Block products on HUPX DAM and IDA

Introduction

This document aims to present the block product types on the HUPX Day-ahead and Intraday Auction Markets and gives a summary and presentation of these block order types.

1. Normal block order (C01)

The Normal block type allows members to submit an order on several combined Contracts of the same Delivery Day with the All-or None restriction.

2. Linked (child) block order (C02)

A linked block order family is a set of block orders, which have a linked execution constraint. A linked block order can consist of a parent block order and one or more child block orders.

The child block order has the constraint of a simple block order, but it can only be executed if the parent block order is executed fully. The block order is a parent block order if the execution of a child block order directly depends on the execution of this block order.

The parent block order can be accepted even though it is out of the money if globally the linked block order family is in the money. A child block order with no linked child block order cannot be accepted if it is out of the money.

A block order is a root of a linked block order family if its execution is not linked to the execution of a parent block order and if it is the parent of at least one child block order. A root block order can only be a simple block order.

The number of generations within a linked block orders family is determined by the longest sequence of child-parent links to reach a root block order within the linked block order family.

The size of a linked block orders family corresponds to the number of block orders which are grouped in the linked block orders family.

Example 1:

Here we can see a linked block order with 3 generations:

- Generation 1 (green blocks)
    - o In this Generation, the block type is C01 which means that this is the root order
    - o Until the green block is executed none of the child order can be executed.
- Generation 2 (yellow & red blocks)
    - o red block is a C02 type block (linked block order) and it is also only a child block order since there are no more linked orders to it
    - o yellow block is a C02 type block as well, but it is both a child block order and a parent block order → blue block cannot be executed until yellow block is executed
- Generation 3 (blue blocks)
    - o blue block is a C02 type block, and it is only a child block order

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- Parameters of the example order
  - o the linked block family is made of 3 generations
  - o the linked block family has a size of 4 block orders
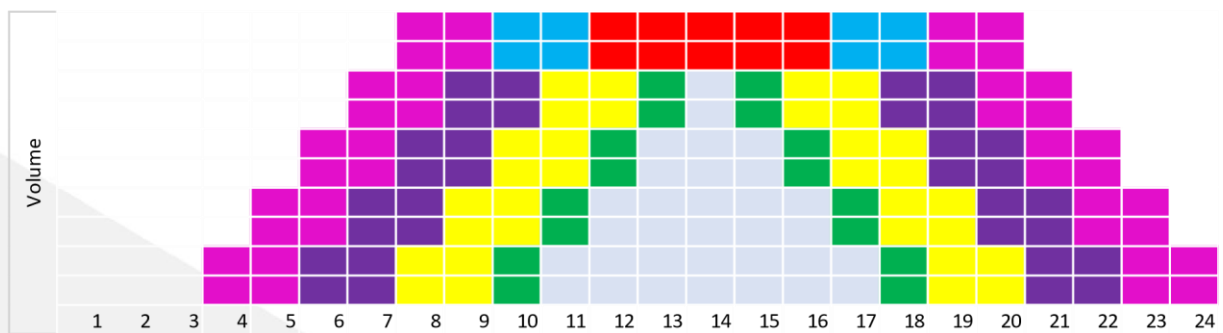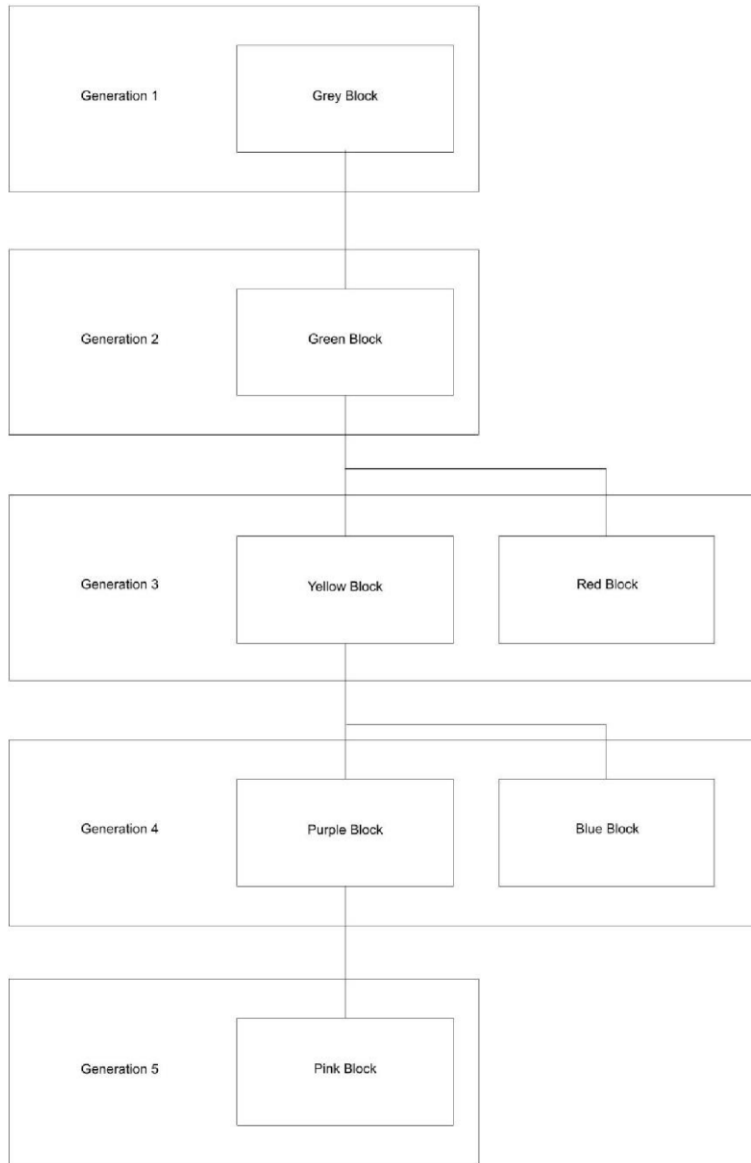 - o yellow block has 1 child: blue block
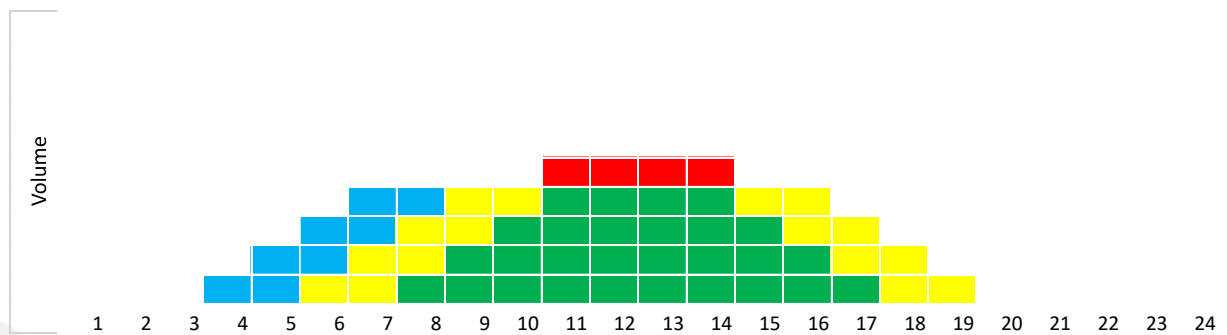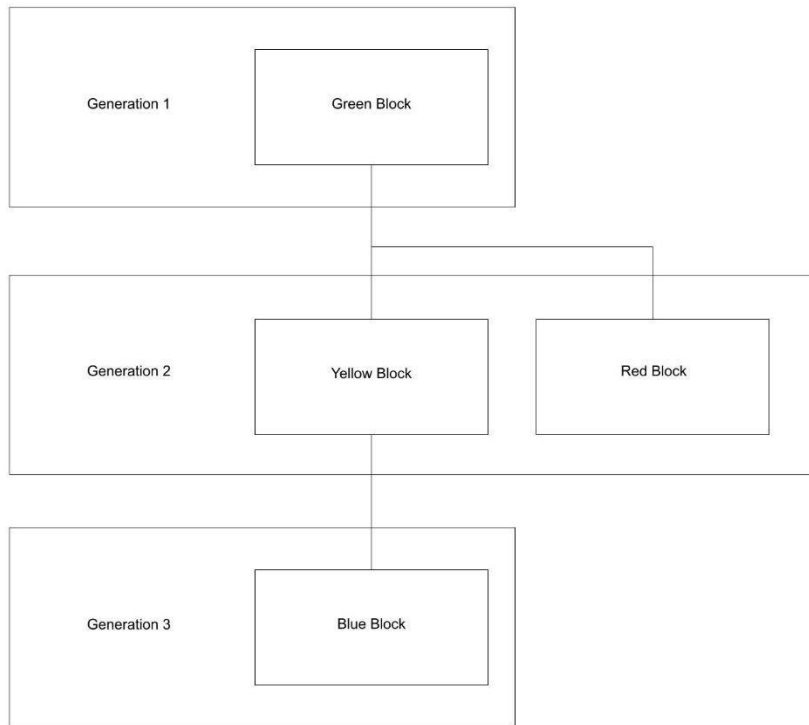
1. Figure: Visualization of Example 1

Example 2:

Here we can see a linked block order with 5 generations:

- Generation 1 (grey blocks)
  - in this Generation, the block type is C01 which means that this is the root order
  - until the grey block is executed none of the child order can be executed.
- Generation 2 (green blocks)
  - green block is a C02 type block, but it is both a child block order and a parent block order → yellow & red blocks cannot be executed until green block is executed
- Generation 3 (yellow & red blocks)
  - red block is a C02 type block (linked block order) and it is also only a child block order since there are no more linked orders to it
  - yellow block is a C02 type block as well, but it is both a child block order and a parent block order → purple & blue blocks cannot be executed until yellow block is executed
- Generation 4 (purple & blue blocks)
  - blue block is a C02 type block (linked block order) and it is also only a child block order since there are no more linked orders to it
  - purple block is a C02 type block as well, but it is both a child block order and a parent block order → pink block cannot be executed until purple block is executed
- Generation 5 (pink blocks)
  - pink block is a C02 type block (linked block order) and it is also only a child block order since there are no more linked orders to it
- Parameters of the example order
  - the linked block family is made of 5 generations
  - the linked block family has a size of 7 block orders
  - green block has 2 children: yellow and red, yellow has 2 children: purple and blue and purple has one child: pink

Generation 1	Grey Block	

Generation 2	Green Block	

Generation 3	Yellow Block	Red Block

Generation 4	Purple Block	Blue Block

Generation 5	Pink Block	

2. Figure: Visualization of Example 2

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3. Linked (loop) block order (C88)

- **3 families of 2 loop blocks per portfolio and market area**
- The 2 blocks of a loop family can encompass the same hours
- Loop block orders are submitted with block code C88

Characteristics:

Loop blocks are defined as a set of **2 classic profile blocks** (1 sell and 1 buy block) that are **either both accepted, or both rejected.**
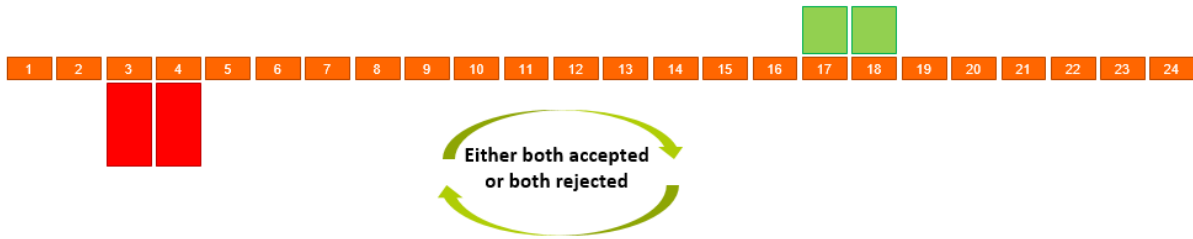
The market participant defines for each block of the loop family the side, the price, the duration, the quantities.
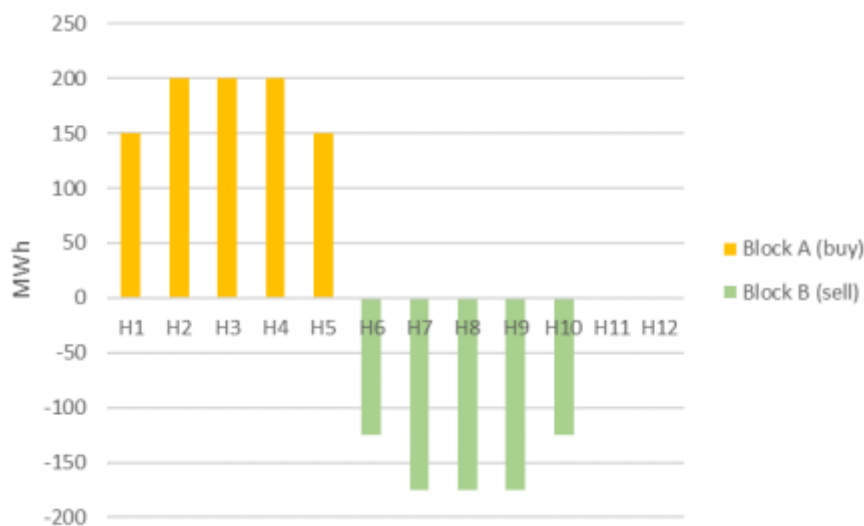
3. Figure: Loop block family consist of a linked buy (A) and sell block (B)

For being executed, the loop family must be globally in the money, which means each block of the loop family does not necessarily need to be in the money.

Like any other block order type, a loop family can be paradoxically rejected. All the block orders of the loop family are rejected.

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4. Figure: A set of loop blocks can be both accepted or both rejected

Producer inputs in ETS in order to reflect the parameters:

- Buy block parameters: Volume buy and Price buy

- Sell block parameters: Volume sell and Price sell

4. Exclusive block orders (C04)

An exclusive group of block orders is a set of block orders, in which a maximum of 1 block order can be executed. An Exclusive block order (C04) is a standard block order, which is part of an exclusive group block order.

The size is determined based on the number of block orders gathered in the exclusive group.

Example:

Here we can see an exclusive group block order with 4 exclusive block orders:

If one of these block orders is executed the other 3 will not be executed.
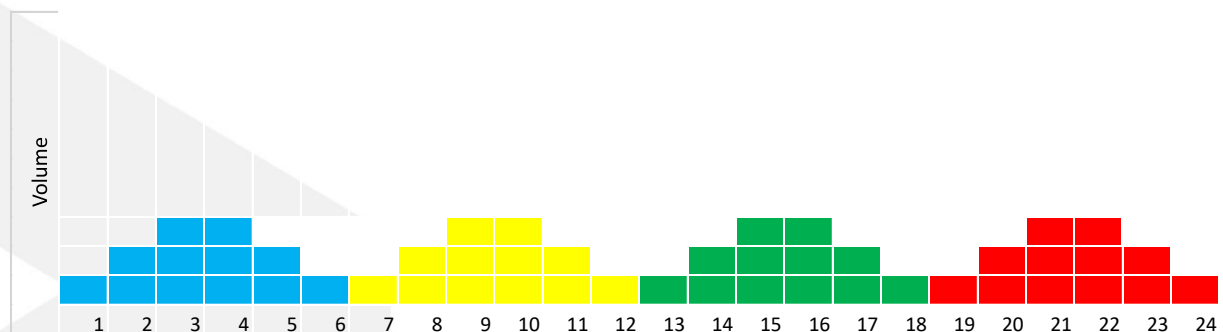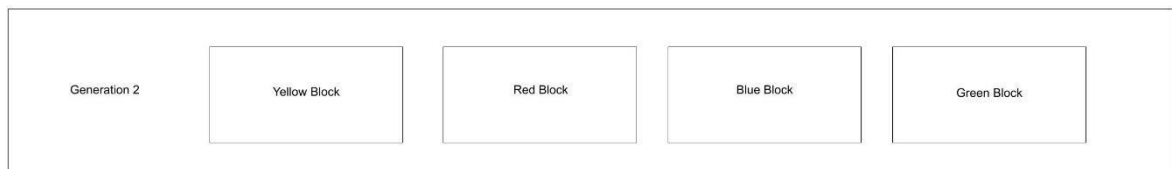
5. Figure Visualization of the Exclusive block example