

All-India Institute of Medical Sciences
Ansari Nagar, New Delhi-29
(RESEARCH SECTION)

Ref. No. 41/Prop/NS/AS/2018-19/RS

Dated: 14.02.2019

**Subject: Purchase of Medical Image Segmentation Software
on proprietary basis- Inviting comments thereon.**

The request has been received from Dr.Ashish Suri, Professor, Neurology, AIIMS to purchase the subject item from M/s Synopsis International Ltd. UK on proprietary basis. The proposal submitted by M/s Synopsis International Ltd. UK and Performa Invoice and Departmental PAC certifications are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within issue of 15 days giving reference **No. 41/Prop/NS/AS/2018-19/RS**. The comments should be received by office of Stores Officer (RS), Research Section at AIIMS on or before **28/02/2019 upto 12:00 p.m.**, failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

STORES OFFICER (RS)

Encl: Related documents enclosed.

1. PAC Certificate enclosed.

2. Performa Invoice

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI – 110029

PROPRIETARY/SPECIFIC BRAND GOODS CERTIFICATE

1. Items/type/model No. Required along with - Simpleware ScanIP Software
Maintenance specification
2. Is the item a spare part attachment - **No**
Or accessory for an existing equipment
3. Name of the manufactures/supplier - **Distributor - Direct Purchase from OEM**
Of the item proposed by the indenter **Manufacturer – M/s Synopsis International Limited, UK**
4. Are they sole manufactures/ - **YES**
Sole distributors of the items
5. Is there any other item with similar/equivalent - **NO**
Specification available in the market to meet
The job requirement envisaged. If the answer is yes
Why the same can't be procured.
Demanding officer should bring out comparative
Functional advantages/cost effectiveness of the
Recommended item from these offered by other
6. What were the efforts made to locate alternative - **Internet Search**
Source of supply or use other substitutes
7. Why open/limited tender can't be resorted to, - **Proprietary Item**
For locating alternative source.
8. Are the proprietary certify that the rates are - **YES**
Reasonable or not
9. Any other justification for procuring item for single - **Segmentation & modelling of CT/MRI data**

Officer In-Charge
Neurosurgery Store



Dr. Ashish Suf
Dr. ASHISH SUF
आचार्य / Professor
उद्विधा शास्त्र विभाग / Deptt. of Neurosurgery
उद्विधा विभाग केन्द्र / Neurosciences Centre
आ.आ.आ.सं. १६ दिल्ली, भारत / AIIMS, New Delhi, India

Dr. Ashish Suf
Acting H.O.D.
Department of Neurosurgery
Neurosciences Centre
(HOD, Neurosurgery)
AIIMS

Ramendra Singh

[Signature]

Specifications for Medical Image Segmentation Software (No=1)

The software should support import of medical images in formats including DICOM (version 3.0 and 2D stacks) ACR-NEMA (versions 1 and 2), Interfile, Analyze, Meta-image, Raw image data, 2D image stacks, BMP, GIF, JPEG, PNG etc.

The software should support Export Formats including Segmented image, RAW image, MetalImage, Surface model (triangles), STL, IGES, ACIS (SAT), ANSYS surface, ABAQUS surface, OPEN INVENTOR, POINT CLOUD, MATLAB file surface, Animations, AVI, JPEG, PNG, Postscript (*.eps), BMP, PNM, PDF, 3D PDF and VRML.

Statistical Analysis tools to compute commonly required quantities (volume, surface area, average greyscale, etc.)

Algorithm to register CT and MRI images with high precision and export registered images. Create a report on error in registration of CT and MRI images.

Measurement Tools to Create and save points, distances and angles in 2D/3D, Visualization options to display all at once or selected, Snap to 3D surface option, Profile line, Histogram, Export as comma separated values, Wall thickness analysis tool for masks or surface objects, Shape-based measurement tools, Shape editor: Create, edit, visualize, export and measure shapes, Shape fitting: Fit shapes to geometry, Shape-to-shape measurements: Obtain measurements between shape objects.

The software should provide following Image Processing Tools:

- Data processing (Crop, Pad, Rescale, Shrink, Wrap), Resampling using various interpolation techniques: nearest neighbor, linear, majority wins and partial volume effects, Flip, Shear, Align Register background: Align image backgrounds based on sets of landmark points and additional greyscale-based registration.
- Basic filters (Smoothing: Recursive Gaussian, Noise filtering: mean filter, median filter, Cavity fill, Island removal filter, Fill gaps tool using largest contact surface or mask priority)
- Advanced filters (Histograms slice equalization, CT image stabilizer, Binarization filter, Gradient magnitude filter, Gradient anisotropic diffusion, Curvature anisotropic diffusion, Curvature flow, Discrete Gaussian filter, Min/max curvature flow, Skeletonization, Metal artifact reduction, Level set methods: allow segmentation based on implicit surfaces.
- Morphological filters (Erode, Dilate, Open, Close, 3D Wrap)
- Segmentation tools (Paint/Unpaint, Paint with threshold, Interpolation using Slice interpolation (smooth or linear), Slice propagation – adapts to image or uses direct copy, Confidence connect region growing, Background flood fill, Mask flood fill Thresholding, 3D editing tools for application of filters to local regions – option to apply on camera facing surface only, Mask ungroup tool, Automated generation of masks for pre-segmented images, Magnetic lasso and Boolean operations.
- The software should provide Surface Mesh Generation and Surface Mesh Quality Inspection Tools and export of finite element analysis meshes.

The software should provide export to computer aided design packages in IGES and STEP (NURBS models) formats. The patch fitting and quality inspections tools should provide options to create non-overlapping meshes.

Warranty: 5+5 years as per AIIMS store purchase procedure



डॉ. आशीष सुरी / Dr. ASHISH SURI
आचार्य / Professor

Ramandeep Singh

[Signature]

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RAMAN DEEPSINGH

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BRITTY BABY

चिकित्सा अधीक्षक
Medical Superintendent
बुद्ध चिकित्सा केन्द्र, अ.भा.आ.सं., नई दिल्ली
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Renu Shergill
Prof. of Anatomy
AIIMS-25

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Synopsys International Limited
Block 1
Blanchardstown Corporate Park
Blanchardstown
Dublin 15, Ireland

Date: 10 October 2018

PROPRIETARY NATURE CERTIFICATE

Certified that the articles mentioned in quotation No. 181005-12-AIIMS_NeuroP5N5 dated 5 October 2018 ("Articles") are proprietary items of Synopsys Inc. or its subsidiaries ("Synopsys"). Synopsys is the sole source of Articles.

Signature Orla murphy
Orla Murphy, Director



Murphy
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ए.एम.एस. - नई दिल्ली, भारत / AIIMS, New Delhi, India



[Signature]

Ramendup Singh

Directors: A. Domic (USA), O. Murphy, B. Canavan, D. Power, P. Gillen, E. Walsh
Registered Office: Block 1 Blanchardstown Corporate Park, Blanchardstown, Dublin 15, Ireland.
Registered Number: 292284

To: Dr Ashish Suri
 Professor
 Department of Neurosurgery
 All India Medical Institute of Sciences
 New Delhi
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Email:
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From: Yash Agarwal

Email: yaganwal@synopsys.com
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 From: Synopsys International Limited

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 Blanchardstown
 Dublin 15 Ireland

Please address your Purchase Order to: Synopsys International Limited, Block One Blanchardstown Corporate Park, Dublin 15 Ireland

License Mode: Network/Node-locked
 Site ID:

Quote Number: 181005-12-AIMS_NeuroPSN5
 Quote Date: 5-Oct-18

Quotation Expires: 4-Nov-18

Item	Product Code	Description	Months	Qty	LOM	Net Price
1	C001-0	Simpleware ScanIP Academic PERPETUAL NODELOCK License PERPETUAL NODELOCK Maintenance Support Period: 60M from ship date	60	1	EA 12M	
2	C002-0	Simpleware FE Academic PERPETUAL NODELOCK License PERPETUAL NODELOCK Maintenance Support Period: 60M from ship date	60	1	EA 12M	
3	C003-0	Simpleware CAD Academic PERPETUAL NODELOCK License PERPETUAL NODELOCK Maintenance Support Period: 60M from ship date Note: License for Simpleware ScanIP, FE, CAD is Perpetual with Maintenance inclusive of Five years.	60	1	EA 12M	
4	C004-0	Simpleware NURBS Academic 5 YEAR TSL NODELOCK License Subscription Period: 60M from ship date Note: NURBS License is Term License for Five Years. Will Expire after Five Years.	60	1	60M	
5	C008-0	Simpleware Teaching Bundle 5 YEAR TSL License Subscription Period: 60M from ship date Note: License Term License for Five Years. Will Expire after Five Years.	60	1	60M	
Total						\$ 39,000

Terms & Conditions:

- All prices are US Dollars (USD)
- Delivery: ExWorks Origin
- Synopsys will pay freight charges unless the purchase order requests a specific carrier. In that case, freight is collect.
- Certain taxes may be included in this quote. There may be taxes not included in this quote which might apply to this purchase. Any such taxes will be added to the amount quoted herein when invoiced.
- Past due amounts will bear interest at the rate of one and one-half percent (1 1/2 %) per month from the due date, or the highest rate permitted by law, if less.
- In the event Licensee fails to make any payment according to the terms indicated below, Synopsys reserves the right to accelerate the due date of all remaining payments and the entire outstanding balance shall be due and payable immediately upon receipt of written notice from Synopsys.
- Orders received by Synopsys may not be cancelled or changed; all fees shall be paid in full and are non-refundable.
- Synopsys, Inc. and its wholly-owned subsidiaries, including, but not limited to, Synopsys International Limited, Synopsys International Limited Taiwan Branch, Synopsys Global KR, Nihon Synopsys G.K., Synopsys Korea, Inc., and Synopsys Technologies Company Limited have agreed to their respective rights and obligations regarding the distribution of the Licensed Products and the performance of obligations related to the Licensed Products. Licensee acknowledges that: (a) Synopsys Inc. or any directly or indirectly wholly-owned subsidiary or branch of Synopsys, Inc. may treat a purchase order addressed to that entity, representative office or branch as having been addressed to the appropriate entity or entities or branch with distribution rights for the geographic region in which the Licensed Products will be used; and (b) delivery will be completed by the Synopsys entity or branch with distribution rights for the geographic region in which the Licensed Products will be used or service will be provided.
- Installation and Use of the software are governed by the Synopsys End User License and Maintenance Agreement.
- Node-Locked License. For the Licensed Products specified in this quote that indicate node-locked licenses, a "node" refers to a specific machine and the Licensed Products may be installed only on the number of nodes indicated in this quote, must be used only on the node(s) on which it is installed, and may be accessed only by End Users who are physically present at that node. Further, a node-locked license may only be used by one End User at a time running one (1) instance of the Licensed Product at a time.
- Customer purchase order must reference the quote number. Any preprinted terms, or any terms listed on Customer's purchase order(s) or other documents that Synopsys does not specifically and expressly accept, in writing, are expressly rejected.
- Payment Terms:
 (100%) - Net 30

Please include the following information on the P.O. addressed to Synopsys International Limited:
 Quotation Number

Bill-to and Ship-to Name & Address

Synopsys International Ltd.



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License Mode: Network/Node-locked			Quote Number: 181005-12-AIMS_NeuroP5N5			
Site ID:			Quote Date: 5-Oct-18			
Quotation Expires: 4-Nov-18						
Item	Product Code	Description	Months	Qty	UOM	Net Price
Purchase Order Date			Requested Delivery Date: Specific Date or ASAP			
Name & Title of Authorising Party			VAT Registration Number			
This quote submitted on behalf of Synopsys Worldwide.						
Yash Agarwal			Authorized by:			
Synopsys Worldwide						
Synopsys, Inc. 600 East Middlefield Road Mountain View, CA 94043 USA	Synopsys International Limited Black One Blanchardstown Corporate Park Blanchardstown Dublin 15 Ireland Registered Number: 378005 Registered in Ireland at the above address.	Synopsys Global Kft. Keleni utca 1. 1054 Budapest Hungary	Synopsys Korea Inc. N.S.F. H Square 235, Pangyocheon-ro Bundanggu, Seongnam-si Gyeonggi-do 1064 Republic of Korea	Synopsys International Limited Taiwan Branch 29F, 333 Neelung Road Section 1 Taipei 110, Taiwan ROC	Nikon Synopsys G.K. Futaba Tamagawa Res Office 2-2-1 Tamagawa Setagaya-ku, 108-0094 Tokyo, Japan	Synopsys Technologies Company Limited Room 508, Fuyang Building No. 99 of Tianjin Road Research and Innovation Park, Jianghai New Area Nanning 51900 People's Republic of China
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