

## BLENDING & MOVEMENT | BLENDING INSTRUCTIONS

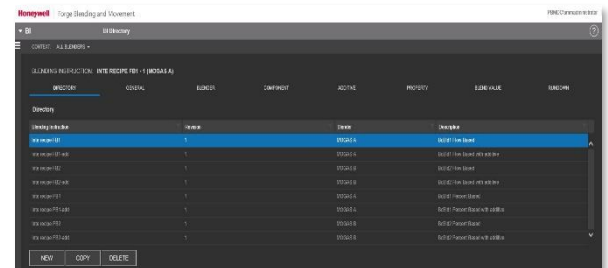
### PRODUCT INFORMATION NOTE

Honeywell's Blending Instructions (BI) is designed to be used by the Production Scheduler to define blending operation requirements for field personnel. It provides facilities for creating, editing, copying, and deleting blending instructions.

### Key Capabilities

Blending Instructions (BI) is part of Honeywell's Blending Suite within the Blending and Movement portfolio. BI provides the blending instructions, which are also referred as "blend orders" or "blend recipes", that are used by any of Experion Blend Controller (EBC), Blend Controller (BC), Blend Optimizer (BO), and Movement Management (MM). Blending Instructions include the following information:

- Blend header to be used
- Blending specifications, including component recipe type, blend grade and control mode
- Target blend volume
- Target blend flow rate and associated flow rate limits
- Blend destination equipment
- Destination heel volume and property values at the start of the blend (if applicable)
- Initial component recipe and associated optimization settings (e.g. target percentage or flow rate, limits, and cost)
- Initial additive concentration values
- Material source equipment which will supply the components and additives to the blend header
- Property specifications, including target property values for the blended product, associated optimization settings and blend model values.
- Rundown segregation flow rate targets, limits and costs (if applicable).



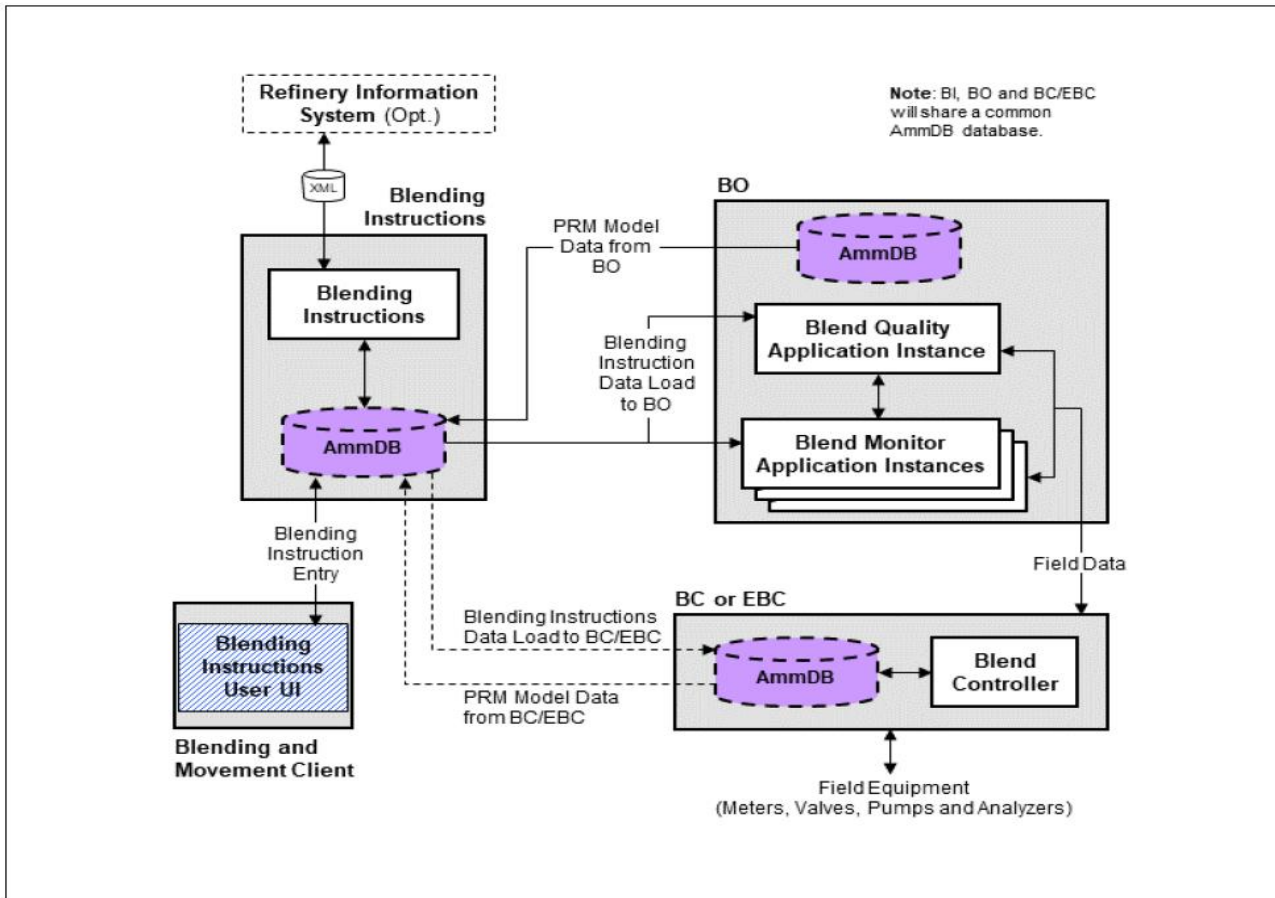
Blending Instructions integrates with Honeywell's Blend Controller, Blend Optimizer and Movement Management

### Benefits

- Facilitates the integration between the Planning Schedulers tool and the Blending applications.
- Improves blending agility by minimizing the blend setup time. It provides clear blending operation requirements for the blender operator.
- Reduces the exposure to manual errors by providing validation checks.

## Blending Instructions Architecture

The following diagram illustrates how Blending Instructions interacts with Blend Optimizer (BO), Blend Controller (BC) and Experion Blend Controller (EBC) applications. Blending Instructions can also be used by the Movement Management (MM) application where they are incorporated into batch blend orders.



Blending Instruction Architecture

## Blending Instructions Database

Blending instructions are maintained in the blending instructions tables in the Blending and Movement database (AmmDB). Once a blending instruction is defined and placed in the blending instructions database tables, it is automatically made available to the BC, EBC, BO and MM users for use with a blend.

## Plant Reference Model Requirements

Blending Instructions uses the equipment, materials and properties configured in either the BC, EBC, BO or MM applications. As a result, the Blending Instructions application must connect to one of these applications before the Blending Instructions display can be used to create blending instructions.

## Blending Instructions Access

In BO, the Blending Instructions tab found on the Blend Monitor Operation display lists the available blending instructions. The Get Blending Instruction function is used to transfer the blending instruction settings to the BO Blend Monitor and Blend Quality applications. The blend settings are also downloaded to the Blend Control System.

In BC or EBC access to the list of blending instructions is provided from the Blend Setup display. As part of the download operation, users identify how to translate the material-based blending instructions into the controller-based blend setup. If BO is also present for that blender the Blend Setup also initiates the updates of the BO data pool.

Blending instructions can also be accessed from the MM Order Detail display as part of blend order set up operations.

## Remote Blending Instructions

Blending Instructions can accept blending instructions generated by remote planning tools. They may be manipulated and selected for use in the same manner as blending instructions created manually in the Blending Instructions display.

## Blending Instructions Hardware

For Blending Instructions to run, the computers identified in the following table must be present and running properly.

Component	Description
Blending Instructions Blending and Movement Server	The Blending Instructions Blending and Movement Server houses the Blending Instructions software components and database.
BC Display Server, EBC Display Server or BO Server	Blending Instructions requires a working connection either to the BC Display Server, the EBC Display Server or the BO Server. This connection is used to collect the equipment, materials and properties used in the blending instructions and to transfer the completed blending instructions back to the target application.
MM Control Server	If Blending Instructions is being used with Movement Management, Blending Instructions requires a working connection with the MM Control Server.

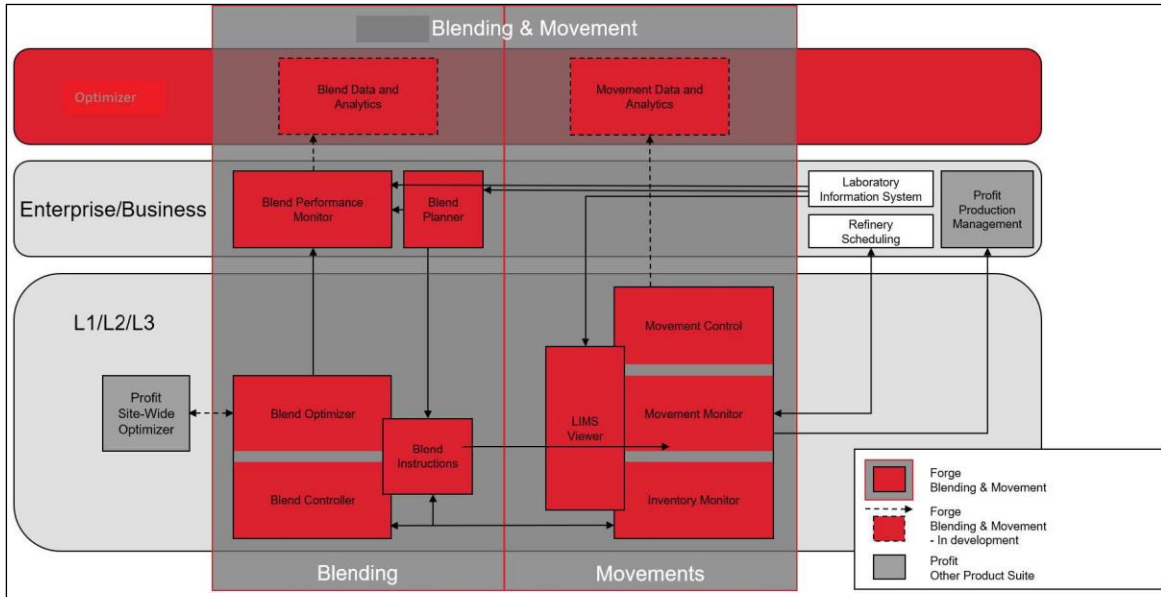
## Integration with Honeywell Applications

BI is a key component of Honeywell's Blending Solution, which is part of the Blending and Movement Management suite. Other components of Honeywell's blending solution are:

- **BLEND** - Offline multi-period blend planning and event-based scheduling
- **Blend Optimizer** – Online blend control with dynamic recipe adjustment
- **Blend Controller (BC) & Experion® Blend Controller (EBC)** – Advanced ratio control of in-line blending.
- **Blend Performance Monitor** - Collect, store and manage blend performance metrics.

Together, these components form the Honeywell's Blending solution, a set of integrated tools to deliver optimum in-line blending.

BI accepts recipes in XML file format from Honeywell's **BLEND** multi-period blend planning and scheduling application.



BI is a key component of Honeywell's Blending Suite and integrates with other Honeywell applications

The **Blend Optimizer** provides advanced blend optimization and recipe downloading (through Blending Instructions) to reduce component usage and property giveaway. The blend plan and recipes may be downloaded from Honeywell's BLEND multi-period blend planning application to BC via the **Blending Instructions** application.

Honeywell's **Blend Controller (BC)** and **Experion® Blend Controller (EBC)** provide advanced ratio control of in-line blending in Experion PKS control systems. While BO can integrate with other ratio control applications, when used with **BC or EBC**, there is additional integration provided that enables control of the BO application and monitoring of key BO information from the BC and EBC operator displays.

BI blend recipe is collected, along with data from other sources, by Honeywell's **Blend Performance Monitor** application, where actual blend data is compared to planned performance. Blend data is integrated into a data historian, such as Uniformance PHD, via the **Blend Performance Monitor** application for blend reports and archiving.

## Support Services

This product comes with worldwide, premium support services through our Benefits Guardianship Program (BGP). BGP is designed to help our customers to improve and extend the usage of their software and the benefits they deliver, ultimately maintaining and safeguarding their advanced software.

## For More Information

Learn more about Honeywell's Blend Optimizer can optimize your blending process, visit

[www.honeywellprocess.com/software](http://www.honeywellprocess.com/software) or contact your Honeywell Account Manager.

## Honeywell Connected Enterprise

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