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import { useState, useEffect, useRef } from "react";
import { LineChart, Line, AreaChart, Area, BarChart, Bar, XAxis, YAxis, Tooltip,

// — Color system —————
const C = {
  bg: "#050B14", bg2: "#0A1628", bg3: "#0F2040",
  card: "#0D1B2A", border: "#1A3050", borderHi: "#0066FF",
  green: "#00FF88", greenDim: "#00CC66", greenBg: "rgba(0,255,136,0.08)",
  blue: "#0088FF", blueDim: "#0066CC", blueBg: "rgba(0,136,255,0.08)",
  orange: "#FF6600", orangeDim: "#CC5500", orangeBg: "rgba(255,102,0,0.08)",
  red: "#FF2244", redBg: "rgba(255,34,68,0.08)",
  gold: "#FFB800", goldBg: "rgba(255,184,0,0.08)",
  purple: "#8833FF", purpleBg: "rgba(136,51,255,0.08)",
  text: "#E0F0FF", textDim: "#6B8FAF", textFaint: "#2A4060",
  white: "#FFFFFF",
};

// — Static data —————
const AGENTS = [
  { id:"0x1A2B", name:"Strategic Visionary", tier:"ExecBoard", status:"ACTIVE",
  { id:"0x3C4D", name:"Execution Commander", tier:"ExecBoard", status:"ACTIVE",
  { id:"0x5E6F", name:"Risk Sovereign", tier:"ExecBoard", status:"WARNING",
  { id:"0x7A8B", name:"Strategy Admin", tier:"DeptAdmin", status:"ACTIVE",
  { id:"0x9C0D", name:"Intelligence Admin", tier:"DeptAdmin", status:"ACTIVE",
  { id:"0xAB1E", name:"OrderBookAnalyzer", tier:"TaskAgent", status:"ACTIVE",
  { id:"0xCF2A", name:"ChartVision", tier:"TaskAgent", status:"ACTIVE",
  { id:"0xD3B4", name:"SentimentParser", tier:"TaskAgent", status:"ACTIVE",
  { id:"0xE5C6", name:"RiskMonitor", tier:"TaskAgent", status:"ACTIVE",
  { id:"0xF7D8", name:"ComplianceAuditor", tier:"TaskAgent", status:"IDLE",
];

const SKILLS = [
  { id:"0x1f2e", name:"HydraTrading.v2.1", type:"SKILL", price:99, insta
  { id:"0x3a4b", name:"OrderBookAnalysis", type:"SKILL", price:49, inst
  { id:"0x5c6d", name:"SentimentEngine", type:"SKILL", price:79, inst
  { id:"0x7e8f", name:"ComplianceKernel", type:"SOUL", price:0, inst
  { id:"0x9a0b", name:"RiskSovereignSOUL", type:"SOUL", price:149, inst
  { id:"0xbcd1d", name:"DualProcessMemory", type:"MEMORY", price:0, inst
];

const IP_RECORDS = [
  { id:1, title:"OMEGA ROOT Governance Kernel", type:"PATENT", status:"PROV
  { id:2, title:"Byzantine Fault-Tolerant Swarm", type:"PATENT", status:"DISC
  { id:3, title:"Evolution Engine RL", type:"TRADE_SECRET", status:"SEC

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    { id:4, title:"OpenClaw",                                type:"TRADEMARK",    status:"FIL
];

const DEPLOYMENTS = [
  { version:"1.2.0", env:"PRODUCTION", status:"LIVE",    url:"hydra.openclaw.ai",
  { version:"1.1.3", env:"STAGING",    status:"LIVE",    url:"staging.openclaw.ai
  { version:"1.0.8", env:"PRODUCTION", status:"ARCHIVE", url:"v1.openclaw.ai",
];

const GRANTS = [
  { name:"NSF SBIR Phase I",          amount:275000, status:"SUBMITTED", color:C.bl
  { name:"Argonne CRI",              amount:250000, status:"PENDING",    color:C.pu
  { name:"Illinois Innovation",      amount:50000,  status:"DRAFTING",    color:C.go
  { name:"SBA Microloan",            amount:50000,  status:"APPROVED",    color:C.gr
  { name:"Mozilla Foundation AI",    amount:200000, status:"PENDING",    color:C.or
];

const genPnL = (n, base, vol) => Array.from({length:n}, (_,i)=>({
  t:i, v: base + Math.sin(i/3)*vol + (Math.random()-0.4)*vol*0.5
})));

const genActivity = () => Array.from({length:24}, (_,i)=>({
  h:`${i}:00`, calls: Math.floor(Math.random()*800+200), errors: Math.floor(Math.
})));

// — Components —————

const Tag = ({label, color, bg}) => (
  <span style={{background:bg||"rgba(0,136,255,0.15)", color:color||C.blue, fontS
    padding:"2px 7px", borderRadius:3, letterSpacing:"0.08em", fontFamily:"'JetBr
    {label}
  </span>
);

const Stat = ({label, value, sub, color=C.text}) => (
  <div style={{textAlign:"center"}}>
    <div style={{fontSize:22, fontWeight:800, color, fontFamily:"'JetBrains Mono'
    <div style={{fontSize:11, color:C.textDim, marginTop:2}}>{label}</div>
    {sub} && <div style={{fontSize:10, color:C.textFaint, marginTop:1}}>{sub}</div
    </div>
);

const ProgressBar = ({pct, color=C.blue, h=4}) => (
  <div style={{background:C.textFaint, borderRadius:h, overflow:"hidden", height:
    <div style={{width:`${pct}%`, background:color, height:"100%", borderRadius:h
      transition:"width 1s ease", boxShadow:`0 0 6px ${color}`} } />
    </div>

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);

const StatusDot = ({status}) => {
  const c = status==="ACTIVE"? "LIVE":status==="WARNING"? "WARN":status==="IDLE"? "I
  const col = {LIVE:C.green, WARN:C.orange, IDLE:C.textDim, OFF:C.red}[c];
  return (
    <span style={{display:"inline-flex",alignItems:"center",gap:5}}>
      <span style={{width:7,height:7,borderRadius:"50%",background:col,boxShadow:
        <span style={{fontSize:10,color:col,fontWeight:700,fontFamily:"monospace"}}
      </span>
    </span>
  );
};

const Card = ({children, style={}}) => (
  <div style={{background:C.card, border:`1px solid ${C.border}`, borderRadius:8,
    ...style}}>
    {children}
  </div>
);

const SectionTitle = ({icon, title, sub}) => (
  <div style={{display:"flex", alignItems:"center", gap:10, marginBottom:14}}>
    <span style={{fontSize:18}}>{icon}</span>
    <div>
      <div style={{fontSize:13, fontWeight:700, color:C.text, letterSpacing:"0.05
        {sub && <div style={{fontSize:10, color:C.textDim}}>{sub}</div>}
      </div>
    </div>
  </div>
);

// — Tab: SWARM —————
function SwarmTab() {
  const [tick, setTick] = useState(0);
  const pnlData = useRef(genPnL(60, 6800, 300)).current;
  useEffect(()=>{const t=setInterval(()=>setTick(x=>x+1),2000);return()=>clearInt

  const totalPnL = AGENTS.reduce((a,x)=>a+x.pnL,0);
  const active = AGENTS.filter(a=>a.status==="ACTIVE").length;

  return (
    <div style={{display:"grid", gap:14}}>
      {/* Top stats */}
      <div style={{display:"grid", gridTemplateColumns:"repeat(5,1fr)", gap:10}}>
        {[
          {label:"Total Agents", value:AGENTS.length, color:C.blue},
          {label:"Active", value:active, color:C.green},
          {label:"Portfolio P&L", value:`+${totalPnL.toLocaleString()}`, color:C

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    {label:"Avg Reputation", value:`${(AGENTS.reduce((a,x)=>a+x.rep,0)/AGENTS
    {label:"Total Tasks", value:AGENTS.reduce((a,x)=>a+x.tasks,0).toLocaleS
  ].map((s,i)=>(
    <Card key={i} style={{padding:14, textAlign:"center"}}>
      <Stat {...s}/>
    </Card>
  )))
</div>

<div style={{display:"grid", gridTemplateColumns:"1fr 340px", gap:14}}>
  { /* Agent Table */ }
  <Card>
    <SectionTitle icon="🧠" title="Agent Registry" sub="MACNN-RLS Hierarchy" />
    <div style={{overflowX:"auto"}}>
      <table style={{width:"100%", borderCollapse:"collapse", fontSize:12}}>
        <thead>
          <tr style={{borderBottom:`1px solid ${C.border}`}}>
            {[ "ID", "Name", "Tier", "Status", "Rep", "P&L", "Tasks", "Load", "System" ]}
            <th key={h} style={{textAlign:"left", padding:"6px 8px", color:C.textDim}}>{h}</th>
          </tr>
        </thead>
        <tbody>
          {AGENTS.map(a=>(
            <tr key={a.id} style={{borderBottom:`1px solid ${C.textFaint}`},
              onMouseEnter={e=>e.currentTarget.style.background=C.bg3},
              onMouseLeave={e=>e.currentTarget.style.background="transparent"}}>
              <td style={{padding:"7px 8px", fontFamily:"monospace", color:C.textDim}}>{a.id}</td>
              <td style={{padding:"7px 8px", color:a.color, fontWeight:600}}>{a.name}</td>
              <td style={{padding:"7px 8px"}}><Tag label={a.tier} color={a.tierColor}>{a.tier}</Tag></td>
              <td style={{padding:"7px 8px"}}><StatusDot status={a.status}/></td>
              <td style={{padding:"7px 8px", fontFamily:"monospace", color:C.textDim}}>{a.rep}</td>
              <td style={{padding:"7px 8px", fontFamily:"monospace", color:C.textDim}}>{a.pnl}>0?"+": ""}{a.pnl==0?"-":"$"+a.pnl.toLocaleString()}</td>
              <td style={{padding:"7px 8px", fontFamily:"monospace", color:C.textDim}}>{a.load}</td>
              <td style={{padding:"7px 8px", minWidth:80}}>
                <div style={{display:"flex", alignItems:"center", gap:6}}>
                  <ProgressBar pct={a.load} color={a.load>85?C.orange:C.blue}</ProgressBar>
                  <span style={{fontSize:10, color:C.textDim, minWidth:28}}>{a.load}</span>
                </div>
              </td>
              <td style={{padding:"7px 8px"}}><Tag label={a.sys} color={a.sysColor}>{a.sys}</Tag></td>
            </tr>
          )))
        </tbody>
      </table>
    </div>
  </Card>
</div>

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    </div>
  </Card>

  {/** P&L chart + OMEGA ROOT */}
  <div style={{display:"grid", gap:14}}>
    <Card>
      <SectionTitle icon="📈" title="Portfolio P&L" sub="Live - 60 ticks"/>
      <ResponsiveContainer width="100%" height={130}>
        <AreaChart data={pnlData}>
          <defs>
            <linearGradient id="pnlGrad" x1="0" y1="0" x2="0" y2="1">
              <stop offset="5%" stopColor={C.green} stopOpacity={0.3}/>
              <stop offset="95%" stopColor={C.green} stopOpacity={0}/>
            </linearGradient>
          </defs>
          <XAxis hide/>
          <YAxis hide domain={["auto","auto"]}/>
          <Tooltip contentStyle={{background:C.card,border:`1px solid ${C.b
            <Area type="monotone" dataKey="v" stroke={C.green} fill="url(#pnl
          </AreaChart>
        </ResponsiveContainer>
      </Card>

    <Card>
      <SectionTitle icon="🔒" title="OMEGA ROOT" sub="Governance Kernel - C
      [[
        {label:"Max Position", value:"2.0%", ok:true},
        {label:"Risk/Reward Min", value:"2.0:1", ok:true},
        {label:"Daily Loss Ceiling", value:"10.0%", ok:true},
        {label:"Leverage", value:"DISABLED", ok:true},
        {label:"Human Approval", value:"REQUIRED", ok:true},
        {label:"Wolfpack Threshold", value:"95%", ok:true},
      ]}.map((r,i)=>(
        <div key={i} style={{display:"flex", justifyContent:"space-between"
          padding:"5px 0", borderBottom:i<5?`1px solid ${C.textFaint}`:"non
          <span style={{fontSize:11, color:C.textDim}}>{r.label}</span>
          <span style={{fontSize:11, fontFamily:"monospace", color:r.ok?C.g
        </div>
      )))
    </Card>
  </div>
</div>
</div>
);
}

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function ResearchTab() {
  const [query, setQuery] = useState("");
  const [sources, setSources] = useState("ALL_WEB");
  const [domains, setDomains] = useState("arxiv.org, ssrn.com, sec.gov, pubmed.nc
  const [running, setRunning] = useState(false);
  const [log, setLog] = useState([]);
  const [files, setFiles] = useState([
    {name:"MACNN-RLS-v3.0.pdf", type:"PDF", size:"2.4MB", status:"INDEXED"},
    {name:"OpenClaw-Architecture.pptx", type:"PPT", size:"8.1MB", status:"INDEXED"},
    {name:"HydraPerformance-Q1-2025.xlsx", type:"XLS", size:"1.2MB", status:"INDE
  ]);
  const actData = useRef(genActivity()).current;

  const STEPS = [
    "🔍 Decomposing query into sub-tasks...",
    "🌐 Dispatching parallel web agents...",
    "📄 Retrieving documents from trusted domains...",
    "🔗 Cross-referencing sources (Neural Context Protocol)...",
    "🧠 System 2 deep analysis initiated...",
    "⚖️ OMEGA ROOT compliance check...",
    "📊 Synthesizing multi-source output...",
    "✅ Synthesized report ready.",
  ];

  const runResearch = () => {
    if (!query.trim()) return;
    setRunning(true);
    setLog([]);
    STEPS.forEach((s,i)=>setTimeout(()=>{
      setLog(l=>[...l, s]);
      if(i===STEPS.length-1) setRunning(false);
    }, (i+1)*700));
  };

  return (
    <div style={{display:"grid", gap:14}}>
      <div style={{display:"grid", gridTemplateColumns:"1fr 340px", gap:14}}>
        {/* Research Agent Panel */}
        <Card>
          <SectionTitle icon="🤖" title="Autonomous Research Agent" sub="Multi-sc

          <div style={{display:"grid", gridTemplateColumns:"1fr 1fr", gap:10, mar
            <div>
              <div style={{fontSize:10, color:C.textDim, marginBottom:5, textTran
                {[ "ALL_WEB", "SPECIFIC_DOMAINS", "PRIORITIZED_SITES" ].map(m=>(
                  <label key={m} style={{display:"flex", alignItems:"center", gap:8
                    <div onClick={()=>setSources(m)} style={{width:14, height:14, b

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        border:`2px solid ${sources===m?C.blue:C.border}` ,
        background: sources===m?C.blue:"transparent", cursor:"pointer
        boxShadow: sources===m?`0 0 8px ${C.blue}`:"none"}}/>
        <span style={{fontSize:11, color:sources===m?C.blue:C.textDim}}
    </label>
    )))
</div>
{sources!=="ALL_WEB" && (
    <div>
        <div style={{fontSize:10, color:C.textDim, marginBottom:5, textTr
            {sources=="SPECIFIC_DOMAINS"? "Trusted Domains": "Prioritized Si
        </div>
        <textarea value={domains} onChange={e=>setDomains(e.target.value)
            style={{width:"100%", background:C.bg3, border:`1px solid ${C.b
                color:C.text, fontSize:11, fontFamily:"monospace", padding:8,
                outline:"none", boxSizing:"border-box"}}/>
        </div>
    )}
</div>

<div style={{display:"flex", gap:8, marginBottom:12}}>
    <input value={query} onChange={e=>setQuery(e.target.value)}
        onKeyDown={e=>e.key==="Enter"&&runResearch()}
        placeholder="Research NSF SBIR Phase I acceptance rates for AI gove
        style={{flex:1, background:C.bg3, border:`1px solid ${C.border}` , b
            color:C.text, fontSize:12, padding:"9px 12px", outline:"none",
            fontFamily:"inherit"}}/>
    <button onClick={runResearch} disabled={running}
        style={{padding:"9px 18px", background:running?C.bg3:C.blue, color:
            border:"none", borderRadius:4, fontWeight:700, fontSize:12, curso
            opacity:running?0.6:1}}>
        {running?"Running...":"Research"}
    </button>
</div>

{/* Agent Log */}
<div style={{background:C.bg, border:`1px solid ${C.border}` , borderRad
    {log.length===0 && (
        <div style={{color:C.textFaint, paddingTop:60, textAlign:"center"}}
            Agent idle. Enter a query to begin multi-source synthesis.
        </div>
    )}
    {log.map((l,i)=>(
        <div key={i} style={{color:i===log.length-1?C.green:C.textDim, padd
            display:"flex", gap:8, alignItems:"flex-start"}}>
            <span style={{color:C.textFaint, minWidth:60}}>`${String(i*0.7)
            <span>{l}</span>

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        </div>
    ))}
    {running && <span style={{color:C.blue, animation:"blink 1s infinite"
</div>

<div style={{marginTop:10, display:"flex", gap:6, flexWrap:"wrap"}}>
  [{"NSF SBIR eligibility AI","Argonne CRI 2025 cohort","Illinois DCEO
    <button key={s} onClick={()=>{setQuery(s);}}
      style={{fontSize:10, padding:"4px 8px", background:C.bg3, border:
        color:C.textDim, borderRadius:3, cursor:"pointer"}}>
        {s}
      </button>
    )]}
  </div>
</Card>

{/* Context Grounding */}
<div style={{display:"grid", gap:14, alignContent:"start"}}>
  <Card>
    <SectionTitle icon="🔗" title="First-Class Context" sub="Grounded dat
    {files.map((f,i)=>(
      <div key={i} style={{display:"flex", justifyContent:"space-between"
        padding:"7px 0", borderBottom:i<files.length-1?'1px solid ${C.tex
      <div style={{display:"flex", gap:8, alignItems:"center"}}>
        <span style={{fontSize:16}}>
          {f.type==="PDF"? "📄":f.type==="PPT"? "📊": "📁"}
        </span>
        <div>
          <div style={{fontSize:11, color:C.text}}>{f.name}</div>
          <div style={{fontSize:10, color:C.textDim}}>{f.size}</div>
        </div>
      </div>
      <Tag label={f.status} color={C.green} bg={C.greenBg}/>
    </div>
    )]}
    <div style={{marginTop:10}}>
      <label style={{display:"flex", alignItems:"center", justifyContent:
        padding:"8px 12px", background:C.bg3, border:`1px dashed ${C.bord
        borderRadius:4, cursor:"pointer", color:C.textDim, fontSize:11}}>
        <span>+ Add context file (PDF, PPT, XLS)</span>
      </label>
    </div>
  </Card>

  <Card>
    <SectionTitle icon="📊" title="Research Activity" sub="24h API calls"
    <ResponsiveContainer width="100%" height={120}>

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        <BarChart data={actData}>
          <XAxis dataKey="h" hide/>
          <YAxis hide/>
          <Tooltip contentStyle={{background:C.card,border:`1px solid ${C.b
            <Bar dataKey="calls" fill={C.blue} opacity={0.7} radius={[2,2,0,0
          </BarChart>
        </ResponsiveContainer>
      </Card>

      <Card>
        <SectionTitle icon="🔊" title="Voice Interface" sub="Siri → SmythOS W
        <div style={{fontSize:11, color:C.textDim, lineHeight:1.6, marginBott
          Trigger research tasks with Siri via webhook integration. "Hey Siri
        </div>
        <div style={{background:C.bg, borderRadius:4, padding:8, fontFamily:"
          POST https://openclaw.ai/api/v1/research<br/>
          `{ "query": "${SiriInput}", "sources": "SPECIFIC_DOMAINS" }`>
        </div>
        <Tag label="WEBHOOK ACTIVE" color={C.green} bg={C.greenBg}/>
      </Card>
    </div>
  </div>
</div>
);
}

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// — Tab: CLAWHUB —————
function ClawHubTab() {
  const [filter, setFilter] = useState("ALL");
  const TYPES = ["ALL", "SKILL", "SOUL", "MEMORY"];
  const filtered = filter==="ALL"?SKILLS:SKILLS.filter(s=>s.type===filter);

  return (
    <div style={{display:"grid", gap:14}}>
      <div style={{display:"grid", gridTemplateColumns:"repeat(4,1fr)", gap:10}}>
        {[
          {label:"Published Packages", value:SKILLS.length, color:C.blue},
          {label:"Total Installs", value:SKILLS.reduce((a,x)=>a+x.installs,0).toL
          {label:"Revenue (CLAW)", value:"12,847", color:C.gold},
          {label:"Verified Packages", value:SKILLS.filter(s=>s.verified).length,
        ].map((s,i)=><Card key={i} style={{padding:14, textAlign:"center"}}><Stat
      </div>

      <Card>
        <div style={{display:"flex", justifyContent:"space-between", alignItems:"
          <SectionTitle icon="🌱" title="ClawHub Marketplace" sub="SKILL · SOUL ·
          <div style={{display:"flex", gap:6}}>

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    {TYPES.map(t=>(
      <button key={t} onClick={()=>setFilter(t)}
        style={{fontSize:10, padding:"4px 10px", borderRadius:3, fontWeig
          background: filter===t?C.blue:C.bg3, color:filter===t?C.white:C
            border:`1px solid ${filter===t?C.blue:C.border}`, cursor:"point
              {t}
            </button>
          )}}
    </div>
  </div>
<div style={{display:"grid", gridTemplateColumns:"repeat(3,1fr)", gap:10}
  {filtered.map(s=>(
    <div key={s.id} style={{background:C.bg3, border:`1px solid ${C.borde
      cursor:"pointer", transition:"border-color 0.2s"}}
      onMouseEnter={e=>e.currentTarget.style.borderColor=C.blue}
      onMouseLeave={e=>e.currentTarget.style.borderColor=C.border}>
      <div style={{display:"flex", justifyContent:"space-between", margin
        <Tag label={s.type} color={s.type==="SKILL"?C.blue:s.type==="SOUL
          bg={s.type==="SKILL"?C.blueBg:s.type==="SOUL"?C.goldBg:C.purple
            {s.verified && <Tag label="✓ VERIFIED" color={C.green} bg={C.gree
          </div>
          <div style={{fontSize:13, fontWeight:700, color:C.text, marginBotto
          <div style={{fontSize:10, color:C.textDim, fontFamily:"monospace",
          <div style={{display:"flex", justifyContent:"space-between", alignI
            <span style={{fontSize:12, fontWeight:700, color:s.price===0?C.gr
              {s.price===0?"FREE":`$${s.price} CLAW`}
            </span>
            <span style={{fontSize:10, color:C.textDim}}>★ {s.rating} · {s.in
          </div>
          <div style={{marginTop:10}}>
            <ProgressBar pct={Math.min(100, s.installs/25)} color={s.price===
          </div>
        </div>
      )}}
    </div>
  </div>
</Card>

{ /* CLAW token stats */}
<div style={{display:"grid", gridTemplateColumns:"1fr 1fr", gap:14}}>
  <Card>
    <SectionTitle icon="🐾" title="CLAW Token Allocation" sub="1,000,000,00
    {[
      {label:"Ecosystem Fund",    pct:30, color:C.blue},
      {label:"Community/ClawHub",pct:25, color:C.green},
      {label:"R&D Treasury",      pct:20, color:C.purple},
      {label:"Team (4yr vest)",   pct:15, color:C.gold},
      {label:"Public Sale",       pct:10, color:C.orange},
    ]}

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].map((r,i)=>(
  <div key={i} style={{marginBottom:10}}>
    <div style={{display:"flex",justifyContent:"space-between",marginBo
      <span style={{fontSize:11,color:C.textDim}}>{r.label}</span>
      <span style={{fontSize:11,color:r.color,fontFamily:"monospace",fo
    </div>
    <ProgressBar pct={r.pct} color={r.color}/>
  </div>
  )})
</Card>
<Card>
  <SectionTitle icon="📦" title="Smart Contracts" sub="Verified on Ethere
  [[
    {name:"CLAWToken.sol",          addr:"0xa1b2...c3d4", status:"VERIFIE
    {name:"OMEGARootKernel.sol",     addr:"0xe5f6...g7h8", status:"VERIFI
    {name:"BlackBoxRecorder.sol",    addr:"0xi9j0...k1l2", status:"VERIFI
    {name:"ClawHubMarketplace.sol",  addr:"0xm3n4...o5p6", status:"PENDIN
    {name:"OpenClawIPRegistry.sol",  addr:"0xq7r8...s9t0", status:"PENDIN
    {name:"OpenClawAgentRegistry.sol",addr:"0xulv2...w3x4",status:"DEPLOY
  ].map((c,i)=>(
    <div key={i} style={{display:"flex", justifyContent:"space-between",
      padding:"6px 0", borderBottom:i<5?'1px solid ${C.textFaint}`:"none"
    <div>
      <div style={{fontSize:11, color:C.text, fontFamily:"monospace"}}>
        <div style={{fontSize:10, color:C.textDim, fontFamily:"monospace"
      </div>
      <Tag label={c.status} color={c.color}/>
    </div>
    )})
  </Card>
</div>
</div>
);
}

```

```

// — Tab: DEPLOY —————
function DeployTab() {
  const [version, setVersion] = useState("1.3.0");
  const [notes, setNotes] = useState("");
  const [env, setEnv] = useState("STAGING");
  const [deploying, setDeploying] = useState(false);
  const [deployLog, setDeployLog] = useState([]);

  const DEPLOY_STEPS = [
    "📦 Building OpenClaw runtime bundle...",
    "🔒 Signing release with OMEGA ROOT kernel hash...",
    "🌐 Provisioning subdomain + SSL certificate...",
  ]

```

```

    "🐳 Initializing Docker Compose swarm containers...",
    "🩺 Running health checks across all agents...",
    "📝 Writing immutable deployment record to chain...",
    "✅ Version "+version+" deployed successfully.",
  ];

  const deploy = () => {
    setDeploying(true);
    setDeployLog([]);
    DEPLOY_STEPS.forEach((s,i)=>setTimeout(()=>{
      setDeployLog(l=>[...l,s]);
      if(i===DEPLOY_STEPS.length-1) setDeploying(false);
    },(i+1)*800));
  };

  return (
    <div style={{display:"grid", gap:14}}>
      <div style={{display:"grid", gridTemplateColumns:"1fr 1fr", gap:14}}>
        { /* Deploy config */ }
        <Card>
          <SectionTitle icon="🚀" title="Deploy OpenClaw" sub="SmythOS Agent Clou
          <div style={{display:"grid", gap:12}}>
            <div>
              <div style={{fontSize:10,color:C.textDim,marginBottom:5,textTransfo
              <input value={version} onChange={e=>setVersion(e.target.value)}
                style={{width:"100%", background:C.bg3, border:`1px solid ${C.bor
                  color:C.text, fontSize:13, padding:"8px 12px", outline:"none",
                <div style={{fontSize:10, color:C.textFaint, marginTop:4}}>Once pub
            </div>
            <div>
              <div style={{fontSize:10,color:C.textDim,marginBottom:5,textTransfo
              <div style={{display:"flex", gap:8}}>
                [{"STAGING","PRODUCTION","LOCAL"].map(e=>({
                  <button key={e} onClick={()=>setEnv(e)}
                    style={{flex:1, padding:"7px 0", borderRadius:4, fontWeight:7
                      background: env===e?(e==="PRODUCTION"?C.orange:C.blue):C.bg
                      color: env===e?C.white:C.textDim,
                      border:`1px solid ${env===e?(e==="PRODUCTION"?C.orange:C.bl
                        {e}
                    </button>
                  )))
              </div>
            </div>
            <div>
              <div style={{fontSize:10,color:C.textDim,marginBottom:5,textTransfo
              <div style={{background:C.bg, border:`1px solid ${C.border}`, borde
                fontFamily:"monospace", fontSize:12, color:C.blue}}>

```

```

        {env==="PRODUCTION"?`hydra.openclaw.ai`:env==="STAGING"?`staging.`
      </div>
    </div>
    <div>
      <div style={{fontSize:10,color:C.textDim,marginBottom:5,textTransfo
      <textarea value={notes} onChange={e=>setNotes(e.target.value)}
        placeholder="e.g., Adds ClawHub ERC-1155 marketplace integration.
        style={{width:"100%", background:C.bg3, border:`1px solid ${C.bor
          color:C.text, fontSize:12, padding:"8px 12px", resize:"none", h
          outline:"none", fontFamily:"inherit", boxSizing:"border-box"}}/
    </div>
    <div>
      <div style={{fontSize:10,color:C.textDim,marginBottom:5,textTransfo
      <div style={{background:C.bg, border:`1px solid ${C.border}``, borde
        fontFamily:"monospace", fontSize:10, color:C.textDim}}>
        {env==="PRODUCTION"
          ?`https://openclaw.agent.psatge.smyth.ai/mcp/sse`
          :`https://openclaw.agent.stage.smyth.ai/mcp/sse`}
      </div>
    </div>
    <button onClick={deploy} disabled={deploying}
      style={{padding:"12px 0", background:deploying?C.bg3:env==="PRODUCT
        color:C.white, border:"none", borderRadius:4, fontWeight:800, fon
        cursor:deploying?"not-allowed":"pointer", opacity:deploying?0.6:1
        boxShadow:deploying?"none":`0 0 20px ${env==="PRODUCTION"?C.orang
        {deploying?"Deploying...":`🚀 Deploy Version `+version}
    </button>
  </div>
</Card>

{/* Deploy log + history */}
<div style={{display:"grid", gap:14, alignContent:"start"}}>
  <Card>
    <SectionTitle icon="📄" title="Deploy Log" sub="Real-time output"/>
    <div style={{background:C.bg, border:`1px solid ${C.border}`, borderR
      {deployLog.length===0 && (
        <div style={{color:C.textFaint, paddingTop:60, textAlign:"center"
        )}
      {deployLog.map((l,i)=>(
        <div key={i} style={{color:i===deployLog.length-1&&!deploying?C.g
          <span style={{color:C.textFaint}}>[`${(i*0.8).toFixed(1)}s`] </spa
          </div>
        )}}
      {deploying && <span style={{color:C.blue}}>🔄</span>}
    </div>
  </Card>

```

```

<Card>
  <SectionTitle icon="📦" title="Deployment History" sub="All versions"
    {DEPLOYMENTS.map((d,i)=>(
      <div key={i} style={{display:"flex", justifyContent:"space-between"
        padding:"8px 0", borderBottom:i<DEPLOYMENTS.length-1?'1px solid $
        <div>
          <div style={{display:"flex", gap:8, alignItems:"center", margin
            <span style={{fontFamily:"monospace", fontSize:12, color:C.te
              <Tag label={d.env} color={d.env==="PRODUCTION"?C.orange:C.bl
              <Tag label={d.status} color={d.status==="LIVE"?C.green:C.text
            </div>
          <div style={{fontSize:10, fontFamily:"monospace", color:C.blue}
            <div style={{fontSize:10, color:C.textFaint}}>{d.ts}</div>
          </div>
        {d.health && (
          <div style={{textAlign:"right"}}>
            <div style={{fontSize:14, fontWeight:700, color:C.green, font
              <div style={{fontSize:9, color:C.textDim}}>uptime</div>
            </div>
          </div>
        )}
      </div>
    )}}
  </Card>
</div>
</div>
</div>
);
}

```

```

// — Tab: FUNDING —————
function FundingTab() {
  const total = GRANTS.reduce((a,g)=>a+(g.status==="APPROVED"?g.amount:0),0);
  const pipeline = GRANTS.reduce((a,g)=>a+(g.status!=="APPROVED"?g.amount:0),0);

  return (
    <div style={{display:"grid", gap:14}}>
      <div style={{display:"grid", gridTemplateColumns:"repeat(4,1fr)", gap:10}}>
        {[
          {label:"Secured Capital", value:`$$${(total/1000).toFixed(0)}K`, color:
            {label:"Pipeline Value", value:`$$${(pipeline/1000).toFixed(0)}K`, col
            {label:"Active Apps", value:GRANTS.filter(g=>g.status!=="APPROVED"
            {label:"Target (Year 1)", value:"$1.37M", color:C.purple},
          ].map((s,i)=><Card key={i} style={{padding:14, textAlign:"center"}}><Stat
        </div>

      <div style={{display:"grid", gridTemplateColumns:"1fr 1fr", gap:14}}>
        <Card>

```

```

<SectionTitle icon="💰" title="Grant Pipeline" sub="Federal · State · F
{GRANTS.map((g,i)=>(
  <div key={i} style={{padding:"10px 0", borderBottom:i<GRANTS.length-1
    <div style={{display:"flex", justifyContent:"space-between", margin
      <div>
        <div style={{fontSize:12, fontWeight:700, color:C.text}}>{g.nam
        <Tag label={g.status} color={g.color}/>
      </div>
      <div style={{textAlign:"right"}}>
        <div style={{fontSize:13, fontWeight:700, color:g.color, fontFa
          ${g.amount/1000}.toFixed(0)}K
        </div>
      </div>
    </div>
    <div>
      <ProgressBar pct={g.pct} color={g.color}/>
      <div style={{fontSize:9, color:C.textFaint, marginTop:3, textAlign:
    </div>
  )})
</Card>

```

```

<div style={{display:"grid", gap:14, alignContent:"start"}}>
  <Card>
    <SectionTitle icon="🏛️" title="IP Registry" sub="On-chain disclosure
    {IP_RECORDS.map((r,i)=>(
      <div key={i} style={{padding:"8px 0", borderBottom:i<IP_RECORDS.len
        <div style={{display:"flex", justifyContent:"space-between", alig
          <div style={{fontSize:11, fontWeight:700, color:C.text, flex:1,
            <Tag label={r.status} color={r.status==="PROVISIONAL"||r.status
          </div>
          <div style={{display:"flex", gap:8, alignItems:"center"}}>
            <Tag label={r.type} color={r.type==="PATENT"?C.gold:r.type==="T
            <span style={{fontSize:9, fontFamily:"monospace", color:C.textF
            <span style={{fontSize:9, color:C.textFaint}}>{r.date}</span>
          </div>
        </div>
      </div>
    )})
  </Card>

```

```

<Card>
  <SectionTitle icon="📅" title="Next 30-Day Actions" sub="Priority ran
  {[
    {a:"Register SAM.gov", due:"TODAY", c:C.red},
    {a:"Book Illinois SBDC appointment", due:"TODAY", c:C.red},
    {a:"Apply NSF I-Corps ($50K)", due:"This week", c:C.orange},
    {a:"Apply Argonne CRI", due:"This week", c:C.orange},
    {a:"File USPTO provisional ($320)", due:"Month 1", c:C.gold},
    {a:"Apply NAIRR compute access", due:"Month 1", c:C.blue},
  ]}

```

```

        {a:"Submit NSF SBIR Phase I", due:"Month 2", c:C.blue},
      ].map((item,i)=>(
        <div key={i} style={{display:"flex", justifyContent:"space-between"
          padding:"5px 0", borderBottom:i<6?`1px solid ${C.textFaint}`:"non
          <span style={{fontSize:11, color:C.text}}>{item.a}</span>
          <Tag label={item.due} color={item.c}/>
        </div>
      )))
    </Card>
  </div>
</div>
</div>
);
}

// — Main App —————
const TABS = [
  {id:"swarm",    icon:"🧠", label:"Swarm"},
  {id:"research", icon:"🔬", label:"Research"},
  {id:"clawhub",  icon:"🧩", label:"ClawHub"},
  {id:"deploy",   icon:"🚀", label:"Deploy"},
  {id:"funding",  icon:"💰", label:"Funding"},
];

export default function App() {
  const [tab, setTab] = useState("swarm");
  const [time, setTime] = useState(new Date());
  useEffect(()=>{const t=setInterval(()=>setTime(new Date()),1000);return()=>clea

  return (
    <div style={{minHeight:"100vh", background:C.bg, color:C.text, fontFamily:"'I
      /* Header */}
    <div style={{background:C.bg2, borderBottom:`1px solid ${C.border}`, paddin
      display:"flex", alignItems:"center", justifyContent:"space-between", heig
    <div style={{display:"flex", alignItems:"center", gap:14}}>
      <div style={{display:"flex", alignItems:"center", gap:8}}>
        <div style={{width:28, height:28, borderRadius:6, background:`linear-
          display:"flex", alignItems:"center", justifyContent:"center", fontS
          🧠
        </div>
      </div>
    </div>
      <div style={{fontSize:14, fontWeight:800, color:C.text, letterSpacing:
        <div style={{fontSize:9, color:C.textDim, letterSpacing:"0.1em", te
        </div>
      </div>
    </div>
    <div style={{width:1, height:28, background:C.border}}/>
    <div style={{display:"flex", gap:2}}>

```



```

        {TABS.map(t=>(
            <button key={t.id} onClick={()=>setTab(t.id)}
                style={{padding:"6px 14px", borderRadius:4, fontWeight:600, fontS
                    background: tab===t.id?C.blue:"transparent",
                    color: tab===t.id?C.white:C.textDim,
                    border: tab===t.id?`1px solid ${C.blue}`:`1px solid transparent
                    display:"flex", alignItems:"center", gap:5,
                    boxShadow: tab===t.id?`0 0 12px ${C.blue}44`:"none"}}>
                <span>{t.icon}</span><span>{t.label}</span>
            </button>
        ))}
    </div>
</div>

<div style={{display:"flex", alignItems:"center", gap:16}}>
    <div style={{display:"flex", gap:12}}>
        {[
            {label:"OMEGA ROOT", ok:true},
            {label:"CHAIN", ok:true},
            {label:"MCP", ok:true},
        ].map(s=>(
            <div key={s.label} style={{display:"flex", alignItems:"center", gap
                <div style={{width:6, height:6, borderRadius:"50%", background:s.
                    boxShadow:`0 0 5px ${s.ok?C.green:C.red}`}}/>
                <span style={{fontSize:9, color:C.textDim, letterSpacing:"0.08em"
            </div>
        ))}
    </div>
    <div style={{fontSize:11, fontFamily:"monospace", color:C.textDim}}>
        {time.toLocaleTimeString()}
    </div>
    <div style={{background:C.greenBg, border:`1px solid ${C.greenDim}`, bo
        padding:"4px 10px", fontSize:10, fontWeight:700, color:C.green}}>
        MAINNET LIVE
    </div>
</div>
</div>

{/* Content */}
<div style={{padding:"18px 20px", maxWidth:1400, margin:"0 auto"}}>
    {tab==="swarm"    && <SwarmTab/>}
    {tab==="research" && <ResearchTab/>}
    {tab==="clawhub"  && <ClawHubTab/>}
    {tab==="deploy"   && <DeployTab/>}
    {tab==="funding"  && <FundingTab/>}
</div>

```

```
<style>{`
  * { box-sizing: border-box; margin: 0; padding: 0; }
  ::-webkit-scrollbar { width: 6px; height: 6px; }
  ::-webkit-scrollbar-track { background: ${C.bg}; }
  ::-webkit-scrollbar-thumb { background: ${C.border}; border-radius: 3px;
  input::placeholder, textarea::placeholder { color: ${C.textFaint}; }
  @keyframes blink { 0%,100%{opacity:1} 50%{opacity:0} }
  `}</style>
</div>
);
}
```