## ATC Method 2 Development at ITC RCET Software version 2.4 Pre-Test Report February 2, 2006

On 1/12/06, ITC received formal notification that RCET software (WebSys, Rapid Image Viewer Tool, WebSys Admin Tools) version 2.4 had been installed on the ITC POLARIS server and was ready for evaluation by ITC.

On 1/13/06 a teleconference was held to discuss bug fixes and changes implemented in version 2.4 and to prepare for testing at ITC. Dr. Frouhar led the ITC personnel through an installation of the WebSys client on the POLARIS server (Windows 2003 Server OS). The WebSys client he demonstrated (WebSys\_2.4\_Setup.exe, 8,986,428 bytes, created January 06, 2006 11:15:07 AM, modified January 13, 2006 12:56 PM) was evaluated at ITC (see below).

## Installation Issues

On 1/17/06, Websys 2.4 was downloaded from POLARIS to a desktop PC running the Windows XP Professional operating system. The file was saved on the local hard drive and then run to install the WebSys client application. After a required reboot, there was a blue screen with the following text:

STOP: c000021a {Fatal System Error} The windows logon process system process terminated unexpectedly with a status of 0cx0000142(0x00000000 0x0000000).

The system has been shutdown

Apparently a Windows library file had become corrupted and the system could not be booted successfully. Windows installation discs were used to repair the operating system. A subsequent un-install and re-install of Websys 2.4 was then performed.

A second installation of Websys 2.4 was attempted on a second computer running Windows XP Pro. (Like the first system, this machine had had a previous version of Websys installed. But in this case the previous version was removed prior to the version 2.4 install.) After rebooting the system, the same (blue screen, failure to boot) symptoms were observed.

It must be noted that these observations do not necessarily implicate the WebSys client software as the cause of system corruption. However, the repeated occurrence of these symptoms is certainly cause for further investigation.

## Preliminary Usability Evaluation

With an apparently stable Windows operating system and WebSys client application, a new login (WRB2) was created using the New User Registration Form on the POLARIS server web page ( <a href="https://polaris.wustl.edu/UserLogin/sUser\_Registration\_1Form.asp">https://polaris.wustl.edu/UserLogin/sUser\_Registration\_1Form.asp</a>) A New User Registration email message was generated, as expected. Subsequently, the user account was edited using the web-based Admin Tools interface (<a href="https://polaris.wustl.edu/UserLogin/aUse

The Websys 2.4 client was started and a logged in on the POLARIS server as user WRB2. For this evaluation, a DICOM dataset that had been successfully uploaded and downloaded with a previous version of WebSys was selected. (This DICOM dataset includes CT images, an RT

Structure Set, RT Plan and RT image objects.) The upload appeared to succeed, as indicated by the client software. A check of database entries using the Admin Tools interface indicated that a CT series, RT Structure Set, RT Plan, and RT Dose objects had been registered in the database. Compressed files corresponding to these objects were also found on the server.

To check download of the submitted data, the protocol was reselected in the WebSys login page and the "Select Case" button pressed. The uploaded case was selected and the "Case Info" button clicked. This redirected to the "Electronic Folder" page. The CT series was selected and the "Download Selected" button pressed. This resulted in the error message "ERROR: Receiving or Decompressing of file: 1 failed !" message (shown below) being displayed, indicating a failure of the download operation:

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8	ERROR: Receiving or Decompression of file: 1 failed !
	Common causes are: Out of disk space Disconnection from network Corrupted data file
	Please correct the above causes and try again
	Terminating Download Process.
	OK

Hitting the OK button brought up the Microsoft Visual C++ Debug Library message shown below:

Microsoft Visual C++ Debug Library		
	Debug Assertion Failed!	
	Program: C:\PROGRA~1\RCET\WebSys\WebSys.exe File: inet.cpp Line: 660	
	For information on how your program can cause an assertion failure, see the Visual C++ documentation on asserts.	
	(Press Retry to debug the application)	
	Abort Retry Ignore	

Pressing Abort terminated the program with this message:

Microsoft Visual C++		
٩	User breakpoint called from code at 0×7c2960f3	
	OK	

The WebSys client appears to have completed the upload process and a corresponding set of compressed data files was found on the POLARIS server. However, the submitted data could not be downloaded using the WebSys client. Attempts (using other user logins) to download this and other data from the POLARIS server also failed.

## Conclusion

Preliminary evaluation of the WebSys client (WebSys\_2.4\_Setup.exe, 8,986,428 bytes, created January 06, 2006 11:15:07 AM, modified January 13, 2006 12:56 PM) was performed at ITC using WebSys server configuration and database installed on the ITC POLARIS server as of 1/13/06. As indicated above, installation and usability issues in this version of the software remain and must be resolved before further testing at ITC can proceed.

Respectfully submitted,

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