C3.ai

▣ C3 AI Demand Forecasting

Enable Accurate Forecasts at Every Level of Supply Chain Hierarchy

Up to 30%+
absolute improvement in forecast accuracy

Avoid
lost sales from under-forecasting

Improve
inventory levels and reduce over-forecasting

C3 AI® Demand Forecasting helps demand planners accurately forecast demand at any granularity, time horizon, and cadence to reduce stockouts and improve service levels. The application unifies disparate data such as order history, customer data, and marketing campaigns, and applies AI models to generate SKU-, customer-, and location-level forecasts. The application continuously evaluates thousands of AI models for each demand forecast subject to ensure the best performing forecast is always used for every forecast subject. The intuitive user workflow enables planners to easily reconcile and integrate AI forecasts into internal systems with bi-directional write back to ERP and planning systems.

C3 AI Demand Forecasting creates accurate forecasts at any supply chain hierarchy level (e.g., a SKU- manufacturing facility level). The application deploys a best-fit AI/ML model for each forecasting subject to ensure the highest possible forecasting accuracy. These models are then automatically trained, deployed, and retrained. All forecasts are hierarchically reconciled across the entire supply chain hierarchy.

Feature Summary

- **Multiple input features:** Leverage all available enterprise and external data to create more accurate forecasts.

- **Advanced AI/ML models:** Apply sophisticated time-series forecasting at various time horizons and granularity from a library of 50+ best-in-class ML models.

- **Accuracy monitoring:** Constantly monitor performance with multiple metrics such as forecast accuracy, MAE, MAPE, RMSE, WAPE, and custom metrics.

- **AI explainability:** Leverage an evidence package with detailed reasoning to understand factors driving each AI forecast.

- **Generative AI:** Enhance user experience with Gen AI insights, including additional explainability functionality.

- **Integrated Workflow:** Implement alongside existing planning and demand intelligence solutions such as SAP IBP, Kinaxis, Aera, or others with bi-directional connectors.

- **Auto-segmentation and tuning:** Automatically segment SKUs based on similar characteristics and fine-tune models for each segment.

- **Spreadsheet and aggregation:** Automatically reconcile forecasts and enable users to dis/aggregate AI forecasts at any granularity.

- **Forecast overwrite:** Allow users to overwrite AI forecasts as needed.
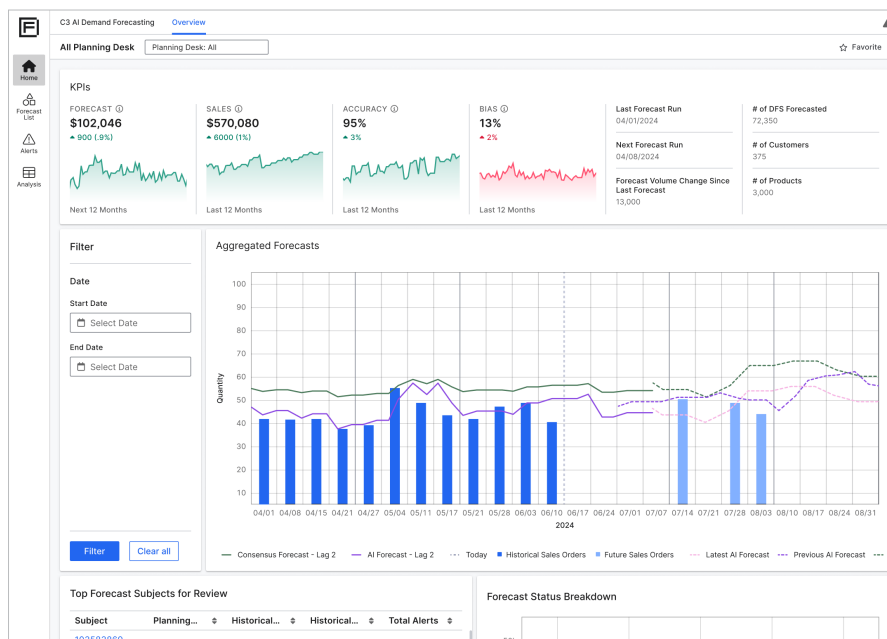

Figure 1. C3 AI Demand Forecasting provides granular and accurate AI forecasts across products, locations, and customers.

To adapt to various data scenarios, the application automatically segments SKUs based on similar demand profiles and tunes the ML models for each. This flexible approach allows to forecast even with limited or volatile data, ensuring accurate predictions in any situation.

C3 AI Demand Forecasting continuously retrains ML models to maintain high forecast accuracy. The C3 AI Platform enables advanced multi-step AI/ML pipelines for forecasting with multiple model routing. This approach allows for multiple challenger models at different granularities, with the flexibility to constantly prioritize the highest-performing models as needed.

To enable user trust and adoption, C3 AI Demand Forecasting supports each forecast with a rich evidence package that includes feature contributions, other contextual data, and detailed reasoning to explain the "why?" behind the forecast. C3 Generative AI capabilities are integrated into C3 AI Demand Forecasting to help users understand the drivers behind each forecast through an intuitive, natural-language interface, further enhancing trust in AI/ML models.

C3 AI Demand Forecasting boosts demand planner efficiency. AI forecasts can trigger alerts (AI-driven or manually configured) that allow users to prioritize their attention each forecasting cycle. Users can approve, reject, or overwrite AI/ML forecasts. These forecasts can be automatically sent to the customer's ERP and other integrated planning systems via bidirectional integration. This process allows companies to continue using existing systems, such as SAP, Kinaxis, or OMP while benefiting from a significantly higher demand planning accuracy.
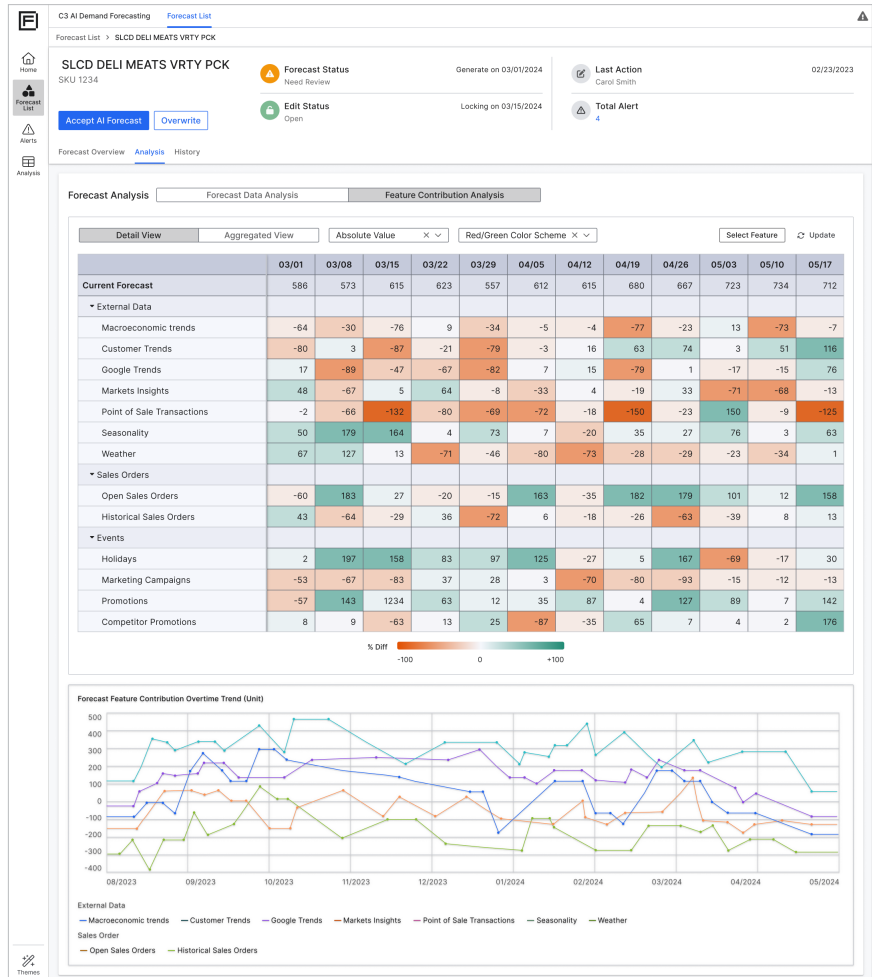

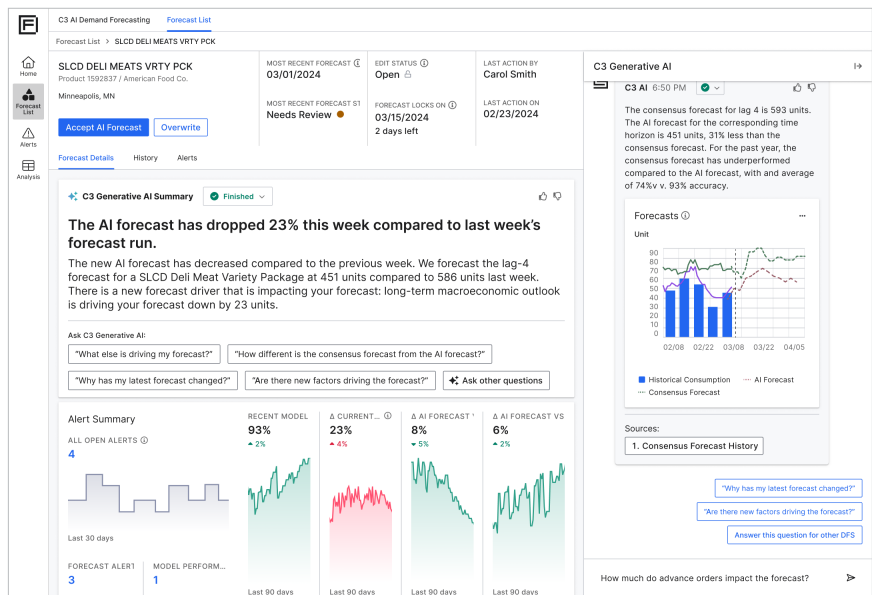**Figure 2.** *Review the drivers behind each forecast through the AI evidence package.*

Figure 3. *Deep dive into forecasts and AI insights through an integrated C3 Generative AI interface.*

Proven Results in 6-Month Pilot

Visit C3.ai/get-started