Commodity

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	TITLE : Commodity		
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Contents

Chapter 1

Commodity

1.1 Commodity V1.00

```
Pure Basic - Commodity V1.00

   A Commodity is a way to manage an application under
   the AmigaOS. This program must follow established
   rules to become a commodity: its window can be
   hided/showed, the application can be disabled,...
   All these actions can be done via the 'Exchange'
   program. A commodity can have several advantages:
   HotKeys, Break C signals and more.

Commands summary:

   ActivateCommodity
   ActivateCommodityObject
   ActivateCommodityTranslater
   AddCommodityInputEvent
   ChangeCommodityFilter
   ChangeCommodityFilterIX
   ChangeCommodityTranslater
   CommodityCtrlCSignal
   CommodityEvent
   CommodityID
   CommoditySignal
   CommodityType
   CreateCommodityObject
   FreeCommodityObject
   InitCommodity
   WaitCommodityEvent


   Commodity Demo 1
   Commodity Demo 2
```

1.2 activatecommodity

```
  SYNTAX
ActivateCommodity(Status.l)

  STATEMENT
Enable or Disable the Commodity, which include all created Objects.

When the Commodity is disabled it will only receive CxMessages of
Command Type, from Commdities Exchange, CxMessages of Event Type
are not processed.

Status
Enable the Commodity by setting status to TRUE and Disable Commodity
by setting it to FALSE.
```

1.3 activatecommodityobject

```
  SYNTAX
ActivateCommodityObject(#Obj.l,Status.l)

  STATEMENT
Disable or Enable an Object created by CreateCommodityObject().

A disabled Object is kind of sleeping, it won't process any
CxMessages until ActivateCommodityObject(#Obj, TRUE) wakes it up.

This statement doesn't care if the Object is unused.

#Obj
Object to Disable or Enable.

Status
Disable the Object by setting status to FALSE and Enable Object
by setting status to TRUE.
```

1.4 activatecommoditytranslater

```
  SYNTAX
ActivateCommodityTranslater(#Obj.l,Status.l)

  STATEMENT
Disable or Enable the Translater in an Object.

An enabled Translater changes the CxMessage input event in two ways,
it could be eliminated or replaced by a new input event. When none
of this is useful just disable the Translater.

This statement doesn't care if the Object is unused.

#Obj
Object to use.
```

```
Status
Disable the Translater by setting status to FALSE and Enable
Translater by setting status to TRUE.
```

1.5 addcommodityinputevent

```
  SYNTAX
AddCommodityInputEvent(*InputEvent)

  STATEMENT
Add a new InputEvent or a chain of InputEvents to the
input eventstream.

*InputEvent
This is a pointer to an InputEvent Structure or a chain of
InputEvent Structures and it is free to use again after this call.
```

1.6 changecommodityfilter

```
  SYNTAX
Result.b = ChangeCommodityFilter(#Obj.l,Filter$)

  FUNCTION
Change the Filter conditions for an Object.

This function doesn't care if the Object is unused.

#Obj
The Object to change the Filter for.

Filter$
The string that describes the new Filter conditions.

Result
If it's TRUE the input description string is bad and the Object does
not process any CxMessages until either: this function, or
ChangeCommodityFilterIX() succeeds the next time.
```

1.7 changecommodityfilterix

```
  SYNTAX
Result.b = ChangeCommodityFilterIX(Obj.l,*InputXpression)

  FUNCTION
Change the Filter conditions with an InputXpression Structure.

This function doesn't care if the Object is unused.

#Obj
The Object to change the Filter for.
```

```
*InputXpression
A pointer to a InputXpression Structure that describes the new Filter
conditions, the Structure is free to use again after this call.

Result
If it's TRUE there was something that didn't make sense in the
InputXpression and the Object won't process any CxMessage until either:
this function, or ChangeCommodityFilter() succeeds the next time.
```

1.8 changecommoditytranslater

```
  SYNTAX
ChangeCommodityTranslater(#Obj.l,*InputEvent)

  STATEMENT
Change the Translater's InputEvent which replaces every CxMessage
input event received.

This statement doesn't care if the Object is unused.

#Obj
Object to use.

*InputEvent
This is a pointer to an InputEvent Structure or a chain of InputEvent
Structures and it is free to use again after this call.
```

1.9 commodityctrlcsignal

```
  SYNTAX
Result.w = CommodityCtrlCSignal()

  FUNCTION
When a Commodity event has occured this function checks to see if
the Ctrl C keys were pressed.

Result
This is TRUE if Ctrl C was pressed else it's FALSE.
```

1.10 commodityevent

```
  SYNTAX
Result.w = CommodityEvent()

  FUNCTION
This function checks if any Commodity event has occurred.

A Commodity event can be one of the following: if any enabled Object
receives the CxMessage it's looking for; if the user presses a button
```

```
in Commodities Exchange; or, if the user presses Ctrl C in a CLI
environment.

CommodityEvent() doesn't wait for events to happen, unlike
WaitCommodityEvent() - this is useful when the eventloop
should go on.

Result
This is TRUE for any Commodity event else it's FALSE.

EventLoop
```

1.11 commodityid

```
  SYNTAX
Result.w = CommodityID()

  FUNCTION
This function return the ID of the Object that received a CxMessage
or a command from Commoditites Exchange.

Result
This is the same as #param1 in CreateCommodityObject() when the
Object is created, but it could also be a command from Commodities
Exchange if the result from CommodityType() is of Command Type.
```

1.12 commoditysignal

```
  SYNTAX
Result.w = CommoditySignal()

  FUNCTION
When a Commodity event has occured this function checks if the
signal came from an Object or from Commodities Exchange.

Result
This is TRUE if an Object signaled the Commodity or if
Commodities Exchange send a command, else it's FALSE.
```

1.13 commoditytype

```
  SYNTAX
Result.w = CommodityType()

  FUNCTION
This function return the Message Type of a CxMessage.

The CxMessage is either of Command Type or Event Type, the Command Type
comes when the user presses a button in the Commodities Exchange
and the Event Type when an Object receives a CxMessage.
```

```
Result
This is the Message Type.
```

1.14 createcommodityobject

```
  SYNTAX
Result.b = CreateCommodityObject(#Obj.l,Filter$,*InputEvent)

  FUNCTION
This function creates an Object. The Object is created in enabled state
and starts to process CxMessages immediately if the Commodity is enabled.

If the Object is already in use the function doesn't care and just creates
a new Object without deleting the old one, after that there is no way to
delete or change the old Object.

An Object consists of three parts.

* The Filter, whose only purpose is to filter out the kind of CxMessage
  the Object is interested in.  The Filter can be changed at runtime.

* The Sender, whose only purpose is to signal the Commodity when it
  receives a CxMessage.

* The Translater, whose only purpose is to translate every CxMessage
  input event this Object receives, into a new one - the Translater
  needs to be enabled to do this.  The Translater can be changed at
  runtime.

#Obj
This is the Object number required and should not be higher then #param1
in InitCommodity().

Filter$
This string sets the Filter conditions, a description of what this Object
wants to know about.

*InputEvent
This is a pointer to an InputEvent Structure or a chain of InputEvent
Structures, the real input event is deleted and replaced by this new one.

If the pointer is zero the real input event is just deleted, no other
Commodity or the OS will know about it.

Result
If this is #COERR_ISNULL (1) then the Object could not be created
but if it's #COERR_BADFILTER (4) the Object is created but it
doesn't process any CxMessages until the Filter is changed with
ChangeCommodityFilter() or ChangeCommodityFilterIX().
```

1.15 freecommodityobject

```
  SYNTAX
FreeCommodityObject(#Obj.l)

  STATEMENT
Free a Disabled or Enabled Object.

This statement doesn't care if the Object is unused.

#Obj
The Object to free.
```

1.16 initcommodity

```
  SYNTAX
Result.b = InitCommodity(Objects.l,Name$,Title$,Description$,
                         Flag.w,Priority.b)

  FUNCTION
This function creates the basic stuff for a Commodity.

The Commodity is created in a disabled state so after you've
created some Objects, enable it with ActivateCommodity(TRUE).

This is the Initroutine and should always be called first and
can only be called once, at the moment, so if there is a failure
with this call, then the program should always quit.

Objects
The number of Objects required,  Max Objects is 2046.

Name$
This string describes the name of the Commodity and should be unique
for each Commodity.

Title$
This string describes the title that shows up in the window of
Commodities Exchange when the Commodity is running.

Description$
This string describes the description of the Commodity that shows up
in the window of Commodities Exchange when the Commodity is running.

Flag
If this is set to #COF_SHOW_HIDE then the Commodity should show/hide
a GUI when the user presses show interface/hide interface buttons in
Commodities Exchange and even let the GUI pop up when the Commodity
is started more than once, instead of letting it quit as a none
GUI Commodity should do.

To do it properly the Commodity should read ToolType CX_POPUP and see
if the user wants the GUI to pop up when the Commodity is started for
the first time.

Priority
```

```
The Commodity is inserted in the commoditys list and the place depends
on the priority - ranging between -128 and 127. - A higher priority
givs the Commodity a earlyer place in commoditys list and by that it
gets the CXMessages earlyer.

To do it properly the Commodity should read the ToolType CX_PRIORITY
and use the priority specified by the user.

Result
If the Commodity could not be created this is FALSE and the only
thing is to quit.
```

1.17 waitcommodityevent

```
  SYNTAX
WaitCommodityEvent()

  STATEMENT
This function checks if any Commodity event has occured.

A Commodity event is one of the following: if an enabled Object
receives the CxMessage it's looking for; if the user presses a button
in Commodities Exchange; or, if the user presses Ctrl C in a CLI
environment.

WaitCommodityEvent() would wait for events to happen, unlike
CommodityEvent(), - this is useful for saving CPU time.

EventLoop
```

1.18 filterstrings

```
  [Class]  {[-] (Qualifier|Synonym)}  [[-] upstroke]  [highmap|ANSICode]


        Class
   Qualifier|Synonym
       upstroke
   highmap|ANSICode


Some simple input description strings.
--------------------------------------
"rawkey upstroke a"

"rawkey -upsroke f1"

"timer"

"diskremoved"

"rawkey leftbutton f2"
```

1.19 class

Class can be any one of the class strings in the table below.

Class String
rawkey
timer
diskremoved
diskinserted

1.20 qualifier|synonym

Qualifier is one of the qualifier strings from the table below.
A dash preceding the qualifier string tells the filter object not
to care if that qualifier is present in the input event.
Notice that there can be more than one qualifier (or none at all) in the
input description string.

Qualifier String
lshift
rshift
capslock
control
lalt
ralt
lcommand
rcommand
numericpad
repeat
midbutton
rbutton
leftbutton
relativemouse

Synonym is one of the synonym strings from the table below. These
strings act as synonyms for groups of qualifiers. A dash preceding
the synonym string tells the filter object not to care if that
synonym is present in the input event. Notice that there can be more
than one synonym (or none at all) in the input description string.

Synonym String	
shift	look for either shift key
caps	look for either shift key or capslock
alt	look for either alt key

1.21 upstroke

Upstroke is the literal string "upstroke". If it is present alone the
filter considers only upstrokes, if it's absent the filter considers only

```
downstrokes and if preceded by a dash the filter considers both upstrokes
and downstrokes.
```

1.22 highmap|ansicode

```
Highmap is one of the following strings:

   space , backspace , tab , enter , return , esc , del , help,
   up , down , right , left,
   f1 , f2 , f3 , f4 , f5 , f6 , f7 , f8 , f9 , f10.

For some reason commodities.library accept f11 and f12 as
valid keys.

ANSICode is a single character for example 'a' .
```

1.23 eventloop1

```
 Repeat

   VWait()  ; - to slow down the loop.

   If CommodityEvent()

     If CommoditySignal()
       Other code...
       ... ...
     EndIf

     If CommodityCtrlCSignal()
       quit=1
     EndIf

   EndIf

 Until quit = 1
```

1.24 eventloop2

```
 Repeat

   WaitCommodityEvent()

   If CommoditySignal()
     Other code...
     ... ...
   EndIf

   If CommodityCtrlCSignal()
     quit=1
```

```
    EndIf

  Until quit = 1
```