**To the Honorable Commissioner of Patents and Trademarks:** Please record the attached original documents or copy thereof.

<table>
<thead>
<tr>
<th>1. Name of conveying parties(ies):</th>
<th>2. Name and address of receiving party(ies):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles H. Dewey</td>
<td>SMITH INTERNATIONAL, INC.</td>
</tr>
<tr>
<td>John E. Campbell</td>
<td>16740 Hardy Street</td>
</tr>
<tr>
<td>Wei Xu</td>
<td>Houston, Texas 77032</td>
</tr>
</tbody>
</table>

**Additional name(s) of conveying party(ies):**

Attached? ☐ Yes ☒ No

**3. Nature of conveyance:**

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other

**Execution Date:** June 5, 2000

**4. Application number(s) or patent number(s):** 09/473,584

If this document is being filed together with a new application, the execution date of the application is:

**A. Patent Application No.(s).**

**B. Patent No.(s).**

**Additional numbers attached?** ☐ Yes ☒ No

**5. Name and address of party to whom correspondence concerning document should be mailed:**

David A. Rose
Conley, Rose & Tayon, P.C.
P. O. Box 3267
Houston, Texas 77253-3267

**6. Total number of application and patents involved:** 1

**7. Total fee (37 CFR 3.41) $40.00**

☐ Enclosed
☒ Authorized to be charged to deposit account

**8. Deposit account number:** 03-2769

*(Attach duplicate copy of this page if paying by deposit account)*

**Mail documents to be recorded with required cover sheet information to:**

Commissioner of Patents & Trademarks, Box Assignments
Washington, D. C. 20231

**Date:** August 11, 2000
ASSIGNMENT

IN CONSIDERATION OF TEN DOLLARS ($10.00) cash in hand paid to us by Smith International, Inc., the receipt and sufficiency of which are hereby acknowledged, we, CHARLES H. DEWEY, JOHN E. CAMPBELL, and WEI XU ("ASSIGNORS"), having made an invention in WELL REFERENCE APPARATUS AND METHOD, while in the employ either as an employee or consultant of Smith International, Inc., a corporation organized and existing under the laws of the State of Delaware, doing business at 16740 Hardy Street, Houston, Texas 77032 (sometimes hereinafter called "ASSIGNEE"), do hereby ASSIGN, SELL and CONVEY to said Smith International, Inc. its successors and assigns, the entire right, title and interest throughout the world in and to:

1. Said invention in WELL REFERENCE APPARATUS AND METHOD;

2. United States of America patent application on said invention, Serial No. 09/573,584, filed May 18, 2000, Attorney's File No. 1030-16103, entitled WELL REFERENCE APPARATUS AND METHOD;

3. All applications for patent or like protection on said invention that have now been or may in the future be made by us or our legal representatives, whether in the United States of America or any other place anywhere in the world;

4. All patents and like protection that have now been or may in the future be granted on said invention to us or our legal representatives, whether in the United States of America or in any other country or place anywhere in the world;

5. All substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of said applications and patents and like grants, including without limitation, those obtained or permissible under past, present and future laws and statutes;

6. All rights of action on account of past, present and future unauthorized use of said invention and for infringement of said patents and like protection;

7. The right in ASSIGNEE to file in its name applications for patents and like protection for said invention in any country or countries foreign to the United States; and

8. All international rights of priority associated with said invention, applications, patents and like protection;

and we covenant that we, and our heirs, legal representatives, assigns, administrators, and executors, will, at the expense of ASSIGNEE, its successors and assigns, execute all papers and perform such other acts as
may be reasonably necessary to give ASSIGNEE, its successors and assigns, the full benefit of this Assignment.

EXECUTED at Houston, Texas on the date indicated below, opposite our signatures.

ASSIGNORS

Date: 6/5/00

Charles H. Dewey

THE STATE OF TEXAS §

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared CHARLES H. DEWEY, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 5th day of June, 2000.

[SEAL]

Elaine Samford
Notary Public in and for the State of Texas

My Commission Expires: 3/16/04

Date: 06-05-00

John E. Campbell

THE STATE OF TEXAS §

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared JOHN E. CAMPBELL, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 5th day of June, 2000.

[SEAL]

Elaine Samford
Notary Public in and for the State of Texas

My Commission Expires: 3/16/04
Date: 6/5/2000

Wei Xu

THE STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared WEI XU, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 5th day of June, 2000.

Notary Public in and for the State of TEXAS

My Commission Expires: 3/16/04

*************