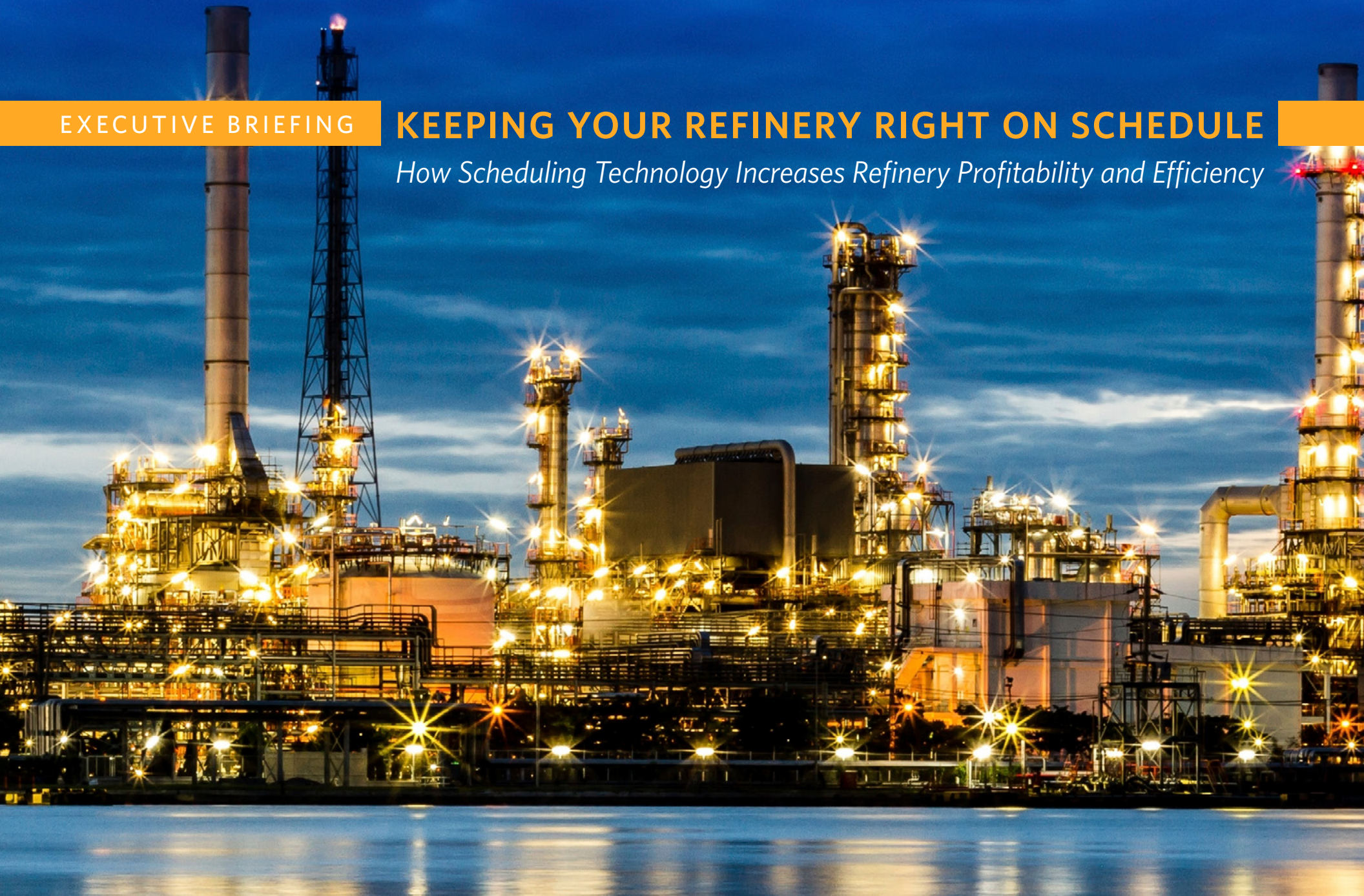


EXECUTIVE BRIEFING

## KEEPING YOUR REFINERY RIGHT ON SCHEDULE

*How Scheduling Technology Increases Refinery Profitability and Efficiency*



# Stay competitive in today's refining market.

## BUSINESS FIRST

A refinery is an essential part of the downstream side of the petroleum industry. Oil and gas companies have spent a significant amount of money to build the assets that process and refine crude oil into useful products based on demand - and they expect a return on that investment.

## GAINING A COMPETITIVE ADVANTAGE

Get the most out of your refinery and reduce pain points that diminish your throughput and product quality. Investing in best-in-class technology will streamline your business processes by helping to run your refinery efficiently while increasing profitability.

# Are you achieving these goals at your refinery?



## *Maximizing throughput*

Operate the refinery at full capacity to increase profitability.



## *Minimizing downtime*

Address maintenance schedules and unexpected shutdowns for a more stable operation.



## *Optimizing product blends*

Produce products with optimal crude and component recipes.



## *Reducing off-spec product*

Meet market and regulatory requirements the first time.

# Five signs you need scheduling automation in your refinery.



## *Failure to capitalize on spot crude cargos*

Missed opportunities because of time-consuming crude evaluation.



## *Customer service declines*

A lack of inventory when a sale opportunity arises.



## *Inefficiency and lost productivity*

The scheduling creation is too labor intensive.



## *Lost quality*

Suboptimal use of components that leads to inefficient blending and quality giveaway.



## *Significant off-spec production*

A loss in profits due to stricter market and regulatory requirements.

# Let scheduling technology optimize your refinery schedule.

## EASILY MANAGE THESE FACTORS

- ✓ Cost of production (demurrage, holding costs and component stockouts)
- ✓ Compatibility between planning and scheduling
- ✓ In-transit inventory
- ✓ Simultaneous scheduling across multiple users
- ✓ Blend campaigns/recipes for on-spec assurance

# What is scheduling optimization worth?

For a 200K/bbl refinery of medium complexity, advanced blending and scheduling improves profit margins by **\$0.10-\$0.20 USD/bbl** for an annual profit of **\$6-\$14MM USD**. Advanced blending and scheduling also provides the following:

- Reduced product quality giveaway
- Improved inventory management and logistic alignment
- Increased throughput
- Alignment between planning and scheduling

# Conclusion

The refining market is ever-evolving with continuously changing market trends, environmental regulations and stricter product specifications. Best-in-class refinery scheduling technology has now become a must-have for refining companies to stay competitive in today's market. Leading-edge refiners are gaining greater visibility across their entire supply chain from adopting advanced scheduling systems integrated with planning systems.

*For more information:*

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