

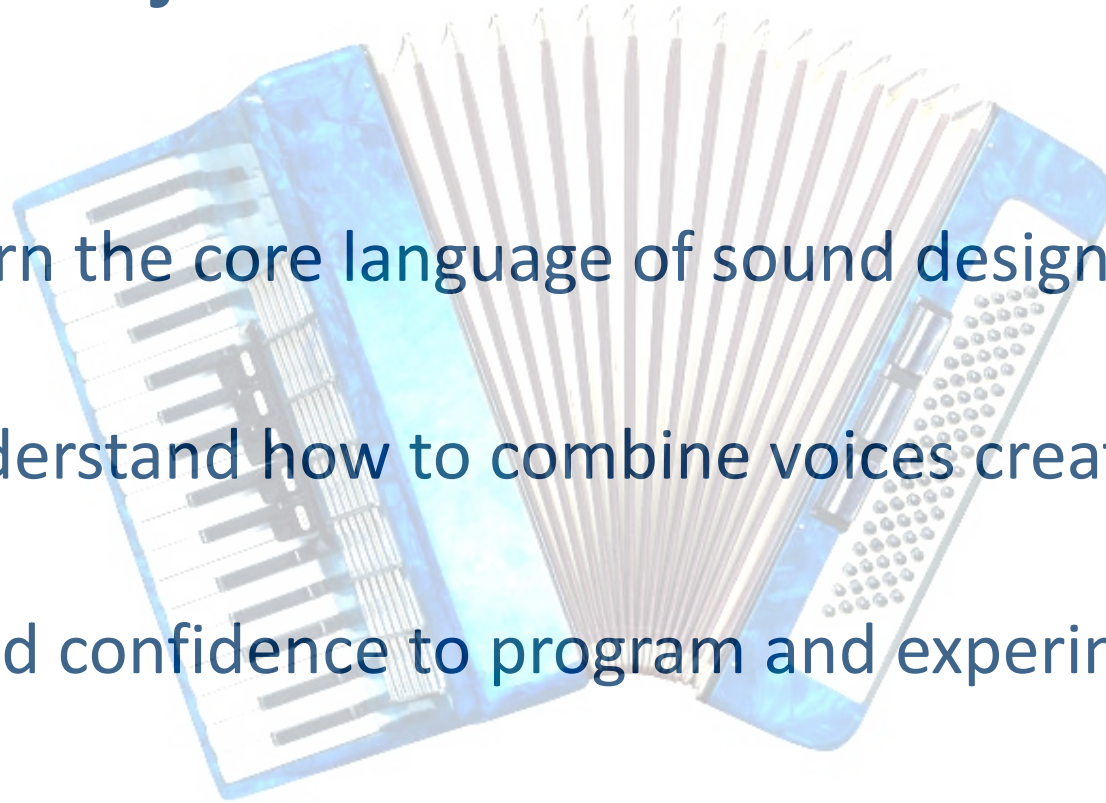


Programming Basics for Digital Accordions **(and Keyboards too!)**

Understanding the Language of Sound Design

Class Objectives

- Learn the core language of sound design
- Understand how to combine voices creatively
- Build confidence to program and experiment on your own



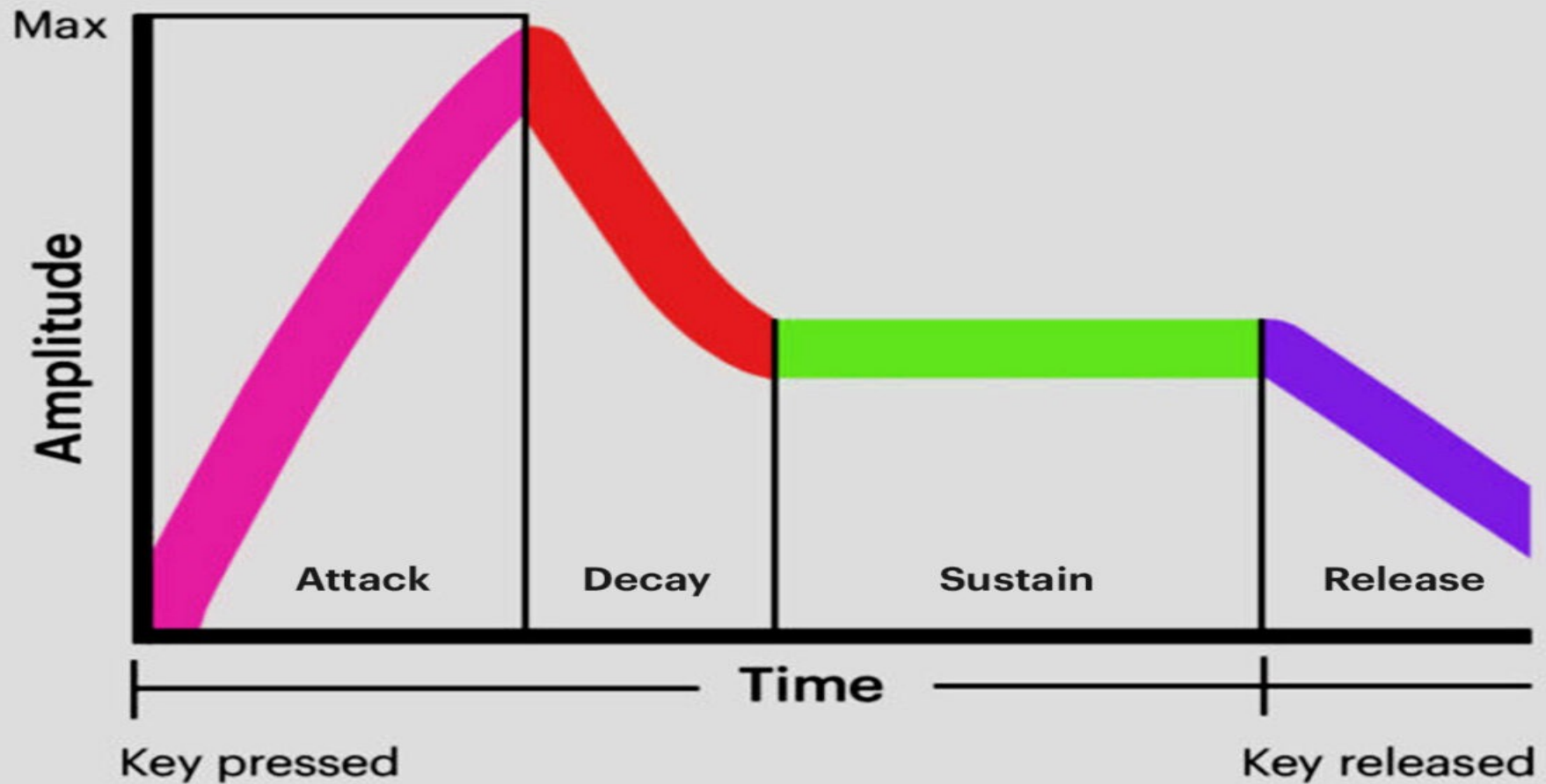
Before We Begin: Encouragement & Fun

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- You can't really break anything — most instruments have a 'reset to factory settings' option.
 - Everyone feels a little intimidated at first — it's like trying a new recipe, but it gets easier.
 - Just take small steps — change one sound or setting and see what happens.
 - Programming is about shaping your sound — your ears already know what you like.
 - This is your chance to make your instrument truly your own.
 - Good news — you can't break anything here! The worst thing that can happen is you end up with a sound you don't like... and we can fix that in seconds.
 - Think of this as musical cooking — we're just adding a pinch of reverb, a dash of chorus, and tasting as we go.
 - If you can change the station on your radio, you can change a sound on your instrument. It's that easy!
 - Today we're not becoming programmers — we're becoming sound designers for our own music.

Key Sound Design Concepts

- ADSR Envelope: Attack, Decay, Sustain, Release
- Filter & Resonance: Brightness and character
- Velocity & Expression: Dynamics and touch
- Pan & Stereo Spread: Clarity and space
- EQ & Effects: Reverb, chorus, delay, and EQ shaping

ADSR Envelope



Building a Layer

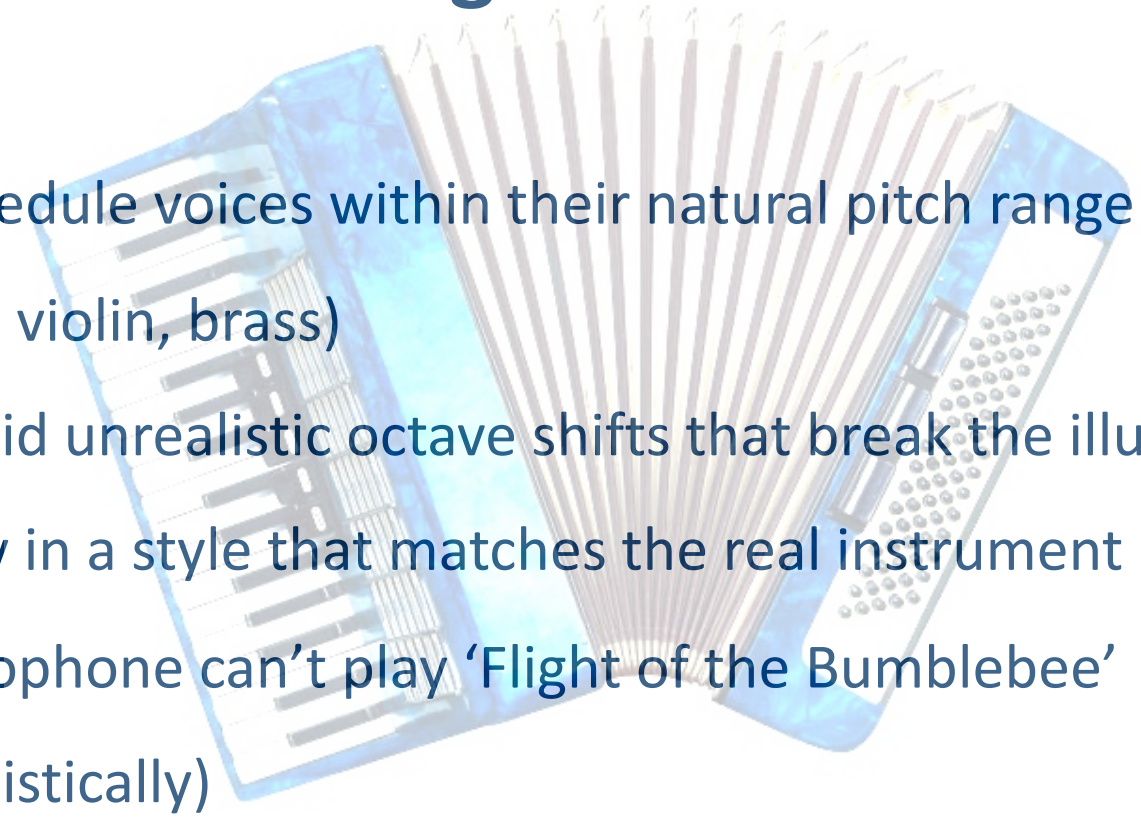
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- 1. Choose a primary voice (accordion, clarinet, strings)
 - 2. Add a secondary voice for depth or texture
 - 3. Balance volume and pan for clarity
 - 4. Adjust attack and release for natural phrasing
 - 5. Test while playing and tweak as needed

Programming for Playability



- Keep layers simple to avoid muddiness
- Set up smooth register changes
- Match expression curves to your playing style
- Balance left-hand bass/chords with right-hand voices

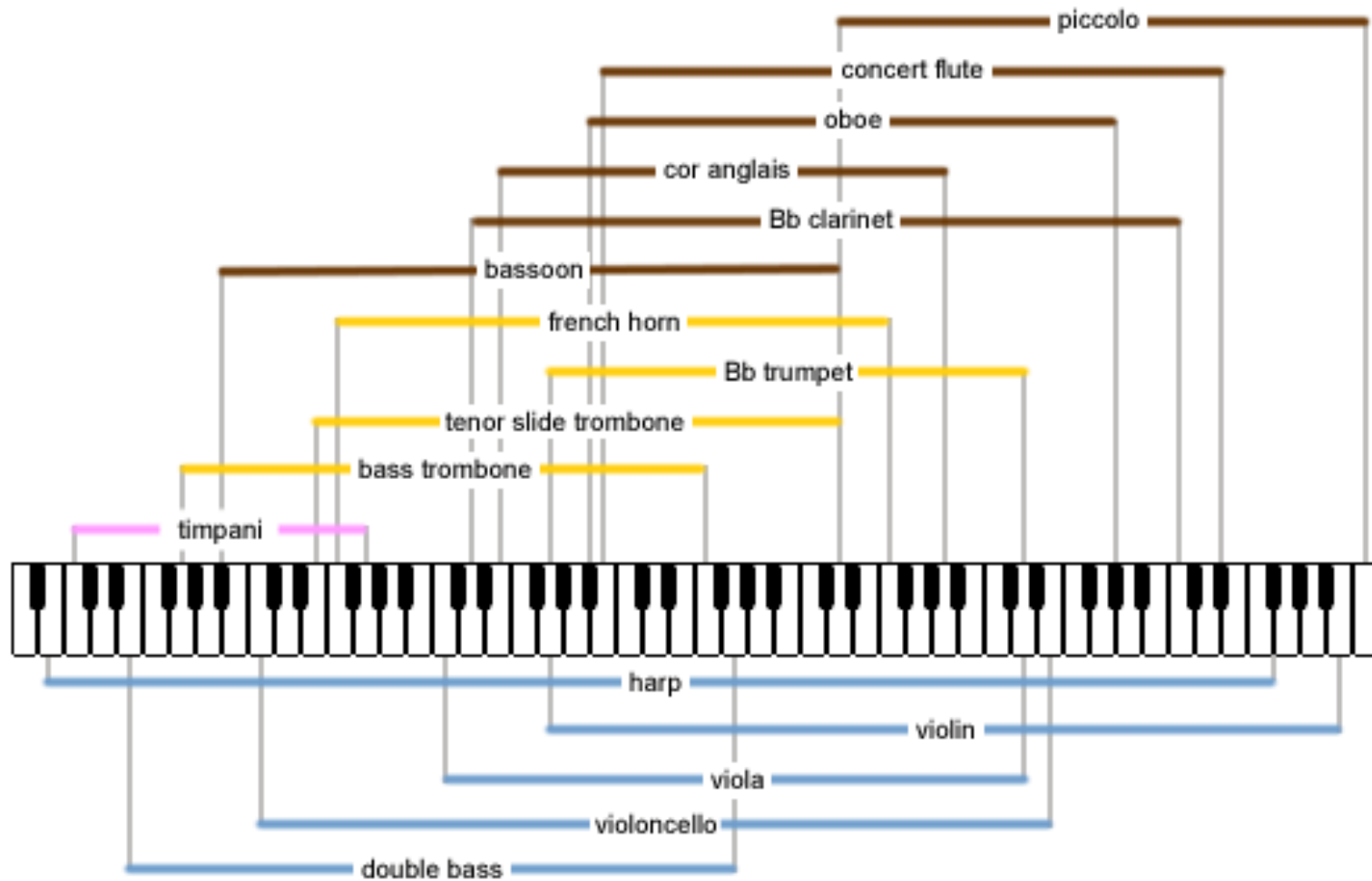
Instrument Ranges & Realism

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- Schedule voices within their natural pitch range (e.g.,
 - sax, violin, brass)
 - Avoid unrealistic octave shifts that break the illusion
 - Play in a style that matches the real instrument (e.g.,
 - saxophone can't play 'Flight of the Bumblebee'
 - realistically)
 - Use articulation and phrasing appropriate to the
 - instrument you are emulating

Instrument Ranges on the Keyboard

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- Keep voices in their natural pitch ranges
 - Layer instruments realistically for ensemble sound
 - Avoid octave shifts that break realism
 - Play with phrasing that matches real instruments

Instrument Ranges (Diagram)



Checklist & Wrap-Up

- Set voice volumes & pan logically
- Adjust ADSR to match musical style
- Apply effects sparingly
- Save and name registrations
- Test transitions while playing
- Don't consider this permanent – over time your ear will tell you to tweak it, and each time you do so the result improves.

