

[PATCH 2.6.20-rc2] "make xconfig" Search Dialog

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-12/msg08094.html>

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 - *Date:* Sun, 31 Dec 2006 10:25:26 +0200
-

Hi all!

[I'm not subscribed to this list so please CC me on your replies.]

This patch is a reworked version of:

<http://www.ussg.iu.edu/hypermail/linux/kernel/0603.3/0990.html>

It adds a search dialog to the kernel's "make xconfig" configuration applet.

Changes in this release include:

1. Fixed formatting.
2. The items are now displayed in a tree instead of in a flat list. (With all the necessary changes).
3. Updated to apply against the recent kernel version.

The To do is:

1. Implemented more sophisticated querying.
2. Fix the fact that the top categories in the QListView do not have a visible [+] sign next to them to expand them. (Albeit they are expanded upon a double click).
3. Make sure double clicking an end-item opens and highlights it in the main application.

The patch was tested against kernel 2.6.20-rc2.

Enjoy and Happy New Year!

Regards,

Shlomi Fish

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Chuck Norris wrote a complete Perl 6 implementation in a day but then destroyed all evidence with his bare hands, so no one will know his secrets.

--- linux-2.6.20-rc2/scripts/kconfig/qconf.cc.orig 2006-12-28 01:12:27.384938513 +0200

+++ linux-2.6.20-rc2/scripts/kconfig/qconf.cc 2006-12-30 23:05:15.409325133 +0200

@@ -21,6 +21,10 @@

#include <qfiledialog.h>

#include <qdragobject.h>

#include <qregexp.h>

+#include <qdialog.h>

+#include <qlayout.h>

+#include <qlabel.h>

+#include <qpushbutton.h>

#include <stdlib.h>

@@ -1323,6 +1327,8 @@

connect(splitViewAction, SIGNAL(activated()), SLOT(showSplitView()));

QAction *fullViewAction = new QAction("Full View", QPixmap(xpm_tree_view), "Full View", 0, this);

connect(fullViewAction, SIGNAL(activated()), SLOT(showFullView()));

+ QAction *findAction = new QAction("Find", QPixmap(xpm_save), "&Find", CTRL+Key_F, this);

+ connect(findAction, SIGNAL(activated()), SLOT(findEntries()));

QAction *showNameAction = new QAction(NULL, "Show Name", 0, this);

showNameAction->setToggleAction(TRUE);

@@ -1376,6 +1382,11 @@

config->insertSeparator();

quitAction->addTo(config);

+ // create file menu

+ QPopupMenu* editMenu = new QPopupMenu(this);

+ menu->insertItem("&Edit", editMenu);

+ findAction->addTo(editMenu);

+

// create options menu

QPopupMenu* optionMenu = new QPopupMenu(this);

menu->insertItem("&Option", optionMenu);

@@ -1447,6 +1458,233 @@

QMessageBox::information(this, "qconf", "Unable to save configuration!");

}

+

+FindDialog::FindDialog(QWidget* parent, const char* name, bool modal, WFlags fl)

+ : QDialog(parent, name, modal, fl)

+{

[PATCH 2.6.20-rc2] "make xconfig" Search Dialog

```
+ main_layout = new QVBoxLayout(this, 11, 6, "main_layout");
+ main_layout->addWidget(new QLabel("Query:", this, "label1"));
+ queryLineEdit = new QLineEdit(this, "queryLineEdit");
+ main_layout->addWidget(queryLineEdit);
+ findButton = new QPushButton("Find", this, "findButton");
+ main_layout->addWidget(findButton);
+ connect( findButton, SIGNAL( clicked() ), this, SLOT( performQuery() ) );
+ results = new QListView(this, "results");
+ results->addColumn("Item");
+ main_layout->addWidget(results);
+ }
+
+FindDialog::~FindDialog()
+{
+}
+
+static QString * get_parent_disp(struct menu * menu)
+{
+  QString s;
+  if (menu->sym)
+  {
+    if (menu->prompt)
+    {
+      s += menu->prompt->text;
+      if (menu->sym->name)
+      {
+        s += " (";
+        s += menu->sym->name;
+        s += ")";
+      }
+    }
+    else if (menu->sym->name)
+    {
+      s += menu->sym->name;
+    }
+    else if (menu->prompt)
+    {
+      s += menu->prompt->text;
+    }
+  }
+  return new QString(s);
+}
+
+QString * get_parent_string(struct menu * menu, int depth)
+{
+  QString * parent_disp = get_parent_disp(menu);
+  QString s;
+
+  /*
+  * Append 'depth' tabs.
+  */
+  */
```

```

+ for(int i=0;i<depth;i++)
+ {
+ s += "\t";
+ }
+ s += *parent_disp;
+ s += "\n";
+
+ delete parent_disp;
+
+ return new QString(s);
+}
+
+static QString * get_item_display(MenuList * parents, struct menu * mymenu)
+{
+ MenuList::iterator it;
+ QString * item;
+ #if 0
+ int depth;
+ #else
+ int depth=0;
+ #endif
+
+ item = new QString();
+
+ #if 0
+ for (depth=0, it = parents->begin(); it != parents->end() ; ++it, ++depth)
+ {
+ QString * parent_string = get_parent_string(*it, depth);
+ *item += *parent_string;
+ delete parent_string;
+ }
+ #endif
+
+ QString * string = get_parent_string(mymenu, depth);
+ *item += *string;
+ delete string;
+
+ return item;
+}
+
+QListViewItem * ListViewBranch::newItem(QString & s)
+{
+ if (which == ISNULL)
+ {
+ // Shouldn't happen.
+ throw "Hello";
+ }
+ else if (which == ITEM)
+ {
+ return new QListViewItem(item, s);
+ }

```

```

+ else
+ {
+ return new QListViewItem(view, s);
+ }
+
+}
+
+ListViewBranch ListViewBranch::insertItem(QString & s)
+{
+ return ListViewBranch(newItem(s));
+}
+
+bool FindDialog::matches(struct menu * mymenu, QString & query)
+{
+ struct symbol * sym = mymenu->sym;
+
+ if (!sym)
+ {
+ return false;
+ }
+
+ QString help(sym->help);
+ QString name(sym->name);
+
+ return (help.contains(query, FALSE) || name.contains(query, FALSE));
+}
+
+void FindDialog::handle_match(MenuList * parents, ListViewMenuList * * last_branch)
+{
+ // TODO : Name to something more meaningful than
+ // it2
+ MenuList::iterator it;
+ ListViewMenuList::iterator it2;
+
+ // Find the last branch that was allocated
+ it = parents->begin();
+ it2 = (*last_branch)->begin();
+
+ for (;(*it2).menu == *it ; ++it, ++it2)
+ {
+ }
+
+ ListViewMenuList * new_branch = new ListViewMenuList;
+ MenuList new_menu;
+
+ ListViewMenuList::iterator copy_branches;
+ MenuList::iterator copy_menu;
+ for (copy_branches = (*last_branch)->begin(), copy_menu = parents->begin();
+ copy_branches != it2;
+ ++copy_branches, ++copy_menu)
+ {

```

[PATCH 2.6.20-rc2] "make xconfig" Search Dialog

```
+ new_branch->append(*copy_branches);
+ new_menu.append(*copy_menu);
+ }
+
+ for (; it != parents->end(); ++it)
+ {
+ ListViewMenuItem new_item;
+ new_item.menu = *it;
+
+ QString * str = get_item_display(&new_menu, *it);
+ new_item.branch = new_branch->back().branch.insertItem(*str);
+
+ new_branch->append(new_item);
+ new_menu.append(*it);
+ delete str;
+ }
+
+ // Update to the the new branch
+ delete *last_branch;
+ *last_branch = new_branch;
+ }
+
+ void FindDialog::search(QString & query, MenuList * parents, ListViewMenuList * * last_branch)
+ {
+ struct menu * child;
+
+ struct menu * mymenu = parents->back();
+
+ if (matches(mymenu, query))
+ {
+ handle_match(parents, last_branch);
+ }
+
+ for (child = mymenu->list; child ; child = child->next)
+ {
+ MenuList new_parents(*parents);
+ new_parents.append(child);
+ search(query, &new_parents, last_branch);
+ }
+ }
+
+ void FindDialog::performQuery(void)
+ {
+ QString query = queryLineEdit->text();
+ results->clear();
+
+ MenuList parents;
+ ListViewMenuList * mybranch = new ListViewMenuList;
+
+ {
+ ListViewMenuItem i;
```

[PATCH 2.6.20-rc2] "make xconfig" Search Dialog

```
+ i.branch = ListViewBranch(results);
+ i.menu = &rootmenu;
+ mybranch->append(i);
+ }
+
+ parents.append(&rootmenu);
+
+ search(query, &parents, &mybranch);
+
+ delete mybranch;
+ // printf("Query for \"%s\\n", (const char *)queryLineEdit->text());
+}
+
+void ConfigMainWindow::findEntries(void)
+{
+ FindDialog * dlg = new FindDialog(this, "dialog", TRUE);
+ dlg->exec();
+}
+
+void ConfigMainWindow::saveConfigAs(void)
+{
+ QString s = QFileDialog::getSaveFileName(".config", NULL, this);
+--- linux-2.6.20-rc2/scripts/kconfig/qconf.h.orig 2006-12-28 01:12:27.384938513 +0200
+++ linux-2.6.20-rc2/scripts/kconfig/qconf.h 2006-12-30 23:05:54.335543414 +0200
@@ -4,6 +4,7 @@
*/

#include <qlistview.h>
+#include <qlistbox.h>
#if QT_VERSION >= 300
#include <qsettings.h>
#else
@@ -304,6 +305,7 @@
ConfigMainWindow(void);
public slots:
void changeMenu(struct menu *);
+ void findEntries(void);
void setMenuLink(struct menu *);
void listFocusChanged(void);
void goBack(void);
@@ -332,3 +334,49 @@
QSplitter* split1;
QSplitter* split2;
};
+
+typedef QList<struct menu *> MenuList;
+
+struct ListViewBranch
+{
+ enum { ISNULL, ITEM, VIEW } which;
+ union
```

```

+ {
+ QListViewItem * item;
+ QListView * view;
+ };
+ ListViewBranch() { which = ISNULL; item = NULL; }
+ ListViewBranch(QListView * v) { view = v; which = VIEW; }
+ ListViewBranch(QListViewItem * i) { item = i; which = ITEM; }
+ QListViewItem * newItem(QString & s);
+ ListViewBranch insertItem(QString & s);
+};
+
+struct ListViewMenuItem
+{
+ ListViewBranch branch;
+ struct menu * menu;
+};
+
+typedef QList<struct ListViewMenuItem> ListViewMenuList;
+
+class FindDialog : public QDialog
+{
+ Q_OBJECT
+ public:
+ FindDialog( QWidget* parent = 0, const char* name = 0, bool modal = FALSE, WFlags fl = 0 );
+ ~FindDialog();
+ QVBoxLayout * main_layout;
+ QLineEdit * queryLineEdit;
+ QPushButton * findButton;
+ QListView * results;
+public slots:
+ void performQuery();
+public:
+ bool matches(struct menu * mymenu, QString & query);
+ void search(QString & query, MenuList * parents,
+ ListViewMenuList ** last_branch);
+ void handle_match(MenuList * parents,
+ ListViewMenuList ** last_branch);
+};
+

```