
UE MOBJ [4L103]

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VII.5

```
#include <QDialog>

class SaveCellDialog : public QDialog {
    Q_OBJECT;
public:
    SaveCellDialog ( QWidget* parent=NULL );
    bool run ( QString& name );
    const QString getCellName () const;
    void setCellName ( const QString& );
protected:
    QLineEdit* lineEdit_;
};
```

VII.5

```
#include <QLabel>
#include <QLineEdit>
#include <QPushButton>
#include <QHBoxLayout>
#include <QVBoxLayout>
#include "SaveCellDialog.h"

SaveCellDialog::SaveCellDialog ( QWidget* parent )
    : QDialog (parent)
    , lineEdit_(NULL)
{
    // ...
}
```

VII.5

```
SaveCellDialog::SaveCellDialog ( QWidget* parent )
: QDialog (parent)
, _lineEdit(NULL)
{
    setWindowTitle( tr("Save Cell") );

    QLabel* label = new QLabel ();
    label->setText( tr("Enter Cell name (without extention)") );

    QLineEdit_ = new QLineEdit ();
    QLineEdit_ ->setMinimumWidth( 400 );

    QPushButton* okButton = new QPushButton ();
    okButton->setText ( "OK" );
    okButton->setDefault( true );

    QPushButton* cancelButton = new QPushButton ();
    cancelButton->setText( "Cancel" );

    //...
}
```



VII.5

```
SaveCellDialog::SaveCellDialog ( QWidget* parent ) // ...

// ...
QHBoxLayout* hLayout = new QHBoxLayout ();
hLayout->addStretch();
hLayout->addWidget ( okButton );
hLayout->addStretch();
hLayout->addWidget ( cancelButton );
hLayout->addStretch();
QFrame* separator = new QFrame ();
separator->setFrameShape ( QFrame::HLine );
separator->setFrameShadow( QFrame::Sunken );
QVBoxLayout* vLayout = new QVBoxLayout ();
vLayout->setSizeConstraint( QLayout::SetFixedSize );
vLayout->addWidget( label );
vLayout->addWidget( lineEdit_ );
vLayout->addLayout( hLayout );
setLayout( vLayout );
// ...
}
```

VII.5

```
SaveCellDialog::SaveCellDialog ( QWidget* parent ) // ...

// ...
connect(      okButton, SIGNAL(clicked()), this, SLOT(accept()) );
connect( cancelButton, SIGNAL(clicked()), this, SLOT(reject()) );
// ...
```

VII.5

```
const QString SaveCellDialog::getCellName () const
{ return lineEdit_ -> text(); }

void SaveCellDialog::setCellName ( const QString& name )
{ return lineEdit_ -> setText( name ); }

bool SaveCellDialog::run ( QString& name )
{
    setCellName( name );
    int dialogResult = exec();
    name = getCellName();
    return (dialogResult == Accepted);
}
```

VII.6

```
#include <QMainWindow>

class CellViewer : public QMainWindow {
    Q_OBJECT;
public:
    CellViewer ( QWidget* parent=NULL );
    virtual ~CellViewer ();
    void setCell ( Cell* );
    Cell* getCell () const;
public slots:
    void saveCell ();
private:
    CellWidget* cellWidget_;
    SaveCellDialog* saveCellDialog_;
};
```


VII.6

```
CellViewer::CellViewer ( QWidget* parent )
: QMainWindow      (parent)
, cellWidget_      (NULL)
, saveCellDialog_ (NULL)
{
    cellWidget_      = new CellWidget ();
    saveCellDialog_ = new SaveCellDialog( this );

    setCentralWidget( cellWidget_ );
    // ...
}
```

VII.6

```
CellViewer::CellViewer ( QWidget* parent ) // ...
{
    // ...
    QMenu* fileMenu = menuBar()->addMenu( "&File" );

    QAction* action = new QAction( "&Save_□As", this );
    action->setStatusTip( "Save_□to_□disk_□(rename)_□the_□Cell" );
    action->setShortcut ( QKeySequence("CTRL+S") );
    action->setVisible ( true );
    fileMenu->addAction( action );
    connect( action, SIGNAL(triggered()), this, SLOT(saveCell()) );

    action = new QAction( "&Quit", this );
    action->setStatusTip( "Exit_□the_□Netlist_□Viewer" );
    action->setShortcut ( QKeySequence("CTRL+Q") );
    action->setVisible ( true );
    fileMenu->addAction( action );
    connect( action, SIGNAL(triggered()), this, SLOT(close()) );
}
```

VII.6

```
void CellViewer::saveCell ()
{
    Cell* cell = getCell();
    if ( cell == NULL ) return;

    QString cellName = cell->getName().c_str();

    if (saveCellDialog_ ->run(cellName)) {
        cell->setName( cellName.toStdString() );
        cell->save    ( cellName.toStdString() );
    }
}
```

VII.7

```
#include <QApplication>
#include <QtGui>
#include "CellViewer.h"

int main (int argc, char* argv[]) {
    QApplication* qa = new QApplication(argc, argv);

    CellViewer* viewer = new CellViewer ();
    viewer->setCell( halfadder );
    viewer->show();

    int rvalue = qa->exec();
    delete qa;
    return rvalue;
}
```