

AmiBroker 1.85 - Guide

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Chapter 1

AmiBroker 1.85 - Guide

1.1 AmiBroker 1.85 On-Line Documentation

AmiBroker 1.8

Copyright (C)1995 by Tomasz Janeczko
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This file describes stock analysis program AmiBroker 1.8.

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Disclaimer & Legal stuff
. . . . from the author

Distribution
. about copying and distribution

Introduction
. what is this program for ?

Main features
. list of main features

Requirements
. what do you need to run AmiBroker ?

Installation and running
. . . . how to get started

What's new
. news & improvements list

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. description of windows

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Gadgets description of gadgets in ToolBar
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Registration form ready to print :-)
Future releases development plans
Getting contact with author	. . my contact address
Thanks greetings list

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Menu/Analysis
Author's Address
Menu/ARexx
Charts: CCI
Menu/Charts
Charts: Drawing Tool
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Charts: MACD

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1.3 DISCLAIMER & LEGAL STUFF

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AmiBroker executable and related files are

**** SHAREWARE ****

that means you may use, copy and transfer unregistered version of product in complete, unchanged form.

YOU ARE NOT ALLOWED TO COPY, RENT OR LEASE KEYFILE 'broker.key' WHICH IS DISTRIBUTED WITH REGISTERED VERSION.

YOU MAY NOT DECOMPILE, DISASSEMBLE OR ATTEMPT TO UNLOCK OR BYPASS ANY USER ACCESS LIMITATION INCLUDED WITHIN THIS PRODUCT.

AmiBroker uses ReqTools library which is
Copyright (C) Nico François.

1.4 Distribution

The main 'place' of distribution of this program is AmiNet.
You can find the most recent version of AmiBroker in your
nearest AmiNet mirror in 'misc/biz' directory.

The most recent AmiBroker upgrades are available from AmiBroker WWW Page:

<http://pmat.ch.pwr.wroc.pl/~janeczko/amibroker.html>

(this URL may change in the future)

see also ftp sites:

<ftp://plukwa.pdi.lodz.pl/amiga/AmiBroker/>
or
<ftp://ftp.pwr.wroc.pl/pub/amiga/AmiBroker/>

You are allowed to copy/distribute this product in complete, unchanged form
as long as the copying fee does not exceed the cost of media.

YOU ARE NOT ALLOWED TO COPY, RENT OR LEASE KEYFILE 'broker.key' WHICH
IS DISTRIBUTED WITH REGISTERED VERSION.

If you like this program you should register by sending me proper
registration form and registration fee (15 USD).

1.5 Introduction

AmiBroker is the program for analysing stock trends and portfolio
management. Since it was written in Poland, it was designed to
meet Warsaw Stock Exchange (WSE) trading requirements.

I realize that WSE rules could be very different from other countries'
exchange circumstances. So, when you find this program useful, and
want to register, please describe your requirements to help me meet your needs.

Version 1.6 introduced powerful ARexx command set which allows writing custom
scripts for quotation import. There is also ASCII import feature suitable
for most users.

See also:

Main features

1.6 What's new in 1.8?

In version 1.8 of AmiBroker several things have been added:

- Integrated, context-sensitive on-line help
From now you can select any window or menu item and get full explanation of its function by pressing HELP key
- Commodity Channel Index chart
- Review window providing informations like
 - a) daily stock quotes
 - b) weekly/monthly returns comparision
 - c) Price/Earnings comparision
 - d) Price/Book value comparision

which can be viewed, saved or printed.

1.7 Main features of AmiBroker

These are the main features of AmiBroker

1\textdegree{} Full technical analysis of stock trends - charts including:

- price
 - candlesticks (for open/close/high/low display)
 - volume
 - turnover value + moving average (NEW)
 - short-time, mid-time (NEW), long-time moving averages
 - Bollinger bands
 - Rate Of Change indicator (ROC)
 - Wilder's Relative Strength indicator (RSI)
 - Moving Average Convergence-Divergence oscillator (MACD)
 - On Balance Volume oscillator (OBV)
 - Stochastic Slow oscillator
 - Ultimate oscillator
 - risk/yield map with zooming (NEW)
 - Relative Strength (RS) with selectable reference stock (NEW)
 - Triple exponential indicator (TRIX)
- * Drawing tool for trendlines etc.
 - * Zoom feature
 - * All charts freely scalable ;-))

2\textdegree{} Stock information handling

- adding new & removing old stock issues
- split handling with automated date/ratio detection

- corporation finances database
- fundamental indicators such as price-to-earnings ratio (P/E)

3\textdegree{} Convenient quotation data entry

- configurable ASCII import feature
- (NEW) ARexx commands for adding new quotation data
- database with open/close/high/low prices
- import from teletext (Warsaw Stock Exchange specific)
- import from KING-service (WSE specific)
- manual entry
- removing selected quotation

4\textdegree{} Preferences editor:

- fully customizable parameters of indicators
- screen resolution and palette prefs
- snapshot windows feature (NEW)

5\textdegree{} Portfolio management

- buy/sell transactions handling
- dividend (with settable dividend tax)
- pay-in/pay-out evidence
- brokerage commission editor
- stock adding/removing
- portfolio contents printing & export

6\textdegree{} SPEED !!!

- chart drawing is extremely fast (LESS THAN 1 SEC on stock A1200)
- turbo-charged version for 68020+68881 8-)
(50-300% speedup!!!)

7\textdegree{} ERGONOMY !!!

- all or any selected number of charts can be viewed at the same time
- instant access to any quotation data by selecting interesting point on the chart ←
- window auto-arrangement function
- asynchronous design, all main windows are independent and can be opened at the same time
- context-sensitive on-line help

8\textdegree{} ARexx

(NEW) Powerful set of ARexx commands providing total control over quotation database. (introduced in version 1.6)

(NEW) Script execution via function keys and menu-items

9\textdegree{} OS support

- works on any kind of monitor - user selectable screen resolution/monitor (← now works even better)
 - fast-access, 8-color ToolBar providing main functions of the program
-

- (NEW) AmiBroker now opens public screen allowing visitor windows to be opened on. ←
- (NEW) Interleaved bitmaps and up to 8 bitplanes screen

1.8 Program requirements

Minimum system:

- any Amiga, 1MB RAM minimum
- OS 2.04 or better

Preffered system:

- A1200 or better, 2MB RAM or more
- Hard disk

1.9 Installation and running

You can install AmiBroker with 'Install-AmiBroker' script. You will need Installer program from Commodore (not included in this distribution). If you have one, just double click on 'Install-AmiBroker' icon. If you don't have Commodore's Installer program you will have to install AmiBroker files manually.

These are the things you have to keep in mind doing manual installation:

1\textdegree{} Following files must be placed in AmiBroker main directory:

- AmiBroker (program itself CPU=68000+)
- AmiBroker.FPU (program itself CPU=68020+ FPU=68881+)
- broker.prefs (preferences file - optional)
- broker.portfolio (portfolio data file - optional)

2\textdegree{} In the 'data' subdirectory files containing quotation data must be placed ←

- data/AGROS
- data/AMERBANK
- data/BIG
- data/BRE
- ... itd.

3\textdegree{} You will need following libraries installed in LIBS: directory:

- diskfont.library
- reqtools.library (version 38+)

These libraries are required but not included in this distribution.

4\textdegree{} And following fonts in FONTS: directory:

- XenPL.font
- XenPL/8
- XHelveticaPL.font
- XHelveticaPL/11

Once you have installed the program you can run it by double-clicking on its icon (AmiBroker or AmiBroker.FPU if you've got math co-processor)

1.10 AmiBroker main Windows

AmiBroker can open following windows:

Toolbar
. ToolBar with fast-access gadgets

Select
. global stock name selector

Information
. information about corporation

Preferences
. chart preferences

Portfolio
. portfolio management window

Financial data
. . financial data entry window

Install ARexx macros
. install macros window

Review
. review of daily quotes/returns/ P/E and P/BV

Main chart
. . . with price, volume, etc.

Turnover
. turnover/volume bar chart

ROC
. Rate Of Change chart

RSI
. Wilder's Relative Strength Index chart

MACD
. MACD chart

OBV

```

. . . . . On Balance Volume Chart

Stochastic Slow
. . Lane's Stochastic Slow chart

Ultimate
. . . . . Ultimate indicator chart

Risk/Yield
. . risk/yield map

RS
. . . . . Relative Strength compared to market index

TRIX
. . . . . TRIX chart

```

Chart windows are freely scalable and can be automatically arranged (see preferences settings).

All this windows are asynchronous i.e. you can open as many windows as you like, and work with all of them at the same time.

If you select a stock in
 Select
 window all opened charts
 will be redrawn.

1.11 ToolBar window

In Toolbar window there are several icons providing fast access to main functions of the program: ↔

- open Main chart window
- open Turnover bar-chart window
- open MACD chart
- open RSI chart
- open ROC chart
- open Stochastic Slow chart

- open
 - OBV
 - chart
 - open
 - Ultimate
 - chart
 - open
 - RS
 - chart
 - open
 - TRIX
 - chart
 - open
 - CCI
 - chart
 - open
 - risk/yield map
 - select normal pointer
 - select
 - drawing tool
 - pointer
 - - zoom chart
 -
 - import from ASCII file
 -
 - import from teletext
 -
 - manual entry
 - open
 - information about corp.
 - window
 - add a
 - new stock
 -
 - remove stock
 -
 - split
 - open
 - financial data
 - window
 - arrange chart windows
 - screen mode prefs
 - palette prefs
 - chart
 - preferences
 - open
 - portfolio management
 - window
 - open
 - review window
 - quit AmiBroker
-

1.12 Drawing Tool

With the drawing tool you can draw trendlines by hand.
To draw a line simply press left mouse button, move pointer to desired point and then release button.
To cancel drawing simply press ESC key or move pointer outside the window.

1.13 Chart zooming

You can change number of displayed quotations by this gadget.
First click on the chart to select the beginning session, then press this gadget.
To restore preferences' setting just click this gadget again.

You can also view all available quotations (zoom-out feature) by selecting this gadget together with SHIFT key.

1.14 Select window

In this window we have got list of available stocks & indexes.
Selecting one of them will refresh all opened charts and update information windows.

This selection is global for the program i.e. all stock functions will reference stock selected in this window.

1.15 Portfolio management window

There are following items in the portfolio management window:

- portfolio stock list
- text fields containing date, quantity, buy price, current price, value, yield
- total stock value
- cash remaining
- total portfolio value

Following actions could be taken:

- Buy stocks - you will be asked for confirming stock selection and price and then you will be asked for a number of stocks you want to buy.
 - Sell stocks - as before except of the fact that you have to choose the stock from the `_portfolio_` stock list.
 - Dividend - after selecting that gadget you will be asked for dividend value per one share. Program will calculate total dividend value minus income tax.
 - Pay in
-

- Pay out

You can enter commission taken by all buy/sell transactions in

commission
window.

1.16 commission table

In this window you can enter commission taken by buy/sell transactions. commission are in % of value of trade.

1.17 Quotation manual entry window

Manual entry of quotations isn't the most convenient method. Polish users can import quotations from teletext and KING service. Foreigners may use

ASCII import
feature .

If you must enter quotations by hand here's the instruction:

After selecting 'manual entry' option you will be asked about the session date. If one exists in the database you will be able to modify existing quotations, if not - program will add new session to its database.

After selecting session's date, the window with following fields will show up:

- Pick - gadget which picks current stock name from stock list
- Stock name
- Price entry gadget (closing price)
- Turnover value entry gadget

For continuous quotations you get also

- Opening price gadget
- Day's highest price
- Day's lowest price

By default program will start from the first stock in the list, however you can change edited stock name using 'Pick' gadget.

You can enter stock price using price entry gadget, and turnover using next gadget. Please remember that turnover MUST be entered in thousands of your currency. (For example if turnover value is 123200 please enter 123.2 or simply 123)

When continuous quotations are enabled you will be asked for volume (not for turnover) ←

You should then enter the number of shares.

You should also enter open, high and low prices into appropriate gadgets.

As you accept your entries with >TAB< key program will proceed to the next stock in the list. (Tab-Cycle activation)

You can accept all your entries by hitting OK gadget or cancel all by selecting >Cancel<

1.18 Financial data window

This window provides fundamental financial data of corporation as:

- sales income
- earnings before taxes (EBT)
- earnings after taxes (EAT)

These are given in a quarter base.

Program will compute P/E (Price to Earnigs ratio) and EPS (Earnings Per Share) indicators from given data.

1.19 Install ARexx macros

This window allows to assign particular ARexx scripts to function keys and menu items.

Just type script name (with optional path), or use file-requester to do this for you.

CAUTION:

DUE TO THE WAY THE AREXX WORKS, SCRIPT NAME WITH PATH COMPONENT CAN NOT CONTAIN ANY SPACES!!!!

1.20 Main chart window

Here we have price chart along with (as set in preferences window):

- turnover/volume bar chart
- short time moving average chart
- mid time moving average chart
- long time moving average chart
- Bollinger bands chart

On the X axis months are given and on the Y - prices. Price scale could be linear or logarithmic.

There is one important feature of this window - if you click on the chart you will get access to any displayed quotation - following items will be displayed on the title bar:

- date
- price
- additional infos (WSE related) (nk, ns, rk, rs, ok, os)
- percentage price change
- turnover value/volume

When continuous quotations are enabled you will get following items on title bar:

- date
- close
- percentage closing price change
- high
- low
- volume

By default last quotation's data are displayed.

You can switch this cursor-line by click outside the chart but within the window.

1.21 Turnover volume/value chart

This window contains turnover volume or value chart. Which of these depends on your settings in preferences window.

With version 1.7+ you get also moving average for volume/turnover.

CAUTION: For continuous quotations turnover value is approximate.

1.22 Information about corporation

This window provides several infos about corporation:

- | | |
|---------------|---|
| Short name | - th short form of firm name, used in 'Select' window and with quotation import functions. If you use them, please check if Short name given in this field is the same as used in Teletext service. (this is WSE specific feature) |
| Full name | - official version of firm name |
| Code | - stock code (WSE specific) |
| Address | - corporation address |
| Issue | - total number of shares |
| Nominal value | |
-

Book value

Information about that if given firm is on primary or secondary market.

Continuous quotation mode (this enables candlestick charts and manual entry open/high/low/volume gadgets)

1.23 Preferences window

This window provides following chart settings:

For

main chart
we've got

- fat/thin price line switch
- mark individual quotations on/off switch
- logarithmic scale on/off switch
- add turnover/volume chart
- add short-time moving average chart
- add mid-time moving average chart
- add long-time moving average chart
- add Bollinger bands

Ranges of moving averages and width of Bollinger bands are also definable.

For other charts:

ROC
- range

RSI
- range

MACD
- fast and slow average range, signal average range

Stochastic Slow
- range

Ultimate
- fast, medium and slow average range

TRIX
- averaging range

CCI
- range

Turnover
- value/volume switch

Turnover moving average range

Relative Strength
comparison base (reference stock)

Additional options:

Auto-arrange charts - if this option is on chart windows are scaled and arranged to fit the screen after every opening/closing chart window.

Number of quotations - sets maximum displayable quotation qty.

Limit number of saved quotations - if this option is ON AmiBroker will save database with limited number of quotations. This prevents the database from growing too much

Max. number of saved quotations - this is the limit itself. Preferable 300 or ↔ higher.

Colors:

These gadgets provides user definable color selection for charts, grid & ↔ background.

1.24 Review window

This window provides overall market informations like:

- daily stock quotes in two formats
 - a) Polish (close prices only)
 - b) International (close/high/low + volume, continous trading)
- weekly returns comparision table
- monthly returns comparision table
- Price/Earnings comparision
- Price/Book value comparision

'Pick' gadget picks current date (selected on the chart)

'Save' asks for file name and saves the list

'Print' prints displayed list

'Cancel' closes the window without any action

1.25 Technical indicators

In AmiBroker there are following technical indicators:

ROC
. Rate Of Change

RSI
 Wilder's Relative Strength Index

MACD
 Moving Average Divergence/Convergence

OBV
 On Balance Volume

Stochastic Slow
 . . Lane's Stochastic Slow

Ultimate
 Ultimate Indicator

RS
 Relative Strength compared with index

TRIX
 TRIPLE exponential oscillator

CCI
 Commodity Channel Index

and moving averages, Bollinger bands and
 risk-yield map

.

1.26 ROC - Rate Of Change

ROC - Price Rate Of Change

This indicator displays the rate-of-change of a security's price. Change is displayed as a percentage rather than as a ratio. Both look at today's price in comparison to the price "n" days ago. Prices tend to increase and retract in a cyclical wave like motion. The faster prices fall, the faster the rate-of-change will fall and the faster prices rise, the faster the ROC will rise. This indicator is usually displayed as an overbought/oversold format.

Calculate the price rate-of-change by dividing the price change over the last n-periods by the closing price n-periods ago. This gives you percentage that the price has changed in the last n-periods.

Note: You can change value of "n" in preferences window.

Default value of ROC's n = 10.

1.27 RSI - Wilder's Relative Strength Index

RSI - Relative Strength Index

The Wilder RSI is an excellent overbought/oversold indicator that can be used to predict trend reversal points. Do not confuse this index with relative strength in its everyday definition as used in comparing the movement of one security, index or group against the movement of another security, index or group. Developed by J. Welles Wilder, Jr. and first described in his book "New Concepts in Technical Trading Systems", this is a momentum oscillator that measures the velocity of directional price movement. It compares a stock's highest highs and lowest lows over a period of time. RSI is based upon the difference between the average of the closing price on up days vs. the average closing price on the down days.

$$RSI=100-[100/(1+U/D)]$$

U=average of upward price closes (EMA of gains)

D=average of downward price closes (EMA of losses)

The ratio between up and down closing averages is in fact the makeup of the index. The author (Wilder) uses an n value of 14 days but other values may be used that better fit particular securities.

When the graph exceeds 70, stock can be near a top. When the RSI gets close to 30, stock may be forming a major bottom. - Support and resistance may many times show up on the index before they appear on the bar charts. Divergence between the RSI index and price movement is a strong indicator of a possible correction as when the price continues to rise and the RSI is declining. If the price of the stock continues to fall, but the RSI rises, look for a possible correction in the price direction. Failure swings above 70 or below 30 can also be very strong indicators of a price reversal.

Note: You can change value of RSI averaging range in preferences window.

Default value of RSI's n = 9.

1.28 Relative Strength

RS - Relative Strength

Compares the performance trend of a stock or industry group relative to another stock, group or index. This comparison removes the emotion from the marketplace. Many times a drop in relative strength can indicate a coming drop in actual price of the security. Do not confuse with Wilders's RSI.

The concept is to identify which stock or market sector is performing the best. Assuming that trends will continue to persist for some time, it is more probable that before a stock price will drop sharply it

will first lose relative strength against other stocks. This would indicate a sell prior to such a price drop. An increase in relative strength does not necessarily indicate that the index is heading up, but it does signal a buy alert.

1.29 TRIX

TRIX - TRIPLE eXponential

TRI-ple eXponential. TRIX displays the % rate-of-change of a triple exponentially smoothed moving average of the closing price of a security. (Calculated as a one period rate of change of the third exponential moving average pass of the closing price). Designed to filter out insignificant cycles - those smaller than the number of moving averages specified. Trades should be placed when the indicator changes direction.

1.30 MACD

MACD - Moving Average Covergence/Divergence

This indicator uses three exponential moving averages, a short or fast average, a long or slow average and an exponential average of their difference, the last being used as a signal or trigger line. To fully understand the basics of MACD you must first understand simple moving averages. The Moving Average Convergence/Divergence indicator measures the intensity of public sentiment and is considered by Gerald Appel, its developer, to be a very good indicator signaling market entry points after a sharp decline. This indicator reveals overbought and oversold conditions and generates signals that predict trend or price reversals. It provides a sensitive measurement of the intensity of public sentiment and can be applied to the stock market, to individual stocks or to mutual funds. In some instances, it can provide advance warning of reversals allowing you to buy into weakness and sell into strength.

Note: You can change parameters of MACD averaging ranges in preferences window.

Default values are fast avg. = 12; slow avg. = 26; signal = 9

1.31 OBV

OBV - On Balance Volume,

OBV was created by Joe Granville, the father of OBV analysis. This is a running total of volume that relates price changes and volume and shows accumulation and distribution action.

The classic OBV is calculated by ADDING today's TOTAL VOLUME to a cumulative total when PRICE CLOSES HIGHER than YESTERDAY'S close and SUBTRACTING today's TOTAL VOLUME from the cumulative when the PRICE CLOSES LOWER than YESTERDAY'S close. If price remains the same, then the OBV is not changed. The actual amount of the price change is irrelevant and only the direction of change is significant for these calculations.

This indicator defines trends by showing underlying strength of price movements over time. A solid price trend is assumed to be accompanied with a stronger volume movement in the same direction. OBV analysis assumes that volume trends lead price trends and that OBV changes generally precede price changes.

Look for divergence or non-confirmation between price and volume movements. A stock that is trending in an upward direction and starts to experience higher volume on days of lower closing prices usually indicates an end to the current trend. Look for changes or breakouts in OBV trends. Sell short when the OBV makes a downside breakout and buy long when the on OBV upside breakouts.

1.32 Stochastic slow

Stochastics is an oscillator that measures the position of a stock or security compared with its recent trading range indicating overbought or oversold conditions. It displays current day price at a percentage relative to the security's trading range (high/low) over the specified period of time. When the closing price is near the top of the recent trading range (above 80%), the security is in an overbought condition and may signal for a possible correction. Oversold condition exists at a point below %20. Prices close near the top of the range during uptrends and near the bottom of the range during downtrends.

$$\text{Fast Stoc} = \%K = \frac{(\text{today's close}) - (\text{low price in period } n)}{(\text{high price in period } n) - (\text{low price in period } n)} \times 100$$

In a Slow Stochastics, the highs and lows are averaged over a slowing period. The default is usually 3 for slow and 1 (no slowing) for fast.

The line can then be smoothed using an exponential moving average, Weighted, or simple moving average %D. Confirming Buy/sell signals can be read at intersections of the %D with the %K as well.

1.33 Ultimate

Ultimate Oscillator -

this indicator is a combination of three moving averages each of different range and weight. The purpose for that is to make it more reliable. Oscillator swings above 50% line are buy signals, and falls below 50% line are sell signals. You can also look for the support and resistance lines.

1.34 cci

CCI - Commodity Channel Index

A price momentum indicator developed by Donald R. Lambert - It measures price excursions from the mean price as a statistical variation. The indicator works well with commodities, stocks and mutual funds. Can be used to look for divergences between the indicator and price and also as a overbought/oversold indicator. A buy is registered when it crosses the -100 line, moving up, and a sell when it crosses +100 from above.

1.35 Risk-Yield Map

This map provides fast information about risk and possible yields. Risk is calculated as standard deviation of weekly yields. On the X axis risk is presented and on Y axis - yield.

Thus in the upper part of the map we've got stocks with giving best yield, with risk increasing from left to right side of the map.

With version 1.7+ selected stock is marked with a different color, and you can zoom the part of the map by pressing left mouse button and marking rectangle to zoom in.

1.36 Main Menu

There are following menu items in main menu:

Program

Stock

Quotations

Charts

Portfolio

Preferences

ARexx

1.37 Program menu

Here we've got following items:

About...	- general program info (ARexx port name, Public screen name)
Registration	- how to register
Database status	- gives you some useful information about database
Save database	- save changed quotation database
Quit	- exits the program

1.38 Stock menu

Here following items come :

Add new...

Remove

Stock split

Company's info

Financial data

1.39 Quotations Menu

Here we've got:

Import ASCII

Import from KINGa

Import from teletext

Manual entry

Remove quotation - removes quotation of single stock

Remove session - removes quotations of all stocks in given date

1.40 Charts Menu

There are following items:

Arrange - scale/arrange all chart windows

Main chart

Turnover
ROC
RSI
MACD
OBV
Stochastic Slow
Ultimate
Relative Strength
TRIX
Risk-yield map

1.41 Analysis menu

Here we've got 4 items:

- Weekly returns comparision
- Monthly returns comparision
- Price/Earnings comparision
- Price/Book value comparision

All these items open

Review
window which

enables you to view, save and print market comparision tables.

1.42 Portfolio menu

Here we've got 5 items:

Portfolio management

Commission table

Income tax - this sets (dividend) income tax

Add stock - add specified number of shares without changing cash

Remove stock - removes specified shares without changing cash

Print - this print the contents of portfolio

Export ASCII - this saves contents of portfolio in ASCII file

1.43 Preferences menu

- ```

Preferences

- Main chart - invokes main chart
 preferences
 - Other charts - invokes other charts
 preferences
 - Colors - invokes color
 preferences
 - Misc settings - invokes misc.
 preferences
 - Palette - invokes palette requester
- Screen mode - invokes screen mode requester
- Snapshot windows - this saves current windows setup and positions
- Save - save changed preferences to the disk

```

## 1.44 ARexx menu

```

Install ARexx macros - this brings you
Install ARexx macros
 window

```

Custom ARexx scripts 1..10

## 1.45 Help menu

This menu provides fast access to several important pages of AmigaGuide help file (AmiBroker.guide).

You can also get help on particular menu item or window using context-sensitivity feature.

All you have to do is to select window or menu item and press HELP key.

## 1.46 Import from teletext

AmiBroker can import quotation data from teletext data file.

Unfortunately this is a Warsaw Stock Exchange (WSE) specific feature. Thus this option is unusable for non-Poles ( SORRY ).

Other import functions will be added upon request. So let me now what you need.

## 1.47 Import ASCII

Version 1.6 introduces easy and flexible quotation import feature. The format of ASCII data file is very simple (take a look at example files in 'Examples' subdirectory).

ASCII stock data file format description:

1) Every line starting with \* (asterisk) or ; (semicolon) or "#" (hash) is treated as a comment and ignored by the program

2) Every line starting with command is interpreted in special way, commands start with '\$' sign. Currently AmiBroker recognizes 2 special ASCII import commands:

a) \$NAME - sets stock name

Example: \$NAME APPLE

This is effective until changed with next \$NAME command

b) \$FORMAT - defines quotation data format

Allowable parameters:

```

DATE_USA - date in US format: MM-DD-YY
DATE_CDN - date in Canadian format: DD-MM-YY
DATE_INT - date in international format: YY-MM-DD

VOLUME - volume of trade \
VOL1000 - volume in thousands of shares - choose only one of these
VOLMIL - volume in millions of shares /
OPEN - opening price
CLOSE - closing price
HIGH - highest price
LOW - lowest price

```

DATE\_xxx field is obligatory and must come first in the line. You can use '-', '/' or '\' as day/month/year separators, or omit separators at all.

Examples ( for December 5th, 1995):

```

DATE_INT: 95-12-05 or 95/12/05 or 95\12\05 or 951205
DATE_CDN: 05-12-95 or 05/12/95 or 05\12\95 or 051295
DATE_USA: 12-05-95 or 12/05/95 or 12\05\95 or 120595

```

After that you can provide VOLUME, OPEN, CLOSE, HIGH and LOW fields in ANY order, but remember that this should conform your data format. You don't have to specify any of OPEN, HIGH or LOW. Only CLOSE and VOLUME must be provided.

Example: \$FORMAT DATE\_INT VOLUME OPEN CLOSE HIGH LOW

or

```
$FORMAT DATE_CDN CLOSE VOL1000
```

AmiBroker recognizes decimal as well as true fractions in price data. True fractions must follow the whole value after at least single space. For example you can specify:

```
5.33
```

or

```
5 1/3
```

AmiBroker is not limited to any kind of fraction, if you wish you can write even: 5 333/999

## 1.48 Import from KING service

AmiBroker can import quotation data from KING data file. Unfortunately this is a Warsaw Stock Exchange (WSE) specific feature. Thus this option is unusable for non-Poles ( SORRY ).

Other import functions will be added upon request. So let me know what you need.

## 1.49 Adding a new stock

After selecting this function you will be prompted for new stock name. This name is a short form of the firm. Please try not to exceed 15 chars. For proper import functioning you should enter the name with CAPITALS.

## 1.50 Removing a stock

After choosing this function you will be asked for confirmation of stock removing. Note well that this operation can not be undone !!!

## 1.51 Split a stock

This option provides easy way of handling stock splits. Program will try to guess split date and ratio by analysing quotations. If there is just a single quotation after split this should work, if not you will be asked for split date and ratio. Note well that this operation can not be undone !!!

## 1.52 ARexx On-line reference

---

AmiBroker has built-in ARexx port with powerful command set which enables you to write your custom scripts performing different tasks.

Sample ARexx script is included.

AmiBroker ARexx port is accessible by name "AMIBROKER.x" where x is 1,2,3, ...

Actual port name can be found in 'About' requester, but in most cases you can assume that port name is "AMIBROKER.1".

When using any of the AmiBroker's internal commands ( described below ) please keep in mind that ARexx commands are parsed twice: first by ARexx server while interpreting the script, second by AmiBroker using the `dos.library/ReadArgs()`. Please then, put the commands into single quotes and double-quote this parameters which include spaces to prevent from regarding them as string delimiters.

Example: 'REQUEST BODY="This is example" TITLE="Title with spaces" BUTTONS="Yes| ←  
Oh no" '

AmiBroker passes command results to your script using special ARexx variable RESULT. Error code is passed in RC variable, possible values of error code are:

```
0 - success
5 - warning
10 - error
20 - fatal error
```

AmiBroker internal commands description in alphabetic order:

```

Command: ADDQUOTATION
Template: STOCK/A,DATE/A,PRICE=CLOSE/A,OPEN/K,HIGH/K,LOW/K,VOLUME/K
```

```
Function: Add a quotation to the database. If selected quotation already
 exists this function modifies existing price/volume data.
STOCK - (STRING) specifies stock name (case sensitive)
DATE - (STRING) YY-MM-DD, quotation date
CLOSE - (FLOAT) closing price
PRICE - synonym to CLOSE
OPEN - (FLOAT) opening price
HIGH - (FLOAT) day's high
LOW - (FLOAT) day's low
VOLUME - (INT) volume of trade
```

This function will fail if there's no stock with specified name - use ADDSTOCK to add new stock name to the database.

This function does NOT refresh the charts.  
Use REFRESH or ARRANGE to do that.

```
***** CAUTION ! *****
The parameter template for this command has changed in 1.7
Pre-1.7 scripts using keywords will work OK, but other will not.
```



---

Command:           ADDSTOCK  
Template:           NAME=STOCK/A,CONT/S

Function:           Add a new stock to the database  
                    STOCK - (STRING) defines stock name (case sensitive)  
                    NAME  - synonym to stock  
                    CONT  - switches continuous quotation mode on.

---

Command:           ARRANGE  
Template:           -none-

Function:           Arrange and refresh all opened chart windows

---

Command:           ASK  
Template:           STOCK/K,DATE=QUOTATION/K

Function:           Ask whether given stock/quotation exists in the database  
                    STOCK - stock name to search for  
                    DATE  - date of quotation to search for

                    You can check only if given stock exists using this without  
                    DATE parameter.

                    Returns 0 if given stock/quotation doesn't exist in database  
                    or        1 if it exists

---

Command:           DATABASE  
Template:           CHANGE/S,NOCHANGE/S,SAVE/S,STATUS/S

Function:           Database control  
                    CHANGE   - switches database status to 'changed'  
                    NOCHANGE - switches database status to 'not changed'  
                    SAVE     - saves database to disk (if changed)  
                    STATUS   - query for database status, returns  
                              1 - if database has been changed  
                              0 - if database has not been changed

                    Note: to force saving use: 'DATABASE CHANGE SAVE'

---

Command:           DEBUG  
Template:           ON/S,OFF/S

Function:           Switch ARexx debug messages. If ON error/warning messages  
                    will be displayed in appropriate requester.

---

Command: GETQUOTATION  
Template: STOCK/A,DATE/A,PRICE=CLOSE/S,OPEN/S,HIGH/S,LOW/S,VOLUME/S

Function: Get quotation data.  
STOCK - (STRING) specifies stock name (case sensitive)  
DATE - (STRING) YY-MM-DD, quotation date  
CLOSE - get closing price  
PRICE - synonym to CLOSE  
OPEN - get opening price  
HIGH - get day's high  
LOW - get day's low  
VOLUME - get volume of trade

Result: string containing selected data in this order  
<close> <open> <high> <low> <volume>  
with single space between actual numbers

Example: GETQUOTATION STOCK=APPLE DATE=96-01-03 CLOSE  
This will return closing price only

GETQUOTATION STOCK=APPLE DATE=96-01-03 CLOSE VOLUME  
This will return closing price and volume number

---

Command: GETSELECTED  
Template: STOCK/S,DATE/S

Function: Get selected stock name or quotation date  
STOCK - gimme selected stock name  
DATE - gimme selected quotation date

---

Command: IMPORT  
Template: ASCII/S,TELETEXT/S,KING/S,FILE/K

Function: Import quotation data from a specified file.  
ASCII - selects ASCII import mode  
TELETEXT - selects TELETEXT mode (Warsaw Stock Exch.)  
KING - selects KING mode (WSE)  
  
FILE - (STRING) specifies file name. If none specified  
bring up file requester.

---

Command: QUIT  
Template: FORCE/S

Function: Quit the program.  
FORCE/S - suppress requester asking for confirmation

---

Command: REFRESH

---

Template: -none-

Function: Redraw all opened charts

---

Command: REMQUOTATION

Template: STOCK/A,DATE/A

Function: Remove specified quotation of stock.  
STOCK - (STRING) stock name (case sensitive)  
DATE - (STRING) quotation date (yy-mm-dd)

This function does NOT refresh the charts.  
Use REFRESH or ARRANGE to do that.

---

Command: REMSTOCK

Template: NAME=STOCK/A

Function: Remove specified stock from the list  
STOCK - (STRING) stock name (case sensitive)  
NAME - the same as STOCK (synonym)

CAUTION!

This function can NOT be undone. It removes all stock data  
from memory AND from the disk!!! Make sure that you know  
what you are doing !!!

---

Command: REQUEST

Template: BODY/A, TITLE/K, BUTTONS/K

Function: Show 'easy' requester.  
BODY/A - (STRING) defines requester body text. Multiple  
lines are allowed - use '|' as a new line symbol.  
TITLE/K - (STRING) requester title  
BUTTONS/K - (STRING) requester buttons. Multiple buttons  
are allowed - use '|' to separate individual  
button's texts.

---

Command: SCREEN

Template: FRONT/S, BACK/S

Function: Bring AmiBroker screen to FRONT or put it to BACK

---

Command: SELECT

Template: STOCK/K, DATE/K

Function: Select a stock or/and quotation (and mark it with a hairline  
on the chart)

---

STOCK - (STRING) stock name (case sensitive)  
 DATE - (STRING) quotation date (yy-mm-dd)  
 if specified one doesn't exist the nearest next  
 will be selected.

```

Command: VERSION
Template: -none-

Function: Return program version tag (STRING).

```

### 1.53 How to register?

If you want to get full working version of AmiBroker, you should ↔  
 send me  
 proper registration request (see example  
 registration form  
 ).

Please supply a valid and fully qualified address for shipment.

Registered users receive a keyfile which enables all features of the program.  
 The keyfile is valid for minimum 2 general program updates (distributed in ↔  
 AmiNet).

More upgrades available for very small fee \$5 / 10DM. Allow 2-4 weeks for ↔  
 delivery.

Please state if you want to get keyfile via e-mail or ordinary mail.

Registration fee is: \$15 US / 20 DM / 10 GBP

You can send CASH (in opaque envelope) or pay your fee by  
 bank draft/money transfer (in US dollars).

These are account details:

PLS PAY TO: WIELKOPOLSKI BANK KREDYTOWY S.A.  
 WROCLAW BRANCH  
 IN FAVOUR OF: TOMASZ JANECZKO  
 ACCOUNT NO.: 359209-1288177-152-1787

The address for requesting registration is:

Tomasz Janeczko  
 ul. Wroblewskiego 25/1005  
 PL 51-627 Wroclaw, POLAND.

REMEMBER THAT SENDING YOUR LETTER VIA AIR MAIL (FIRST CLASS LETTER)  
 IS MUCH SAFER AND QUICKER!!!

PLEASE TYPE THIS ADDRESS CAREFULLY, CHECK SPELLING!!!!  
 FILL-IN REGISTRATION FORM WITH BLOCK LETTERS.

---

For all other requests:

E-Mail: [tjaneczko@asic.ict.pwr.wroc.pl](mailto:tjaneczko@asic.ict.pwr.wroc.pl)

## 1.54 Registration form

### AMIBROKER REGISTRATION FORM

-----  
To:

Tomasz Janeczko  
ul. Wroblewskiego 25/1005  
PL 51-627 Wroclaw POLAND  
-----

Please take my registration as a AmiBroker user.

I want to get keyfile by:

- ordinary mail
- e-mail

I am sending shareware fee as:

- \$15 US/20 DM in cash, included with this letter.
- money transfer of \$15 to this account:

Owner: Tomasz Janeczko  
Bank: Wielkopolski Bank Kredytowy S.A.  
Wroclaw Branch  
SWIFT Code: WBKP PL PP WRO  
Account No: 359209-1288177-152-1787

Name and Surname: \_\_\_\_\_

Full address: \_\_\_\_\_

E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

Hardware config. \_\_\_\_\_

Comments \_\_\_\_\_

I have read copyright notices in manual and agree with conditions.  
Specifically, with my signature, I commit on installing the keyfile  
only on one computer and not giving it to the others.

---

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

## 1.55 Contact addresses

Please send all requests, suggestions, etc to:

E-mail: [tjaneczko@asic.ict.pwr.wroc.pl](mailto:tjaneczko@asic.ict.pwr.wroc.pl)  
[janeczko@pmat.ch.pwr.wroc.pl](mailto:janeczko@pmat.ch.pwr.wroc.pl)

or

Tomasz Janeczko  
ul. Wroblewskiego 25/1005  
PL 51-627 Wroclaw POLAND

Check out AmiBroker WWW Page:

<http://pmat.ch.pwr.wroc.pl/~janeczko/amibroker.html>

## 1.56 Future releases

AmiBroker is still under development. So new releases come out every month. If you are registered user you can easily get updates from your nearest AmiNet mirror.

There are many plans about AmiBroker, for example:

- adding new indicators
- fundamental analysis
- automated portfolio construction (Markowitz model)
- registered users' proposals

Everything depends on you! If I get enough support there will be future versions, if not some things may wait forever.

## 1.57 Thanks

I would like to thank all registered users for their generous support.

Special thanks go to:

Marcin Kot                   - for being the first registered user  
Mariusz Hoffmann       - for working on German translation  
Konrad Dubiel           - for bug reports & improvement suggestions

---

Markus Baumeister - - // -  
Mattias Moltkesson - for long improvement list :)  
Neil Mohr - for great review and  
sending me 3 Amiga Computing issues for free  
Marek Pampuch - for great article in Polish Amiga Magazine  
Stefan Ossowski &  
Urban D. Müller - for free Aminet 10 CD  
  
Damian Radziewicz - for testing under OS2.0

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