

# \$ VWURF\WH 6HJPHQWDWLRQ DQG &ODVV

5HVHDFK 'HYHORSHUV 'DYLQ &DUO\Q /DQD )UDQNOH \$NKLO .XPDU \*  
)DFXOW\ \$GYLVR-&KDOJ &KH'QJ 5REHUW &OHPHQWV

\$EVWUDFW

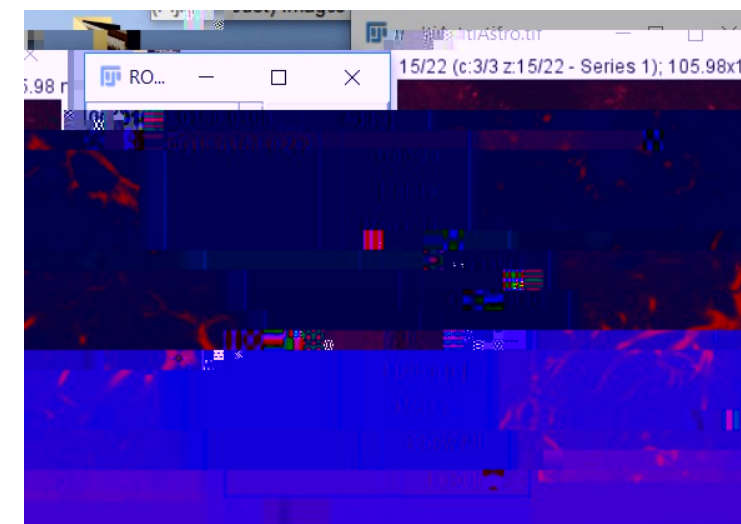

7KH 3URFHVV

VDYLQJ WKHP \$IWHU

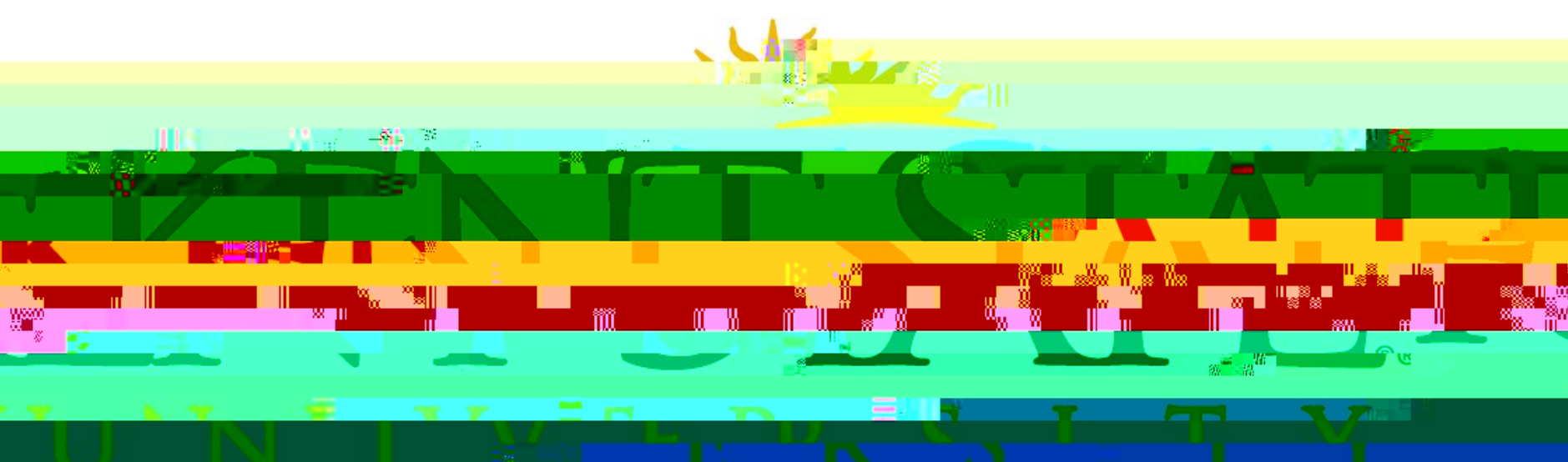
,PDJH VHJPHQWDWLRQ SURFHVVVLQJ  
FRPSOH[ DUHD RI ZRUN WKH VFDOLHG WR KDYH HTXDO VSKHWKHPJ DQG EXW HQW R  
SHUIHFWHG FRXOG FUDPHQVLRQV KRUD 3UH SURFHVVVLQJ SL[HO RQ WKH DKLQJ WKH WKHU UH  
RI LQQRYDWLRQ DQG GLVFRYHULHV 2XU  
FXUUHQW UHVHDFK IRFXVHV RQ XVLQJ  
LPDJH VHJPHQWDWLRQ WR H[WUDFW  
GDWD RI DVWURF\WH FHOOV WKH PRVW  
DEXQGDQW JOLDO FHOOV IRXQG ZLWKLQ  
WKH EUDLQ

ERG\ SL[HO HEDFG\ SZHHOSL[HOV ZH LWHUDWH  
FUHDWH WKH VDPH VSKHWKHPJ DQG EXW HQW R  
RI H[HU\S[HO RQ WKH DKLQJ WKH WKHU UH  
VSKHUH ZH DWWHPSW WR FWHQVREDDWKHS[  
VSKHUH RI WKH VDPH VL[HO DMLH YDQ PHUJH  
SL[HO ZLWKLQ WKH VHJPHQWDWLRQ WR H[WUDFW  
WKDW LV ZLWKLQ WKLV VSKHWKHPJ DQG EXW HQW R  
DOVR VHEV D[VSD[HO V\ VWHP IRU IXUWKHU

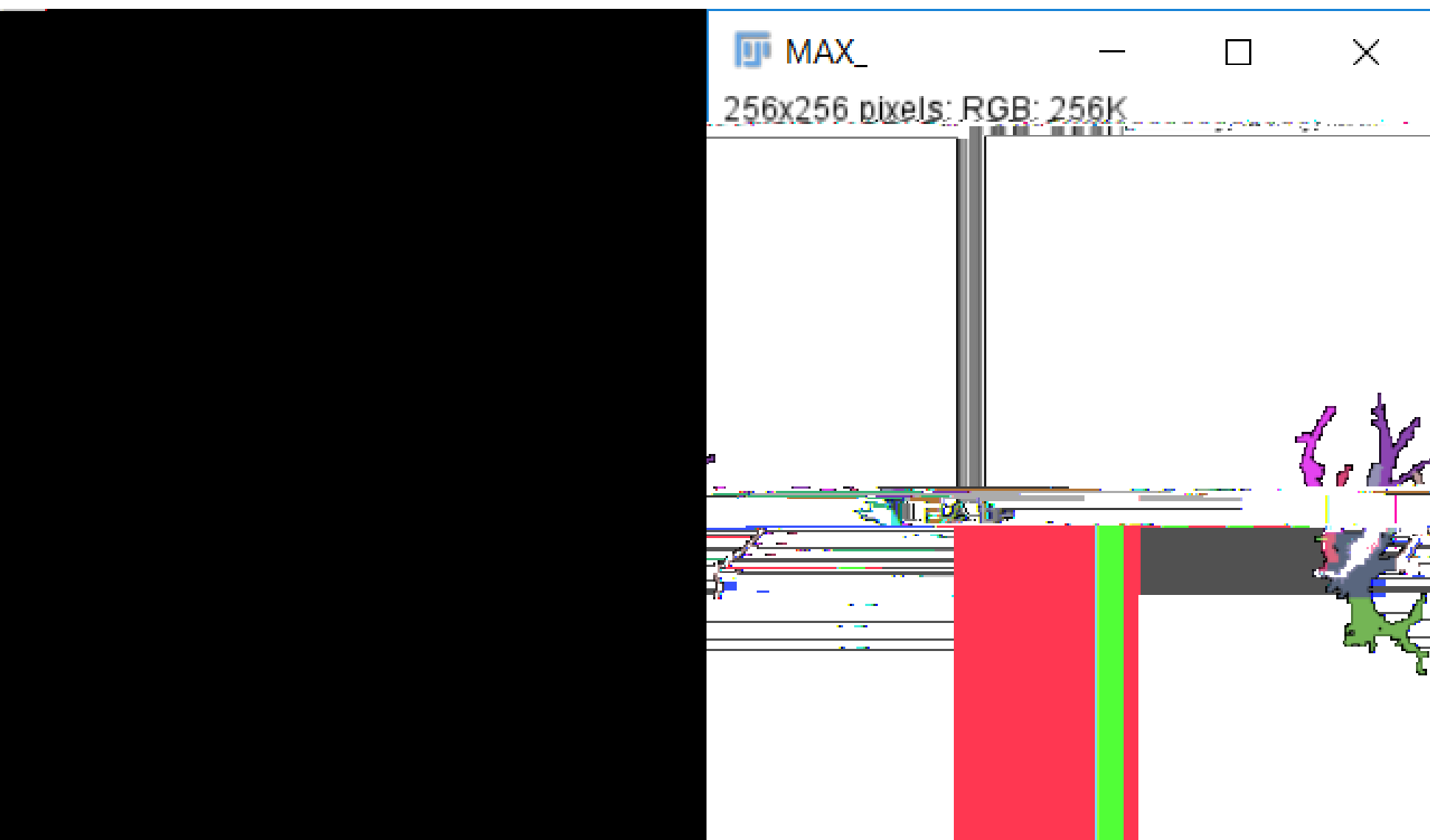
,QWURGXFWRQ

7KH DVWURF\WH GDWD ZH DUH  
UHFHLYLQJ FRPHV LQ  
PXOWLGLPHQVLRQDO LPD  WRH  
ZRUN ZLWK WKLV GDWD Z  VLQJ  
,PDJH- DQ RSHQ VRXUFH LPDJH  
SURFHVVVLQJ 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\ XQVDEOH WKXV PDNLQJ LW  
XQXVDEOH IRU DQ\ W\SH RI DQDO\VLV  
RQ WKHVH DVWURF\WHV

'HILQLQJ 7KH 3ULPDU\ %UDQFKHV  
7KLV LV DFFRPSOLVKHG &REQXVLRQ WKH  
VNHOHWRRQ REWDLQHG IURXU WKH UHLOW UDSSURI  
VHJPHQWHG LPDJH DQG UHFRYLUHSD[HOV EXW  
SL[HOV RQ WKH VNHOHWRRQ HLPDJH WKH DLQJ W  
FRUUHVSRQG ZLWK WKH WKH OODVWURF\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 HGLW



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