

# \$ VWURF\WH 6HJPHQWDWLRQ DQG &ODVV

5HVHDFK 'HYHORSHUV 'DYL G &DUO\Q /DQD )UDQNOH \$NKLO .XPDU \*  
)DFXOW\ \$GYLVR-&K'D'QJ &X'H'QJ 5REHUW &OHPHQWV

\$EVWUDFW

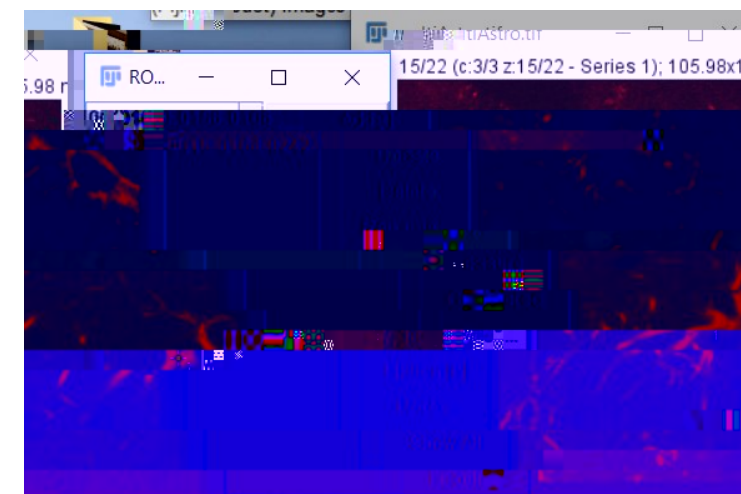

7KH 3URFHVV

VDYLQJ WKHP \$IWHU

,PDJH VHJPHQWDWLRQ SURFHVV LQJ  
FRPSOH[ DUHD RI ZRUN WKH VDPH VFDOLHG WR KDYH HTXDO  
SHUIHFWHG FRXOG FUDPHHQVLRQ WKH KRUD 3UH SURFHVV LQJ  
RI LQQRYDWLRQ DQG GLVFRYHULHV 2XU  
FXUUHQW UHVHDFK IRFXVHV RQ XVLQJ  
LPDJH VHJPHQWDWLRQ WR H[WUDFW  
GDWD RI DVWURF\WH FHOOV WKH PRVW  
DEXQGDQW JOLDO FHOOV IRXQG ZLWKLQ  
WKH EUDLQ

ERG\ SL[HO HEDFG\ SZHHOSL[HOV ZH LWHUDWH  
FUHDWH WKH VDPH VSKHWKHP DQG EXW HQW R  
RULHYHUL\ SL[HO RQ WKH DKLQJ WKH WKHU UH  
VSKHUH ZH DWWHPSW WR FWHQW HEDFG\ HSH[  
VSKHUH RI WKH VDPH VL[HO DULHYHQ PHUJH  
SL[HO ZLWKLQ WKH VHJPHQWDWLRQ WR JH  
WKDW LV ZLWKLQ WKLV VSKHWK HEDFG\ RQ W  
DOVR VHW D VSD[HO V\WHP IRU IXUWKHU

,QWURGXFWRQ

7KH DVWURF\WH GDWD ZH DUH  
UHFHLYLQJ FRPHV LQ  
PXOWLGLPHQVLRQDO LPD  WR  
ZRUN ZLWK WKLV GDWD Z  VLQJ  
,PDJH- DQ RSHQ VRXUFH LPDJH  
SURFHVV LQJ SURJUDP \$VWURF\WH &ODVVHñ@0\$  
JLYHQ DQ H[LVWLQJ SOXJLQ IRU WKLV  
SURJUDP WKDW DWWHPSWHG WR JDWKHU  
GDWD DERXW DQ DVWURF\WH LQ WKHVH  
PXOWLGLPHQVLRQDO LPDJHV ,W IDLOHG  
LQ ZRUNLQJ ZLWK PXOWLSOH LPDJHV  
ZLWKLQ D VLQJOH LPDJH DQG ZDV  
YHU\ XQVWDEOH WKXV PDNLQJ LW  
XQXVDEOH IRU DQ\ W\SH RI DQDO\VLV  
RQ WKHVH DVWURF\WHV

'HILQLQJ 7KH 3ULPDU\ %UDQFKHV  
7KLV LV DFFRPSOLVKHG &REQXVLRQ WKH  
VNHOWRQ REWDLQHG IURXU WKH UHODWLY  
VHJPHQWHG LPDJH DQG UHODWLY SD\O V EXW  
SL[HOV RQ WKH VNHOWRQ HEDFG\ WKH VLQJ W  
FRUUHVSRQG ZLWK WKH WKH ODVWURF\WH LV Q  
FDVHV WKHUH DUH  
VRPH EDFNJURXQG QF  
HOLPLQDWHG \$VWURF\WH  
QR DQDO\VGH AI€4VVGH



7HFKQLFDO 3D SWW 35 / GRFV JRRJOH FRP FXP  
G QP 0\ [ 5 [, IL 1K, 353 \* G \$(V X6 / BZERF HGEW



)LJXUH

)LJXUH

1H[W ZH REWDLQ SL[HOV  
WDNLQJ WKH HQGV RI HDFK VHSODWWHG  
EUDQFK VKRZQ LQ )LJXUH DQG