.xls” file point to urban sharing amounts instead of suburban sharing  
16 amounts and that Cells “I39” through “I50” point to urban sharing amounts instead of  
17 rural sharing amounts. However, since Mr. Pitkin did not provide his modified version  
18 of the InvestLogic.xls or the specific Cell code changes, I cannot verify whether Mr.  
19 Pitkin provided the appropriate fix.

20

21 The referred to Cells of the filed version of the “InvestLogic.xls” file read as follows  
22 (errors are bolded):

23

24

25

<b><u>Sheet</u></b>	<b><u>Cell</u></b>	<b><u>Logic Statement</u></b>
StructureConduit Interim Calc	“I34” – “I41”	VLOOKUP(\$Axx,SharingUnderground,2) <i>(where xx is the Cell Row)</i>

1	StructureConduit Interim Calc	"I47" – "I54"	VLOOKUP(\$Axx,SharingUnderground,2)
2			<i>(where xx is the Cell Row)</i>
3	StructureBuried Interim Calc	"I22" – "I33"	VLOOKUP(\$Axx,SharingBuried,2)
4			<i>(where xx is the Cell Row)</i>
5	StructureBuried Interim Calc	"I39" – "I50"	VLOOKUP(\$Axx,SharingBuried,2)
6			<i>(where xx is the Cell Row)</i>

7

8 The corrected version of Cells of the filed version of the "Investlogic.xls" should read as  
9 follows (corrections are bolded and italicized):

10	<u>Sheet</u>	<u>Cell</u>	<u>Logic Statement</u>
11	StructureConduit Interim Calc	"I34" – "I41"	VLOOKUP(\$Axx,SharingUnderground,3)
12			<i>(where xx is the Cell Row)</i>
13	StructureConduit Interim Calc	"I47" – "I54"	VLOOKUP(\$Axx,SharingUnderground,4)
14			<i>(where xx is the Cell Row)</i>
15	StructureBuried Interim Calc	"I22" – "I33"	VLOOKUP(\$Axx,SharingBuried,3)
16			<i>(where xx is the Cell Row)</i>
17	StructureBuried Interim Calc	"I39" – "I50"	VLOOKUP(\$Axx,SharingBuried,4)
18			<i>(where xx is the Cell Row)</i>

19

20 **R. IN REFERENCE TO THE STRUCTURE SHARING ISSUE, DID THE ERROR**  
21 **HAVE AN IMPACT ON THE FILED BELLSOUTH RESULTS?**

22

23 B. No. BellSouth's inputs for Underground and Buried sharing did not vary by Urban,  
24 Suburban, or Rural. Therefore, the value of the lookup returned would have been correct  
25 for the specific activity.

1 Q. ON PAGE 57 OF MR. DONOVAN'S REBUTTAL TESTIMONY, HE INDICATES  
2 THAT HE IS CONCERNED ABOUT METHODOLOGY BELLSOUTH  
3 PROVIDED TO DETERMINE AVERAGE DISTANCE BETWEEN SPLICES  
4 FOR FIBER AND COPPER CABLE. BASED ON THE CURRENT BELLSOUTH  
5 METHODS, HE IS CALCULATING "ABSURDLY SHORT" DISTANCES. IS  
6 THERE A PROBLEM IN THE MODEL OR IN THE SUPPLEMENTAL  
7 METHODOLOGY THAT BELLSOUTH PROVIDED?  
8

9 A. The BSTLM determines splices appropriately as spelled out in the model's  
10 documentation. However, the methodology that BellSouth provided to calculate the  
11 average splice distance outside of the model was in error. Inadvertently, BellSouth using  
12 my input, instructed user's to count network element records in the "Config" file (for  
13 each wire center) that contained a "B" as both a fiber and copper splice. Yet, some of  
14 these records only contained either fiber or copper "Media". In Exhibit JWS-1, I am  
15 attaching an updated methodology that instructs the user to refer to the "Media" field  
16 when the "SpliceRequired" field contains a "B". If the "Media" field contains "CU" then  
17 the record contains only a copper splice and should only be counted in the total copper  
18 splices. If the "Media" field contains "FO", then the record contains only a fiber splice  
19 and should only be counted in the total fiber splices. If the "Media" field contains  
20 "BOTH" then the record contains a copper and fiber splice and should be counted in both  
21 the total copper splices and total fiber splices.  
22

23 I apologize for the methodology error. With the correction, the distance between splices  
24 for both copper and fiber cable appear to be within more reasonable ranges based upon a  
25 spot check of a few wire centers.

1 **Q. MR. DONOVAN CLAIMS ON PAGES 30-32 THAT THE MANHOLE COST**  
2 **DEVELOPMENT IS FLAWED. CAN YOU RESPOND FROM A MODELING**  
3 **STANDPOINT?**

4  
5 A. Yes. Part of his argument is based upon a misunderstanding of the input structure. He  
6 states on page 31 that Type-1, Type-2 and Type-3 manholes should be identical. This is  
7 incorrect. The Type-1, Type-2, and Type-3 are really an indication of the size of the  
8 manholes in relation to the number of conduits they support. Mr. Donovan mistakenly  
9 took the column title "Type or Size" and assumed the values were "Types", when in fact  
10 they were "Sizes". Thus, a Type-1 is really a Size-1 and supports 1 conduit (in reality it  
11 is the same as the Size 2 manhole and supports 1 or 2 conduits). A Type 2 is really Size-  
12 2 and supports 2 conduits (in reality it is the same as the Size 1 manhole and supports 1  
13 or 2 conduits). A Type 3 is really a Size 3 and supports 3 or 4 conduits. Based on the  
14 fact that these manholes are different, BellSouth appropriately determined the cubic feet  
15 of each size manhole based on the size and capacity of each. Part of Mr. Donovan's  
16 faulty assumption may be based upon a mistake made in the Description values in the  
17 Underground Contract Labor table inputs and in the Item and Description values in the  
18 Underground Material table inputs. Apparently, the description of the Size 3 manhole  
19 was inadvertently copied to the Size 2 and Size 1 manholes in the Underground Contract  
20 Labor table inputs and similarly for the Description and Item in the Underground  
21 Material table inputs.

22  
23 **Q. MR. DONOVAN CLAIMS ON PAGES 38 AND 39 THAT BELLSOUTH'S 500**  
24 **FOOT INTERVALS FOR GUYS AND ANCHORS ARE INAPPROPRIATE IN**

1           **PART BASED ON A REFERENCE TO THE BSTLM METHODOLOGY. IS THE**  
2           **REFERENCE TO BSTLM METHODOLOGY CORRECT?**

3

4    A.    No. At best, his reference to the BSTLM methodology is confusing. The methodology  
5           clearly states that the model assumes 1200 feet as the average length of an aerial span so  
6           that it can calculate the per foot costs while properly accounting for the number of poles.  
7           Each span must have a pole at both ends. For example, if you have a span of 240 feet,  
8           the number of poles required is 3 (assuming an spacing of 120 feet between poles). To  
9           account for the end poles you cannot simply divide the span length by the spacing value  
10          (240ft / 120ft = 2).

11

12          To capture this last pole on a run and to develop the per foot pole costs which includes  
13          the associated guy and anchor costs, an assumption was made on the typical span length.  
14          However, this typical span length has nothing to do with the proper distance between  
15          guys and anchors placement. Therefore, the reference to the BSTLM Methodology does  
16          not support his argument.

17

18    **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

19

20    A.    Yes it does.



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**REQUEST:** Describe how to determine the number of splices in the BSTLM and the average distance between splices.

**RESPONSE:** Since BellSouth used in-plant factors in its studies, the number of splices in the BSTLM-CP and the average distance between splices are not relevant to BellSouth's filing. The BSTLM-CP does not report a count of splices or the average distance between splices. However, the data is available in the system databases and can be developed through a manual process. The procedure provided in Attachment No. 1 provides the necessary steps. Step 3 will provide the number of splices. Step 4 will provide the average cable sheath feet per splice.

**RESPONSE PROVIDED BY:** Robert McKnight  
Director  
3535 Colonnade Parkway  
Birmingham, Alabama 35243

The page references provided in **Steps 1 & 2** refer to computer screen illustrations from the BSTLM-CP model. These illustrations follow these instructions.

**Step 1**

- Open the BST2001-Ga scenario in the BSTLM-CP
- Click on the **Process** icon (see Page 3 of 10)
- For **Process**, click on **Audit** (see Page 4 of 10)
- Select **Configuration File**, click on the **>>** left of the **Wirecenters to Process** window, and click on **Create Files** (see Page 5 of 10) to dump the Configuration Audit file for all wire centers (see Page 6 of 10)

**Step 2**

- Click on the **Reports** icon (see Page 7 of 10)
- For **Reports**, click on **Key Statistics** (see Page 8 of 10)
- Select **Cable & Structure** (see Page 9 of 10)
- Select **State** as **GA - Georgia** and select **Cost Family** and **Media** as **Group By** values. Also indicate **SheathFeet - Copper** and **SheathFeet - Fiber** as **Fields to Select**. Click **OK** (see Page 10 of 10)
- This will produce a CSV file that contains the sheath distance of Copper and Fiber cables for both the Feeder and Distribution network.
- Note: If the user wants CLLI by CLLI sheath distances, add **CLLI** to the **Group By**

**Step 3**

- Open the Configuration audit file for each CLLI
- Highlight all rows and columns of data and turn on auto filter under the data options in Excel
- Columns AL, AV, and AZ are to used in combinations to query all the types of splices. The following combinations are required:

<u>Media-AL</u>	<u>SplicingReq-AV</u>	<u>CostFamily-AZ</u>
Both	Both	Feeder
Both	Both	Distribution
Fiber	Both	Feeder
Fiber	Both	Distribution
Copper	Copper	Feeder
Copper	Copper	Distribution
Fiber	Fiber	Feeder
Fiber	Fiber	Distribution

Copper	Both	Feeder
Copper	Both	Distribution

The above ten (10) combinations will produce twelve (12) resultant numbers. The first two (2) produce answers that should be counted as both copper and fiber splices. For example, if the first query produces a quantity of 10, then there are 10 copper feeder splices and 10 fiber feeder splices. The same would be true for the second query.

- Count the number splices, breaking them down between the Copper, Fiber, and Both - Feeder and Distribution network (column AZ (CostFamily) in the worksheet).
- Obtain the counts for the entire CLLI
- Repeat for each CLLI (i.e., each of the separate Config Audit files)

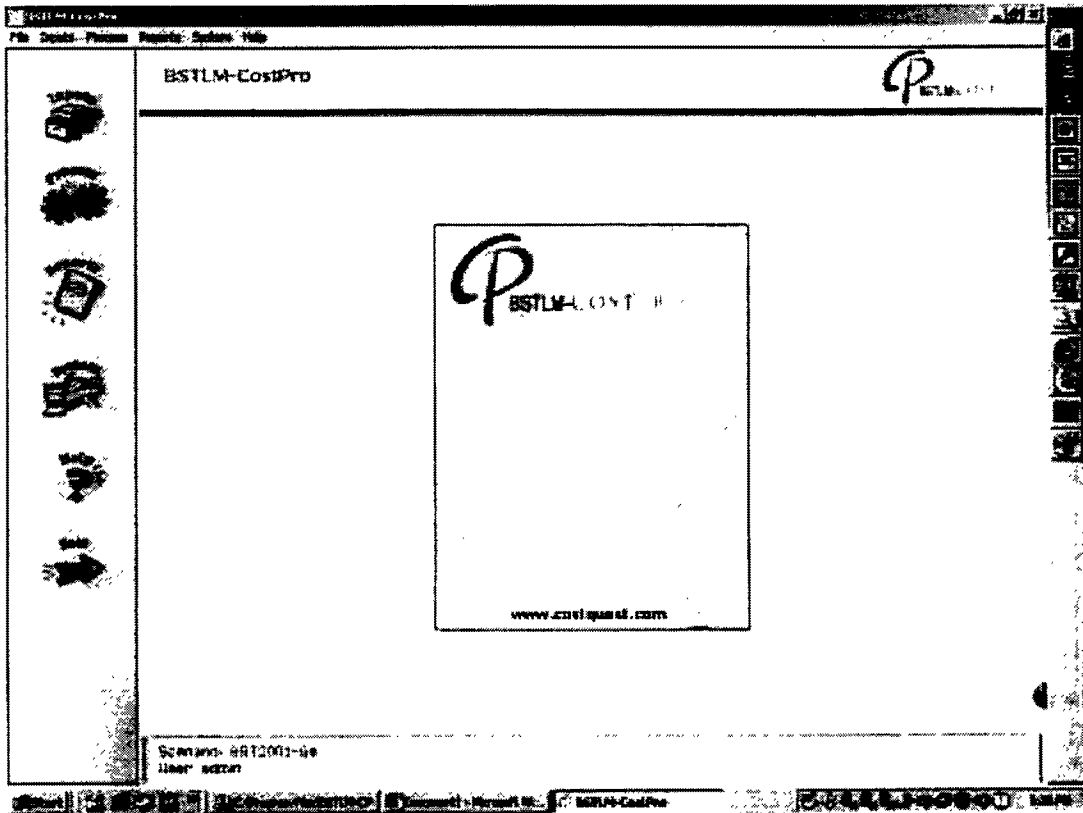
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- Once completed for all CLLIs, sum up the counts to arrive at a statewide total number of splices. The values should be broken out as:
  - Distribution Copper Splices (which includes any Both Splices added in)
  - Distribution Fiber Splices (which includes any Both Splices added in)
  - Feeder Copper Splices (which includes any Both Splices added in)
  - Feeder Fiber Splices (which includes any Both Splices added in)
- If the user wants the splice count and average length per splice for each CLLI, then do not sum up the separate CLLI values into a statewide total. Instead, use each CLLI's values separately.

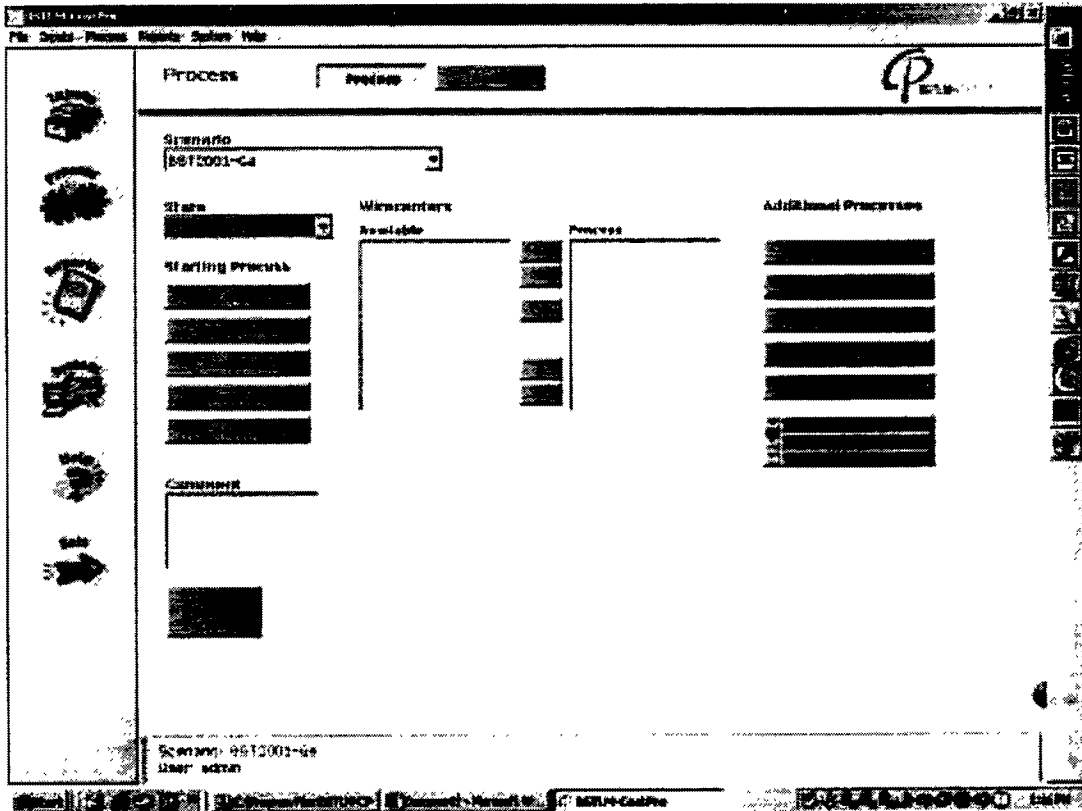
**Step 4**

- Divide the results of Step 2 by the results of Step 3.
- If doing this by CLLI, do the division using the results of each CLLI

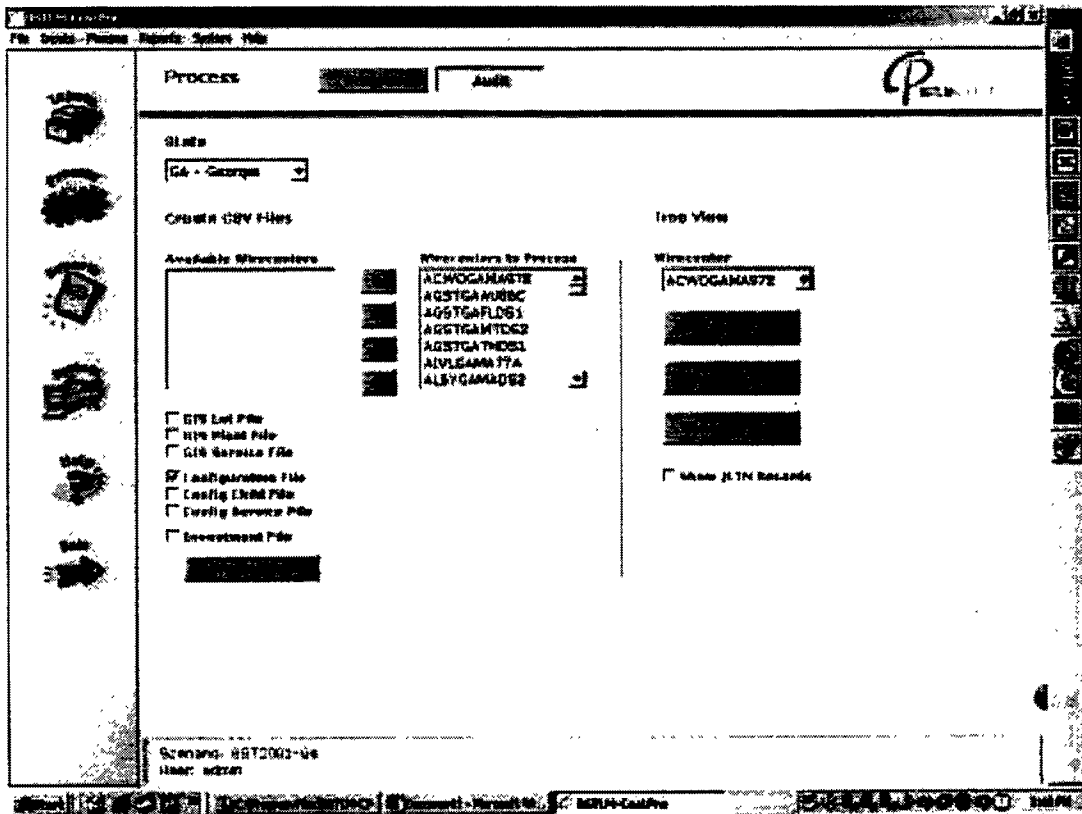
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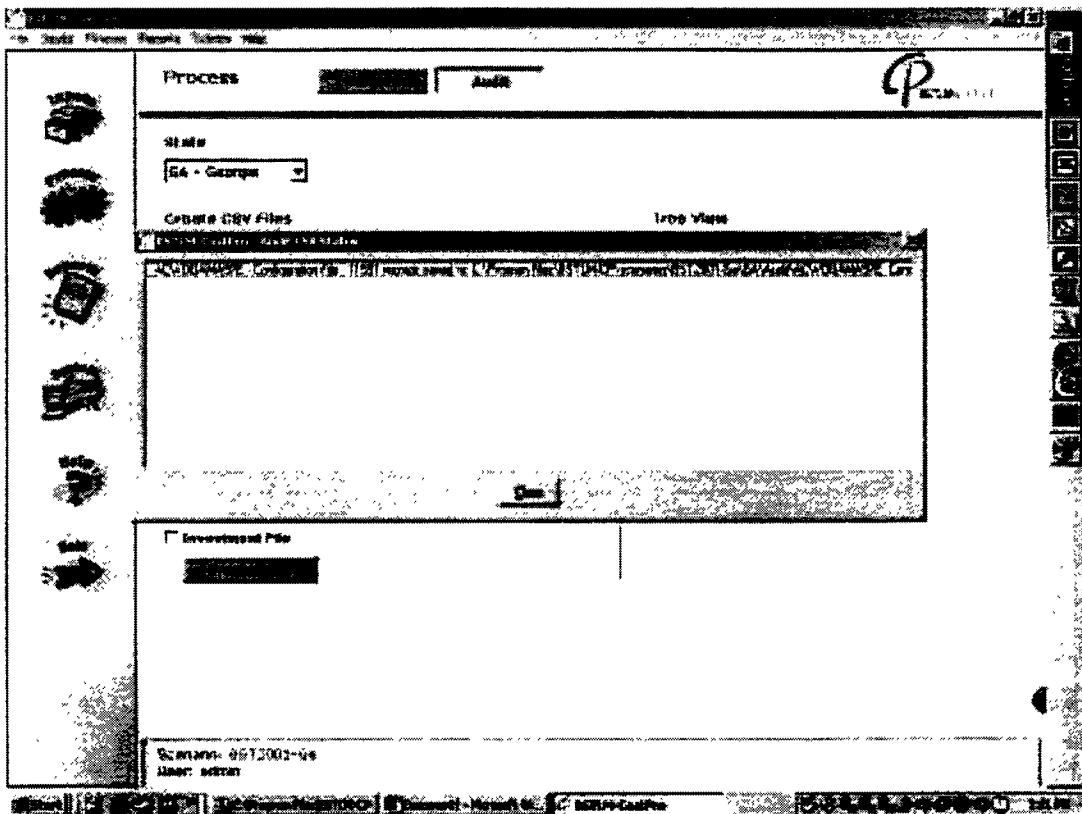
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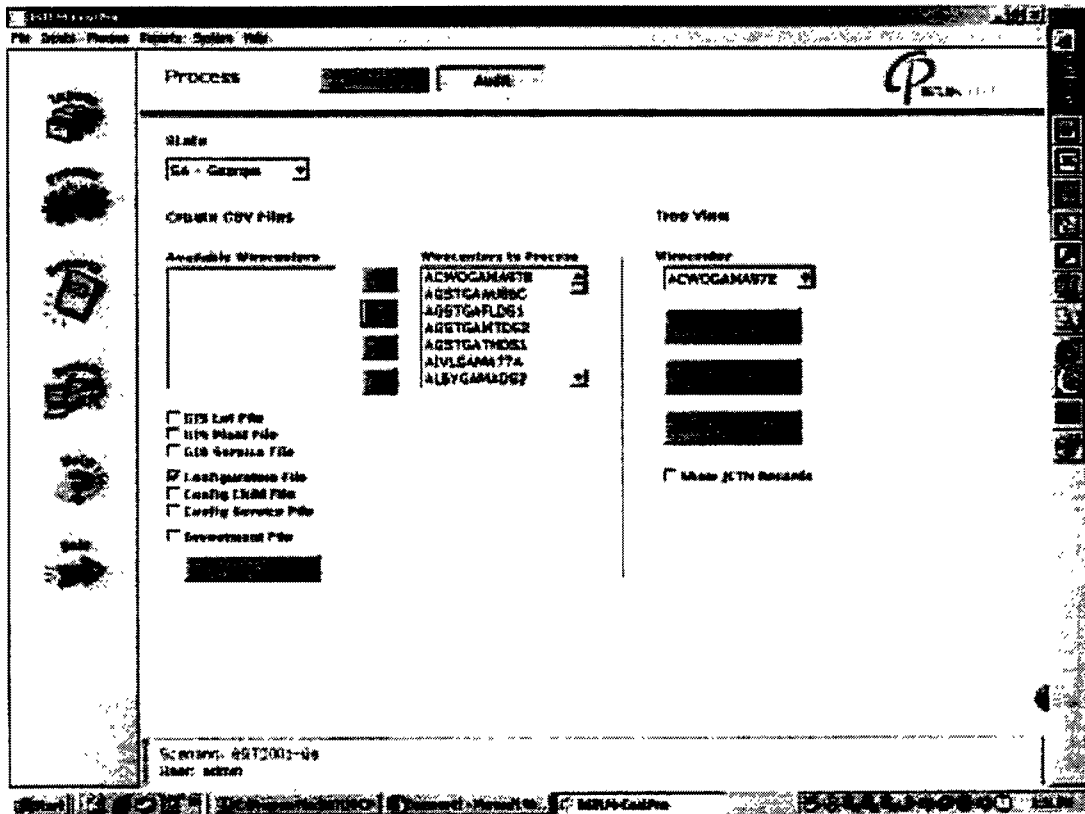


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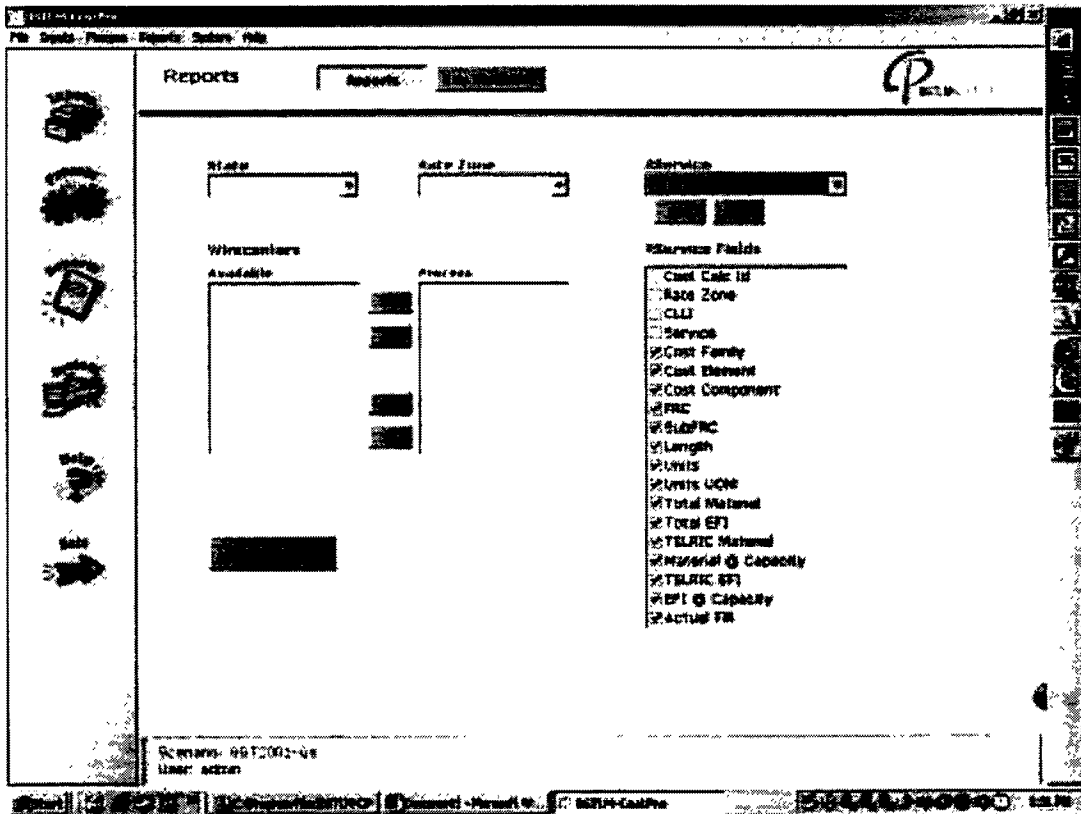


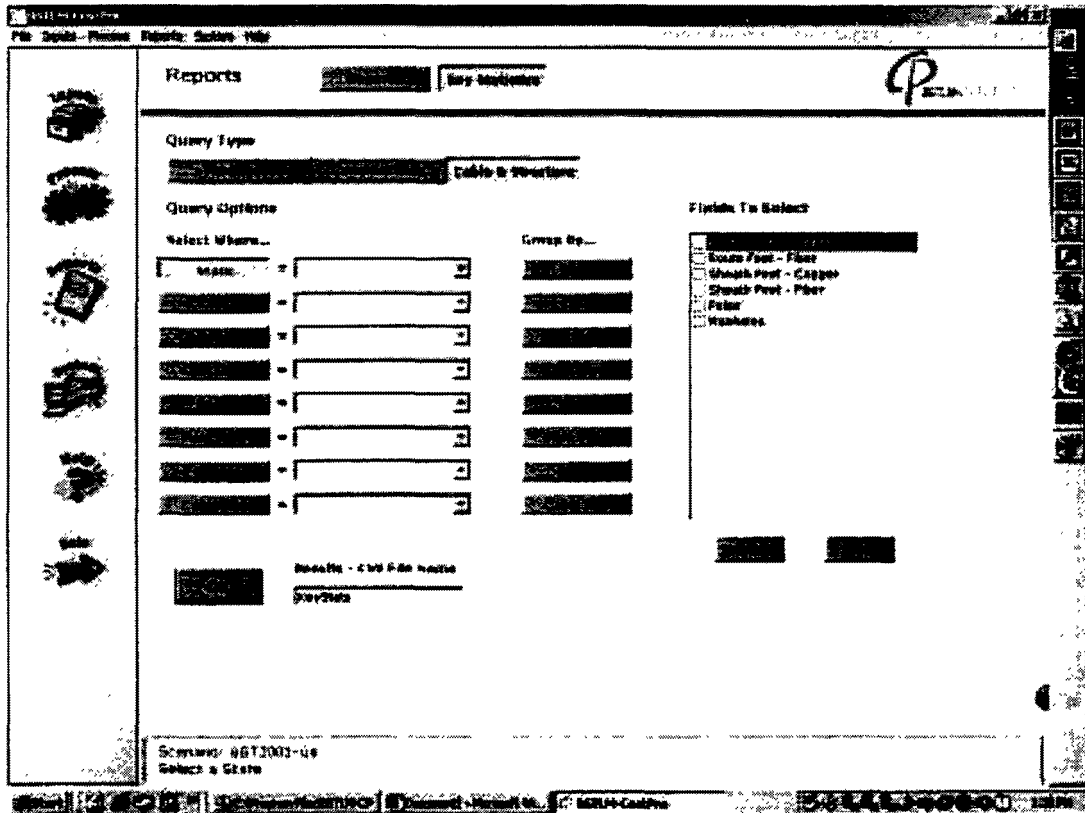


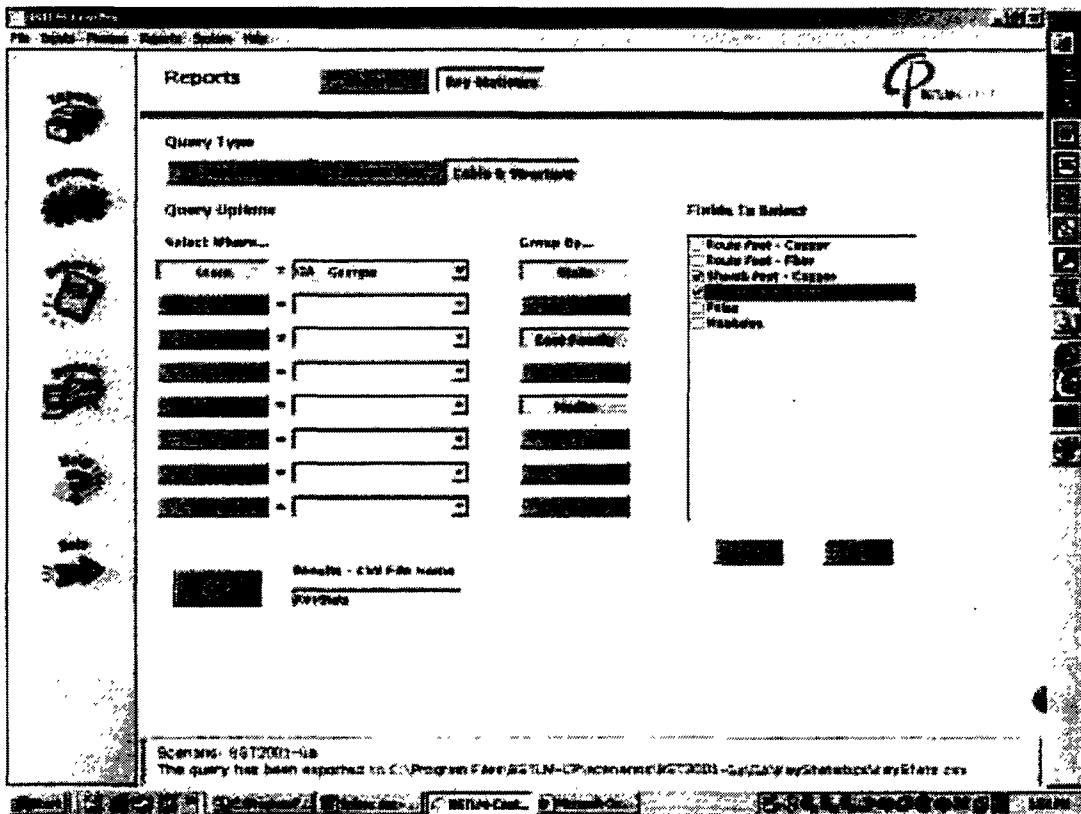
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Follow the 4 step instructions above for calculating the average sheath feet per splice and the number of splices.