Creating and customizing Pricelists

Operations with optimization algorithms require correct pricelists according to manufacture needs.

This document describes structure and options of pricelist, allows creating and customizing appraiser for any types of cuts.

1 Content

2 Load pricelists to program

Pricelists are usually located in **Price list** folder for Helium Rough, Pacor Client and Helium Polish or System folder for Oxygen programs and looks like set of txt files. Set of txt files contains main file and files with tables of prices for some cuts.

To make pricelist's txt-file accessible in the program Helium Rough, Pacor Client and Helium Polish Oxygen and others:

1. Open **ini** or **but** file located in root folder of the program

   - *HeliumBat.ini* (Helium Rough)

   - *PacorBat.ini* (Pacor Client)

   - *Winoxygen.bat* (Oxygen Microscope Server, Oxygen Inclusion and Helium Speed):

2. Add following string in **ini** or **but** file:

```
LoadCCFAppraiser "<name of folder>\<the name of main file of
pricelist>.txt" (Helium Rough, Pacor Client and Helium Polish)
```

Or

```
LoadCCFAppraiser  "<name  of  folder>\<the  name  of  main  file  of
pricelist>.txt" (Oxygen Microscope Server, Oxygen Inclusion and Helium
Speed).
```

By default **ini** or **but** file contains string

```
LoadParsAppraiser "Price list\RAPAPORT.txt" (Helium Rough, Pacor Client
and Helium Polish)
```

Or

```
LoadParsAppraiser  "System  \RAPAPORT.txt"  (Oxygen  Microscope  Server,
Oxygen Inclusion and Helium Speed).
```

3   Pricelist structure

The main txt-file of pricelist has the following structure:

- Pricelist version
- Title of pricelist
- Serial number
- Section [GroupMass]
- Quality
- CriticalMass
- DefaultPriceList
- Diamond
- FixedDiamond
- Section [PriceList]

*Note. This documentation is accompanied with sample of pricelist – main file **Rapaport.txt** and required dependable files **RAPBRILL.TXT**, **RAPEMER.TXT**, **RAPMARQ.TXT**, **RAPPEAR.TXT**, **RAPPRINC.txt**. Download the sample from the follow link:*
http://www.octonus.com/oct/download/files/PriceListsExample.zip

This set of files is Rapaport pricelist of 9th of June, 2004. On the base of this file customer will be able to create his own pricelist.

1.1.   Pricelist version, title and serial number

Every pricelist contains sections with version, title of pricelist and serial number:

```
Version:  1
Title:  "Rapaport: 09 july 2004"
SerialNumber:   1
```

To insert comments in txt file insert sign **";"** before string:

```
; Test pricelist created by OctoNus
```

1.2.   Section Group Mass

The section defines different weight groups and available groups for color, clarity and fluorescence for every weight group.

```
GroupMass:      1
    Mass:           0.00    100000
    Color:          23
                    D E F G H I J K L M N O P Q R S T U V W X Y Z
    Clarity:        11
                    IF VVS1 VVS2 VS1 VS2 SI1 SI2 SI3 I1 I2 I3
    Fluorescence:   4
                    None Low Medium High
    Default:        H VVS2 None
```

This example illustrates the pricelist contains only **1** weight group, with region of weight from **0** until **100000**, **23** grades of color, **11** grades of clarity and **4** grades of fluorescence.

String **Default** determines grades of color, clarity and fluorescence for diamond manually created in the program by default:

- **H** color
- **VVS2** clarity
- **None** without fluorescence

1.3.   Quality, critical mass, default pricelist, diamond and fixed diamond

The next sections define quality, critical mass, default pricelist, diamond and fixed diamond:

```
Quality:        0
CriticalMass:   0.3 0.5 1.0 5.0
DefaultPriceList: Pear
Diamond:        0
FixedDiamond:   0
```

Quality is for internal use. Please leave it as is in pricelist main file.

CriticalMass is archaic command. It determined weights where we have sudden change (jump) of prices. This command should not be edited by customer. Software will automatically determine jumps and price ranges automatically using files for prices.

DefalutPriceList determines name of cutting whose price will be used for any other cutting are not determined in pricelist and don't have table for prices.

Diamond and **FixedDiamond** are also for internal use. Please leave it as is in pricelist main file.

1.4. *Section PriceList*

PriceList is the main section. It determines files of prices for different cuts:

```
PriceList:       5

   Cut:            Brilliant
   Magnify:        1
   DiscountPerCut: N/A
   Source:         file= RapBrill.txt
   DiscountPerFluorescence:       N/A


   Cut:            Pear
   Magnify:        1
   DiscountPerCut: N/A
   Source:         file= RapPear.txt
   DiscountPerFluorescence:       N/A


   Cut:            Emerald
   Magnify:        1
   DiscountPerCut: N/A
   Source:         file= RapEmer.txt
   DiscountPerFluorescence:       N/A


   Cut:            Marquise
   Magnify:        1
   DiscountPerCut: N/A
   Source:         file= RapMarq.txt
   DiscountPerFluorescence:       N/A


   Cut:            Princess
   Magnify:        1
```

```
DiscountPerCut: N/A
Source:          file= RapPrinc.txt
DiscountPerFluorescence:        N/A
```

String **PriceList** contains quantity of cuts having files of prices. There are 5 such cuts in example: **Brilliant**, **Pear**, **Emerald**, **Marquise and Princess**. Customer can add or remove cuts by changing quantity in string **PriceList** and add or delete section **Cut** for new cuts. Section **Cut** contains the follow structure:

```
Cut:            Brilliant
Magnify:        1
DiscountPerCut: N/A
Source:          file= RapBrill.txt
DiscountPerFluorescence:        N/A
```

Cut - name of cut. Should be the same as in program

Magnify - coefficient of price magnification for the cutting. For example, if we would like to get 15% discount for cut we must type: `Magnify:        0.75`

DiscountPerCut - discount for cutting where we can use special created file if we would like to set different discount for different groups of color and clarity

Source - source of prices – file with tables of prices for different weights, colors and clarities

DiscountPerFluorescence – discount for fluorescence - specially created file with different discounts for groups of fluorescence

4 Source files with prices

Main file contains links to source files with prices:

```
Source:          file= RapBrill.txt
```

There is a description of structure for one of source file below.

Source file starts from string

```
Tables:        28
```

This value defines quantity of tables for different weight ranges. Every table looks like

```
Format: clarity        8        5
Mass:       0.01    0.03
Magnify:        1
        IF-VVS2 VS1-VS2 SI1     SI2     SI3     I1      I2      I3
D-F          850     740     670     610     550     500     390     220
G-H          740     680     630     580     510     450     350     200
I-J          650     600     550     500     450     370     320     160
K-L          500     450     400     370     340     300     250     140
M-N          370     340     310     280     250     220     190     120
```

Format - table dimensions (for example, 8 columns by 5 rows)

Mass - range of weights

Magnify - coefficient of magnification and prices for different colors and clarities in table. Requires price is in intersection of requires column and string. Coefficient of magnification also could be used for additional discount for any of weight range.

There are next 27 tables in the source file with prices. It defines other weight ranges.

5 Appendix. Using Rapaport price list converter to create source files for price list

DBFCONV Rapaport Price List Converter converts Rapaport price lists from the format of dBase (*.dbf) to format used by OctoNus. Rapaport provides the following files to subscribers:

- *RNDDAT.DBF* - price list for Brilliant cut
- *PEARDAT.DBF* - price list for Pear cut
- *MQDAT.DBF*- price list for Marquise cut
- *EMDAT.DBF* - price list for Emerald cut

DBFCONV does not require the file names are exactly as the listed above, but the extension must be **.dbf** (other formats are not supported). If necessary, one, several or all cuts can be imported at a time.

5.1 Download the Rapaport price list converter

Download **Rapaport Price List Converter** free of charge. The primary installation package contains only this program. It requires ODBC installed on the computer together with Microsoft dBase ODBC driver. Most probably your operating system already has this driver installed. We recommend download the primary installation package, install it and try to convert your data. It will check the computer and notify you if the additional driver is required. If the program manages to convert your data, you will see a notifying message that the conversion was completed successfully.

If the necessary driver is missing you will see a corresponding error message. In this case install the driver **Microsoft dBase Driver (*.dbf)** included in the Microsoft Data Access Components package (MDAC). Download the driver from our web-site or directly from the Microsoft's web-site. The version of the MDAC on our site is 2.8. This package is being constantly updated by Microsoft and we recommend you to use the latest version from the Microsoft's web-site. This component may be found in the **Data Access and Storage Developer Center** section of the microsoft.com:

http://msdn.microsoft.com/data/downloads/updates/default.aspx

Download DBFCONV http://www.octonus.com/download/DBFConvSetup.exe

Download ODBC drivers http://www.octonus.com/download/MDAC_TYP.EXE

5.2 Set up and use the price list converter

1. To begin working with converter start DBFCONV program. A shortcut is usually located in menu **Start/Programs/DiamCalc**.

2. When DBFCONV is started it prompts for location of data files. To define location of data files *RNDDAT.DBF* file name is proposed initially but you can choose any other DBF file to load instead.
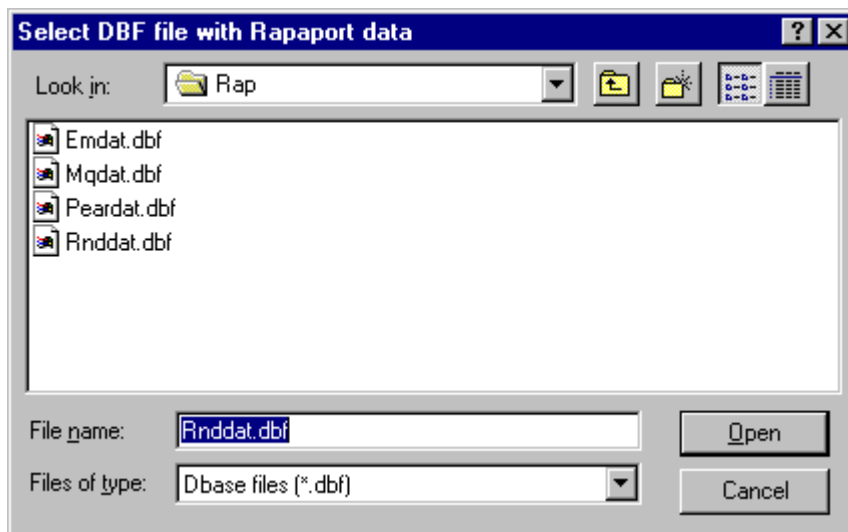
3. After selecting a file click button **Open** to continue

4. DBFCONV window appears
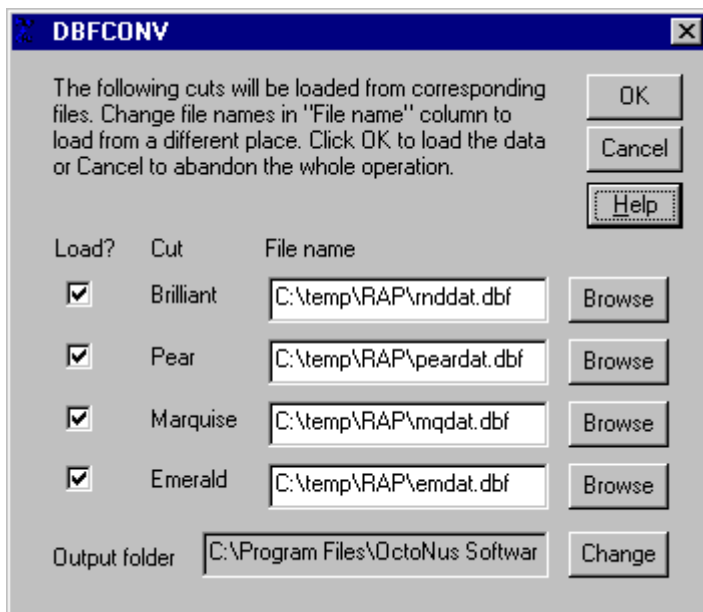
Its purpose is to verify that all the data for the conversion process is specified correctly: which cuts' data will be converted, which files hold the data, and where to put output files. All fields are filled automatically. Standard file names are used for all cuts, only the cuts which are found in the folder you specified will be processed, and the output folder is where OctoNus Diamond Calculator expects to find the data.

5. Usually it is enough to leave everything as is. However, you can modify settings in **DBFCONV** window:

   - Remove check mark in **Load?** column of the cuts you do not load

   - Specify necessary names in **File name** column if your data is stored in the files with names different from the listed above. Use buttons **Browse** to select the file names. After changing file names set check marks near the names of cuts you want to load.

6. After making your changes or deciding that all is right as is press button **OK** to start conversion process

7. It can take some time…

8. After completing, you will be notified that the data is converted or presented with an error log which describes encountered problems.

Note. *If you leave an output folder as is DiamCalc will use the new data the next time it is started (by default, it is point to the place where DiamCalc stores price lists).*

5.3 Errors and messages

There can be some error conditions during DBFCONV operation. If an error occurs, an error message may be shown. Additionally, you will be presented with a detailed error log after conversion is completed. If error messages do not describe the situation clearly, look at the log for additional information. The most common problems are the following:

1. ODBC is missing or installed incorrectly. Download and install the Microsoft Data Access Components package (MDAC) which contains the driver named **Microsoft dBase Driver (*.dbf)**. Download it from our web-site or directly from the Microsoft's web-site. The version of the MDAC on our site is 2.8. This package is being constantly updated by Microsoft and we recommend you to use the latest version from the Microsoft's web-site. This component may be found in the **Data Access and Storage Developer Center** section of the microsoft.com (http://msdn.microsoft.com/data/downloads/updates/default.aspx).

2. An input file cannot be opened. An error message may also look like *Cannot open the table rnddat*. This sort of errors can occur if a wrong name of input file is specified, or if the file is broken, or it does not contain price lists in Rapaport format, or the file is open already by some application (Access, Excel or some

other). Check that you specified correct file names, close other applications working with the Rapaport price lists and try again.

3. An output file cannot be opened (this message appears in error log). Possible reasons are: output folder does not exist, you do not have permissions to write to the output folder/file (on Windows NT systems), or the output file is already opened by some program with exclusive access (e.g. MS Word or another text processor). Check that the output folder is specified correctly, close the output files if they are opened by other programs, and try again.