PRI Automation

Equipe Division

To: J. H. Bae
        ~~Integrated Process Systems~~ IPS LTD.
        33 Jije-Dong, Pyungtaek
        Kyungki-do, KOREA

CC: SH Lee, Ed Wagner, Ed Lee

RE: Agreement for EquipeSoft™ Control System Rev 5

Wednesday, June 16, 1999

Dear JH,

Based on our first proposal, discussions in Korea and last night's teleconference, PRI is prepared to honor the following agreement.

There are the following elements to this agreement:

1. Software Application Development
2. EquipeSoft Runtime License Pricing
3. I/O Controls
4. On-Site Engineering
5. Warranty
6. Source Code
7. Ordering Schedule
8. Attachments list

Details:

1. Application Development

Based on the attachments listed below, we are prepared to offer the PMC software application development at a price of $50,000. For this price, we will develop six GUI screens and the controls for those screens. Note that this is a very special price (we don't make any profit). We offer it in order to have the opportunity to demonstrate our capability. Future process module software development projects will require a similar, budget, even if their scope may be smaller. If additional work by PRI is required to complete the GUI for this system, PRI will provide it at additional cost.

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This price includes <u>60</u> man-days on site at IPS. One software engineer will work at IPS for 2 weeks to prepare the final specification. Then, a second engineer will join to begin development. Several other software engineers working at the home office will support this effort.

IPS will issue a second PO for the integration and test phase of the project. The PO amount will be $10,000 and will cover the cost of one PRI engineer on site for a period of 6 weeks during the integration and test phase. The following outlines specific GEM features required by Samsung:

Cost: Will add 10,000 to the quote. Total becomes $60,000 for software development. Additional 10,000 will provide 6 weeks of on-site service for software delivery, integration, test & debug.

The cost $60,000 is include :
1. PMC software development
   Required FA functions from IPS

   a. Scenario for Cassette in and out
   b. Split process(It should be able to select different PPIDs by operators)
: Before Process start :
   Originally, Equipment will received only one PPID from Samsung host. Then, all wafers will be automatically assigned the same PPID. It is normal FA communication.
But, SamSung would like to assign required different PPID by operators if they want to assign required different PPID at these some wafers.

   c. Sending Process data(min. max. average) to host
: When Process finish at each Process Module, At that time, It should be able to send process data to host about already identified Process data between Equipment and Host.
Identified Process parameters are may be 10 to 15 each Process Module.
Each process parameter have min. max. average value.
When send process data to host, LotID PPID CassetteID(PortID) SlotID ChamberID must send first.

3. SamSung RS FA specification support

If the final integration and test effort takes longer than 6 weeks, IPS will pay $2,000/wk plus expenses for our software engineer to remain until acceptance.

2. EquipeSoft™ Run-Time License Pricing

Our pricing for run-time licenses has four schedules. Schedule A. applies to the typical system pricing. Schedule B. is a special price for retrofitting the 5 existing Poly-Etch cluster tools that are based on another cluster platform hardware. Schedule C. is for the

GEM license. Schedule D. applies after PRI Automation has received payment for the source code.

Schedule A: Units purchased within a 12-month period:

1-3:	$7,500
4-6:	$7,000
7+:	$6,500

Schedule B: Up to 5 Poly-Etch system retrofits:

1-5:	$5,000
6+:	(refer to Schedule A)

Schedule C: GEM run-time license:

1+:	$750

Schedule D: After Purchasing Source Code (refer to section 6):

1-12:	$4,250
13-24:	$4,000
25+:	$3,750

3. I/O Controls

IPS has decided to use the existing I/O hardware platform developed by MMI. This will minimize the re-development impact for migrating to EquipeSoft. IPS will provide the necessary documentation and parts to allow PRI to develop drivers for these boards. IPS will take full responsibility for purchasing, assembling and trouble-shooting the I/O controls system.

4. On-site Engineering

PRI offers on-site support for software engineering by qualified engineers at a rate of $2,000/week plus travel, food and lodging expenses.

5. Warranty

The warranty period for EquipeSoft will begin 3 months after the first system is delivered to the end user. This will allow for factory integration and trouble-shooting to

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bring the system to a robust status. After the 12-month warranty expires, IPS will pay $4,000/year for regular software upgrades and scheduled maintenance upgrades.

6. Source Code

The EquipeSoft source code will be maintained in a 3rd-party escrow account. In the event of insolvency of PRI Automation, or, PRI Automation's deliberate decision to cease selling and supporting EquipeSoft, the Escrow Company will confer the source code to IPS. Further, after the source code is released, NeST India would be released from its exclusive contract with PRI Automation, and IPS would be permitted to enter into direct business with NeST, India. The Escrow Company is DSI. Information on DSI can be found at www.dsiescrow.com.

PRI Automation holds open the *possibility* of conferring the EquipeSoft source code to IPS at a mutually agreeable price and after the business relationship has sufficiently matured.

In the unlikely event that a modification or bug fix cannot be made by PRI in a timely fashion, PRI will release the specific source code files required to implement the modification or bug fix.

Between July 1, 2002 and June 30, 2005 IPS may, at its option, purchase the source code to EquipeSoft framework and application software at a price of $150,000. In the event this purchase is made, run-time license pricing changes to Schedule D: (Section 2) for licenses ordered after payment for the source code is received by PRI Automation.

7. Ordering Schedule & Terms

A. By June 21, 1999, PO for $50,000 to cover Software Development
B. By August 15, 1999, PO for $10,000 to cover integration and test of the software
C. By August 15, 1999, PO for $7,500 + $750 to cover run-time licenses

Order A. will be accompanied by a 30% deposit. 60% will be due one month after the system ships to the end-user, or November 30, 1999, whichever comes first. 10% will be due on end-user acceptance or March 1, 2000, whichever comes first.

Order B. will require no deposit. 90% will be due one month after the system ships to the end-user, or November 30, 1999, whichever comes first. 10% will be due on end-user acceptance or March 1, 2000, whichever comes first.

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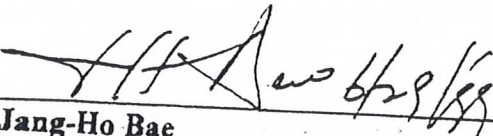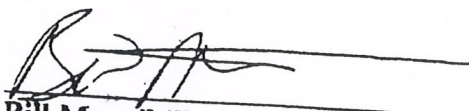Order C. and all run-time license orders will be due net 30.

8. **Attachments**

The following attached documents comprise the initial project specification:

a. Initial Development Schedule
b. "CTC Software Requirements Specification for ACVD", IPS
c. Drawing, "I/O Hardware and System Software Architecture", PRI
d. Screen shots from MMI system control software for ACVD, 25 pages
e. Excel spread sheet specifying the I/O information for the ACVD as of June 9th, 1999
f. Software Support Agreement, revised
g. Host Interface Specification of SEC

PRI Automation is prepared to support this effort with our full attention. As you are aware, we have a local office staffed with PRI support engineers. We offer support for the software per our software support agreement (attachment e.). You should know that we have available many software engineers to support your ongoing efforts in Korea, as well as throughout the world, as you deploy your products.

Endorsements:

Jang-Ho Bae
~~Integrated Process Systems, Inc.~~
IPS LTO.

Bill Murvihill
PRI Automation
OEM Systems
6/28/99

6/30/99
Richard H. Walker