

# Future Analytics Charts & Alert Integration Guide

This document outlines the charts required for future data analytics and how alerts can be integrated. Each chart type is designed to support specific user insights, and some are connected to the alert system to notify users of important thresholds.

Chart	Purpose (Short)	Alert?
Bitcoin Cycle Forecaster	Predict future Bitcoin trends using halving data, on-chain metrics, and historical overlays.	No direct alerts, but visual for long-term projections
2-Year Cycle Deviation Chart	Visualize when Bitcoin price is above/below the 2-year moving average (bull/bear indicator).	Yes - Alert if price crosses above or below threshold
200-Week Heatmap	Show valuation zones using color bands based on 200-week SMA deviation (FilbFilb model).	Deviation only visual analytics
TradingView Lightweight Chart with Markers	Real-time BTC/crypto chart with overlaid Buy/Sell markers from webhook alerts.	Yes - Triggers Email/SMS/Push when Buy/Sell marker appears

## Bitcoin Cycle Forecaster

Purpose:

Predict future Bitcoin trends using halving data, on-chain metrics, and historical overlays.

Data Required:

Past cycle data, Halving dates, Coin Days Destroyed (on-chain metric)

Recommended Chart Library:

Chart.js / ECharts (for forecasting curve & confidence bands)

Alert Integration:

No direct alerts, but visual for long-term projections

## 2-Year Cycle Deviation Chart

Purpose:

Visualize when Bitcoin price is above/below the 2-year moving average (bull/bear indicator).

Data Required:

Historical BTC price + 2-Year MA

Recommended Chart Library:

ECharts / D3.js

Alert Integration:

Yes - Alert if price crosses above or below threshold deviation

## 200-Week Heatmap

Purpose:

Show valuation zones using color bands based on 200-week SMA deviation (FilbFilb model).

Data Required:

Weekly BTC closing prices + 200-week SMA

Recommended Chart Library:

Apache ECharts or Chart.js Heatmap

Alert Integration:

No - purely visual analytics

## **TradingView Lightweight Chart with Markers**

Purpose:

Real-time BTC/crypto chart with overlaid Buy/Sell markers from webhook alerts.

Data Required:

Live price (Binance/CoinCap) + Webhook signals from TradingView

Recommended Chart Library:

TradingView Lightweight Chart

Alert Integration:

Yes - Triggers Email/SMS/Push when Buy/Sell marker appears