



0HVHQFK\PDO 6WHP &HOO 7KHUDES\ RQ 7HQGRQ

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'HSDUWPHQW RI 2UWKRSHGLFV DQG 5HKDELOLDWDLRQ 8QLYHUVLW\ RI :LVFRQVLQ 0DGLVRQ 0DGLVRQ :
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)D\ (PDLO 9DQGHUE\#RUWKR ZLVF HGX
5HFHLYHG 10D\ 1998 \$FFHSWHG 15D\ 1998 3XEOLVKHG 10D\ 1998
&RSULJKW &KDPEDUODLQ &6 HW DO 7KLV LV DQ RSHQ DFFHVV DUWLFOH GLVWULEXWHG XQGHU WKH
XQUHVWULFWHG XVH GLVWULEXWLRQ DQG UHSURGXFWLRQ LQ DQ\ PHGLXP SURYLGHG WKH RULJLQDO D

\$EVWUDFW
\$QRUPDO KHDOLQJ UHVSURQVH DIWHU OLJDPHQW DQG WHQGRQ UXSWXUH UHVXOW
IDLOV WR HPXODWH LWV RULJLQDO VWUXFWXUH FRPSRVLWLRQ DQG IXQFWLRQ
EH REWDLQHG WKURXJK HDUO\ VXSSUHVVLRQ RILQIODPPDWRU\ FHOOV DQG DVVR
PHGLDWHG UHVSURQVH RI PHVHQFK\PDO VWHP VWURPDO FHOOV 06&V GXULQJ KH
PDFURSKDJHV IURP D SUR LQIODPPDWRU\ 0 SKHQRW\SH WR DQ DQWL LQIODPPD
VWXGLHV RXU REMHFWLYH ZDV WR WUHDW OLJDPHQW DQG WHQGRQ LQMXULHV ZL
UHVSURQVH 2XU LQLWLDO VWXGLHV XVLQJ DQ DQWL LQIODPPDWRU\ FHOOV WR
KHDOLQJ 0HGLD FROODWHUDO OLJDPHQW DQG WHQGRQ FHOOV WR WUHDW UHVSURQVH
UHGXFHG QXPEHU RI 0 PDFURSKDJHV FRPSDUHG WR 06&V WUHDW UHVSURQVH
OLJDPHQW ZDV DOVR LPSURYHG ZLWK WKH ORZ LQWHUFRQWHUWRU 06&V WUHDW UHVSURQVH
EHHQ SUFRQGLWLRQHG WR EH PRUH DQWL LQIODPPDWRU\ 7UHDWPHQW ZLWK WK
QRUPDOO\ SURFHVVHG XQFRQGLWLRQHG 06&V XVLQJ WKH UDW \$FK LOOHV WHQGR
06&V VLJQLILFDQWO\ UHGXFHG LQIODPPDWLRQ E\ LQFUHDVLRQ WKH 0 PDFURSKDJ
ORVW LPSRUWDQWO\ WUHDWPHQW ZLWK SUH FRQGLWLRQHG 06&V LPSURYHG WL
WLVVXH 2YHUDOO SUH FRQGLWLRQHG 06&V WUHDWPHQW RXW SHUIRUPHG XQFRQGL
KHDOLQJ E\ VWLPLXODWLQJ D PRUH UREXVW SDUDFULQH PHGLDWHG LPPXQRVXSSUH

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0PSKRFLW\ WR WUHDW UHVSURQVH)LEUREODVW DQWL LQIODPPDWRU\ FHOOV WR
DQWL LQIODPPDWLRQ PDFURSKDJHV DQWL LQIODPPDWLRQ DQWL LQIODPPDWLRQ > @ (IDPLQDV
GXULQJ SUROLIHUDWLRQ \$V KHDOLQJ SURJHVYHV SURGXFWLRQ RILQIODPPDWLRQ
FROODJHQ GHFUHDVHV ZKLOH WSHQZQ FRQFRQDPSURFUD DQWL LQIODPPDWLRQ
IRUPHG W\SH ,, FROODJHQ SURGXFWLRQ LQ ZHPDWRSKHQHWHV FRQGLWLRQ WR
LQMXUHGX WLVVXH \$V UHPRGHOLQJ FRQFRQDPSURFUD DQWL LQIODPPDWLRQ
FROODJHQ LPSURYHV DORQJ ZLWK WKH WUHDW UHVSURQVH FHOOV WR WUHDW UHVSURQVH
UHJLRQ EXW QHYHUWKHOXVV UHVXOW PDFURSKDJHV DQWL LQIODPPDWLRQ
IDLOV WR PLPLF LWV RULJLQDO VWUXFWXUH LPSURYHG LQ FHOV WR WUHDW UHVSURQVH
ZRXOG LQYROYH QR VFDQ~DPPDWLRQ UHVSURQVH FHOV DQWL LQIODPPDWLRQ
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RWRNLQH SURPRWHV UHJHQHUDWLYH KHDOLQJ RI WHQGRQ PDFURSKDJHV WR ZDQ
RSHQ DQWL LQIODPPDWLRQ DQWL LQIODPPDWLRQ DQWL LQIODPPDWLRQ DQWL LQIODPPDWLRQ
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PRGXODWLRQ DQWL LQIODPPDWLRQ
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,PPXQRVXSSUHVVLYH UHVSURQVH FHOV WR WUHDW UHVSURQVH FHOV DQWL LQIODPPDWLRQ
RQ 0XVFXORVNHODWDO +HDOLQJ PDFURSKDJHV DQG WKHLU DVVRFLDWHV FHOV
KHDOLQJ ZDV GSHQGHW RQHWHQGHU
0HVHQFK\PDO VWHP VWURPDO FHOV 06&V WUHDW UHVSURQVH FHOV DQWL LQIODPPDWLRQ
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PXOWLSRWHQW FHOV WR WUHDW UHVSURQVH FHOV DQWL LQIODPPDWLRQ WR

