LXNP.400201.019 PP Rectangle MainWindow saveAsMenu: QMenu - \_rectangle : QRect fileMenu : QMenu \* \_doRedoMenu : QMenu ' + Rectangle (Qlamge\*,const QPoint& ,int, const Qcolor&) - brushMenu : QMenu \* +~Rectangle () + draw(QCloseEvent \*) : void \_effectsMenu : QMenu \* \_addOptionsMenu : QMenu ' + update(): void - helpMenu : QMenu \* **DrawingArea** + rect(): QRect - \_drawToolBar : QToolBar\* - \_openAct : QAction \* \_undoStack: QUndoStack \* -\_saveAsActs : QList<QAction \*> \_image: QImage · \_exitAct : QAction \* - \_penWidth : int \_newAct : QAction \* penColor : QColor \* - \_undoAct : QAction \* \_currentShape : Shape \* - \_redoAct : QAction \* **Ellipse** \_startSize : static const QSize penColorAct : QAction \* \_penWidthAct : QAction ' Shape + DrawingArea(QUndoStack \*,QWidget \*parent=0) - \_rectangle : QRect public \_resizeAct : QAction ' +~DrawingArea() · \_correctionAct : QAction \* #\_image: QImage # mousePressEvent(QCloseEvent \*) : void + Ellipse (Qlamge\*,const QPoint& ,int, const Qcolor&) \_filtrateAct : QAction \* \_penWidth : int public # mouseMoveEvent(QCloseEvent \*) : void +~Ellipse () -\_aboutAct : QAction \* \_penColor : QColor \* + draw(QCloseEvent \*) : void # moueReleseEvent(QCloseEvent \*): void \_drawActionGroup : QActionGroup # paintEvent(QCloseEvent \*): void + update(): void public \_effectsActionGroup : QActionGroup # Shape(Qlamge\*,int, const QColor&) + rect() : QRect + setCreateEllipse() : void \_undoStack : QUndoStack +~Shape() + setCreateRectangle(): void + draw(QCloseEvent \*) : void - \_workingSpace : DrawingArea ' public + setCreateLine() : void \_scrollingArea : QScrollArea \* + update(): void + setCreateCurve() : void + rect() : QRect + setCreateEraser() : void + MainWindow(QWidget \*parent=0) # getPenWidth(): int public + setCreateFilledShape(): void +~MainWindow() # getPenColor() : QColor · isModified(): bool # closeEvent(QCloseEvent \*) : void - createNewImage() : void - open(): void Line openlamge(): bool - save() : void savelmage() : bool - createNew() : void setPenColor(): void \_rectangle : QRect - penColor() : void setPenWidth(): void - penWidth(): void getPenColor(): QColor + Line (Qlamge\*,const QPoint&,int, const Qcolor&) - flipHorizontal(): void getPenWidth(): int +~Line () - flipVertical(): void getImageSize(): Qsize + draw(QCloseEvent \*) : void - rotateLeft() : void resizeImage(const QSize) : void + update(): void - rotateRight() : void flip(bool, bool) : void + rect() : QRect - changeSize() : void rotate(greal) : void - filtrate() : void medianFilter(const int) : void - correction() : void gammaCorrection(const double): void - about() : void (\*\_createShape)(QImage\*,QPoint&,int, Qcolor&): Shape\* - createDrawActionGruop(): void - createEffectsActionGruop(): void createToolBar() : QToolBar\* - createActions(): void Curve - createMenus(): void - maybeSave() : bool - \_polyLine : QPolygon - saveFile(const QByteArray &fileFormat) : bool \_mouseMove : bool + Curve (Qlamge\*,const QPoint& ,int, const Qcolor&) +~Curve () + draw(QCloseEvent \*) : void + update(): void + rect() : QRect **FlipCommand RotateCommand DrawCommand** - \_drawingArea: QWidget \* - \_drawingArea: QWidget \* - \_drawingArea : QWidget \* \_image : QImage \* \_image : QImage - \_image : QImage \* horizontal : bool - undolmage : Qlamge **FilledShape** - \_deg : qreal \_shape : Shape \* - \_vertivcal : bool + RotateCommand(QWidget \*, QImage , qreal) \_rectangle : QRect + DrawCommand(QWidget \*, QImage , Shape\*) + DrawCommand(QWidget \*, QImage , bool, bool) +~RotateCommand() -\_points : vector<QPoint> +~DrawCommand() +~DrawCommand() - rotate(qreal) : void - undo() : void - undo() : void - undo() : void + Rectangle (Qlamge\*,const QPoint& ,int, const Qcolor&) - redo() : void redo(): void redo(): void +~Rectangle () - floodFill(const QPoint &, const QRgb &) + draw(QCloseEvent \*) : void + update() : void + rect() : QRect ResizeCommand **CorrectionCommand FiltrateCommand** \_drawingArea: QWidget \* - \_drawingArea : QWidget \* \_drawingArea : QWidget \* \_image : QImage \* · \_image : QImage \* - \_image : QImage \* \_undolmage : Qlamge \_undolmage : Qlamge undolmage: Qlamge \_oldSize : QSize \_gamma : double · \_ratio : int ГУИР.400201.019 РР \_newSize : QSize + CorrectionCommand(QWidget \*, QImage , double) + DrawCommand(QWidget \*, QImage , int) +~CorrectionCommand() + ResizeCommand(QWidget \*, Qimage\* , const QSize&) +~DrawCommand() - findMedian(int\*,const int): int +~ResizeCommand() - adjust() : void Масса Масштаб - undo() : void - undo() : void - filtrate() : void Графический редактор Изм Лист Подп. Дата № докум. - redo() : void redo(): void - undo() : void изображений. Диаграмма - redo() : void Разраб. Паньков классов Пров. Савеня Лист Листов

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