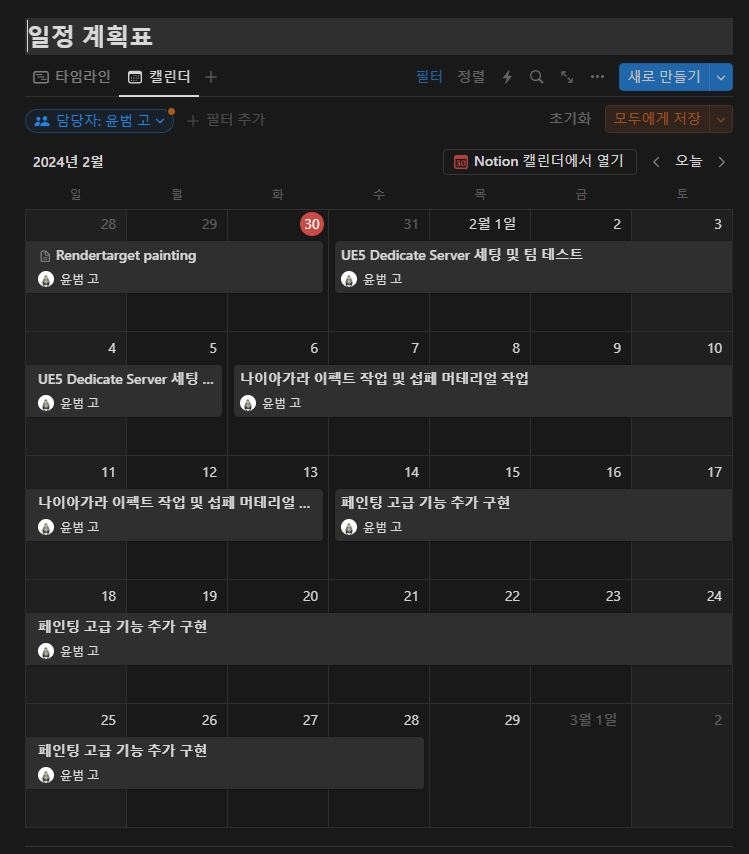
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **주차** | 31주차 | **기간** | 2023.01.23~ 2023.01.29 | **지도교수** | (서명) |
| 이번주 한 일 요약 | - 라인 트레이스 방식으로 페인팅 로직 변경  - 깊이 버퍼 방식 페인팅 시행착오  - Niagara Grid 2D 활용 RT Draw 학습 (흥미롭지만 프로젝트에 활용하기는 힘듬)  - 정상적으로 페인팅 기능이 수행됨 | | | | |

<상세 수행내용>





2월 14~28일 기간 동안의 페인팅 고급 기능 구현 내용은 완성하지 못한 슬라임 표면 페인팅 구현 목록을 포함해 청소부 캐릭터와의 상호작용을 포함한다.

- 파티클 충돌 페인팅 구현

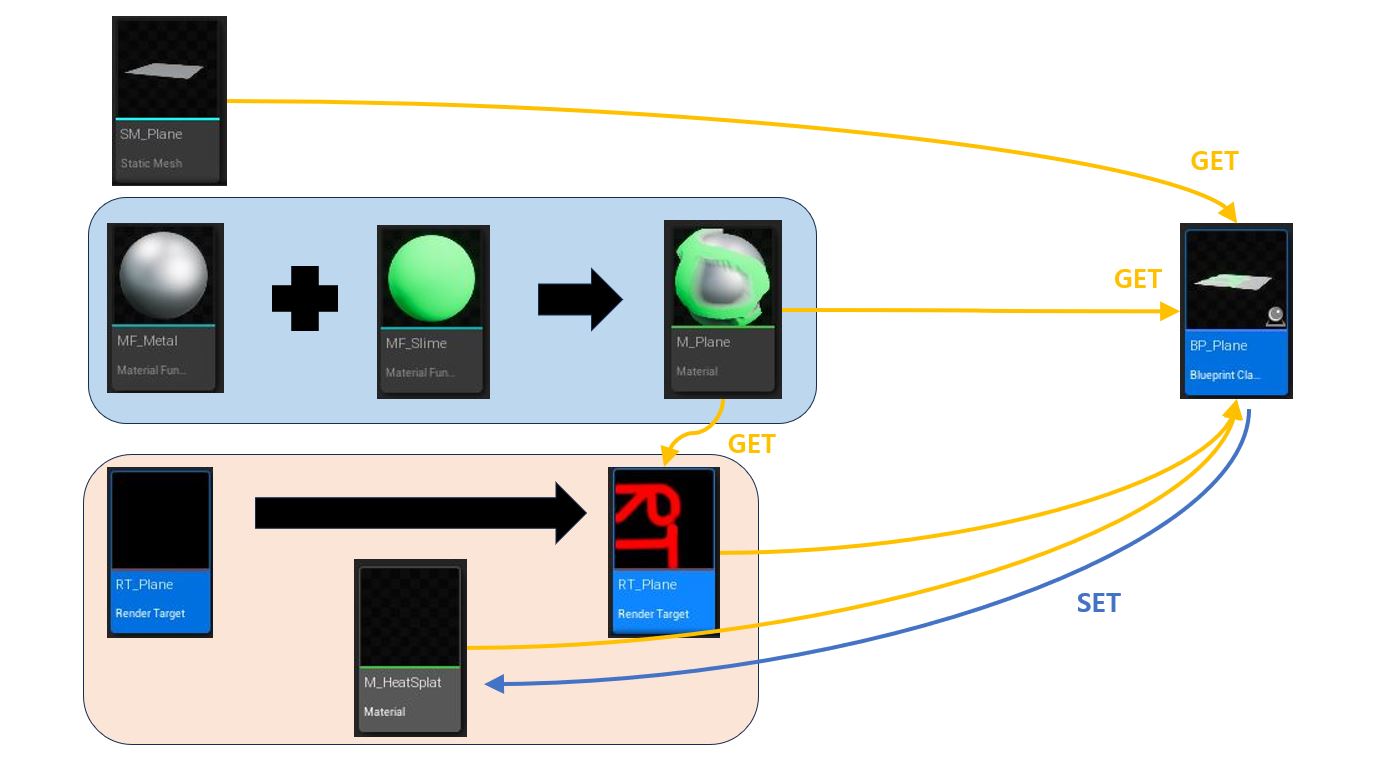
- 렌더타겟 마스킹 영역에서 액션 구현

저번 주에 런타임 버추얼 텍스처를 사용한 페인팅 방식에 치명적인 문제가 있었다.   
RVT Volume 컴포넌트와 관련된 것으로 보이며 씬에 로드되는 수가 많아질 수록 VT 샘플링이 되지 않는다.

그래서 페인팅 기능을 다시 제작했다.

![스크린샷, 운동장이(가) 표시된 사진

자동 생성된 설명](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAYABgAAD/4RDgRXhpZgAATU0AKgAAAAgABAE7AAIAAAAHAAAISodpAAQAAAABAAAIUpydAAEAAAAOAAAQyuocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAExlbm92bwAAAAWQAwACAAAAFAAAEKCQBAACAAAAFAAAELSSkQACAAAAAzI4AACSkgACAAAAAzI4AADqHAAHAAAIDAAACJQAAAAAHOoAAAAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAyMDI0OjAxOjMwIDAyOjUxOjM5ADIwMjQ6MDE6MzAgMDI6NTE6MzkAAABMAGUAbgBvAHYAbwAAAP/hCxlodHRwOi8vbnMuYWRvYmUuY29tL3hhcC8xLjAvADw/eHBhY2tldCBiZWdpbj0n77u/JyBpZD0nVzVNME1wQ2VoaUh6cmVTek5UY3prYzlkJz8+DQo8eDp4bXBtZXRhIHhtbG5zOng9ImFkb2JlOm5zOm1ldGEvIj48cmRmOlJERiB4bWxuczpyZGY9Imh0dHA6Ly93d3cudzMub3JnLzE5OTkvMDIvMjItcmRmLXN5bnRheC1ucyMiPjxyZGY6RGVzY3JpcHRpb24gcmRmOmFib3V0PSJ1dWlkOmZhZjViZGQ1LWJhM2QtMTFkYS1hZDMxLWQzM2Q3NTE4MmYxYiIgeG1sbnM6ZGM9Imh0dHA6Ly9wdXJsLm9yZy9kYy9lbGVtZW50cy8xLjEvIi8+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczp4bXA9Imh0dHA6Ly9ucy5hZG9iZS5jb20veGFwLzEuMC8iPjx4bXA6Q3JlYXRlRGF0ZT4yMDI0LTAxLTMwVDAyOjUxOjM5LjI4MTwveG1wOkNyZWF0ZURhdGU+PC9yZGY6RGVzY3JpcHRpb24+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczpkYz0iaHR0cDovL3B1cmwub3JnL2RjL2VsZW1lbnRzLzEuMS8iPjxkYzpjcmVhdG9yPjxyZGY6U2VxIHhtbG5zOnJkZj0iaHR0cDovL3d3dy53My5vcmcvMTk5OS8wMi8yMi1yZGYtc3ludGF4LW5zIyI+PHJkZjpsaT5MZW5vdm88L3JkZjpsaT48L3JkZjpTZXE+DQoJCQk8L2RjOmNyZWF0b3I+PC9yZGY6RGVzY3JpcHRpb24+PC9yZGY6UkRGPjwveDp4bXBtZXRhPg0KICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICA8P3hwYWNrZXQgZW5kPSd3Jz8+/9sAQwAHBQUGBQQHBgUGCAcHCAoRCwoJCQoVDxAMERgVGhkYFRgXGx4nIRsdJR0XGCIuIiUoKSssKxogLzMvKjInKisq/9sAQwEHCAgKCQoUCwsUKhwYHCoqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioq/8AAEQgBgAJZAwEiAAIRAQMRAf/EAB8AAAEFAQEBAQEBAAAAAAAAAAABAgMEBQYHCAkKC//EALUQAAIBAwMCBAMFBQQEAAABfQECAwAEEQUSITFBBhNRYQcicRQygZGhCCNCscEVUtHwJDNicoIJChYXGBkaJSYnKCkqNDU2Nzg5OkNERUZHSElKU1RVVldYWVpjZGVmZ2hpanN0dXZ3eHl6g4SFhoeIiYqSk5SVlpeYmZqio6Slpqeoqaqys7S1tre4ubrCw8TFxsfIycrS09TV1tfY2drh4uPk5ebn6Onq8fLz9PX29/j5+v/EAB8BAAMBAQEBAQEBAQEAAAAAAAABAgMEBQYHCAkKC//EALURAAIBAgQEAwQHBQQEAAECdwABAgMRBAUhMQYSQVEHYXETIjKBCBRCkaGxwQkjM1LwFWJy0QoWJDThJfEXGBkaJicoKSo1Njc4OTpDREVGR0hJSlNUVVZXWFlaY2RlZmdoaWpzdHV2d3h5eoKDhIWGh4iJipKTlJWWl5iZmqKjpKWmp6ipqrKztLW2t7i5usLDxMXGx8jJytLT1NXW19jZ2uLj5OXm5+jp6vLz9PX29/j5+v/aAAwDAQACEQMRAD8A6inZqPpS571JQ8Uuc0wGl3UAcl42tNwhuQOoKE/Tkf1rT+H1xtgK55PAqzr1ubvR50XkqN4/D/JrH+H7+VqTqx6HArVO8GjJq00z0kKfQ07Yx/hNWdw7mgyIP4hWRqQxkRsd/BqTz17ZqIozsSFPNKIXPb9aAHmcY6Gql/Y/aLGRGOcjPSrBjZMMcYz605pgVI25zQBxmigwQTWpP+plOPoef8a091Zzn7P4imTG0SpkfUH/AOuauBqJbmRMDRnmot2TxmlDVIEoYg5FdTp8nmWq/SuS3V0OiS7oNp7VnNXRlVjzQaNKig8GivMPntmFyu+1P0rlpBhyPQ11Z+aEiuVvBsunHvXfSd4nuYZ81NEQLI29DtNa1hq/SOfg/wA6x93rTWAP/wBatGkzZxTVmdirLIu5DkUua5iz1OS1kCudyevpXQ291FdRhkYEkVyTotao8ythWtYE+aUNjr0pp4oz61gm0ziTcWMubSO4jPFc/d2clsx4yvrXSA46UksKTxkEV106t9Geph8Spe7I49nwMgZrBvNNg8QfEOz0DUtXR9ORftAgiO0iQKeMnuc11Oo2ZtpCwHymsXUPDVn4jtYprhWtJrHEj3UQBkbn7v8Au8nAz79RiuuJ6KKeoaNbeFPiJa6bo2pNBaahHvuYZTvwRnAJHP8AnvW2x2yOoO5VYgN/eHrXPweHrTTNSvJ7PzLzzgyrPM25imMeXg/3v73atiFiIEBVlIAG0vuI9ie/1pyGyfNG6o92DS7sfhUknWaac2a/Sp6raUc2KfSrNcFf4jxsb/EFHWsrxC2Il+tao61j+JGxGg96rD7mmB+JmBn09ccUm7qPzqMvj2pNwHeu89clz6mkDZqEyqOrL+dIJ0x1/KgZPnitnTMLZ5JADMTya5/z16DJ/CoXO9yQePeqSuF7HXG5t1+9PEPq4p39sWcYw86k/wCzzXH/AIUtWoIXMzq28QWS9GZvotRrrltcyLGFZMnhmrmKOlPkQuZncLCrKDuNPEC+9ZGiaiZk8mRsyKOM/wAQ/wAa1PPb0FZtWLTuLIrIPkJx6elRb2P8R/OnmZj6flREEbhhzSGRgkHPerKOHHHX0pfLQdhSNGpXGMfSgBcioZVU8qRn69ajZShwaSgBQjMMgGnCJ88DFEchQ46ip/MTH3h+dADC7Io3j8RTfP8A9mnmRCME5qAgF8IeD60ADvvIOMU9YkZcgk0nkN7U5YmU5DUAOEKDt+tMkRxyrHFK8jocECozM59KAGEk9SaVWKtkUqkbiXGc1MEQjIAoAEkDfX0pSR6ilKLjoKgki28jkUAEip1Vh9KjCMwyBxSUquVPy/lQA5YpFbI4/GpC7IvzLn6UqyKV54+tBlT1zQBGZ/QfrSef/srTZNh5TOaZgf3hQBzQNLu4/DvUZI+lG6gCTJ/Cl3Z61GG/ClzxmgB55BU8iuR0iI2HiiSHJwH4+ldWCTyaxrqAx+KLOYLuE3yHA7iqiyZI71DlAfUU9RlgD3NTwKBCm5QDiknPQCoKJd6juPzpPNT1qrS4oAmc+b8sfOOTTfIf2pYWVQSxApXvLeP78yL9WoA5vxDZGC8t7sY+VsHjseDUIPNaeu31jLprg3EZIHGGBrEhmE1ujryGAOab2Ie5Z3Uu7+VQ7qUPx1qQJg1bGhS7Z2QnrzWHu96u6VNsvk9+KlrQlrQ69/vU2nHlQabXmTVpM+cqx5ZtEic5Fcxq6lLw+4rpU4auc8QSxC4G1wWHUDnFdNB6HpYKXuWM7dRnjjmq5uF7Zz9KT7SP7prpujvuixnOc06G5ltX3Qtx3FVBO39z9aXzXPYClzITaOr0/V47pQrnDdxmtLHcciuEUuH3K23HQgVq22u3cCBXCSL/ALQ5/SuepCMtjhrUYz1W50uacCR0rn28RSHO23UH3YmoZPEF2fuLEo+h/wAawVORxRw9W5vahbrPbN9K4+WURM0fmY55GetPu9Su7sbZpjs7KvArOdQqMzcKBz7Cu2F7WZ7FNtR94sG5Qfx/lSG6Tnbk59qwNBuPtInjf72/eBnqD1/z71sCPpXXiKMsPVdOXQdKqqkFJEwugRwrUonOeF49zUax+3SpEQE9P061zOTLcmbum6/FbxLFPC/TG5SDVxvEFoOiyn/gI/xrmgnPTj0qQLWEoqTuzjq0o1HeRuN4jjH3LdiR/eYCsfUdRn1B90mFQfdVR0qPb9aaUpxio7FU6cafwlUxnnkn8aZ5ee35irZXOc4phXOe3vW6OlFbywPpSBOBz29KnKAUhUVoiyILj+dLin4oxWiGMxiinYoNWiRKSlopgOjdonDxsVZeQR2NdPY3yX8QP3ZRw49/WuWxUtvcPbTCSM8jqPUelKSuNOx2QgPc04W/q1Q2V6lzarIM4PX2PpVgzp71iajJGdO+R60zzX9ae0ykYIJFMSPfnnFADdxJBbnHrU6bGXIAFN+zjuacItvKkg0APxUckW7leD/Oo2eQEgmmF2PVj+dACfWjB7A05H2NzyD1qyCCMigCKN2A+cH64pfOT1qWoJYv4l/EUADSowwQTUSpvYjOPSkxnpS7WPQH8qAJPI9W/SnCLbnaxzQrsF+dT9cUhnXtk0ARs8itgnH4Uwux6sakeVWGCtNjQP1bB9KAERwvBGRVhcEZHSmfZ19TS+VtB2kigBxAIwaryRFeV5FDl1PzE0wk9yfzoAb1o5p8chTjqKl85PegDkxZXL9IX/EYqWLSL2Q8RAY7lhV5tZsx0dm+imlXxHaRxjbFKx69AP60hlddAuyPmeJf+BH/AAqdPD0n8U6j6Lmmt4pQHCWrH6vj+lRN4ol/gtkH1YmgRMdDWNsGcn6LUkGkwRXEc53O8Zyu7GAcY/rWPeeJLqGCSbEa7QT938u9dJp8gv7CC6jICyoGA9MjpQBN5j/3qo6xePZ2CvGwEsj4UkZwK0jDtXJbp7VzPiC4MtzHDxiJf1P+RTjuJ7FNtXv263DD6AD+VRtf3jDDXUxH++agxQBW2hANI7nLMzH3OaQ0vSlxQIjZNwIPPFSxN5Maqg4HbNGKNvrUMBfOfrtH5UvmS8cgfQUBPQU8L+dZsLiAyH+M9akjMiEEOwI5yD0pVXrxUqp0rJmcmXoNa1CKPZ528Acb1B/+vUn9sX79ZsDPZRVFVz9alC561g4ps5pU4N3aJZL26lyJLiQg9gf8KqCPDcVY25+lG2hK2w0ktit5fFAh/A9+KsbKCufpVFkAj9PWnCMYwD3qXFOC4oAYqce9LsFPwMc0tIkjximlR2/lUpFNI9aZSISvPNZuuS+Ro8xHVhsH48fyzWsRXN+K5v8Aj2tx3JkYfTgfzNehl9L22KhDz/LUzrz5KUmY+l3H2TUoZCQFY7GJ7A12m3nnrXCOnyV2elXH2zTYZicsV2sT/eHBr3M/w9nGsvR/p+pyZdUunD5lsLinKvagCnCvlj1GKB0pwHFIPpTu1IgPpTSMcUpFJ3oCwwj0pjDjFSEU01aLRHimkVIRTa0RaI6MU8j8qTFWhjCKQin0mKtCG4pMU/FJTAbRS4opiLmm3xsp/myYn4dfX3rpAVZVeNgyMMqR3rkK0dK1D7NKIpD+7J4J/hNTJdS4vob2Cegpyq4IKg5+lWI3DqCKfWZoR+aAPmyD9KaZ17A090Drg9exqqQVOD1oAkkkV16c9jQsQdchv0qOnJvU5UGgCQQL3JpTHtX92SDS+ao68H0xSGdfegCAs/Qk0mT3NPkcP0XmlWEMM7qAGxybOD0/lVgEHkVH5C9yaUxlV/dkj2oAkNV5Iscr+VMLNnknP1puSaAAc9KXY3YGnRybODyPSrAIYZFAESuwX51P1oM6+hNS1DJDnlPyoAa0wYYKZFRooY4Y4PakPpRgnoDQBMIF9TS+Snv+dR+cYY2eXIRRkt6Csb/hLYP+eD/lQJtLc58ClxTsYox0pFDQPak20/FJigDI16RmjhtYuZJnA2jv/k16ZptvHp+l21qrDEMYTI7kDk15zpMH9q+NlyN0Vr8x/wCA/wD2Rr0YCmyUTyOHXanJNcRey+feSydmY4+ldZdy/Z9OuJe+3aPqeK4/GKcQY3HpSbaeRSgcVdyBu2lxS4pQKVwGhfxpwFOC5pQvrUtiEA9qkAoApwFZsTFVealA59KaBTxms2Zscop4xTRxTwKhkMdS/wAqQUv+etSTYQ0GlxiigYn1paMUo+tACYo69KXrRQAn4UhpxpMenWmNDDVDUNJttQIaYFZFGFdTzWhikIralVnSkp03ZocoxmuWS0OLsrZLrUktJQVXcwJB54z/AIV1dvbRWkCxQJsQen865qxxF4qxggefKoH/AH0BXW4r3c7rVJ1IJvRxTt56nFgYRjGTS1uxoFOFGOKXHFfPnoCd+lO+lFLigQlJ29qdjNJTAZSU8jNIQapFEZpMe1PxSEVSGMIpuKkK0mKtARkd6MVIV5pNpPFUmFyMikxUyxO3Cqx+gqVdPuZPuwSH/gJp3QXKeOKMVppod+/SAj6nFWE8NXrfe2L9TS50upN0YmKWuiTwpIceZOo+gqdPCsI/1k7H6ACk60F1JdSC3ZR0W+J/0eV8N/yzJ7+1axkfucUi+GrNMEM+R0O6rM9oY4twO7aOT3NZ+0g3oaQrQelyrvb+8aFbDZPP1pwic9v1pfIb1FWbEykMoIpaiEbx8qQfamGdvQUDJJIw496rEYODTzK570gb5stz9aAG05GKNx07irCBSAVApce1ADfNX1xTTMnrSyRhx6H1qswKnB60ASSujjgHNIsW9chhUdKrFWyKAJfs/wDtfpSiIqPkYg05JAw4NKXUdWH50AV2eRWwSQaYWY9Sfzqd2jccn8ahVS5O3tQAKxRsjn1qwrhxkVCIG7kCmTstnbvPI+1UGT70AY/inUTHCLKI/M43Sey9hXJ7fb9TVq8uGvLqSeT7znJHp7VW2+361FzklLmdzRxR2p+OaCOtM7RmKhu5hbWkkx/gUkfWrAHFYniScraxWyZ3TN09hTQnsdD8PNMxp9xfyZ3XEm1T6qO/5k/lXZ+Qg9fzqno1qmm6Pa2gK5ijAbHc9z+dXGlG3C8k9KBIw9dm2wpCh4ZixGfSsDHatLWHL6gy/wDPMBaoYpoTGbaXFOA/ClxTJG4pQKfijFFxCYxTgKUClAqbiACnAc0AU4CoYgAp4FIBTgKlkMcKcDSAU4CoJHCgCgClAqSQ6UuKXaTUi28r/cjY/QUCIqMVcTTLt+kLfjU6aHdt1VV+poAzcUYrYXw/N/FIo/CpP+EeP/PYflQF13MGgj0rdPh1u036VBLoU6fdZWplIyGYIhZiFVRkk9hXnGk/EaOPXrqDUplNpLMfLIOTACeM+2P89q7zxZa31t4V1R7ZG85bWQqVGT905x74r530yzhvLC4fBW7jJ2/NnZkZH1zWFaThaR7eWYeFeMoSV2/0108/8vU9ghkVvFCyRSK6PcbldTkMG9D+NdlivOfDipFLYKmdolTG45PJHevSMV9Lm8XH2N9+VHzWFspVFHbmY3FLipoLeSeTbEpY1rW/h1iM3Mu3/ZQV4TaW51Skoq7MPFKBXUpolig5iL/7zGpl0yyXpbR/iuaz9rEweJgjkMUBCegzXZraW6/dgjH/AAAVIERfuqo+go9sifrUexxa2sz/AHYnP0U1KulXj9IG/Guxoz70e28hfWl2OVTQL1uqqv1NTp4anP35UWuiope3fYl4p9EYaeGEH+suCfoKnTw7Zr95nb8a1aKn20iHiZlBdF09P+WO76mp1sLRPu26flViipdWb6kOvUfUaI41HyxqPwpfoB+VFFTzSfUh1JvqBJopdp9KNppasm0mJRS7fU0nHdhT5JdilSm+glFBkiHVv1pjXUKfxCrVKRpHD1GQzR+UQR91v0NR0txqMBQqWBBqoJd6B4n3Ieh9K7oXtZnr0rqNpFqoZkz8w696iLt3Y/nTas2FAJHAJFL5bH+E06KTb8rdO3tVjigCBFkQ5C5HpmlNxjjafxqUsB1OKqXNxboMtIoI96AJDcHstRvIXxkDj0rFuvEtjbZzJkj3rOfx3pynrT5WxcyR2CJGy5H60/y0/uiuIHxCsY2yvNTD4jabjJyp96fJLsLnj3OwaNWGMD8qrOhQ81yr/EnTh0yfwqF/iXYEYMTGjkl2Dnj3OuoBIOQcGuPg+IOnyH95lfwrTt/GGjz4zc7frxRySXQFKL6nSxyhuDwa5zxPqO+RbKM5CfNJj17Crj67pv2V5IJxK4HyqD1NcnJI8js7sSzHJJ7mspu2hnVnZWREQT3FJup2MdetJtH+TUXOY1MUYpaMVoeiJ24rDsov7X8dRR43RWxyf+A//ZYrXu5xa2cszH7ikj3NHw60xngutSkHMr+WpI5wOT+p/SmiX2OyAwKehC7nbooyaeIPVv0qjqkxt7GVVP3/AJaAOdmcyzPIerMTTMU6imITFKBRSgUEiYpcelLSgUgAClxQKUCkSAFOFApwFSIAKcopURnbCjJ9BWxY6FLNhp/kX0qWQzKRGY4UE/QVft9JupwMJtH+1xXR29hb2qjYgJ9as5x04rGVSKOWeIhHbUxIfDuOZpfwFXY9Hs48ZTcfertFZOo+hzSxMnsRpbW8f3IVH4VKMDoAPwooqOeT6mbqzfUXJpKKXafSlqyfeYlFO2mjaafKw5JPoJSg560bR60uB2qoxkjWEKkdURyW6OORmvJvij4P0rR9Lh1XSrGG0eS58ufyV2B9wJBIAxnI68dT6166ciuY8f6JJr/g28tYZfLkjQzp8m7eyKSF9snHNFR88XBnp4HHSw2JhJ7X19Dxrw/LiO2eRwgjlGW/ugN1/SvSP7W01WcSahbgKAQVfdn8s15b4eZXsQHxtEnzAnp0NemtH8OtJuZZLzW7SdFGPKN0H2Hn+5z7YP8AUV9RiKmGeDw88Q3dx6W6W7mOJVSGOrwoxv7z7/obFp4y8OWEOBdPI/fZA/8AMgCnRfEXSri6iggtrxjI4XcUUBcnGfvZrEfxv8LrDcsZtZ2TG4C0Z8dO7DH60mpa9oniLRLe40GLyRDeRq6GFUOGViDwenymvExeKy+lScoQlJ20u0vyRjWw2Ksp1VZej/U9JopcGkwfSvPszj5ZLoFFGMdaQso6uopqMn0Gqc3shaSk82LvIKUOjfdcGn7OXYr2NTsFFO2+nNNqWmtzNxcdwopaSkIcBxk1E9xFGfmIFSA44PSql9YJcxnGQfUV0U1F7nbQVOSs9xX1OBOrCq8muQJ/EK5u8tpbaQq+SOxqoeK6lTidihFdDpn8RRD7pz9KrSeJP7qsa58mmk81ooRKsjZk8RTH7q4/Gq0mt3TdCBWcTSZxVKKGW31O6fOZT+FQPdTN1lY/jURpuatJDHF2PVifxq7peo/ZJdkpzA5+b2PrWfSZp2GtDscZb5DuHUEelL5b/wB01haTqf2ciGZsL/CxPT2qzqniOC1hJVxn61lyu9jW6tcu3My26EuyjHYmuW1Tx19iyiYbHTBrlNa8Uz3cjLE5C/WubllaRtzsSa3hS7mE63RHUXnxBvZsiMYH1rEufEuoXBO6YgH0rKcY5FR5rZQijBzk+pZe7klbMrls9yaTdVbNORj36VZBNupCd1ML46mm+YPWgBGJBpuaVnB96QKD3oAUMRUiSZqPaKv6PZpd6lHG/wB0fMffHaplJRV2M6XQLI29j5sg/eS84PYdq1Dz2oUYGBx7Ype1eRKblK7GJgd89aT8qdgYxSUhmoBRikBpa3PQMLxPc7LSO3Q/NK3I9h/kV6HoGnjS9DtbXGGRAX/3jyf1rzmKI6x42ghA3RQMC3HZeTn8eK9OEr4HP6UyetyyTgE1zutS5eOP2LGtpS0jBSSR3rmtTlEuoSlfug7Rj2oGVaBRRQSLSikFKKACnCkpR1oEKKcKQCnqm5sDknpSJACrllp01242Lhf7xrQ0zQ2lxJcDA7LXRRxRwIFjAGKxnNRRhUqxgtSpZaVDZrkrufuTV3PYcCj60VySm5HmVK0phRS0oXueBUpN7GcYuTshMUu3HU4qCe8jgU89KxLvWnZisX51tGl3OyGG6yN9pYk6sKhfUIU7iuWe7mk+85qIuW6k1qoRXQ6FSgtkdO+swrn5hVd9eUfd5rn80ZqrGlkjZbXW7A03+3JD1WsjNFAzZXWTnmr1tqAkxzXM5pySMh+UkUAdsjiReKQjFYOm6k24JIea2Z7lI7GSaSQRKqklz0X3rKdO+xy1qPNqjwG40d9B1fVdP8loYYbtxACpA2cFcHnPysvfvXpNl8H/AALHGki6M0vGVMt1K2Ae2N2K9A/4RjR9ThhbULKK4aH7rOMnnk59fxrmviH4nh8G6aLiF4PNMqx+U4LYznB2qc9sV6GMqKWEpU1e9NP537GtSFf2k6sZWbttpeyC08CeE7Habbw5palBhWa1RiPoSCa4LxTpi6H42MdqghsLpEuI4o49kcZUbSoA68gt7b6i/wCFj+LL9lWx026yW+b7NpzuFzyOudw+nTvVaWHxx4ku7ea/0G9lliDhDP5UIhBxnqVB3bB9K+XxMpVqTjGLuc8faL43+J6fe3l1ZycHK1Rl1+dfvyon1OK5YaF4xu1D6paqmTyLi/L7R/wHOR+VQDQb5WKyCyibuV3Pz+IFdbxWKb9yg/m0dXNLojopvESZ+e/T6K4P8qqN4igbpcSOf9lG/wAKzl0KbndfADt5cAXH5k1INCi4Ml3dOe43AD9BRz5jLaEV6tv8g98mm8QM0TiJLjeQQpIAAP51ydo1/p8KAXMkMqjrDKQMV1S6Hp6lSYnYryC8rtn65Ncjpng3Wori8gmvVgsjcu0UhPmSlMjGM8DIHfoT0NcuJwmOrWcpK67afiS4zZpp4313TQz/ANpFk6kTqrD8yM11Ph7xX4x1qaIroFs1mzYa6kkNuAMdQDuLZ9QMVl6f4b03TyHERuJlJImuTvYfTsPwxXX6VqAQBJHAx6muzD4OrBfvZtj9mmveOhG7aN4AOOQDmrMNqJolkWRSrDII5qgb6AxE+YOlReFdS80PZyNkj5o/p3FdtOlFt3OejRg5uMjaFgv8Tk/QU8WcQH8R/Gp6K6FTgtkd8aFOOyMvU9FgvLN1RMS4ypz39K8+uIWhlaNxgqa9VrkvFek/N9rhX733gPWtFoXKJx5ppPrTm6Uw1ZAnuaTPFBpKYC02ikNMApKWmt60DKV/MY4zjiuR1O5uJZCxkJTvXQ6tMNpHSuff5ge+a6IR0OepLUyGlx2NMMvtU11AUbI6djVQ1RmPMhpVKt25qKgNg5FMCbgUE00NuHFBNADXXPNR1IWHrTG2seDzQA3NAbHSl2UbB60APDbulb/hZM3ssn91Mfmf/rVz4GOldN4WQrbzyH+Nwo/Af/XrDEO1NjW50f4mlAzimBh7U4HjNeUUOPT1/pSYHpQenuaMH1b8hQBp1DeXAtbOWdv4EJx61NWH4nuvLskt1PMjZP0H/wBeuo9B6Iv/AA/sy7Xeoy8sT5an9T/Su5ql4a0tdP8AD9rC64k2b3yf4jyf51r+Wg/hFAlsVjIIbeWY/wACnFcmTliTW5rUoW1KjjzG6Y9KwqAFoo/Cl70yQFKPajFLSABTgKQU4DsKRI+NGkcKgyT0rptJ0cRgSSjLdee1QaLp4GJHHNdFgIuBWNSfKjnrVORXE4UYWikpa4W23dnkSk5O7CiinD5VyacY3dhwg5uyA4QZas2+1NYVIB5qLU9S8oFVPNc9JK0rFnOSa7IxUUepTpqCJri7kuH+Y8emagzTc0VRqKTRSUZoAWlpKOvSgQvagUlLQAuaKMUqgngc0APjYrIpHXNdOlsl9pkltchjHMhVwDg4PvWXpmlSSMJJVIXsCK6FVEabVqJSUUZVJqEdTyfUNC8eaHeGx0K8uZ9PckW1xG6t9kA6hlY5ct78L2NbngbwnqkF9/bvihnW82FLSzM3mG0Vvv7nB+ctgHvt/l3lFYyrylGxxzxM5x5WFKv3qSnKO5rKKuzCCvJEN3/qzXI3wxcnHeuovpQsZrk7mTzJmPWu+Ox7EVoRZpM0UmaooXNJnikozTAU8ism8uJYmOxtprVqjfwh0J/OmiZK6M6DUrt7qOMzHazAH866awu3tbqOeI/MhBB9fauRhVV1CPfnAfrmulhOWFaQikc1OPK2z1SGUT28cqggOoYA+9SVHAuy3jQfwqB+lPpHoi1Wv0EtjKjDIK4qxUN0cQH3OKmTsrilKybPNtTszbXDA/dJ4qg1drrFgLiAkDkc1xssbRuVIwRVQldGad1ciNN707OOtJ1rQY36UlLSUwEpG5BFLSH0pgYOsQsORWETXZ3cAmhIxXKXsBhlNb05aWOapGzuVJIw6lW71kyxbJSrcHt71r/lUFxAJo8cBh0PpWrRkZmwfWjaPSl5BKsMEdRSGpKDFQsMGpc01hkUARUmaUgikwaAHq/Y07NRbTTxkDmgB2a63QV2aVGc43MW/X/61cf5ldfp7bLCFefuDj3rkxL9xIqO5rhvxqQNwKpJJipkkz+NeeWWQecmn7vY1AG9Kd5vuKkRr/SueSL+2vHFva8NFG4DDttXlv6itq7nFtZyzN/ApPPc4qt8PbV2vLvUZOSB5at6k8t/Sus7X2PRwMCkkbbGTVfzX9aWP53+bkDnmgZgaxLvulj7Iv6ms+pbuYT3csg6MxIx6VFQIX60tNp2aBCilFJ9aUUAKKtWUXmXCjrzVYVpaQu65pMlnV2UQSIYFTscmkgGIxQetcNZnlYqWtgooorA4xRyaS4OIzTl+9TLgEpxW9E7MNa5yeosWuTmqdad5Y3Etz8iE0R6Hcv1worqPQMyl71uR+HHP35PyFWE8OwD77sfxpXRLlFbs5ulwa6pNFs06rn61YSxtU+7Ev5VHPHuQ61NdTkBC7dEY/hUyWFy/wB2Fj9RXXCONfuoKdkDoBU+1iZvEwRy6aLdv1UL9TVqPw9KceZIAPYVv5NJmpdZdEZvFLojLj8P268yMW/GrsNhbW/+rjGfXFT0VDqyZjLETewueMDge1FJRWbbe5g23qxaKKUL68UJN7AouTshAM/SklkCLRJKsa1i6jqIVSAea6adOx6NGjy6sg1W96qp5NYhOadLIZH3NzmmZrosdQZozSZ4pKoBaKTpSdaBjvemsnmIV7H2p3WnKM+1AzAvLTY54/HFbGjMbpoFb7zOEP1zU0tssyY4z61PoWnCHU4ZGcBVkUnPoDVqVjNw1uj00UtQC7hIyrbvoKhe7fPygCs5VIx3LqVY01qXaq3p/dqPeoDcSn+M/hTHleTG85x0rnnWjKLSOOrioyg4pDWG9SDXK67p+yTzkH14rqQcGob22WeEgjNFGoGHqXXKzz4rgkfpTTz0NXL+0NtcMpHHUVTbrXenc7RhpDTjSd6oBvakPWnelJTGNNZeqWIlTeo+tappjJuTB5zTTsyWrqxw8kZjcgioz7CtvVrDYxZRWKRjg11Rd0cklZlS6t/N+deHH6is52IPSto+1Uby2yDIv4im0SigZD24ppdvWhhg4NNqShwfnnkU+oaVWxwaAJDSUZpM0gDbuYY711UMwC8YIHHWuVD7SCDgg1rW1xvjBXH0Fc2IV0i4m9HJnH0qxHJnp0rJinw1Wo5e4xzXC0UaSyepz71J51UUkxz6in+af7p/OosBZ8UXQjskgBw0rZI9h/8AXxXX+FLA2Hh22jcYeRfMfjHLc/ywPwrhZYTrnjKCyXlA4Q/Qct/WvV0tdqgAgAdBXSdi3uMpt1J5GmzydCRgfjxVgwAAksaxtanIgjgz1O40DMbvSik60uKBC4pRSUtAhRSikpaBDhWvoa5lJrIre0FO/vUvYlnTR8R/hSU4cR/hTK4Ku54+Ifvi0UUVkcwtLu9eabRTTa2KUnHYdx/do3H6UlFNyk+pTqTe7FyaSiipICiiloAKKMGl2mnZlcrYlFLtpdqjqapQkWqU30G0Uu5B3pjXEa9xVqlI0WHmx+DS7fWqkmoxp/EKpT60i5w1aKj3N44VdTXZ0Sqs9+kYPNYE+sO/3Kz5bmSU/MxraMEjqjTjHY1LzVc5VDk1kyStIxLEmmZpDWljQM0hGelLTc0wF/WkoopjCjNJS49s0AOHNSKMnp+nWo1qRaBkiD86nt2McikdBUK9s1KvUZ/GkUdNYzh0HNXm5GRXO6fcbX29PSugicMtYVI3Ry16fMgpKUjBpK4jyXowpQcjBptGeacXZ3HGTi7mPreniaEso5HIrknQq2COR1r0WRRLGRXIa3YGGUyIOCea9KlO6PYpzUlcxTTT708008V0mg2k79ad9aSmMbjNIacaTFAENxCJoyDjpXK6hZmGQnHFdf8AWqd9aLcRk7fmq4SszOceZHGdQc00jP0q1d25gc5HFVvrXUnc5GrGXeW4jOeik8H0qrs9TW1IiuhVuh61kyxmCTY3IP3T61LQ0yPYPek2j0pTSE1IxGzjioyT60/NMcZ5FADc1YtpzG2M1VzSE8cVMlzKxS0Z0ENwpA9/ersU/p07CuZtLs5wTitaG4B71wyiaG5FN0zjFT+Z7isqOXpzn6VP5/8Atr+dYtDOn+G1ibnVLrUZVyI12KxH8THJP5D9a9LFc34GsF07wrbbsCS4HnOfXPT9MV0XmoP4q1OpbCTnEf1rldVl8y+YdkG0V0k8mUZh91ASTXIyOXkZm6sSTQMQUtJSimIUUoNJSigQtLSClFIQ4V0egriMVzYrqtFTEC1MtiZbGrPP5cdVftg9ao6veCIkZrJ/tD/azXlVZe8fK4zEctVo6T7YPWj7YPWub/tD3o/tD3rLmZx/WmdJ9rHrS/bB61zX9oe9L/aHvRzMPrR0n2wetKLsE9a5r+0Penx6iFcEnjNHMxrFanWQqXXcxwKl+QdTWba6nFPGFVgDUV2blAWi+YfWu+nTi0fR0KNOUE9zWMsa9xTDdxjuK5SW/uQSG+U+9QNdzN1c1uqaOtUoLodc2oxr/EKrvq8a/wAQrlTK56sT+NNyfWq5UXyxR0cmuIOjZqtJrhP3QaxCfWinyoZpSavM3QVXe/nfq2Kq5op2Ae0rv95j+dMzmk6UUxi598UmetJmigBaSk70UwFpM0Uh96YwozRSUALSik60vWgY4cVIvBqNfang/wD6qAJlxT14qJeQfWng0iixC+1wc49feugsbjeg5rmA2K0dPudj7c1MloS1dG/O+FzVX7WPWpZD5kGR1xXPXVyYZiCa82snF3Pnsdei+bobf2setJ9sHrXOnUPem/2h71z8zPL+tHTxXoD4J4NLfWyXVuehyK5b+0eeDW3pOppcDynPNdNGrZ2Z6WBxq5+SRy93btbzlGH0qtXV67p/mxmRByOa5YjHFevCXMj6JDDSU6kNWMSkxilxQaYDaaRTu9JQBk6rYCVCyCuXmQxyFT2rvGAZcEZrn9Z07KmWIdOTitqc7aMwqQvqjnqhuIlmjKn8D6VMeuPSmn+VbnMYzBkco4wy0wn3rSuYfNTj7w6H1rJkUqah6FocXHrTDIBUZNNJqRkmVY8UnFRbsUu/NAEUjmKfj7rCr1pdngE1RlAdcH86ijkMb4Yc/wA6xnE0izq4Jzxjmp/Nb0/SsK0ujwDV/wC0LXO4lnvsMaxQoiDCqAAPQVJSClxnAHepOsh1OXyNIfHDSnaPx/8ArVzNbPiKYB4YAfugsf6ViimId3pelNpQaBDqOtApaBBmnU0UtAD1HzD6112mDZag+1clDzKv1rr7X5LEn0Ws57Gc9InHeJNR23jKG71hf2kT/FUeuztLqUpJ/iNZeTXnOCbufneNqN15Gx/aR9aX+0vesbPvRupciOLnZs/2mcdaP7SOOprH3GjNHIhc8jZ/tM+tKNT9zWNuNGaORD55G7Fq7xNlWNben+MNmEn+YVw+4+tLuNVFOOx14fG1qDvFnqsV3p2rJ8rqH9KrXOkyR/ND8wrzeK6lhcNG5BHTBroNN8Y3drhZ/wB8n+11rpjU7n0uFzmnU0qaM2HRkYhlwaTvzWhaa3perLtYiOQ9mp9xpBC7rdtwrdSTPchUhUV4sy80fzp0kTxMQ64pmao0FpM5oo6UwDOelHsKQ0UDF+tJ1680dTRQAfSjiikpgAooozQAYo9qPrRmmMBSikpRxQAq04frTcnFKKAJFPFSBuKhBx1pQc0DJc09JSjqwNQ59KTP+c0WA6mwuBJGBWF4mhMP7xehqTTbrY4UnitTVLUahprqOWxxXLWhdHDjaCq0mjzdtSIJBNMOpn1NUdQhe3uWR+CDiqTNXF7NHwNRShJxZs/2p71YtNca3nVw2Oa5wsfWjfT9miY1JRd0e06Zfxatp4ZTk45Fc9rFgbecsB8prmPCuvPpuoIjt+6c4Oe1ek3sEd/Zb05DDIIrso1LaM+4y7FrEU9d0cSaQ1PcRGCYo3Y1Cfau89USmmndKSgBDSUtIRQAlRyoHUg81LTT6UwOR1nTzaymRB+7Y847VkHpzXfXNulxE0cgyG9a4rUrF7G6ZGHHVT610U530Zy1IW1RTJ45qleQbhvQc9/erZGfao2OOlaMyMR1waizV+8hC/Mo+Unn2qkUBGc8VmWiNjTN2D1qUqBTCAO1IY3dxxTHAI68+tOOOh4qFuM0ikPgmKNj0q59rb/brMbn/wCvS+Y/941k4ln1iLc92psieUVIbmrVUL+YRxyP/cXiuY7DnNQnNxfSOTnnA/Diq4pM560tUSLS0lLnigBc0daKWgQoopM0ooAntBuuFHvXWMdmmOf9muX05d10tdLft5ejyH/ZrGpsYVnaDPKNTbdfSH3NUs1Petm5f6mqxrjPzfEO9Vi5paSgUjnHCnAE9OafaQG5uFjHG44r03Q/CtpFao8salsckilreyOzDYOpiXaJ5gUZeqkfUUmK9hu/DVjcxFfLX8BXG6x4Lmty0lp8y9cUO63Oivllair7nH0VNPbS27lZUKkeoqE0HmNNBRmkopiJFlZGBU8itrTfFN7YkKXMif3WNYNFUm0ddDF1aLvFnpdj4k07VFCXAEch9aszaQki77VwR7GvLVkKng4rX03xJe6eQFlLJ/dY1rGofR4XOoy92qdTNbywsd6Y96iPSrVh4ssb9RHeARufWr8umQXK+ZaSA554NbqaZ79OtTqq8WYuKKsT2U0BO9Tj1qvWhsFFHWkxQAUlL/OjpTAKKBRQMOlHSiigA6cnge9KDzXP+M7k23huQK21pZEVSDg5zu4/75rP8OeMUuAlnqzbJuFSc9H9m9D79KwliIRq+zkezRyfE18C8bSV0m011sktfM7DOOlLnNNzRmug8YdnGKUHim0ZoGPz1pM4FNz60EigB8chSQMO1dPp1yJogDXKZrR0q58uQKx+lTJXQmroyfG2keXN9pjX5W647Vw7V7PqdompaY8bDJ28V5Fqdo1pdvGwxg4rhlGzPjs2wvJP2iKRNJmg00mpPAHq5VsjrXpfgjXRd2v2SdvnQcZNeY1e0rUH06/jnjOMHnmjbU7sFiXh6ql0PUNe0/KmWMcj0rmyMV2tjdRatpiyLg7l5rmdUsjbXBIHyk130p3R99TmpxUkZ5pDS9KMVuaDfeiikPNACUUGg0DGmqGqael9alMAOOVPvV80hovbUTV1ZnnVxC8ErRyjDKcEVXJFdf4g0v7TCbmEfvE6j1Fce2c+ldMZcyOSUOVkT4ZcHkGsyZPKkI52noa0mPFV5QHUhqBIoNUZ/KnsCrFW/Cmt9akoiPemMM09s0xsZpDIDkHmm5qRsH3qPJ/yKQz68JwCTWDrU2LUIDzI3P0rU3vIwQscE844rC1+QG/Ea9I1Gee55/wrjR2mXinUgpRVCF96UUlFAh1KKbS9KYC/ypR7UlLSA0NJXdc1s68/l6K/+7WXoi5mJ96ueK5NmjkeorCrscmKdqbPLbg5mb61DT5T+8b60yuQ/OKrvNi0uabS0GRoaR/yEYvrXsVk+LBCPSvHdI/5CMf1r2Cz/wCQen0qqfxH1WSbMab4JJgnFWUmjmXDYOa5vVWKSgrwc1Hbam8eN/511ct0fTuCa1NfUvD1pqMZyg3HuK4bV/BtzaMz243oO1d5a6mrgc1fWSOZcNg5rnlS6o8nFZXSrapWZ4hLBJCxWRSpHrURFewal4as9QQ5jAb1FcRqvgy6tCzQDelYu8dz5jE5bWo62ujlaKmmtpIH2yoVPuKhIpnmNNCUZopKBDg5XocVpafr15p7AxSnH90nisuiqTaOijiKlJ3gz0PTvGVtdKI79NpP8Xatc2VpfJ5lrIOfQ15MGI6Gr9jrF3YODDKwHpnitI1Gj6HC519mqdzcadNbnldw9RVUgj2NGl+NYpgsd+oB6bq3fIstSj327qSfQ10RqJn0VHE0qyvFmB3orQudKmhyVG4VRZSpIYEGtEdI3NFLSUwDOKP50ewpKAOO+IVxttbK3z992cj6AD/2auFY/Lkc10XxJlc63bREYRbcMD6ksc/yFc3E2+MV8/jNazZ+ycM2hltOmut397Z13hbxuIzHp+rk7MhIp+u32b29/wDI78V4laabPqWqR2lshZpW6gZ2juT7CvbEQIiqOQowM16eCqSnDXZHw3E2EoYfEJ09JSvdfr5XHUZpKOgruPlRQaTvRmj9aYATTo3KSBgehplBzQB1emXQliA9q5Txxo+G+1RLwetaOlXJil2noa3b62XUdNeNhkleK5qsTixdBVqbR4kwwaYa0dWsms7142GMGs41ynwFam6c3FiZpQaSkpmR23gbXjbXP2OZvkb7uTXdapZrdW5K88cV4pbzNBMsiHDKcivX/C+rrq2lqGP7xRgiqpy5WfVZRi7r2UjmpYzFIUbqKYf0re1zT9jGVBj1rBIr0Yyurn0whpDSkUhqhiUhpaTtSAQ8000ppDSAYwyDx7VyHiLSPs7/AGm3H7tjyPQ12DVBcQpPC0cg3KwwRTjKzFKPMrHmbe9QOPxNausaa+n3TLj5DyretZLg103ujlaadivMoZeaqPuFXHHbpUDAHIpAVGJPU1E1TuuCfSoiKRRERzSY/wA5pzUmB6Uhn1lABvLHoorkrqb7Rdyy/wB5iR9K6a8l+z6RNIPvMMD8eK5PNciOxij2paSl71QhRS0gpc0CFFL1pOtO6UAApQKSloA3NCTv71D41k22AX1q7oaYjFZHjqT90q1y1TzsfK1FnnrfeP1ptKTSZrmPzyW4tKKbSigg0tGH/Exj+tev2n/IPT6V5DonOpR/WvX7X/jwT6VVP4j6vJNmYGsf6z8ay81qax9+squ5bH1I9JGTBVsVoWuqshAc1mUtFgOsttSVwPmq+JI5lw2DXERyvGcqa0bXVWQgPUShciUFI09S8N2eoIcoAx74ridW8F3FsS1tll9K7y21FXA5q8JI5Vw2CK5pUeqPJxWV0q2trM8OntZbd9sqFSPUVARXsuo+HbPUEOUXJ9q4nVvBU9sWe2+YelYu8dz5nE5bWo6pXRx5oqxcWk1s+2aMqfcVARTueY00NopaSmIUMQeDzV2y1W5sZA0ErLjtniqNGaE2jalWqUneLO90rxurhY79f+BV0aLY6nEHhZST6V4+GI6Gr1jqtzYyBoZGX2rWNRo+hwucte7VPQ7rR5IsmPkVntG0Zwwwak0XxnFcBYb75W/vdq6KS0t76LfEQQeciuiNS59JRxFOsrxZy3ak/CtC7014CSo4qiRjj0rVanQZOueHrLX7dEvAytGcpJGQGX26dK4DxB4aPh2WEJOZ4ZgcFlwQR2/IivVO/NYfi+w+3eHJ8AGSD98hxnGOv6ZrkxVCNSDdtT6TIs2rYTFU6cpfu27Nev8AwdTjPB+oCw8RRK5xHcjyT9T939ePxr06vFVZkKvGxV1IZSOoI717Dp16uoaZb3aADzkDYBzg9x+dYZdUvFwfQ9jjLB8leGKjtJWfqtvw/Is0daM+tJXqHwgUUGjpQAn1ooopgPjby2BHauo0y5EkYz6VynNaelXPlybSaiauhPUzfHOkdLqNeD1wK8+ZcNivb7+0TUdNeJhnI4ryPWNNksbt0dcYNcElZnyWbYW0udGVSU4ikqT50QV0fhHVm0/VEUn925wRXO4qe1YpcIy9Q1Jm1Go6c1JHuFxGl5abhyGFcbe2xt52XHHauq8PzGfSo9/XbVTXLLfGWUciuujO6P0LD1PaQTOWPvTakIIJpprrOgZSU4000DEPNNIxT6bipAYRTCPSpWFCwSS8Rxs30FIZl6pp8eoWjROPm/hbHQ155eW8lrcPFINpU45HWvXE0q8k6Qsv+9gVleIPA11f2bXMXl+fGuSoPLCrjO2jInC+qPK37Gq7nqR/+qrlxGYpGSQFWU4IPaqz7K3OchYbhgn6VXdcHkVZZgOgqFzu7UAQMKZirBjB5603YPT9aQz6S1y5byYbfdx948enSsarmqy+bftjkIAoqnXMjrYvWlHFJ2pRTELS0n1pe1AC0o6UgpR7UALSgdKSnIMuAfWkB1OjJiEVy3jqTMoWuu0tdtuPpXD+N5M3uK46h4+aStRZyBpKDSVgfAsWnCm0ooEamh/8hKP617Bbf8eCf7teQaFzqSfWvX7f/jxT/dqqfxH1mSfCzn9Y+9+NZVaus/e/Gsmu6Ox9QKKKKKoYtFJS0ASRzPGRsatK11UqQH4rJzS0rXEdbbairj71XhIkq4bBFcRFO8R+U4rStdVK4Dms5QIlBM1NQ8P2d/GQyLk+1cTq/giaAs9ocj+6a7q31BXHWrqyJKuGGa5pUex5WJyylW1tZnh1zZT2rlZ42U+4quRXtd/oVpfxkNGpz7VxOs+CJIdz2fI67TWTvHc+axOWVaOq1RxOKSrFzaS20hSZChHqKgIoPKaaEooopiHK5U5Wuj0DxPNp8gSRi0WehPSuapQeeKadjsw+KqUJXiz2q0urfVbUSRkHIrL1HTNhLxiuN8L6zJZ3aoW+QnBGa9PGy6tg45yK3p1D7bBYyOIhc4sgqSG7U1lDqVbkEYNa2p2PluXQfWsvGK607npHjup2R07VrmzOcRSELnqV6qfyIrsPh/fb7O5sHPzROJEyf4W4IA9iP/HqpeP7DydQtr5B8syeW5A/iXoT9Qf/AB2sXw7qH9ma/bTnHlu3lSE9lY4z+HB/CvCh/s+Kt0/Rn61XX9s5CprWVr/9vR3+/X7z1ft60UGivfPyUSjNFLigBMUlLRigBPpT4nMcgYU3FGORQB1unXG+IZqj4g8PpqUZdF+bHaq2l3O3Ck10UEwZRmuWpC5z16MasbM8c1PQ7mymYFDtz6VmeU2cYOa9yudNs7vmdVI96rJomkQtlLZCfXbXLyT6I+Zq5PUcv3Z49Fpd5MMx20jA9wprT0/wxqc1whNo4XPOeK9VYw26DybdQPpTPtsg+6qL9BR7Ko9y6eR1L+8x+kWj2lmiOuCB0qS8QPGRVc3tw38f5CmEzSddx+prphTcUfSUaDpxUTmL+38q4O0HB6VAltNL/q4pG+ik11n2Zm5YL+NBaWL5SQR2OO1dHMdXKc4mjX0n/LHbn+8QKsJ4cnP+sljT6ZNbPmORyxpp56n9aOZjsZyeHrdc+dcs3+6AKeuj2Yk2ojScZyxNXMUZwcjqKV2Ow1NNjT7kMan1xU4tcdWx9BU0bh1z+dOpAQi2Tvk/jSPbRsoG0ZHQ+lT0lAHkPxF8JeTI2p2MXyn/AFyKOnvXmjrzX0/fWcd5bvHIoYMMEHuK8I8Z+GJNC1JmjUm2kOUbHT2renPozCpDqjk2WomFTsOajYVsYEYOKXj0pGFNpDPeXYyOznksck0lIKXsK5zqFFL9KSl6UALS9KaKdQAU4U2nUgFqSAbpVHvUdT2a5uV+tDEddYjbbfhXm/jGXdqTCvSofktCfavKvE0m/VJOe9cVTc8DOJWomJRRSVifEsWlpKUUAa2gf8hJPrXr9v8A8eKf7teQ+H/+Qkn1r1+3/wCPFPpVU/iPrMk+BnPax978aya19Y6n61kV3x2PqEFHWil61QwpaSg0ALRSUuaBCijNJS0ASxzyRH5Tx6VpWuqEcMayaM0rIDrre/VwOauCRJVw3NcVFcPE2VNaVrquCAxrOUCJQTLWs+G7bUIThBu9cV5rrGhzabOQQSnrivWra9WQDnNR6lpcGo25DKCSK5J02tUeFjssjVXNDRniRFJiup1rwrNaSM0CkrnpXNyQvG211Kn3FZJnyVWjOlLlkiKlFOCE9BUyWdxIf3cLt9FNO6MrMWyJW5THrXr/AIfkL6cm70715ro+hXk12ha2kCg8krXqel2xtrUKRjinB3lofSZPGabfQS9hDociuWu4fJlOBwTXYz8qa57Uogc13QZ9ZHY43xZYf2h4cuABl4R5yZOOV6/pmvLD8y17ds3fKRuzxjGc14/rGnNpWs3Nk2cRv8pIxlTyP0NebmNPaovQ/SeDMZeNTCS/xL8n+h6Z4e1H+1NDt7gvvk27JeP4x1/x/GtGuO+Gkr3V5daVvxuXz4w3QY4b+a/lXpS6EQP3k6r7AV6GHqqpSUmfH5xgng8dUopaXuvR6/8AAMYUfyrfXSLNPvyM/wCP+FSG0s44z5UGWA4z3/Ot+Y8rlOcx6CpVtZnHyxOfwrpI7XCjYEUY7CpRbjux/AUuYdjnE0y4bqoX6mpk0hv45VH0Ga3xAg7E/U04RoOij8qOZhZGVa6dbRN88jFhzjpkVoLJHGMIDj6U6dMpkDlar1I7EpuD2X8zTTM59BTKKABy0ilWY4PocVPEEZAdoz3qvT4m2OM9DwaALNFFFABTJU3p7jpT6KAKNFSzptO4dD1qKgYlJS0lADo3Mb57HrVvOapVNBJ/AfwoAnpKWmlgOpAoAKxfEWhwaxp0kE6Ahhwf7p9a12njH8WfpUbXCkEbSR70AfN+t6RPo+pSWtwuCh4PqKymFe6+MfCi+IbB3iCpdQ8x9yw9K8WuLNredoplKuhwVNdMJcyOWceVmew4pu32q0Y1Ham7Pb9K0Mz22lpBzS5rmOsBS0UDpQAtKKTpTqADrS0UUAOq5py5uR7VTFaOkruuKl7COlkOywY/7NeRa5Jv1GQ/7VetX526a/8Au14/qZzeyH/aNcM9z5jOpe5YpUUUVmfIhThSU4UAa3h8Z1FMetevwDFkn+7Xl3hOzM18HxwDXqoXZbqPaqp7n12Sxahc5zWetY54rY1jvWPXfHY+mQZpMUtFUMKWiigAFLRRigApaSlH50AFFGPWlxQAUoNKsbOcKpP0GamSyuH6RH8eKAFtrt4ZBg8Z5rprK7EiDmueXTJjjcVX8a0bOL7MVEknU49KiSTE43NmaCO5TDAGsm48J6fctunX+lXftCgcP+VMNwPQmsHRT3OWpgqdX40Vrfw1o9ocpArEe2avJb2cX+rt1H4VAZyeigU0yue+PoKSw9NdBQy7DQ2iWXuvJYCOJAMUxr+UjHyr+FVx80yl8nt14qzhEGeAK1UIrZHVGjTjsiJppZOpJ+gqMwGT7yA/Wkn1Wyt22yzop+tR/wBu6dnH2lM/WrsaaInW2I/uj6CvLvi1pDwXtnqijKSL5DtnoRkrx/31+VeqQ3lvOuYpUYexrD8daV/bHhG8iRd0saebFgZO5ecD3OCPxrDEU/aUnE9jJsX9Tx9Oq9r2fo9P+CeJ6HqjaLr1nqClgsMgLhDyUPDD8ia+gQQwBByCOD6183feWvbPAOrf2r4St9/+ttP9HfnrtAwfyx+Oa8/L6mrgz6/jLB3jTxcemj/Nfr950tLSUV65+dFi3bK7T1FS1UjbZID26GrdAgooooAKpuuxyvbtVyobhcpuHVaAIKSiigAo60UlAyzC+5MHqOtSVTWTym39VA5wM8VObhO2T+FAiWiq5uT/AAr+Zphnc9wPoKBllgGUg9DVNhsYqe1KXc9WNNXaku8gZxgnHagA69AT9BThE56L+dWxyOKKAKwt37kD9aX7Nx99gexXtVikoApPvDEMzZHv1pmBVqePcu5R8w/Wq1ACUlLSUAJ0bI4IrgfiH4UFzC2r2EeHX/XIo6+9d/TSFZSrqGRhhlPcU02ndCaTVj5tdcGo8V2vjvwqdHvzdWqk2kxyCBwp9K4/b7V1xaaujklFp2PZRS0lLXOdItKKT60ooAWiiloAUUDNApaAFHvWvoi5fPvWQK3dEXABqZbCZsahHvsGAHavIdYhMd84PrXtLJ5kJB7ivPvEuhs0jSIvfNefU0Z83m1FzhdHD0Yqy1nMJNojYn0Aq3BoGoz8pavj3GKz5kj5Hkd7WMwCpoIWlkCqCST2ret/BWqzYzGq/U11GheCpbKTzLllY0ua+x1UcJVqyskWPCej/Z7VXYc+4rp5jhMUsMIt4woqC5fg4rppxsj7fCUFSgoowdWOQax619QjlfhY2OfY1SXTrlv4MfUiuuOx6JV+tLitBNJkP33UD25qZNJjH35Gb6DFVdDsZOKXFbiaZCOkTN9anFssG11gTg89KVx2MCOCWT7kTP8A7ozViPTLuTkQkf7xAreM7dgBSGVz/F+VLmCxlpoc7f6x0UfXNTpokS/62cn2GBVsknqSfxpMUXHZEDadZxoNoaRsgdc/yqZLFV+7Cg9yKXpzV0dKQFcWx9QPoKeLde5JqWigBghQds/WklRfKbAA79KkoIyCKAKdFIOOKWgAoopKAIbq6js4GmmYKq85NcN4j8bSXDGHT22oOrA1H4+1s7xYxNgfxYriUfK5renC+rMKk2tEWri9nnkLTzM5Pqai81zzuP51Hkd+1MMqg8mtzG5ft9Tu7QgwXDofY1v2PjzUrdQk+JkxjnrXImZT3pwbPQ1LinuNSa2M27Ea6hOIV2R7yUX+6p5A/AV2Pwu1QWfiCewkYKl7HlM93TkD8i35CuS1BMTJIP4hg1o6FpGrSavZXFlbmN0dJonnRgrDcMMAASy5KglQQu4E4HNfL1IvD4rTa/4M/Yo4zD5jkPNiJqLcbav7Uf8Agq57tRTVbcoOCCR0PanYJ6DNevGrCTtFn5LGrCTsmFWYn3RjPXoagELntj6mgiSA9V2t7dDWpoW6Sqplc/xfkKaST1JP1NAFoyKvVhTGnTpnP4VXxRQMWNGkLbRgA8ZPUVKLc92/IVHG2yQHseDVugCIW6Drk/jThEg6KKdRQIMCqci+XJjt2q5Ucyb4+Oo5FAyrRR1FFACUUUUATQSfwH6ip6pZI5XqOlW43EiAj8aAHUUUlAAaqTx7G3AfKx/I1bprKGUqe9AFGilZSjFT27+tNJAoASilGW+6CfoKcIZD0XH1NAFLUNPt9UsJLK7UNHIOCf4TXDf8KrP/AD3r0gWrH7zAfQZo+yn/AJ7SfpTUmthOKe5xopaMUuKskKUUClFABSijFOCknABJ9qAEpasJYXUn3YJD9VxVlNFuypLqqADPLf4UXAoCt7SSFQVUj0djzJKB7AZrRt4EgACMWIqJWaCzNuFgVpk8NpJzOVPtmqAEjDox+vFKIZD2A+prF009zKVCM9yYppsX+rgVj7LUsVwhB8uJVANVxbnu35CogGjkkAkYqWyAcccUlRguhEcHQWvKaHnv2wPwprXTDrJ+tUevUk/U0AVajFbI3VOEdkWmugerM1MNx6KfxqClqixxLTzKMhVAOeMmphbqOpJqKH/XfhVqmAwRIP4R+NOAA6AClooAKjn/ANSfwqSmT/6lvpQBWooooAKKKKADqKtxnMan2qpVmA5hH5UASUUUUAFFFFAFRxtlYe+aSnzjEgPqKj69OfpQAtVdQuPs1jLL/dUmrYjc9FP41Q12B/7GuM4A2GhAeL6rePe38sznO5jVaJsgippYVEjc55qGWMLGSMgjpXatEcT1I5ZcnANQlvU/rUBYnqabVkFjzF9fyqxZRz3l0lvaRtLK5wqr3qgK9I+HGkLHay6nIm6SUmOLPZR1P4nj8K5sVXWHpOoyJOyLWk+AYGgU6v8Avpd6vtQ/Iu1gcHP3gcYPHQ/jXUjSrJbcQNEXQffDuzed8nl/vMn958vHz56A9QKtxnKN9eeaYW+evi61arXnzSepn7afKld2/r/IU3Ij4J4p63DZ4wRVOeMyVLGpCc54qYytZpmMZT5mnsaEd3jG7lc4z3FWZF8yI4wcjg1jHdt4JFXbCYgmJvu9U9vavYweLcnyTZ30azuoyHDkUU6Vdkp9DyKbXrneFFFJQAHmrML7k56jg1Wp8T7JPY8GgC1RRRQIKKKSgCrKmyTjoajq3MoZCCQD1FU0cSLmP5hkjK88jrQMWinCKQ9F/OnC3Y/eIH60ARU+KTy356N19qkFsv8AEzGnG3hZSrRhlYYIbnIoAc0qL95gPxqM3KDpk/QVAyeW23t2+lJQBM10f4U/M1GZ5D0IH0FMpKAEb5pFeQs23PGcA1bRYyoKKMH2qrUkEmxtp6H9KALNFFFACUUUUgOMSyuH6Qv+IxVhNIuW+8FX6mukFr6v+Qp4t0HXJ/Gq5mKyMO30HzCfNnwB1wtXE0axj+/Iz+xb/CpyiCaQooGTz74paLsLCJa2EX3LcN9Rn+dTrIkYxFCqj24qKikMlM8h9B+FMctKux2Yhjg4OP5UlOjGZkHvQBaESDoopwGOlFLQIKWkooAWqZ++3+8auVSByT9TQAtFFFIApaSloAfD/rvwqzVaH/Xfgas0wFopKWgApkv+qb6U+mSMoQ7mA47mgCr2paSPLxqyAkEZBx1p4ikPbH1NADaKkFue7D8BTxbr3JP40AQVJbzIFZS4yp5GelSiJB0X86hmUCbgYyPSgCU3Cdsn8Kabn+6n5moaKAJDO56YFNLuerH8KbRQAqKv2hHYAtyAT1Gf/wBVXOlUScYPoc1dFAC1T1SLz9NmT1U1cprrvQqe4xQB4Fex+TdyIf4WNVZD8provGGmtYa3IdvySHIrnnGVrti7q5xyVnYymG1iKbU1yhV8+oqCrIHr1r3fQNOGnaBZ2ox8kI3behY8k/ma8JiG6RQO5xX0Ra8/gAMivn86naEI92Q7N2Io0ZGIbvSlAetWmQHnFQt15HFfO3TehgoKCsxvlgc0bPl6VKrA/wD66dLNCdoRNmFAPOcn1q9LXQ3JJ7lYj0/Kltzh+PXIqIyEz7V6etWIRg+maIy5ZXRVKSnt0Lk43RBx1HNQVZ82NV2sw6ciq0as+7YpwpxzxX1y1R6y2CipBbuepA/Wni2H8TE/SmMgpCatCCMdVz9eaeFA6DFAECXSlSCG3KcEbSKDc/3V/M0XK4w46dDUNAEhnkPTA/CmF3PV2/PFJSUAGPzqWB9rbT0PT61FSfTg0AXqKbG/mRg/nTqBBSUtJQBHNHvXjqOlVM8VfqrOmxtw6N1+tAyKkpaSgApCKKKALMEm9drfeH61JVIMVYMvUVcRw6hh3oAWkpaKAFoJwpJ7CiorhsQn34oEVh0z68mloFFIYtFFFAC1JAMz/QVHUttyzn6CmBZpaSloEFLSZoyB14oADVJfuirE1xGkTktnCk4UZP5CoEjcqMIenfigYUtPEDnuopwt/Vj+AoERUZFWBBGOoJ+pp4RV+6oH4UAVI5VS4Abdypx8p9u9Tm4HZWNMuP8AWJ9DUdAyU3DnooH45pplkP8AFj6CmUUCFJJ+8xP1NJgDpRS0DLUJzCn0p9RQH9yv0qWgQUUUUAFV7n7yH6irFQ3I+RT6NQBDRSUUDClpKKBAelW4m3RKfaqlT2x/dkehoAnpKKKAOV8b6MNQ0wzRrmSPkcV5JIpVircEcEV9ByKroVcAqRzmvLvG3htLSY3dpjY33gK2pytozKpG+qOCuEyuaoMpFaUhXaQOTUPkZHzV0nNYpg4Ne3+CtaGraDDIzAzRgRzDuGHf8RzXjP2Ze3NbvhTV20DV1mOTbyfJOAP4fUe4615+Pw31ilZbrYlx1ue4ZpAgNVra8iuIFkimSRJBuR16EVbX7tfG8zjpJahZSZGYAW6cGofsoWUEVbHvQfvUKXVGcqEJatFVrcbun5GpETBGeOalx6U2TCjHf+VdOHoSqzsjaFPohhOSTToW2y47NxTKQ/8A16+pO8vUU1G3oG9adTEFFFFAxrKGUg9CKp4Kkg9R1q9Va4TDBh34NAENFFFABSUUUAPgfZJg9G/nVuqJqzDJvj56jg0AS0lFGaACmuodSp6GkaVF6sPzqM3KDpuP4UAVyNrFT1FJRNI0joVUKM4Yk9qmFsD95yfpQBBSZHrVsW8Y/hz9TmnhVUfKAPpQBSCO33UY/hinfv4OQqlD97LcirlIRkYPSkBTM8p/iA+gpvmSf89D+VLInlvjt2plAGjVe5P3V981KZEX7zAfjVZ38+dvLDNswCcED1696YCUU4QyHsB9TTxbN/E/5CgCKlzU4tl7kn8aeIY16KKAKuc9OfpT7edQrfK2d5ByuOn1q1gDoKpA5yT3OaAJzcn+FPzNNM8h7gfhUVLQA4u7dXP50mB35PvSUtAAelXhVHqVH+0KvUAFLSUUCFooooAr3H30+hqOpLj/AFifQ1FQMKWiigAooooAsW/+pH1NTVBbf6s/7xqagQtFJRmgBaiuBmFvzpxlRerD86ilnUwuFDMdp4Axn86AIqKckLsgJwuRnBOcVILb+85/AUDIaCQOpqwLdB1Bb6mnhFX7qgfhQIqAFvuqT9BTkd4ZCGjOGXOcjr6VbqC5Hyq3oaAGm4c9AB+tMMjnq5/DikooGIRn73P1NRXFtFcwmOVQykdDU1JQB5h4p8GyWsjXNiu6MnJUDpXI7GHDKQR1zXvciLIpVxkHqDWLceD9NvjJmIK55BFbRqW0ZlKnfVHjZ4NAJFd3qvw6uImL2Tb17A1zU3hnUoXKNbtn6VqpxZi4NF3wz4pk0ZjBchpbJ+qDkofUf4V6LpfirS9TKR292oc8eXJ8rE/j1/DNeWJ4d1JmCi3bn1rotJ8BXU+1rokD0rzsVgaFd8z0fkSqTbuj01GY9vb6UjCTcM4UepqtpWkpp1sI8ljjHJqXkZB6jivPjlsE9ZXNPYXWrJTKB93r6mo80lFejTpwpq0UdCilsFFFFajJrdsFkP1FWKpBtjBvQ8/SrgNAC0lFITigQtNdd6lT3ppmjHVx+FMNyv8ACrH8MUDIOnB6jg0UHdLcjhVUj6nNTC2XuzGgCDNJn05+lWxBGP4R+PNPAA6UAUwjt0Q/jxSlJ4cOuzH8YOelW6QjOc0AVDNIf4sfQUw8nLEn6mlddjlfy+lJQAmAKKKKACp7eTjYeo6e4qCjJUgr1HSkBepKajh0DDvTqYBSUUUARyx+YmO/Y1V8qT+7V2ikBRAAq1bDEIPqc1UJwpq9GNsaj0FMB9FFFAhaKSloAbI22Nj7VTXoKs3BxA3vxVYUDFopKWgBaKSigBy8yJ/vVdqnHzMn1/pVygBaKKKBBS0lNMqL1YD8aAIbn/WL9DUdLLIJbhEjVmO0nIHHbvThDIeoA/GgYyipRbH+J/yFPFunfJ+poAr5FA56An6CraxovRQPwp1AFSGYxtIjRMpDcE4weO1PNw56KB+tNm4nb6CmUAPMkh6sR9KbjPUk/U0UUAGB2oPSiigC1AcwJ9KkqG2P7vHoTUtAhaKSloAKjnGYW9hmpKQjIIoApUUi8DHpxS0DCiiigApY22zKex4pKacjkduaAL2M9ajaCNz8yKfqKep3KCOhFLQIi+zw/wDPNfyqQADoMUtIWA6kCgYtVZ1xLn+9UzTxj+LP05qvcTFkHlR7mDDqcYHegBtFSi3buwH0FPFso+8WP44oAr5oBz93J+lWxEi9FFOoAqeVI38GPrQss0amN1QFTwQc5HarlV7lej/gaAIzJIern8KYRk85P1NLRQAYFFJRQAH261cjfegIqnUlu+HKnoelAFqkoooAKKSigCK4Tcm4Dlaq54q/VKVPLkIHQ8igBtFFJQAUUUUAPhk2Pgn5W/Q1aqiaswSb0wfvDg0gJaKKSmIKKY8qJ95gKZ9pi/vfpSGf/9k=)



페인팅을 수행하는 구성요소는 다음과 같다. (평면에 대해 슬라임이 움직이는 경우)

* 페인팅을 받을 평면 메시(SM\_Plane)
* RT에 Draw를 하는 연산을 수행하는 블루프린트 액터(BP\_Plane)
* 실시간으로 draw되는 렌더타겟 텍스처(RT\_Plane)
* 평면 메시의 기본 마테리얼 (MF\_Metal)
* draw되는 페인팅 영역의 마테리얼 (MF\_Slime)
* 렌더타겟 픽셀 영역에 대해 위의 두 마테리얼을 블렌드하는 마테리얼 (M\_Pipe)
* 페인팅되는 브러쉬. 해당 경우에는 슬라임 캐릭터 액터 (BP\_SlimeChararcter)
* 블루프린트로부터 브러쉬 위치와 크기를 전달 받아 렌더타겟 텍스처에 draw될 위치와 크기를 동적으로 변경하는 마테리얼 (M\_HeatSplat)

페인팅 기능을 제작하면서 시행착오가 많았다.  
특히 슬라임이 움직이는 경우, 평면과 닿았는지 여부를 판정해야 한다.

![만화 영화, 스크린샷, 텍스트이(가) 표시된 사진

자동 생성된 설명](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAYABgAAD/4RDgRXhpZgAATU0AKgAAAAgABAE7AAIAAAAHAAAISodpAAQAAAABAAAIUpydAAEAAAAOAAAQyuocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAExlbm92bwAAAAWQAwACAAAAFAAAEKCQBAACAAAAFAAAELSSkQACAAAAAzc0AACSkgACAAAAAzc0AADqHAAHAAAIDAAACJQAAAAAHOoAAAAIAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAyMDI0OjAxOjE2IDAxOjEzOjQzADIwMjQ6MDE6MTYgMDE6MTM6NDMAAABMAGUAbgBvAHYAbwAAAP/hCxlodHRwOi8vbnMuYWRvYmUuY29tL3hhcC8xLjAvADw/eHBhY2tldCBiZWdpbj0n77u/JyBpZD0nVzVNME1wQ2VoaUh6cmVTek5UY3prYzlkJz8+DQo8eDp4bXBtZXRhIHhtbG5zOng9ImFkb2JlOm5zOm1ldGEvIj48cmRmOlJERiB4bWxuczpyZGY9Imh0dHA6Ly93d3cudzMub3JnLzE5OTkvMDIvMjItcmRmLXN5bnRheC1ucyMiPjxyZGY6RGVzY3JpcHRpb24gcmRmOmFib3V0PSJ1dWlkOmZhZjViZGQ1LWJhM2QtMTFkYS1hZDMxLWQzM2Q3NTE4MmYxYiIgeG1sbnM6ZGM9Imh0dHA6Ly9wdXJsLm9yZy9kYy9lbGVtZW50cy8xLjEvIi8+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczp4bXA9Imh0dHA6Ly9ucy5hZG9iZS5jb20veGFwLzEuMC8iPjx4bXA6Q3JlYXRlRGF0ZT4yMDI0LTAxLTE2VDAxOjEzOjQzLjc0MDwveG1wOkNyZWF0ZURhdGU+PC9yZGY6RGVzY3JpcHRpb24+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczpkYz0iaHR0cDovL3B1cmwub3JnL2RjL2VsZW1lbnRzLzEuMS8iPjxkYzpjcmVhdG9yPjxyZGY6U2VxIHhtbG5zOnJkZj0iaHR0cDovL3d3dy53My5vcmcvMTk5OS8wMi8yMi1yZGYtc3ludGF4LW5zIyI+PHJkZjpsaT5MZW5vdm88L3JkZjpsaT48L3JkZjpTZXE+DQoJCQk8L2RjOmNyZWF0b3I+PC9yZGY6RGVzY3JpcHRpb24+PC9yZGY6UkRGPjwveDp4bXBtZXRhPg0KICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICA8P3hwYWNrZXQgZW5kPSd3Jz8+/9sAQwAHBQUGBQQHBgUGCAcHCAoRCwoJCQoVDxAMERgVGhkYFRgXGx4nIRsdJR0XGCIuIiUoKSssKxogLzMvKjInKisq/9sAQwEHCAgKCQoUCwsUKhwYHCoqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioq/8AAEQgCGgO9AwEiAAIRAQMRAf/EAB8AAAEFAQEBAQEBAAAAAAAAAAABAgMEBQYHCAkKC//EALUQAAIBAwMCBAMFBQQEAAABfQECAwAEEQUSITFBBhNRYQcicRQygZGhCCNCscEVUtHwJDNicoIJChYXGBkaJSYnKCkqNDU2Nzg5OkNERUZHSElKU1RVVldYWVpjZGVmZ2hpanN0dXZ3eHl6g4SFhoeIiYqSk5SVlpeYmZqio6Slpqeoqaqys7S1tre4ubrCw8TFxsfIycrS09TV1tfY2drh4uPk5ebn6Onq8fLz9PX29/j5+v/EAB8BAAMBAQEBAQEBAQEAAAAAAAABAgMEBQYHCAkKC//EALURAAIBAgQEAwQHBQQEAAECdwABAgMRBAUhMQYSQVEHYXETIjKBCBRCkaGxwQkjM1LwFWJy0QoWJDThJfEXGBkaJicoKSo1Njc4OTpDREVGR0hJSlNUVVZXWFlaY2RlZmdoaWpzdHV2d3h5eoKDhIWGh4iJipKTlJWWl5iZmqKjpKWmp6ipqrKztLW2t7i5usLDxMXGx8jJytLT1NXW19jZ2uLj5OXm5+jp6vLz9PX29/j5+v/aAAwDAQACEQMRAD8A+kaKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKqXuqWenlVuZgJWGUhQFpH+ijk0AW6Kyv7Q1O45stMESf372byyfcKoY/nimmHXpVG7ULGA9xHaM/wCpenYVzXorFNnr3/Qbt/8AwA/+zpPsev8A/Qbt/wDwA/8As6LLuK77G3RWH9j1/wD6Ddv/AOAH/wBnQbTX/wDoN2//AIAf/Z0W8wu+xuUVh/ZNf/6Ddv8A+AH/ANnSfZdf/wCg3b/+AH/2dFvMLvsbtFYX2XX/APoN2/8A4Af/AGdJ9l8Qf9Bu3/8AAD/7Oiy7hd9jeorA+zeIP+g3b/8AgB/9nR9m8Qf9Bu3/APAD/wCzot5ju+xv0VgfZvEH/Qbt/wDwA/8As6T7P4g/6Ddv/wCAH/2dFvMLvsdBRXP/AGfxB/0G7f8A8AP/ALOk8jxB/wBBu2/8AP8A7Oi3mK77HQ0Vz3keIf8AoN23/gB/9nSeR4h/6Ddt/wCAH/2dFvMLvsdFRXO+T4h/6Ddt/wCC/wD+zpPJ8Q/9Bu2/8F//ANnRbzC77HR0Vznk+If+g3bf+C//AOzpPK8Q/wDQbtv/AAX/AP2dFl3C77HSUVzfleIv+g3bf+C//wCzpPL8Rf8AQbtv/Bf/APZ0WXcLvsdLRXNeX4i/6Ddt/wCC/wD+zpPL8Rf9Bu2/8F//ANnRbzC77HTUVzOzxF/0G7b/AMF//wBnRs8Rf9Bu2/8ABf8A/Z0W8wu+x01Fcxt8R/8AQbtv/Bf/APZ0m3xH/wBBu2/8F/8A9nRbzHd9jqKK5fb4j/6Ddt/4L/8A7Okx4j/6Ddt/4L//ALOi3mF32OporliPEf8A0G7b/wAF/wD9nRjxH/0G7b/wX/8A2dFvMV32Oporlf8Aio/+g3a/+C//AOzo/wCKk/6Ddr/4L/8A7Oi3mF32OqorlM+JP+g3a/8Agv8A/s6M+JP+g3a/+C//AOzot5hd9jq6K5PPiT/oN2v/AIL/AP7Ok3eJP+g3a/8Agv8A/s6LLuF32Otorkt3iT/oN2v/AIL/AP7Ojd4l/wCg3a/+C/8A+zosu4XfY62iuR3+Jf8AoN2v/gv/APs6N/iX/oN2v/gv/wDs6LLuF32OuorkPM8S/wDQbtf/AAX/AP2dHmeJf+g3a/8Agv8A/s6LeYXfY6+iuP8AM8S/9Bu1/wDBf/8AZ0eb4m/6Dlr/AOC//wCzot5hd9jsKK47zfE3/Qbtf/Bf/wDZ0eb4m/6Ddr/4L/8A7Oi3mO77HY0VxvneJv8AoN2v/gv/APs6PO8Tf9Bu1/8ABf8A/Z0W8wu+x2VFcZ5/ib/oN2v/AIL/AP7Ojz/E3/Qbtf8AwX//AGdFvMV32OzorjPtHif/AKDdr/4L/wD7Ok+0eJ/+g3a/+C7/AOzot5hd9jtKK4r7R4n/AOg3af8Agu/+zo+0+J/+g3af+C7/AOzot5hd9jtaK4n7T4n/AOg3af8Agu/+zo+0+J/+g3af+C7/AOzot5ju+x21FcT9q8Uf9Bu0/wDBd/8AZ0n2rxR/0HLT/wAF3/2dFl3Fd9jt6K4j7X4o/wCg3af+C7/7Ok+1+KP+g3af+C7/AOzot5hd9juKK4f7Z4o/6Ddp/wCC7/7Ok+2eKP8AoN2n/gu/+2UW8wu+x3NFcN9s8U/9Bu0/8F3/ANspDe+Kf+g3af8Agu/+2UW8wu+x3VFcL9t8U/8AQbtP/Bd/9spPt3in/oN2n/gu/wDtlFvMd32O7orhPt3in/oN2n/gu/8AtlJ9u8U/9Bu0/wDBd/8AbKLeYrvsd5RXB/b/ABT/ANBu0/8ABd/9spPt/ir/AKDdp/4Lv/tlFvMLvsd7RXBfb/FX/QctP/Bd/wDbKT+0PFX/AEHLP/wXf/bKLeYXfY76iuB/tDxV/wBBuz/8F3/2yk/tDxV/0HLP/wAF3/2yiy7hd9jv6K4D+0fFX/Qcs/8AwXf/AGyk/tHxX/0HLP8A8F3/ANsosu4XfY9Aorz/APtLxX/0G7P/AMF3/wBspP7S8V/9Buz/APBd/wDbKLeYXfY9Borz7+0vFf8A0G7P/wAF3/2yk/tPxX/0G7P/AMF3/wBsot5hd9j0KivPf7T8V/8AQbs//Bd/9spP7U8Wf9Buz/8ABd/9sot5hd9j0OivPDqniz/oOWf/AILv/tlJ/aniz/oOWf8A4Lv/ALZRbzHd9j0SivO/7V8Wf9Byz/8ABd/9so/tXxZ/0HLP/wAF3/2yi3mF32PRKK86/tXxZ/0G7P8A8F3/ANspP7W8W/8AQcs//Bb/APbKLLuK77Ho1Fec/wBreLf+g5Z/+C7/AO2Un9r+Lf8AoOWf/gu/+2UWXcLvsej0V5wdY8WD/mOWX/gu/wDtlH9seLf+g5Zf+C7/AO2Uadwu+x6PRXm/9seLf+g5Zf8Agt/+2Uf2x4t/6Dln/wCC3/7ZRZdwu+x6RRXm39s+Lv8AoN2X/gt/+2Uf2z4u/wCg5Zf+C3/7ZRbzHd9j0mivNf7Z8Xf9Byy/8Fv/ANspV1vxaDzrVi3sdO/+2UW8wu+x6TRXn8Hi7xNbt/pNtpd8mP4Gkgb/ANnH8q07T4iaYWEetW9zo79N9yoaE/SRSQP+BbT7UWC66nW0UyGaO4hSaCRZI3G5XQ5DD1Bp9IYUUUUAFFFFABRRRQAUUUUAFFFFABQSACScAdSaKwLuQ69qjWETn+z7VsXbKf8AXSf88s+g/i/L1poTdiT7bd61Js0t2tbEH5rzaC0v/XMHjH+0fw9avWWm2unq32aPDudzyOxZ3PqWPJqwiqiBUAVQMADtS0XCwtJmikzSGLSUUmaACkoozQAGkopM0AFFFJQAUhpaSgApKDSUABpKKDQAlFFJQAUhpaSgApKDRQAhoopDQAUlLSUAJQaKSgApKU0lAAaSig0AJQaKSgApDS0lACUlKaSgANJRQaAEoNFJQAUlLSUAFJQaKAENFFIaACkNFBoASkNLSUAFJSmkoAQ0UUGgBKQ0tIaACkNFJQAUlKaSgANJRQaAEoNFIaACkpaSgBKKDRQAhpKWkNACUGig0AJSUtJQAUlKaSgBDRRSUAFIaKQigAopCo7ik2j0oAWko6UhNAAaKiknVBljVVrt26DArz8VmOHwrtUevZCuXc1G86L1NUjNI3VsUzr15rxq+fq1qMPvAstef3VzUZunPQYqOkrx6maYypvO3oFmOM0jdTSh5G43U3FSIQK5Pb1m7ub+8OUTy5D1Y0jQzgfKTV+EKwq0AoHSqUqm/M/vBwTMMLcL3NSCaZfvLkVs7U/u0hhjbqtbwxGIpu8Kj+8jka2ZlpcK3DcGpNwPQ5q1Lp8bj5az5bWS3OVJxXrUc7rQ0rRuu6HdrcnpKhjnDcNw1S5r6WhiaWIhz03dFJpgaQ8jmlNJXQMq2ov9CZpvDVwLfnc9lJzby+23+An1XHuDXd+G/FVn4ijkjRHtb634uLOYjen+0MfeU9mH6HiuNqhqFrcebHqOlS/ZtUtQTbz4456qw/iU9xT33JtbY9dorI8M+IbfxNokd/bo0ThjFPAx+aGVfvIfoe/cYNa9IrcKKKKACiiigAooooAKKKKAM/XtQOl6DeXaZ3xxkR4GfnPC/qRUWh2f2LSYY35lK7pW/vueWb8Tk1n+KW+2ano+lrk77j7VLjskY4B+rMPyrfQbVAp9CVqx2aSjNJSKFpKM0lAC0lGaSgAozSZooAKM0lIzBfvED60ALSZpnnR/31/OlDA9CDSumA6kzRSZpgFFJRmgApKKM0ABpKKTNABRRSUAFIaWkoAKSg0UAIaSlpKACkoprMB1IFAC0Go2uIU+9Iv51Cb+Ds+T7VlKtTh8UkgLNJUK3Kt0pfOFY/XMP/OgJTSVWe9RPvZoiv4JThXAPvVxxVCbtGSAsGkoBz0oNdACUGikoAKSlNJQAUlBooAQ0UUhI9aACkNGaKACkNFJQAUlKaSgANJRQaAEoNFIaACkNLSUAFJQaKAENJS0lACUGig0AJSGlpKACkpTSUAIaKKKAEpKWkNACUGikoAKSlpKAA0lBooAQ0UUhoAKQ0tIaACkopKAA0maUmonfaKAB3AqrNc44XrUU1xlsLUBNeBm2ZPDr2NL4n+H/BEKWLHLHNGabmkzXxjbbu9xqI/NJupmaKRQ7dQG5ptFAEmc04GolbFTIVNNAWoJdowasC4FUh7UhYgcVqpWQGiJgehqQPnpWQJefSrEc5HeqU7gaIalIVxhhmq6S7hUoarEZ99ZbG3x9KppMyHB5rdOGGGrOvLPGWQUozqUZc9J2ZlKLWqGo4dcrSmqUb+XJzx61dzkZFfa5bjli6XvfEt/8yoyuhKDRRXqFEfhC9OkfEc2TMwttZt2KIOnnxjOfxjB/wC+a9SrxPxLI+nrZ6zCD5ml3Ud1xnlQ3zjj1Umva0dZEV42DKwyrKcgj1pva5K3aFooopFBRRRQAUUUUAFFFRXdylnZT3U3EcMbSP8AQDJ/lQBzlif7R8a6necNHaKlnEw9huf/AMebH4V0dYHg+2kh8Pwy3XNxclp5WPUs5LHP51vZpvcmOwUlFGaRQUlFRzzLBE0khwo60m0ldgSZpK5a68XosjLAmQO9QDxi+fmjryZZzg1K3MZe2gdfmiuXTxjFj50wamTxZbFsOMVpHNcHJ6TH7SPc1NVvjYWbSgZIriLjXb29YneUXtitjXNctryxMMLfOa5dBtUCvnM4xsqlVQpT923Qwqzu7Jk32u6Bz5zfnVu31i8iHEjHH41VhhMhyeFFWwAg+QAV4Sr1KbvGT+8dOnJ6mna+JZwAZcMK1oNft5VG7j6Vya2MlzIfLTJIzxwKuJoM4QBboJ7AHivVw+bYyC35l5mvvrodWmpW0nR8fWp1njb7rqfxriG0vUreUiA+epH3iaqm41C3lZTuDKcEAGvThn01/Epkuo47o9C3A9xS5rg49a1GPdlWbj5cKeDVxfEt0oGbaQ/hXXDPsO/iTQ1Wizr6M1yY8VTLy9tIB6ml/wCEuP8AzxP51ss6wnVv7h+1gdVSZrmf+Eol27vs5x9abJ4nlQZaAjPTmn/beD/mK50dRSZrkH8VXB+7FVeTxJev04rOWe4RbXfyIdaJ2pZR1I/Oo5LqGMfNIo/GuFfVb2QnMhAqB555PvSsfxrkqcQR+xAh1+yO1m1uzi6yZPtWdP4piGRCua5dUeRsLljWlb+Hrmdd23aPeuX+1cdiXajH7ifazlsTS+JrlyQgxVGbVLuZuZCPxrQHhef+9TH8NXI+62a5qtLNKi9+5LVR7mZ9omPWQ59zU0d3Kv8AGPyqZtDu06oTUL6bdJ1Qj8K82eGxEdZRYJziXtMvFhmPnTnaeMHnP+Fa39oWvnGISjf09vzrmPsVwOx/KlFnOeMH8qzTnHS34M3jUklsPu7iSWVmMrZJ6A8VWEsigYc5HQ5qymnTueVJHsKsReH7mVuRtHvV08NXqP3ItmMlNu6H6Vq9x9oWF23CurByoNY1poUdqVkY7nFbC/dFfb5XSxNKk4136G9NSS94U0lFFeuaiUUUhoAZJKsa5Y4rIvdbSPIjPNV/EN3JENq55rnlDSfM55r5PM83qU6jo0vvOapVadkacmt3DNxnFRnWLnPU1T20Yr554vEyd3NmHPLuaEeuzJ98E/jViPxD/e4rHERkYD1NSjT8fxj8q1jmOKhtMuPtXsbsWvxPgMavR6jC/wDEK5GS1aPnqPWmAyJ91iK9Cln1ePxq5ftJxdpI7hZ426MKduHrXFLf3MeMHpUq61cr1xj6V6VPiCk/ijYr266nYZpK5ZdfkX7wqVfER7rXVHPMI92V7aJ0lJWGviBf4hT11+Etzx710xzXCS+0V7WHc2DRWYutQu2Aal/tOPHb862WPwz2mh88e5dpKotqkS8kgD60n9rQf3hT+vYf+dBzx7l6g1QOrQf3qadXh/vUvr2GX20HPHuaFJWa2sw/3qiOtJ2rOWZ4WP2he0j3Nc0lYjaznO0VEdYYnjiuaWdYRdROtFG+aKwl1aYc8H61Kust/Emacc6wkt3YPaxNekNZyauh++pFWUvYH6Piu2njsNV+GaLU4vqWKSmedGRw4/OjzU/vD866eePcd0OpKaZU/vCjzE/vCjnj3C440lRtPGvVhTDdxDoaiVelHeSC6JqKrm7Tsf1pjXajvz6VlLGUV9onnRapDVT7Ypo+1A1Cx1F7MOZFukqqLgHvQbgDvVrF0n1DnRZNJUH2kUn2hfWtFiKb6j5kSSPis+4nJ4XrT7i5GODVME5JPeuLMcesJSvHWT2/zGPVOOeTSlRSryKlSEt1r4SUpVJOUndstEGzNIY6tGLYKQAHrS5QKZGOtFTSxHtUJBHUVLVgCikpaQBRRRQA9ZSOtTLKGqtRTTaAtFQ1JgqeORUKSletTrIGqrpgSJJtq3HKGHNUsU5W2mrTsBoA07hhg1VilzVhTWojNvrTGWUVWtJsExuec8VuMgkQg1h3kBhl3DjBrTD15YWsqsfn6HPNcj5kW6SmQyCWMHv3p9foNOpGpBTjszZO5W1G2W7sJoJBlZEKnjPBFdZ8MtRN/wCANPjkfdcWAaxmB6q0R2jP/AQp/GubYZXFS/Da6+weLdc0ZshbpE1GEds8Ryfr5daLYT3TPS6KKKRQUUUUAFFFFABXOeN5Gk0aHTYs79RuUgOOoTO5j9MLj8a6OuWvT/aPj6KL5Wi0213cdRJIe/8AwFR+dNb3JltY3oEEcKqBgAYqTNIOlFIoKM0lFABVTUrY3lk8SnBYVaoqJwU4uMtmJq6sea3OmXFpMyvEx564qt3wRj616fJEkoxIob6isy98P2d0CRGFfHBFfJ18glHWjK/kzmlQfQ4PaPSkKKe1T3ts1ldNC5zg8VDXzUouMnGW6Odqw6K38wnbgY9ae8DJjkEn0qzAAIRtOafisuazOuNGLihLe2nlQbEJUccVoJpL7hvkXb3x1qrbyiGdHbO1TkgVYm1ORpGMXypjAz1+tXH2dryN0rKxqoixRhEAVR0p2R6j865+S6nlTbJIzL1qLJ9/zrX266IZ0bypEhZ2AUdTUf8AaFr/AM9l/KsDn1/Wik8Q+iGdAl7byOFSVSx6DFD3lvG5R5VDDqK5+lpfWJdgLmqzpcqiRSbk6sB61mLAqk5UMD69qmxRispTcnclxi3dgAAOKZME8vEnGehp7MFUljgVSmlMreijoKmKuyKs1GNiOiilVSxwoya1OAKQ9Kn+yv6ioXjdcllIA70rplOElq0bXhmKKWZzIAWXkZrq+nSvPba6ls5vMhOD3HrW5B4qAQCeI57kV9VlWZYejR9lU0ffubUqkUrM6WisQ+JbUdxTG8TW4+7ya9p5pg19tG3tI9zdppVe4Fc7J4oOD5aLVKTxHcv0+X6VzzzrBx2dyXWgdaVj7haYWgXrtrjJdVuZOkjfjSCa6kOG492NcNTP6S+GAlVTeiOue+tY+rqKjGr2rNtRsmuRlhuSCwYH/ZBqFZLiAZZWUZ6muT/WCpzfCkhSqSXQ7oXURGSwo+1w9nFcMbuc/wAZo+0zD+M1t/rD/cJ9v5Hdi4jPRhSG4j/vCuG+3XC9HNJ/aFz/AHzVf6wL+Uft12O5+0R/3hThIrdDXDDUbkfxE04ardr0YiqjxDT+1EPbo1fEZVlTHNYMfAp73Ek5zIc0mK+dxddYiu6qVrnPKXM7i5p0aGRsL+NMq5bx+WmWGCa5G7IunDnkTKAq4HAFITigmkJzWR6AFd+M1dtdIhng3yFgc9qfp1msi+bLyvQLWoAFUADAA4FdVKldczJaT3M5tDtTGFy3XO7vUE/h2MqPs8hDZ539K1y4pBKM81u6cX0JdOD3Rz8nh2dULK6OQOFA61V/si8H/Lu1dWJVJ9PrRvX1qfYwM3QgcmdJvP8An3amjRrwsB5LD39K6wsPWmlgKXsqZP1aBgDw7OP+W8f607/hHrj/AJ7x/rW7vHvRvquSmX7GBg/8I9P/AM90/WoZ9Fuoioj/AHuf7vaujLikznpSdODF7CBx7I6sVbIIOCDT4rZ5RkHA9TXR3NjDchiVAkP8YrKMBgkKuMMP1rlnDkZCoWepXWxH8TE8dvWnizj9WqxS5AGTwKmxuqUF0K/2OMHqc1FKIgcKoNSSXGT8nHvVfrVNpKyOao47RQUuaSpFiJ68Ckk3sZDMmgMalMS4H86Qw+h/Or5ZIBm9ux4o3t/eNBQrnim1LlLqwHCRh3NOE0h4DEVHRnB4FNVZx6jHPMw6knsSKjMzkdTU6Esfu5HeplQBeBj2rSVebNo03LW5SErU4SMasNFvbOAKvWGnJJl5VyvYdjWHNUk7JlezZmh2PQH8KljErsFVST6V0EdvHEu2NAB6YqUKB2H5V0Rc47yK9l5nN4c9j+VWIrKaVN2do7Z71t7R6D8qCorZV5rqCorqY/2F1U7mye2KqXEbw8hwFHWtybAWsPUWz0YjHp3reniKlx+zRRWXzZNytlQasoe9Qw42fU5q0ke7HFcFevOtU5m9tAjcliXccmrG4CljhCoMVGwIakpNI1JCQRUbJ6UZ4parnvuO4wk9DSbFIpzn2pMHrVJpgRPAD0qBkK9auh/WkZQRQ4pgUqKnaEHpULIV61DTASiiikAUA46UUUASpN2NTBgelVKUOV6VSlYC4px0qzFL2NZ6y5FOEpHStFKwGsrCq2oRB4Swqst0w60SXJeMqabkmiZK6KNrJ5cxTsav1lt8swb3rSRtyg+tfU5DXcqUqT+zt6MxpN2sxxrJkuP7H8b6Bq+4JGtz9knYnC+XKNuT7BiprWNZHibTzqWgXVsv32jOw+jDkfqK+kW5rLVHs1FZXhfWF1/wrpuqI243VujvxjD4w4/BgR+FatIe4UUUUAFFFFABXJ+Eyb37fq7Et9vunkjY9fLHyoP++RWn4uvXsfC168GTNKggiAPO5yEGPpnP4U7R7NbDSba2XpFEqfkMU+hO8i/mkoqnqc729hJJHywHFZzmoRcn0G3ZC3WpW9rw7jd6ZqpFrsNyzC3IfacNz0rhJ7qa7kZpWIOfWtjRTGhlZEWOM43Et0NfH1M9rzl+7SSMYVHOVjqP7SAUluMdaqyeIrVBkSo30NZ0uo2210yScEdOKwzFGx4UZrnlneJjs0bSv0Olm8URouQoweh9aoXHiuUqREoHvWJdnLBeMDt6VBispZvi5r4rHLUqSUrIfPM1zMZX6mmqjOflGaSr8SqsY2dK8qcm3d7k06ftHqLGgRAB+NOprOEBJ7dQKrvdkkqi4PYmstzsc4wViweBknAqNp4kPXP0qtsuJmO1GOani0i8lHEZFbQw9SfwxbOd1pP4UNa75+Vcj3qNrlycg7faryeHb1uvFTL4Xuj95q645dintTZDlVkZX2iT+9+lH2iT+/WyvhSf+KQVKPCZ/ikrZZTjH9gVqph/bf8AZH505b1Od4I+lbi+FI/4iT+NP/4RSD3/ADqlk2Lf2TROsYQvIT/e/Kka7UY2DPrmtpvCi5+RsfjUTeFZP4ZKl5Pi19gblWMN5DI2WNNrYbwxcjowNQP4evEHHNZSy/FR3pswcJ3u0Z1W7Zk2YX73emPpt3FndGT+FQGKaM8oy1yzo1I/Emhwk4SvY0KSs8SPG2cnPvzUq3hVfmGT61hynSq8XuWGhRzll5qL7Gp/jP5Uq3SFfmyD7VIsyOMhsfWjVD/dTIfsK/3z+VH2Ff7x/KrIIb7pz9KWldj9jT7FX7Ev94/lUi20YXBG4+tS0UXY1Sgug0lUAAXge1IpZ3ATPPQetK4yKs6YUEjKQN2OCT+lJXlNRexdh66Zkh3lIfrx0FOexkHKyCX/AGXGBV6iu32cRWRhywggm5gKhTgFRxVd47cqQiup9cV0ZAIwRke9RSW0MuN6Djpjis3SfRkuCZzy28bttVpCx6ALUj6VdxoW2q2Oynk1vxQRwjEage/epKFR01ZHsYnMy2F1CwBiL5GfkGcUz7Lcn/l2k/75rqaM1Xsl3JeHj3OZjsLh2I8llwM/MMUosrj/AJ4v+VdLSZNP2a7j9hE5vyXikG9SjdcEVahtZpCCFOG/iPStkqrHLKCfUinDgYHA9BS9ir6s0jBR2KEemEg+a+054281aisYIwuV3MvO41LmjJrRRhHZFkgZV9vYCkMueMcVHijFW5NgKXYjHQU2loqQCjFLimGRFbDOoPoTTtYB2KKge9gjfaWJ91GahfUVDfu03D1JxUOpBbsC7RVD+0j/AM8f1o/tM/8APH9an21PuM0KSqH9pH/nj+tIdSYqQIwD2OelHtodwNBmVFy5Cj1NY91L51yzcYHAx3pJZ5JwBK2cdsUzFYVKnPotgFqtPL8+0dB1FOmm2fKv3v5VVIJ604J7nNWqfZQ5iWI9TT1izy3HtTo4toyeT/Kn1ap66nNr1AKAOBRTTIophlJ6cVTlFAS5x1pC6gdagJJ6mkqHU7ASO4boKjoorNtsAHJqaOL++KZCuXqzWUpNHRSgmrsBwOKN1JS4qLs6BVYbhvJC55IroEwI1x0xxXO1at7+SABT86DsaunUt8QzZoqhHqisw8xNq+oOanS9gdgoYgn1GK1U4vqBYpGNIJEY4V1J9AaSQ4FaxAp3cm1TXOXs25iK2L+XCmuelbfNXVH3YORMnZNli2JbbWtEuMVlWgPnAGtkJheK86JlR1RKj9jQ656UyJeeakYY6Vp0OgiKimlSKlIz160m2kBGMd6MY6U4pzRimSN2g9aNgoIIpN1aKQ7jTUcgyKkPBpjjiqYyAp6UwgjrU4OeDQy1NgIKKeU9KYQRUgFIaWkNAADipAc1FSg46UAS0jDIpFbPWnZqgZA65WrNs2Yh7VAeafanGRXs5JU5MXy90YLSZaNNkXdGRTqDX3BqXvhNdNDZ6zoUnTTrwyRc9IpsuB/30Hr0KvI/Ds/9kfFSykL7INVtpLR8nCmRf3iH68MB9a9cpvuTHsFFFFIoKKKKAOX8TE33iPRtMBBjjZ7yZe42jan4ZY/lW6owoFc5pLnU/FmsaiSTHFILOHPYR/ex7Fya6Om+xMe4tRyxrNE0b9GGDT6TNS0mrMo4TWtFksZzJGMxk9QKyw7quASAe2etemSxJMhWRQwPY1z9/wCF45WL2rbSe1fIY7JJqTnh9V2OaVJrWJzQli2jk5xTWuSR8ihT3rRk8LXq/cGai/4RrUf+ef614ry/Ep602S5VdrGZnJ560ZFbEXhe9b/WDbWjb+FEH+ufP0rop5Xi6n2Lepmqc30OWGWOACau29hcTrhEf8OK6+20SztsYj3H3q8saJwihfoK9Wjw/J61ZfcbxotbnL23hy4kwZm2itO38PWsXLjefetekzXs0MqwlHaN35mvIiCOyt4hhIlH4VMFA6AClpM16UYRjpFF2FpKKTNUAUUUmaACikozQAZpKKM0AGaSikoAQqp6gH8Kie0gk+9Gp/CpqSplCMt0Kxny6LaS/wAGPpVCfwzG3+qbH1rfpK46mX4Wp8UES6cX0ORm8PXMf3fmHtWfNY3EJO6M4+ld9TGjR/vKD9RXl1choS/htozdFPY8+BdOOVFKJmBzuPHvXazaVaTfejA+lZ83huFsmNiD715VXIsTD4GmZulNbHPC6fPOD+FSfbB/c/Wr0vhudeUOapSaTdxdYzXmVMvxFP4oMXNViNN2GGCn61GJtky4lOO7Y6U1oJU+9G35Uwox4KkfUVxypvZon2s76mpDrJ2nzU3HsRxU41ZT0j/WsNhjnv3xSpIUPqKrmnbc0jWd9ToxfwED5j+VOS8hkYKr8n1GKw0eNsAMc+9SD6g0e2kdKlc3Q6k4DKT6A06sFWKncuVI7ircOosgxINwA49auNZPco06TNMSVZFDKwIPSnY9q2AM0fSjFLimAUtISB1IH1NRSXUMRxJIAcZ9aHZbgTUVmtrEa/8ALJj+NUptVnkUqCFGc5Xg1HtI9DOVSMTdZlT77BfqcVXm1C2hYq0mWxnAGa5+SeSbHmOzY6ZPSo6l1eyMXX7I2Tri4/1B/wC+qrHWLn1X/vms+jNZucn1MnWmyx9rl/56v/31TTOWOWJY+pqGkzUWQvaSLiTRj7z/AIAVIskbLlTx7ms/NJmlZFxryXQ0QyEZDcH3pcqeh/Ws0mkEmDkdaXKX9Y8jUpMVm+fJ/fb86XznPVj+dLlH9Zj2L7TRo2CefpUT3RPCDHvVbdnqc0bq0SRnKtJ7Dx6nk09QAfm/Ko0zkntT6vna2MhQ7DvQXLdabSFgKi7GLijFN30b6VkIXFGKNwpu/wBqVgFoo3D1paLDAHacirCyq/fB96r0YB61Ljc0hNxLWQehFFUd21uD0709bhl75+tZuLNVWXUt0VAlz/fH5VKJEY4DVnys1U4vYXNKDSYoxUaljldlOVOD6ikku5Qpy7fnTTVa4bCmqi3cLlS5v2V8u5x3zzVW3m8wu+7dzxxiq18/Jp2mt5ltIR/AQDXfOUlRsY1m+U2LOZTKM1tBxgVzcHDbu9a0F2rKAxwawi9CKUktGXw/pShiarrKp71Ip9Ku503JaXNND+tLkY61QxTSEUZozVIkTFII1p2aM01YQnligxqadmgHNbLYshaNQelNMY7VOUzSFMUWAqlOajZcdatMB3qI8ioaArlPSozU561Gy5NQ0BHRT9lNYYpWATNLmoyaM0E8w8ng0WzfvOfoKieQAYp1qxLY7A5r0csbWMp27mDkudGiKDSL0pTX6EbmD4pElvYRanbgmbTZ47xMdf3bBj+gNe02tzFe2cN1bNvhnjWSNh/EpGQfyNeWXkK3FrJE4yrqVP0NdJ8KL6S58Bw2VwxabSppLBifRD8n0+RkFPoTtI7SiiikUFVNWvxpej3d8wDfZ4WkCk43EDIH4nirdcz43cz2djpSEZ1C7RZF7mJPnbH4hfzprcUnZB4TsnsvDtsk+TMy+ZIT1LMdxz+JrbqOFdkaqOwp9J6glZWCkozRQMKSjNJQAtJRmkoAKKM0lABRSZooAKKTNFABRSZooAKSjNJQAtJRmkoAKKM0lABRSZooAKKTNFABSUZooAKTNFFABSZopOlAATSEnOBRnNFABSHBoooAY0MbfeQH8KhksbeQEGMflViis5U4S+JCsjKl0OAg7Bisy50R0yUrp6QgHrXn1srw1VbWIdOLOGktZYj8ymo1ZkPGR612stnFKOVFZl1oqtkoK+fxGSVYa03cwdJrVGGtyf4x+VL56NnII/rT7jTpYSeOKqkFfvCvCqUJU3aSsL2k1oy2jMuHRs+mKnFzcH+NvzrL+lOEzoMBjj0rCV4rcuNZdTS+1T5x5jfnS/aZj0laqcbHZufio31BVBEYOf0rFVH1Zu6kUrstTySH5pMnHcmqjyk1D57Scscmj5m6CtlZnJOq5PQcWNN3VMljcSdENXIdElbl+K66eFr1H7kGZqMn0M0uKTdW9HoSj73NWV0eEdVFd8Mmxc99C1RkzmCx7KaAJG6ITXWrpduP4BUos4VGAgrqjw/WfxTL9g+5yKwTN0Qipl0+dv4a6sQRr0QU7ao6AV1w4egvimV7Duzlf7LuDSjRZ26kV1OB6UV0RyHDrdsr2ETmxoberVIuhepat+ito5LhV0H7GJh/2CoHVqaNC9zW7RWn9j4T+UfsYGIdD9zTf7C/2jW5RQ8nwb+yHsYGL/Y/GNxpDpGepJrapKf9kYXsHsomE+ksBhc1CdLmFdHSHFYSyTDy2E6MTmmsJV7VG1pKvY105VT1FNMaH+EVzyyCn9mRPsEcuY3HVTTSMV0zWsbdqiewibtXHUyGovhZDos53FFbT6Uh6VWk0plztORXBUynE0+lyXTkjP3H1pDz3qy1jKvaoGhde1cE8PVh8UTNprcjNNPFPYEdRUeawcGiRd2Bik30hPFNqWhXZKJmHRiKd57/AN81AKX6VFkUpy7k4uXA655zVe5um2ngUvWq9wMrTjFXNI1JGRe3BJPSl0m4y7oeM81BeA5NV7GXyrvk4BrvlBSpNFubaszpBJjpU8cmaoxy5FSq2OlebZoyTsaccxGKuRzgisVZiKnSbJ4NXGVjeFQ1/O7Zo8z3rOEp9aeJj3rXnizbnL3n4o+0VS87NHnCp5mVzIvefilE9UfNFOEg9aFILo0BNS+aKpBx60vmD1roUtCrl3zh60nnAmqW8etG8etVzDui3I4K1AWFRGUetRtJnpUNiuiUuKTeKg3YpN1TcXMiYyDtTGfIpmaaTRcTYZpjyBRTJJMcCq7OOpNI551LEm4s1W7XrWcJ1zheTWlaAlea+lybA1Pa+3mrJbBSi78zNBelKaRelKa+uOkaRkEUfDyf+zPiFq2nswWPU7VLqME9ZIztYD3IYEj29qWsTU7o6J4i0TXhwtleKkx/6ZSfu3/RqqPYmW1z2yiiipKCuRnf+0/iHL1MWl2wiAPQSSYZiP8AgIUV1rusaM7kKqjJJ7CuP8HCS5sJ9TuF2y6hO9yVP8IY/KPyAqltcl7pHSDgUUlGakoKKSjNABSUUZoAKSikzQAtJRSZoAWkopM0ALSUUmaACikozQAUUlGaACkoozQAUlFJmgBaSikzQAtJRSZoAKKKTNABRSUZoAKSijNABSUUZoAKSikzQAtJRSZoAWkopM0AFJS0maAI5IUkGGFZ9zpEcmSorTozXPWw1KsrTRLinucxNosin5aqPYTIeVzXYkA9aY0aN1ArxquRUZfC7GTorocZKku3GCPWqy2kkj4VTj6V27WcL9UH5UJaQp91BXnvhxuWstCHRberOdsdEZ8GQYFbUOlwxjkA1dAAHFGa93DZXh8PGyV2bRpxiMWFE+6KdgUtJmvSUUtkaBRRSZqgDNFFJmgAzSUUUAGaSiigAzSUUlAC5pKKSgAzRRSUAGaKKSgAoopKACkoooAKSiigApKKSgBCoPamGBD1UVJSVDhGW6FZMqvYRP2qtJpKN93itOkrlqYHD1N4kunFmHJo5H3TmoTp0idBzXQ0hAPavPnkmGlqtDN0YnNNaSjqp/KozE4/hNdQUU9RUbQRt/CK4Z8Pp/DIl0DmdjdNtRy27leldP8AZIv7tRS2qleBWcMgkn70iVQZwd9AwzxWNIhDV317pytnisK50objgVp/ZVWHwlezaMKG9mg75Hoa1LfU1kxuBU1BJpuKi+xsp4rlqZTUnuiXTZtJKGHBzUitWCIpIm3KxqaO7uI+vzVyTyPELWIvYyN1ZSOtTLKDWKmpH+JKmXUEPbFcssrxcfsBacd0axYY60gkHrWeL6M9TT/tMX9+ueWFrQ+KL+4l1UnqXvMHrTg49apCaP8Avj86cJEJ4kUfVsVKpyXQpVC+HGOtBcDvVDzVHSQfnSGVO8g/OtOWXZle0ZdMo9aTzh61RNxEOsgphvIez1qqFaW0H9wuaRpebSeaKzTfQj+KmHUoR0ya1jg8TLam/uC830NNpsDioxKazm1RB0Umon1RiMImK3hlWMm/gt6sfLUZr+aaVXaQ4Wude5mk6uaaJJezt+dejT4fqNe/O3oi/Zy6s7ix8Nz3q7pGwp7g9KzdX8PjTSWkv43HZFbJrFhvr5V2JcyBfQGrEULytmRix9zXs4bK6FDW12UqUU7i2kRLZrdtkwoqta223HFaKJtFeokkrI1Hig0tIaYBWZr9gNT0S6tD/wAtYmUfXHFadMcbkIoDc7bwPq8mu+B9J1Cclp5LcJMxOSZEJRz/AN9Ka3q83+E9wLO51/QmbHk3IvIFP/POUYOPYMp/OvSKb3Jjsc/43vXtfC08ULYnvWW0iyOpc4P/AI7uP4VY062SzsIYIhhI0Cr9AMVk+MXD694ftm5UzSTY7EquAfw3Vuxf6sfSm9gW7H0lGaSpKCijNJQAUUZpKACiikoAM0UlFABSUUUAFJRSUALSUUlABRRSUAFFFJQAUUUlABRSUUAFJRRQAUlFJQAtJRSUAFFFJQAUUUlABRRSUAFFJRQAUlFFABSUUlAC0lFJQAUUUlABRRSUAFFFJQAUUUlABSUUUAFJRSUALSUUlABRRSUAFFFJQAUUUlABRRSUAFJRRQAUlFJQAUUUlABRRSUAFFFJQAUUUlABRRSUAFJRRQAUlFJQAtNIpaSgCvLFuqjPZg9q1SKYyZoA5yex9qoyWRHaureAGq0loD2oA5N7QjtUTWxHauoksR6VXew9qVgObMHtTTHit99P9qhewPpQBiFKNprVaxPpTPsR9KPUVkzM2mhlLDB6Vp/YT6UfYT6VPLHsJRitkZgDDoTSkMetaYsT6U4WB9KaUew9DJ2GjyjWwLA+lOFh7VQzG8o+lAhPpW3/AGf7U5dP9qAMQW5PapUtSe1ba2HtU6WIHagDBFkfSnCyPpXQizHpS/ZB6UAY0Fnz0rUt7YADirKWwHap1QAUANjjAqSlFBoASkpaSgApKWkoAztLujovxQ0e7HEOoK+nTHHXd80f/jyj8z617HXg3jaVrbSVu4nMc1rNHPG46qyuCD9a92hk863jlGPnUNwc9R61T2JW7Rx/j7Nrd6JqPAjiuGhds4xvXj68itqynE1upB7VY17SI9d0S40+Vtnmr8rj+BgcqfwIFcLoOuT2VxJpuqDy7y2bZIp74/iHsaN0G0ju6SoILuKdAVYVNn0qShaSiigApM0UlAC0maKSgBaTNFJQAUZpKKACjNJRQAUmaKKACkzRRQAUmaKKACkzRSUALSZopKACjNFJQAUZpKKACjNJRQAUmaKKACkzRRQAUmaKKACkzRSUAFGaKSgAoozSUAFFJmigAopM0UAFJRmigApKM0UAFJRmkoAKKM0lABRRmkoAKKM0lABRSZooAKKTNFABSUUUAFJRmkoAKKKSgAoopKACiikoAKKKSgAoopKACikooAKSiigApKKSgAoopKACiikoAKKKSgAIzTStOpKAGFAaYYhU1JQBXMAPao2th6VbpMUAUTag9qb9kX0q/ikxQBQ+yD0pfsi+lXttJigCj9kHpThagdquYoxQBU+zD0p32celWcUlAFfyB6UohHpU9JQBF5QpwQCn0lADdoo2inUlACYooooASkpaSgApKWkoADTScCh3VRyax9V1qG0hb5wMDnJ6UAZHit2v5LXTLfLTXlzHCij1LD+gNfQKLsjVeBtAHA4rxj4X6DN4j8Sf8JReqy2FkStkCCPNkPBf3AGR9a9oqnorEx1dwrz/AMcan4fm1FrTWINUsrm12iLUobNmQZAOAwB3DnBGOua9Aooi0nqKcXJWTPJdUl1jwZLEuqtFLbykiK4jkAL47bDg5+mant/HkXlBnfavTLgr/OvSb/S7DVYRDqdlb3kYOQlxErgH2BFVT4c0oaHJpENnHBZSKy+XCNm3d1II6Hmn7rXmK009Njh/+Fg2fe4h/wC/go/4WDZ/8/EP/fwV0+h+BdN0G8lmt7i9uY5E2fZ7ybzY05zuUEcHtVV/DXiCPXjcW+radLprzhjaTaagaOPdyquOScdCafLFvRk800tUYP8AwsGz/wCfiH/v4KP+Fg2f/PxD/wB/BXUa+NVsbiE6D4YstVhKnzVaZIHDZ4wWGOlSy3dvZeGV1bUvD7xyhVMtlbwLPIhJAxwOcZyT6Cly6D59Wu3kzkf+Fg2f/PxD/wB/BR/wsGz/AOfiH/v4K63w9rGg+JUnOn2Wx7cqJY7iz8tl3Zx1HPQ9KnstR8MajN5VjdaXcS5K+XG8ZbI7bevahxto0NTurpo4r/hYNn/z8Q/9/BSf8LBs/wDn4h/7+CvR/wCzrL/nzt/+/S/4Uf2dZf8APnb/APfpf8KnQr3jzj/hYNn/AM/EP/fwUn/CwbP/AJ+If+/gr0j+zrL/AJ87f/v0v+FH9nWX/Pnb/wDfpf8ACjQPePN/+Fg2f/PxD/38FJ/wsGz/AOfiH/v4K9J/s6x/587f/v0v+FH9nWP/AD52/wD36X/CjQPePNv+Fg2f/PxD/wB/BSf8LBs/+fiH/v4K9K/s6x/587f/AL9L/hR/Z1j/AM+dv/36X/CjQPePNf8AhYNn/wA/EP8A38FJ/wALBs/+fiH/AL+CvS/7Osf+fO3/AO/S/wCFH9nWP/Pnb/8Afpf8KNA9480/4WDZ/wDPxD/38FJ/wsGz/wCfiH/v4K9M/s6x/wCfO3/79L/hR/Z1j/z52/8A36X/AAo0D3jzL/hYNn/z8Q/9/BR/wsGz/wCfiH/v4K9N/s2x/wCfO3/79L/hR/Ztj/z52/8A36X/AAo0D3jzH/hYNn/z8Q/9/BR/wsGz/wCfiH/v4K9O/s2x/wCfO3/79L/hR/Ztj/z52/8A36X/AAo0D3jzD/hYNn/z8Q/9/BSf8LBs/wDn4h/7+CvUP7Nsf+fO3/79L/hR/Ztj/wA+Vv8A9+l/wo0D3jy//hYNn/z8Q/8AfwUn/CwbP/n4h/7+CvUf7Nsf+fK3/wC/S/4Uf2bY/wDPlb/9+l/wo0D3jy7/AIWDZ/8APxD/AN/BSf8ACwbP/n4h/wC/gr1L+zbH/nyt/wDv0v8AhR/Ztj/z5W//AH6X/CjQPePLf+Fg2f8Az8Q/9/BSf8LBs/8An4h/7+CvU/7Nsf8Anyt/+/S/4Uf2bY/8+Vv/AN+l/wAKNA948s/4WDZ/8/EP/fwUn/CwbP8A5+If+/gr1T+zbH/nyt/+/S/4Uf2bY/8APlb/APfpf8KNA948r/4WDZ/8/EP/AH8FJ/wsGz/5+If+/gr1X+zLH/nyt/8Av0v+FH9mWP8Az5W//fpf8KNA948p/wCFg2f/AD8Q/wDfwUf8LBs/+fiH/v4K9W/syx/58rf/AL9L/hR/Zlj/AM+Vv/36X/CjQPePKP8AhYNn/wA/EP8A38FH/CwbP/n4h/7+CvV/7Msf+fK3/wC/S/4Uf2ZY/wDPlb/9+l/wo0D3jyf/AIWDZ/8APxD/AN/BR/wsGz/5+If+/gr1f+zLD/nyt/8Av0v+FH9mWH/Plb/9+l/wo0D3jyf/AIWDZ/8APxD/AN/BSf8ACwbP/n4h/wC/gr1n+zLD/nyt/wDv0v8AhR/Zlh/z5W//AH6X/CjQPePJv+Fg2f8Az8Q/9/BSf8LBs/8An4h/7+CvWv7MsP8Anyt/+/S/4Uf2ZYf8+Vv/AN+l/wAKNA948l/4WDZ/8/EP/fwUn/CwbP8A5+If+/gr1v8Asyw/58rf/v0v+FH9mWH/AD5W/wD36X/CjQPePJP+Fg2f/PxD/wB/BSf8LBs/+fiH/v4K9c/syw/58rb/AL9L/hR/Zlh/z5W3/fpf8KNA948j/wCFg2f/AD8Q/wDfwUn/AAsGz/5+If8Av4K9d/syw/58bb/vyv8AhR/Zlh/z423/AH5X/CjQPePIf+Fg2f8Az8Q/9/BR/wALBs/+fiH/AL+CvXv7MsP+fG2/78r/AIUf2ZYf8+Nt/wB+V/wo0D3jyD/hYNn/AM/EP/fwUf8ACwbP/n4h/wC/gr1/+zLD/nxtv+/K/wCFH9mWH/Pjbf8Aflf8KNA948f/AOFg2f8Az8Q/9/BR/wALBs/+fiH/AL+CvYP7MsP+fG2/78r/AIUf2ZYf8+Nt/wB+V/wo0D3jx7/hYNn/AM/EP/fwUf8ACwbP/n4h/wC/gr2H+zLD/nxtv+/K/wCFH9mWH/Pjbf8Aflf8KNA948d/4WDZ/wDPxD/38FJ/wsGz/wCfiH/v4K9j/syw/wCfG2/78r/hR/Zdh/z423/flf8ACjQPePHP+Fg2f/PxD/38FJ/wsGz/AOfiH/v4K9k/suw/58bb/vyv+FH9l2H/AD423/flf8KNA948b/4WDZ/8/EP/AH8FJ/wsGz/5+If+/gr2X+y9P/58bb/vyv8AhR/Zen/8+Nt/35X/AAo0D3jxr/hYNn/z8Q/9/BSf8LBs/wDn4h/7+CvZv7L0/wD58bb/AL8r/hR/Zen/APPjbf8Aflf8KNA948Y/4WDZ/wDPxD/38FH/AAsGz/5+If8Av4K9n/svT/8Anxtv+/K/4Uf2Xp//AD423/flf8KNA948X/4WDZ/8/EP/AH8FH/CwbP8A5+If+/gr2j+y9P8A+fG2/wC/K/4Uf2Xp/wDz423/AH5X/CjQPePFv+Fg2f8Az8Q/9/BR/wALBs/+fiH/AL+Cvaf7L0//AJ8bb/vyv+FH9l6f/wA+Nt/35X/CjQPePFf+Fg2f/PxD/wB/BR/wsGz/AOfiH/v4K9q/svT/APnxtv8Avyv+FH9l6f8A8+Nt/wB+V/wo0D3jxT/hYNn/AM/EP/fwUn/CwbP/AJ+If+/gr2z+y9P/AOfG2/78r/hR/Zen/wDPjbf9+V/wo0D3jxP/AIWDZ/8APxD/AN/BSf8ACwbP/n4h/wC/gr23+ytP/wCfC2/78r/hSf2Vp/8Az4W3/flf8KNA948T/wCFg2f/AD8Q/wDfwUn/AAsGz/5+If8Av4K9t/srT/8Anwtv+/K/4Uf2Vp//AD4W3/flf8KNA948S/4WDZ/8/EP/AH8FJ/wsGz/5+If+/gr27+ytP/58Lb/vyv8AhR/ZWn/8+Ft/35X/AAo0D3jxD/hYNn/z8Q/9/BR/wsGz/wCfiH/v4K9v/srT/wDnwtv+/K/4Uf2Vp/8Az4W3/flf8KNA948P/wCFg2f/AD8Q/wDfwUf8LBs/+fiH/v4K9w/srT/+fC2/78r/AIUf2Vp//Pha/wDflf8ACjQPePDv+Fg2f/PxD/38FH/CwbP/AJ+If+/gr3H+ytP/AOfC1/78r/hR/ZWn/wDPha/9+V/wo0D3jw3/AIWDZ/8APxD/AN/BR/wsGz/5+If+/gr3L+ytP/58LX/vyv8AhR/ZWnf8+Fr/AN+V/wAKNA948M/4WDZ/8/EP/fwUf8LBs/8An4h/7+Cvc/7K07/nwtf+/K/4Uf2Vp3/Pha/9+V/wo0D3jwv/AIWDZ/8APxD/AN/BSf8ACwbP/n4h/wC/gr3X+ytO/wCfC1/78r/hR/ZOnf8APha/9+V/wo0D3jwr/hYNn/z8Q/8AfwUn/CwbP/n4h/7+Cvdv7J07/nwtf+/K/wCFH9k6d/z4Wv8A35X/AAo0D3jwn/hYNn/z8Q/9/BSf8LBs/wDn4h/7+Cvd/wCydO/58LX/AL8r/hR/ZOnf8+Fr/wB+V/wo0D3jwj/hYNn/AM/EP/fwUn/CwbP/AJ+If+/gr3j+ydO/58LX/vyv+FH9k6d/z4Wv/flf8KNA948G/wCFg2f/AD8Q/wDfwUf8LBs/+fiH/v4K95/snTv+fC1/78r/AIUf2Tp3/Pha/wDflf8ACjQPePBf+Fg2f/PxD/38FH/CwbP/AJ+If+/gr3r+ydO/58LX/vyv+FH9k6d/z4Wv/flf8KNA948E/wCFg2f/AD8Q/wDfwUf8LBs/+fiH/v4K97/snTR/y4Wv/flf8KrXsWg6dYPe30NhBax43zSRoFGTgc49SBT0Yarc8M/4WDZ/8/EP/fwUn/CwbP8A5+If+/gr2fRdR8KeIZLhNFFjeNa7fN8u3GF3ZxyRg/dPSs6x1m21HWUsoPBN/FCZCj3d1ZJFGuM8jPUcVXI+xHtFprueU/8ACwbP/n4h/wC/gpP+Fg2f/PxD/wB/BXrmu6brx1AQ+GtI8Pi18sFri+Q5DZOQFUdhj86t6p4XfU9Fgt4JrbS7zKmee2tEfd8vzKoYcAk5z14o5VpdhzS1sjxj/hYNn/z8Q/8AfwUxvH9qRhJ4yfQODXtWi+DLHS9NntLyWTVDO5Z5btVLDIAKrgDaOOnuaTR/AHhfQrgXGm6RDHOAR5rs0jc/7xNK0B3qaaHgd743klk8i2jlllOAEVCOvTrXTL8PNWgFre+LNOvtSWZjjStMAYKRjHnSE8A+gGOOte6R20EUjSRQxo7Y3MqAE49TUtNSitkJxlK92Zvh+WaXQ7f7RpR0hkGwWZdX8tQcLyvHTFaVFFQ9WaJWVgooopDCiiigAooooAKKKKACsqPwvoUOpR38Gj2UV3GSyzRQKjAkYzkDnrWrRTTa2E0nuc7rngqy1zUft73+p2N1sCCWxuzFgDOOOR3q5q2m6rPo8Ftoestp91CVJuZYFnMqhSNrA+pwSevFa1FPnlp5E+zjr5mRpMOvWmjzrrF1a6hfgsYXij8pWG0bQw9c5596p6Hq/iW51H7Lr3htLGLYW+1xXqyoxGONoGRnPeujoo5t7oOV6Wb0OZ1Lx5pekaw+n6jbajAVYKJzZu0T5AOVYZyOcdOtbOoa1pmktCuqX9tZmckRm4lCByMZwTx3FXaqahpOnatGseqWFteomdq3EKyBc+mRxTvHTQVpq+pPb3EF3Cs1rNHNE3R42DKfxFSVmHw9pq6BJotvbi2sXVl8u3JTbk5OCOnJqr4f8KweHJp2tdS1O5jlAAgu7kypHz1UEcGlaNnqO8rrQ3aK5lNL8Wwa756+Ira5017je1rLZBWjjLZ2K6nnA4BNWNf1HxJYXcX9g6DDqtuUzJuvFgcNnoN3GMU+XWyf9fMXPpdp/wBelzeorIuddfT/AA5HqmoaZeCQqpktLZPOkjJ6jjrjuaPD/ifT/EsMz6d56mBgsqTwtGyk9OvXp2pcrtcfPG9r6mvRWdYeIdG1SQR6dqtldSH/AJZxXCs35A5rRpNNblJp6oKKKKQwooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACio554bWBprmVIYkGWkkYKqj3JqpYa5pWqzyw6ZqNreSQgGRYJQ+3PTOPpTs7XFdJ2L9FczF47sLnXF0u00/VriTzzA80dk3lRMDglmOMAHvU+val4jtbyODw/oMV/G0e5rma8WJUbJG3bjJ4wc+9VySvZke0ja61N+ism9h1y88PwpZ3Vvp2qMqGWTy/NjQ4+cKD156ZpNB0zVNPtZk1vWn1eWVtwkNusIQYxgBaVla9x8zvaxr1kap4r0HRZjDqmr2ltMoyYnlG8f8B61R0bwFo+i6nHqMT3tzexghZ7q7eQ8jB4zg8E9q15dE0qe9a8n020lumADTPArOccD5iM0/cTFeo1sk/vK+veIoNAs4biWzvb0TNtSOxgMrk4z0pLDWbvVPD89/baRdW1yofybO+XyXdgPlB67QT37VrgYGBwKKV1bYdpXvfQwNBuPFdzeyP4hsdNs7Pyz5cdvK0kofIxk/dxjPT2qGfw7r1zrhu5PFlxHZLMJI7KG1RMKDnYz9WHaulop87vdIXs1azbf9eRia/4R0nxNNA+sRTSiAEKiTuinOOoUjPT9TV210XTrPR49Kgs4vsEYwtu43rjOf4s5555q9RS5pWtcrkje9tSOG3htoxHbxRxIOixqFA/AVJRRUlBRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFHWiigDLg8MaFaajHf2mj2VvdxZ2TQwKjDIIPIA7Eis/WvBNlrWpNfnUNUsLplCmSxvGj4HTjkfpXSUVSnJO9yHTg1axkazp2r3OmwQ6FrP9mzwsC0slus/mqARtO48ZODnrRpsevWmhzjVJ7XUNRXeYWiQxI/y/KG9OeprXoo5nawcqvc57QtW8SXd+1tr/hxdPjEZZbqK9SVHII+XaOR17+hqO88d6Zp2svpt/a6lbuJBGszWbGKQnGCrDORz1rpaKfNFvVC5ZJWUvv/AKRR1DWtL0mSFNU1G1smmz5X2iZY9+MZxk+4/OrUE8NzCs1tKk0T8q8bBlb6EVX1DSNN1ZFXVNPtb1UztFxCsm3PXGRx0qCXw/pz+H30WKD7NYspUR27GPaC244I6c0vdsP37vsadFYmgeGIfDsk5ttS1O6ilAAhvLkypFjP3ARx1/QVUt9L8XW+tiZ/EVteac0xZreWyCOsZP3Aynkgdz1p8qvoxc0kldHTUVga/qfiTT7xP7D8Pxata+Xl83iwuGyeBuGMYxVm+11tL8Pw6lfaZes7qhktbWPzpIiwyQcdQOhNLleg+da36GtRWToPiXT/ABFazT6eZlWBtkizwtGVOM9xUun+IdG1VwmmarZXbkZ2Q3Cu35A5ocWug1OLtZ7mjRRRUlBRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUdKACioIr21nneCG5hklQZeNJAWUepHasF/iB4dXXV0aO9ea/+0fZ2iigc7H3bTk4wAD1OapRk9kS5xjuzpaKwdf17U9KuYoNK8O3WrtIhbfFIsaIc9CzdDVi4l1268NpLYW9rY6tIqkwXbmSOM5+YFk64GcEUcr0YudXa7GtRWP4fttfgjnPiS/tLt3I8pbWEosY5zyeTnj8qo6Z4LFjrEepXPiDWr+aJmZI7m6zEMgj7gGOhp8q1uxc0nayNu91XTtNGdQv7a1H/AE3mVP5mquueJdK8O6dFfapcFIJnEcTRxtJ5jEEgDaD1ANNvvCeg6nqR1DUdJtbq6KhTJMm/gdODxWqiJHGqRqqogwqqMAD0FL3dB+/rsZel+IYda0WfUdNtLphEWVIp4jE8rBc4Absc4zVTQtY8RajqBXVvDX9lWewlZHvElctkYG0Dgda6Gii610DllpdnM3+m+L7vWHaz1+zsNODgxotn5sjLxkMWOPXkVc8Q+GovEYt1n1LUrOOHdujsrkxLLnH3+OcY4+praop870sL2cbNPqZlp4e0608Provkm4sQpVo7hjIXyxY7ievJqfT9H03SVK6Xp9rZgjB8iFUz9cDmrlFTzNlKMVsgooopFBXJeJvil4L8Haith4i16C1uyATAsbyugPI3BFO3I55xxXW14v4j0DxZ8O/HWv8Aj3wxZWOv6XqSCTUbKY7LiFEX5tj+nBPGfTacA0AewafqFpqunQX+m3EdzaXCCSKaNsq6noRVivF7r4k6h4nm8H6D8Mmt9C/4SG3munu7i2V/sqRs4ZVj+6W3I/6dMk1J8QPGXjLwBoOg6E1+2sa5q91LGup2Wlq8xiTacrbZ2mT5wMZxgfkAeyUV4TY/EHx7D4G8Zzapb6xbtptmtxpmq6toy2UrMeGVo/mjOD0x26+zP+E2+IGhf8K913Wtes77TfEz2sFxpyWCJ5YkVP3vmDkuQxYgbVB4AxQB7zRXz34j+KnjbUvGfiKz8Kw65FbaLcPZwRaVoKX6TyoSD58jEFASONozg55xz7b4T1O/1nwjpmoaxYPp9/cW6vc2siMhikx8w2tyOex5oAr+KfHXhrwVDHL4n1eCw87PlowZ3cDqQigsR74qfwz4s0PxjpX9peGtRjv7UOY2dAylWHOGVgCDgg4I715h8P4rfWf2hvH15r8aTapprwRacs3Jhg+YFkB6cCM5H98/3jXc+PNTXw3oElxpmo6fol9f3UcX2qe1aZpGPHyxIN0shAwBz09qAOuorwbRfiT4stbvx1oGqavJqVzpOgT6pp+o3GkfYJlZIwfmgZRxl1I3DnHcGqlz41+Jek/CrSPiLdeI9PubX915+kGwRftCM+3c0oGQ5POFCgD1xyAe+ve2sd5HaSXMK3Mqlo4GkAdwOpC9SBU9eB6xpniG9/am01rPxObWS40YXUDnT43MFt5j5tsE/NkhjvPI3e1bHhrx54lvvCHxRvL/AFHfc6BPeppzmCNfs/lxuUGAuGwVH3s570AeyUV4PeeP/HFxpPwsTSNWhS/8SxzreyT20ZSRh5YVyAvG3cxwu3PSpvG/jvxl4c8R6T4Ksr/UtQv1sTeX+q6TokdzczZdgoW3LBEUADLc9R+IB7lRXDfCjxD4l8Q+GLlvGGm3lneWt28MUt5ZG0kuosArIYzwp5wQpIyOtdzQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAEZGDyKzLbw1odnqCX1npFlbXSZ2zQwKjDIweQPStOimm1sJpPc5rWPA9jq+pyaiNQ1Wwu5AA0ljeNHwBgccgdPSr2u6frF3ZwpoGsjTJomyzyWyziVcfdO7p65HNa9FPnlp5E+zjrbqZNjHrtp4fmF/NbajqiK5iMa+Ukhx8oPpz1NVtB1bxDeXz22v+HV01Fj3Lcx3izJIcj5QAMjr39K36KObfQOV6WZzM3jvTbXXG0u8s9Tt5fPECSyWbeXIScAqwzkHPWtjUNc0rSZootU1G1s3mBMYuJlj3464yfcVeqlqOjaZq6hdV061vAoIXz4Vfb9MjineN9hWmk9S1DPFcwrNbypLE4yrowZWHsRT6zLjw9p0/h5tESJrexKhRHbuYyoDbuCOnNQeH/DMPhz7QLbUdSu45tuI725Mqxbc/cyOM55+gpWjbcd5XSsbVFczZ6V4ttdaSS48RW19p3mEvDJZCNwhzhQynnHHJqXXdU8TafqC/wBi+H4dVs/LBY/bFhkDZORhhjGMU+XWyf8AXzFz2V2n/Xpc6GisjVNf/sbQ4NRvdOvZDJsElvaRec8RYZOcdh0z9PWl0PxLp3iCwmu7EzJHbuUlE8LRlCACeD7Glyu1x88b8t9TWorP0/xBo+rNt0zVLO7fGdkE6u35A5rQpNNblJp6oKKKKQwooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAoooyM4zz1xQAUVh3fjTw5Y6iLC51i2W7Mgi8kNuYOTjBAzjn1pfEHiX+wXgjTR9U1OScMVWwt/MC4x945GOtVyS7Ee0ik3fY26KyW1HVLrwwL7T9LMeouoKWV4+zad2CGI6cZNR+Hz4lY3DeJ102MHb5CWJcleu7cW69sY96OXS4c6ukbVNeRI0LSMqKOpY4Arm7Pwxq8espfaj4sv7uOOUutqkaRRkdlYDqKn1rwRoHiLUkvtZsftUyRiNQ0rquASfuggZ5PNO0U9WLmm1ovv/4FzQ1TW9N0XTxfapeR21sxCiVjwSRkAY68CoNH8T6X4h0+4vNEna9it2KNsjZSWAzgBgM9avDT7MWUVmbaJreFVWOJkDKoUYGAfQVOAFUBQAB0Ape7YfvX8jnNF8UajrGprC/hfUtPtCpJub3bGQccDZnPNJqq+NZtWlTRn0a208FfLluBI8rcDOQOBzn8K6WinzJO6QuRtWbMjxBot3rUUMdprV5pSoT5htMBpAe2T0x7etLa+HbeLw5Jot/dXeqW8qsksl7NvkcN1BYYPfj0rWopcztYfJG9zI0Xwrofh1mbRdNhtHddrOgJZh1wScmtVURM7FVdxycDGT606ik227spRUVZIKKKKQwooooAKKKKACiiigAooooAKKKKACiiigArgvEHwi0nxBql5dPrviKwgv2LXlhY6k0dtcEjB3RkHr3xiu9ooA4bWfhD4W1bRNI02GO70r+xVK6fd6dcGKe3B5bDnOcnkkgnOT3NF/8ACXw/qnha20bUbnVbmS1uDdQ6nLes14kx6v5p78DjGOBxxXc0UAcVB8L9Mj8J6voV3q+uaiNYjEd1fX9959wVH3QrMNoAyf4e9P1T4YaLq2j+F9Nubm/WHww8D2bRyIGkMSqq+ZlCDwozgL+FdlRQBwWsfCDQ9U8SXWt2eqa5ol1fEG9XSL826Xf++MH9Mdz1rt7O0hsLGCztVKwW8axRqWLEKowBk8ngdTU1FAHF+LPhZoPizWotaefUdI1iJQg1HSbnyJio6AnBB9M4zjvVO7+DXh++8NrpV1qGtyTJerfrqj37NeCcLtD+YQRnA9PfrzXoFFAHlOq/CLTfD+i+Ldb0e61rU9Y1Dw5dWBS6uPtLzlo+D93ezkoo645wB0xmeA/gtpN/4N8N3XiZtcRreJJ5dDubl1tVmBOWaBhlSe4yAfTk17TRQByHib4a6T4n8Wad4klvtU07VNPjESTadc+UZYwxby34OVyzZxjIYisjU/gj4a1PWNYv/tus2ia0HN7ZWl75dvLIwP70pjlgWLDJK57dq9GooA4qH4V6JAfCJS61A/8ACJCQWOZE/eb9ufM+Tn7o+7tqfxh8NtG8Zajaanc3Oo6Zqtmhjg1HS7nyJ1TOdu7BGMk9uMn1rrqKAMrw54etvDGjpp9ncXl0A7SSXF7cNNNK56szHqfyFatFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABSMoZSrAEEYII60tFAGZa+GtEsdRF/Y6TZ210FK+bDCqHB69BWZqvgWw1XVpdSGoarY3Uu3e9letHnAAHHIHAHSumoqlOSd7kOnBqzRka/p+s30UP9gayulyxsS++1WZZR2Bz0+opbRNdtPDkgvJbbUNWRXKFF8qOQ/wAIPp2zWtRRzaWDlV7mDoGq+IL25kg1/wAPrpgRNyzx3izLIc9AByPxqvJ480yDXv7Ju7XUradrkW0by2bCORi2AVYZyD2PpXTUU7xvqhcskrJ/f/SKF/rulaXcRQanqVrZyzDMa3EypvHTjJ5q5FLHPEssEiyRsMq6NkEexFVNR0TS9XUDVdOtbzAwpnhVyo9iRx+FRXnh7T7zw/8A2KY3gstqqqW7mMoFIIwR05FL3bIfv3Zp0Vj+H/DcXh1J0t9Q1G7SYqQl7cmURYzwmRxnPP0FUNN0rxbZatE174jttR0/cTJG9kIpAMHABU9jjk0+Va2YuaWl0dPRXMeMPGcfgXR7/XNctJJNJthCqG0w8zu7FSNrFQAMr37mvOf+Gq/BH/QK8Qf+A8H/AMeqDQ9torxL/hqvwR/0CvEH/gPB/wDHqtaZ+034N1bV7PTrbTNdWa8nSCNpIIQoZ2CgkiUnGT6GgD2OisPQL7xFezTnX9Ht9MiAHlKl0JnJ75wMVVi0fxW+ui6uvEsSWCXBdbKGyX5488Kzk5zjuKvl1s2Z890mk/69TpqgvL600+3Nxf3MNrCDgyTSBFH4msfXvB9j4jvI5tRutQCRx7Ps8F00cTck5KjvzjPsKv8A9haadGg0ma0juLGBERIbgeYML93O7OcY70rR01Hed3oGma7pmtRzPpF7DerCdrmBtwBxnGelZWkeNYNb1SO0stG1lYnDH7ZPZmOBcAn7xOe2OnWt60sLSwjMdjawWyHqsMYQH8BU9O8ddAtN21Ob1m+8Xrqb2+gaPp72wUFbu7uiAxxyNijIweKu67YazqNlDHo2sDSJt2ZpBbLNuGOgDYxz3rXoo5trIOS97t6mRp+i3EOgT6bquq3GpPOrq9ywEbhWGMDb0xzg1X0HwTofhu9kvNMt5BdSR+W88s7yMy5BxycdQDW/RS55a67h7OOjtsVU0vT47prmOxtluHO5pRCodj6k4yatUUVJVkgooooGFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUVzHjj4g+H/h9pIvvEN0VMmRBbRANLMR12rkfmcAeteQ/8NaaZ9tK/wDCKXf2XPEn2td5H+5tx/49QB7V4w8Kaf418K3mg6uJPs10o+eNsNGwIKsPcEA88HvXwv448IXngXxje+H9QljnktWBWaPpIjAMrY7EgjI7HPXrX214N+I3hrx1ocup6JfKI7f/AI+YbjEclt7uM4AwDzkjg88GvG/iP4A8EeP/ABvdeID8WPD+n/aEjT7P5kEu3YgX73nr1x6UAfNNe5fs9fCaPxRep4u1mT/iX6fdAW1ujYaWZMNlvRRkHHc+3WL/AIUb4I/6LR4f/wC+YP8A5Ir2r4O2Xhjwf4ePhfSPG2keIbqS5kuV+yzxByCqggIsjE429fegD0yiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAPknULX/hbv7TF/Ya5cSR6Vp800bKCRtt7ckFV9NxGT3G416ULnwKNM/tQaF4Zb4ZCy8k35sXN0Lrf5e3bt3/8AAsZ/i3evn/xAt9V+DPx7/wCEys7P7TpWpTvcDghJPMz50Jb+FsksPqp55FdV/wALf+Gx1L+3RrGpCz+wfZ/+ETNj/o5fdv37ceVuz3z+PagDxr4o+HP+FeePNS0nQL2ZdK1G3SWEJIf3lu5DiNjn5gGXv12g1wddt411TWfiVrOueNjYtDp1p5UZP8MKFgkcYPducn8TXE0AAwSMnA9a7q107R9B+MXh+Hwprx1q0W/s5FvBAYsOZFyuD6f1x2rha2/BX/I/eH/+wnbf+jVoA/QiiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOM+K3iHw/4a+H95d+K9Ph1O0kIijsZlDC4lOSq8g46E7u2MjmvknQfhn4q+Is91qvhbw7Ha6c8p2fvfLgTJ+6jSNlsdDgnHtXrf7Wz3Ig8LIA32UtdFiM434ixnt0Jx+NdNrEenj4fadY+JFsrX4ZHRrVje2zyfaRcblKgBM5U9T8vcnPagDwfxNeePvA3hObwB4rs/s2l3O2WCN4kIBVw5aOVOG5xkEnGegNeeV9PfG06jc/Bu6k8X22nRSQaui6DLaSF2ltyOCxYk5KZJ55wMgY5+YaACtvwV/yP3h//sJ23/o1axK2/BX/ACP3h/8A7Cdt/wCjVoA/QiiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOO+J/w+tfiP4Nl0iaVbe6jcTWdyVz5UgBHP+yQSD9c9hXzpZal8WvhPaSeHLzQP7T0rcTFb3dkby165yjoe55254JzgEmvryigD5Nt/CHxN+OPiO1ufF8c+l6RAfvzQGGOFeMiKM8sxx1Ofc1514k0zwno/xPn0u1m1WTw9aXgt7iVyn2khTtlK/KF6hsZHpX3vXPT/AA/8G3NxJPc+EtCmmlYvJJJpsLM7E5JJK5JJ70AeYx/sseBZokkj1bxAUdQyn7RDyD/2xrV8Ofs4eC/DfiGz1iC41a8mspVmiju54zHvU5UkLGpODg9e1esqqooVFCqowABgAUtABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAfOGoahFqHxF+IKeIviVrXhpNKljOm28GsGFJMo5YCInL4Kr8qY+97iu38EfEi60j4OaHq/j0Xlzql9I0FpBDAXur75jsKpxklcc8AjBzzzTs/hBHr/jL4hy+MdGh+x6xLCdKviY3ljwr7njIJZCDsyDjOACCK57Xvhv498U+FNGtvEukw6te+F7yWNEnvwi6zavtw29X3I42AfNtOCDnORQB6ZB8WdDk0LXNQubHVbG40GNZb7TLu2Ed0iMMqwUttII6Hd/MVS0343+GdS1jRrEWWs2sethBZXtzZbLeSRgP3QfPLAsFO0FQe/euUsPhhdRfDfxbFpXgS38N6lqlmLa2sk1hrySXByd7u3lqM4xjHfJ6Vc8S+AvEl94P+F9lYabvudBnsn1FBPGvkeWiBzkthsEH7uc9qAOg8UfF/QNK1bUtBhsdY1S4soT9um02yM0VllesrZGAM84BxgjqMVy3wf8X6X4M/Z90e91YzOZruaC2tbaMyTXMrTNhI0HU1asvDfj3wd4y8XR+H9CstY0zxLdPeRX818sP2N33Eh0I3OAWwAvp1545k/BrxLefBfwxpt5pcEmqaLfz3E+k3F2FW6idySnmRtgEgDncMZPIoA9Pi+LmiNo+t3l5p+r6fc6JALi7029tliuRGejKpbawP+99cVpeDPH+n+Oo3m0jT9UhtVhjlS6u7Xy4pd45RGyQzIRhscA9zXmWn/C67TwD4tXTfAFv4a1LUbAWlpaJrTXkk3zbn3O7eWoyExjn72TXrXgjTbjRvh/4f0y+hEF1Z6bbwzxAg7JFjUMMjIPzA8jrQByPxg8N3M3hvVfE9j4p8R6Tc6ZpjtFa6bqBgt5GTcwZ0AySc4JBHAHpWL4Ilj8GeB9G8aa74h8YeILrWbKOFdMkuHvVaaRRJ+6ixkMBG2CW4GRnmvQviBpd5rfw717TNLh8+8u7CWGCLcF3uykAZYgD8TXA6p4c8fWHwx8Faf4ftJZJdNiiTV9Mt9SW0mmAQDYtwp+UA7slW7jrQB0Vh8YvD1/4d13VDZ6ray6Age/067thFdRg5x8hbHOD/ABfXFR23xp8MzeGbvxDPbarZaVbwxSLdXNntS4aT/llEQTvdTwwHAPfGTXndp8M/GePiI82h+Qdd06OOyi/tQXO+QYyplkfcSOQWfGTnHGK6fxp4G1S/+A/hfR4WtbPWNGFhKLe6mVYpZ44thiLZ2klmOOcEgc85oA29I+NGiat4k0nQW0bX9O1DVd5hi1CxEO1Qu4OctyrAHBXd0OcU/UfjN4e0++vY0sNZvbDTpvIvtWs7LzLS2fuGfOTjIztBxmuCu9Y8Q6/+0D4CTxHo9rpF5apcs1hb3q3UkamM5kkZRtUHHA56Hnmshfghqem6xqVndeAdP8TpdXUktprM2uS2qwIx4EsSsGbHU7Rnk8mgDs/GPxf1HQ/i3omjabpGr32kPC8s6WWniaTUQ0JdDbnPzqpILEYxtbqBXsVeT+OfCXiPTvHng7xJ4I0KLV7fQLWa0Ng16sDBWjMa/PJ1ADe549816xQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFYnjXULrSPAPiDUtPl8m7s9MuZ4JNobY6RMynBBBwQOCMV8/6b4y+J2oaVaXn/AAn3l/aIUl2f2NbHbuUHGdvPWgD6bor5t/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD6Sor5t/wCEn+J3/RQf/KLbf4Uf8JP8Tv8AooP/AJRbb/CgD6Sor5t/4Sf4nf8ARQf/ACi23+FH/CT/ABO/6KD/AOUW2/woA+kqK+bf+En+J3/RQf8Ayi23+FH/AAk/xO/6KD/5Rbb/AAoA+kqK+bf+En+J3/RQf/KLbf4Uf8JP8Tv+ig/+UW2/woA+kqK+bf8AhJ/id/0UH/yi23+FH/CT/E7/AKKD/wCUW2/woA+kqK+bf+En+J3/AEUH/wAott/hR/wk/wATv+ig/wDlFtv8KAPpKivm3/hJ/id/0UH/AMott/hR/wAJP8Tv+ig/+UW2/wAKAPpKivm3/hJ/id/0UH/yi23+FH/CT/E7/ooP/lFtv8KAPpKivm3/AISf4nf9FB/8ott/hR/wk/xO/wCig/8AlFtv8KAPpKivm3/hJ/id/wBFB/8AKLbf4Uf8JP8AE7/ooP8A5Rbb/CgD6Sor5t/4Sf4nf9FB/wDKLbf4Uf8ACT/E7/ooP/lFtv8ACgD6Sor5t/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD6Sor5t/wCEn+J3/RQf/KLbf4Uf8JP8Tv8AooP/AJRbb/CgD6Sor5t/4Sf4nf8ARQf/ACi23+FH/CT/ABO/6KD/AOUW2/woA+kqK+bf+En+J3/RQf8Ayi23+FH/AAk/xO/6KD/5Rbb/AAoA+kqK+bf+En+J3/RQf/KLbf4Uf8JP8Tv+ig/+UW2/woA+kqK+bf8AhJ/id/0UH/yi23+FH/CT/E7/AKKD/wCUW2/woA+kqK+bf+En+J3/AEUH/wAott/hR/wk/wATv+ig/wDlFtv8KAPpKivm3/hJ/id/0UH/AMott/hR/wAJP8Tv+ig/+UW2/wAKAPpKivm3/hJ/id/0UH/yi23+FH/CT/E7/ooP/lFtv8KAPpKivm3/AISf4nf9FB/8ott/hR/wk/xO/wCig/8AlFtv8KAPpKivm3/hJ/id/wBFB/8AKLbf4Uf8JP8AE7/ooP8A5Rbb/CgD6Sor5t/4Sf4nf9FB/wDKLbf4Uf8ACT/E7/ooP/lFtv8ACgD6Sor5t/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD6Sor5t/wCEn+J3/RQf/KLbf4Uf8JP8Tv8AooP/AJRbb/CgD6Sor5t/4Sf4nf8ARQf/ACi23+FH/CT/ABO/6KD/AOUW2/woA+kqK+bf+En+J3/RQf8Ayi23+FH/AAk/xO/6KD/5Rbb/AAoA+kqK+bf+En+J3/RQf/KLbf4Uf8JP8Tv+ig/+UW2/woA+kqK+bf8AhJ/id/0UH/yi23+FH/CT/E7/AKKD/wCUW2/woA+kqK+bf+En+J3/AEUH/wAott/hR/wk/wATv+ig/wDlFtv8KAPpKivm3/hJ/id/0UH/AMott/hR/wAJP8Tv+ig/+UW2/wAKAPpKivm3/hJ/id/0UH/yi23+FH/CT/E7/ooP/lFtv8KAPpKivm3/AISf4nf9FB/8ott/hR/wk/xO/wCig/8AlFtv8KAPpKivm3/hJ/id/wBFB/8AKLbf4Uf8JP8AE7/ooP8A5Rbb/CgD6Sor5t/4Sf4nf9FB/wDKLbf4Uf8ACT/E7/ooP/lFtv8ACgD6Sor5t/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD6Sor5t/wCEn+J3/RQf/KLbf4Uf8JP8Tv8AooP/AJRbb/CgD6Sor5t/4Sf4nf8ARQf/ACi23+FH/CT/ABO/6KD/AOUW2/woA+kqK+bf+En+J3/RQf8Ayi23+FH/AAk/xO/6KD/5Rbb/AAoA+kqK+bf+En+J3/RQf/KLbf4Uf8JP8Tv+ig/+UW2/woA+kqK+bf8AhJ/id/0UH/yi23+FH/CT/E7/AKKD/wCUW2/woA+kqK+bf+En+J3/AEUH/wAott/hR/wk/wATv+ig/wDlFtv8KAPpKivm3/hJvid/0UH/AMott/hS/wDCTfE7/ooX/lFtv8KAPpGivm7/AISb4m/9FC/8olt/hQfE3xO/6KF/5Rbb/CgD6Ror5t/4Sf4nf9FB/wDKLbf4Uf8ACT/E7/ooP/lFtv8ACgD6Sor5t/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD6Sor5t/wCEn+J3/RQf/KLbf4Uf8JP8Tv8AooP/AJRbb/CgD6Sor5t/4Sf4nf8ARQf/ACi23+FH/CT/ABO/6KD/AOUW2/woA+kqoa1omm+I9Hn0vXLOO9srgASQyDg4OQfUEEZBHIr58/4Sf4nf9FB/8ott/hR/wk/xO/6KD/5Rbb/CgD2vwr8OPCXgqaSbwzokFlNIu1ptzySFeuN7kkD2z2FdPXzb/wAJP8Tv+ig/+UW2/wAKP+En+J3/AEUH/wAott/hQB9JUV82/wDCT/E7/ooP/lFtv8KP+En+J3/RQf8Ayi23+FAH0lRXiXwp8X+MdQ+KdzoPifxF/a9ouiteoPsMMG1/PRB9xcngt3xz04r22gAooooAKKKKACiiigAooooAKKKKACiiigDm/iP/AMks8V/9gW8/9EPXz/4c/wCRV0r/AK8of/QBX0B8R/8Aklniv/sC3n/oh6+f/Dn/ACKulf8AXlD/AOgCgDSooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA0vhT/wAl9uf+xZb/ANKkr6Ar5/8AhT/yX25/7Flv/SpK+gKACiiigAooooAKKKKACiiigAooooAKKKKAOb+I/wDySzxX/wBgW8/9EPXz/wCHP+RV0r/ryh/9AFfQHxH/AOSWeK/+wLef+iHr5/8ADn/Iq6V/15Q/+gCgDSooooAKKKKACiiigAooooAKKKKACiiigAorqvDng2fV0E8vyxfzrtYPBmmwxgOoJ70AeQUV67ceCtOmXCKAawr74dMAWtm/CgDz+iti/wDDN/Ysd0TMPXFZb28sZ+dGH4UAR0UYx1ooAKKKKACiiigAooooAKKKKACiilCM3QE0AJRVu30u7uWAihY/hW5ZeB9QucF1Kg+1AHMUAE9BXo9l8OlTDXL5rbg8H6XBjKgmgDyOOznl/wBXEzfhV6Lw9qMoyLdhXr0Wk6fb/wCriXI9qsgRKMLGo/CgDx3/AIRfUf8AnkfyoPhbUQM+Ufyr2HCf3B+VGE/uD8qAPFptBv4FLNA2BWeyMjFWBBHY17w0UEi7XjXB9qwdY8GWeooWtwEf2oA8koq9q+mSaVfPbydjxVGgAooooAKKKKACip7azluZAsak5rqNO8EzXKhpARmgDkKK9HTwCo60kngJAOKAPOaK7S48FOmdgNZdx4Vuos4U/lQBz9FXJ9LuICdyH8qqsjKeQRQA2iiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDS+FP8AyX25/wCxZb/0qSvoCvn/AOFP/Jfbn/sWW/8ASpK+gKACiiigAooooAKKKKACiiigAooooAKKKKAOb+I//JLPFf8A2Bbz/wBEPXz/AOHP+RV0r/ryh/8AQBX0B8R/+SWeK/8AsC3n/oh6+f8Aw5/yKulf9eUP/oAoA0qKKKACiiigAooooAKdHG8rbY1LH2ptek+BNBtZLD7ZOodj0zQBwi6PesuRA2PpTH0y7j+9C35V7aILYDAiXH0pGs7R/vQp+VAHhxtJ1HMTflUexgwyp6+le3vpOnyDDRL+VVZPC2lyHJQCgB3hglPDEKgYOK0MmmQwpawiGLhF6U+gBcmlEjDvTaKAHMIpRiaNW/CqNxoWnXWcwgH6VcooA5u58A2U+SjBTWNcfDx1J8l8iu9yfWnByKAPLLjwPfxZ2KT+FZ7eGNSU48hvyr2TzPUA0bl7ov5UAeKPoV8nWBvypn9j3n/PFvyr2sxwv96JfypPItv+eK/lQB4r/ZF4f+WLflT00K/fpA35V7P9nt/+eK/lTgkKdIl/KgDx+LwrqUp4hYfhWna+A72XHmDb+Fen71HRFH4Ueae1AHFWnw6i4M8orctPCWm2gG5A5Fa5YnvQOhJPAoAbBZ2cA/dQKuO+KmMirwGVa4fxL40+zSNbWX3hwTXIP4l1F2JMx596APZd4b/loPzo2Z6MDXjK+JdRXpMfzq3B4y1KLq+RQB60YyKTafSvN4PiBdJjeM1ox/EZQvzxUAdvtPpRtPpXGj4jQd4jTX+I0ePkiNAHahCetRzXcFkpeWVRj3rzm98fXUoIgG2ueu9Zvb5v3szc9gaANTxleR32pmWLkeorm6mml3qqk5I71DQAUUUUAFWLK3N1dLGvc1XrW8OEDVY8+tAHo3h7wvFbWySyqM4zyK6MKkIxGAAKVJM6fHt9KgBNAEplNG/PWoqKAJR5Z6gUjwwSDlR+VR0UAVbjQ7S4zlRWLd+CoZSSiiulDYp4mIoA8+uPApUnArMufCU0Wdqk16r5gbqKQxwN95RQB4zJ4dvFPEbflVd9Gu06xn8q9uNvakfcX8qgk020k/gX8qAPE2064XrGfyqJrWZeqGvam0C0f+AVBJ4Xs2/gFAHjRicdVNIInP8ACa9cfwhaseFFIvg62H8IoA8l8p/7ppPKf+6a9abwdb9lFNHgy3HYUAeUeTJ/dNOFvKf4DXrC+D7YdVFSp4UtF6qKAPJlsZm6IalTSbhzwh/KvW08PWafwip49Is0/hWgDyePw7dSfwn8qlbwnf7cohPtivWltrVOFUZqdYI+yigDxKfQdRtz89q+PXFVHtLiP78TD8K94a2jb7yKfqKryabbSAhreM5/2RQB4SRjrRXreoeDLC8yVj2N7cVz9x8O3BPkS8e9AHCUV2i/Dq8J/wBcuPpTz8OrlVyZlP4UAcRRXYv4CulHDA/hUKeDJRJiVsUAcpSgE9BXdQeDoFxkEmr0fhaBOkX6UAcBDYSyjO0gVN/ZT9wa9DXQEUcJinf2CPT9KAPOjpT006bIO1eiNoY/ufpUL6GP7tAHnrWLr2phtXFd5JonoKqSaKf7n6UAcYYHHaoyCpwa699F/wBms+80J2TMY+YUAc/RU8tlcRE74mHvioSCvUYoASiiigAooooAKKKKACiiigAooooAKKKKACiiigDS+FP/ACX25/7Flv8A0qSvoCvn/wCFP/Jfbn/sWW/9Kkr6AoAKKKKACiiigAooooAKKKKACiiigAooooA5v4j/APJLPFf/AGBbz/0Q9fP/AIc/5FXSv+vKH/0AV9AfEf8A5JZ4r/7At5/6Ievn/wAOf8irpX/XlD/6AKANKiiigAooooAKKKKACuw8H+Kl0v8A0a6P7o9D6Vx9FAHuNrqdlfAG2lU596slcV4dbX9zaOGhlZcdga7/AMJ+LHvpBaXQ3P2NAHY4opWG00lABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFNnUvZyKn3ipxTqKAPFNXtprbUplnBzu6mqNex6v4astXUmVdr+o4rmZvh0Qx8mQ49zQBwVFdv/wr2fP36t2/w7jP+vdvwNAHnuM09IZJDhEJ/CvVLXwLpsGN25vqa1bfQtPtvuQofqKAPIY9HvZfuQMfwrQtfCOpXGMxMo+leuR2sPGyFB9Fq2tuR0UD6CgDzC3+HdxIuZpAg75qhe+GGt5TFb/vCOrCvYGtyYyPWqX2GGNiSgJ9cUAeRf8ACL3f90/lTG8M3g/gP5V7D5EP9wflTTawn+AflQB4+vhu8PVD+VObw1dL/Cfyr137FD/dH5UpsYD1UUAeMvodyn8B/Kr2haVcJqKMyEAH0r1U6Vat1UUDTLWLlFGaAJLc4s0U+lJR04HSigAooooAKKKKACiiigAopQCacImPagBlLn0qZbZjUq2nrQBVDGnbmq6tso60/wAhfSgDPBftTsSGr4hUdqd5a+lAGeEkoYOOtaOwelNeIN2oAzS570xpD61bnt9oyKotwxoAC1MZqVulIqFzgUAOgjLvntV4DFMiQIuKfQAUUUUAGKTaKWigAAxRRRQAhUY6VQmgBlzitCoZcbqAKywqO1TpElRk04PQBOI19qUxIe1RoS3Sn4cdqAAwoaia2U9hUyo57U8RMaAKL2antULaep6CtYQ+tBVRQBitpgPYVF/YoduV4rewKUYoAzYNCtFX97ErfUVDd+FNKulIMAUn0GK2s00mgDh7v4a2jsWt5GX2JrEvvh1ewgm2cOPSvVBS0AeD32hahp5P2i3cKP4scVnV9AXtpDdQFJY1YH1FcTq3gu3uNzQDy27Y4oA81orV1Lw/eaex3Rlk9QKyiMHBoAKKKKACiiigAooooAKKKKANL4U/8l9uf+xZb/0qSvoCvn/4U/8AJfbn/sWW/wDSpK+gKACiiigAooooAKKKKACiiigAooooAKKKKAOb+I//ACSzxX/2Bbz/ANEPXz/4c/5FXSv+vKH/ANAFfQHxH/5JZ4r/AOwLef8Aoh6+f/Dn/Iq6V/15Q/8AoAoA0qKKKACgDPSiux8GeGF1NvtVyP3a9PegDnLbR727x5ULEHvitEeENQK5KH8q9Zht7W1QJDCoA9qkLL/dH5UAeQ/8Ijf/ANw/lT18G6i38B/KvWsr/cH5UvmDsooA8wt/AV7KRv8Alrq9B8IR6M/nSHdJ610hkPbimliepoACc0lFFABRRRg0AFFOCE9qXYB1YCgBlFKWhHWVR+NIZrYdZ0H40AFFQvqNlH1nT86j/tnT/wDnsn50AWqKq/2zp/8Az3T86P7Z08/8tk/OgC1RVddVsWPE6fnUy3Nq/Kzp+dADqKUPCekq/nTtgP3WBoAZRTijDtTcH0oAKKKKACnByKbRQA7zDQXJptFABmlHJpKVTg0AaFtEAmTViobZwyYqagApjRK3Wn0UAV2tQelM+y+lW6KAKRtmpjWzdq0KKAMtonFM2v3rWKg9qaYVPagDK2n0oKkVp+QvpTGtgaAM6lwTV37JUi2yigCgI2Pani3Y1oCNR2p2BQBQFqxqRbT1q5RQBAtsoqQRqO1PooAMAUUZpCR60ALRTDIBSectAElJmmectHmrQA+lqIzKKje5A6UAPuGAjNZbj5qmlmL1FQBG3SprbHeomp0I+figC5RS7cCkoAKKKKACiiigAoooJoAaQTTTFnqakFFAEYhBoNt6VJmpFORQA2FQg5FWAVI6VDnFORqAJc+gpM0maKAEY1GRT3602gBmKKfSYoAbmgc07FLigAoooNACN92qzqp6irLDCEmqRf5jQBWurGOdCHQMPcVyOs+DoZwz242P7V3SnNK0CuOlAHh19pN1YuRLGcDviqNeyaxpcUsLb0BGPSvLtZ037HctsHyk0AZlFFFABRRRQAUUUUAaXwp/5L7c/wDYst/6VJX0BXz/APCn/kvtz/2LLf8ApUlfQFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHN/Ef/klniv8A7At5/wCiHr5/8Of8irpX/XlD/wCgCvoD4j/8ks8V/wDYFvP/AEQ9fP8A4c/5FXSv+vKH/wBAFAGlRRRQAV6b8PNQjfTntSQHHQV5lV7SdTm0u9SeFiMHketAHthBU4NJWfo+vWus2ilXAlxyK0ipFADaKXBowaAEopQtI7xRLukcAfWgApwjJ9qx7/xXp1ipAdWYdga5LU/H88uUtBtHrQB6BNd2lqpM8qjHvWHfeNrC1yIyHIrzO81e8vWJmmbntmqRJPU5oA7e9+IUz5FuuKxpvGGoy5/eEfjWBRQBqSeIL+TrM351XfVb1+tw/wCdU6KAJze3LdZnP4037VP/AM9W/OoqKAJftU//AD1b86PtU3/PVvzqKigCYXlwOkzfnUialeJ92d/zqrRQBpJr1+nSdvzq/a+MtRtyMvuHua56igDvLT4iSLgTpn8K3LTxzY3GBJhTXk9AJHSgD3CDV9OuQCk65PvVsBJBmJww+teFR3U8RzHIw/GtWz8V6jaEYlLAepoA9gKMO1NrhdP+IRyFul/Gums/FWm3aj94ob0zQBqUUkc0E4zHIpH1p5T0OaAG0UuDSUAW7RsNir1ZMb7GyK0IZd60ATUUUUAFFFFABRRRQAUUUUABpKWkoAWiikNAC5ophcCo3uQKAJ+nWmlwKpPdE9KiaZjQBfM6jvUbXIFUS5PekzQBba69KiNwTUFFAEhmY0nmNTKKAHeY1HmNTaKAHbz600mimsaADdSFiBRTWUtwKAImkOeKs2vPJpFtfWp0QIMCgCXdRuFNooAfmimUuTQA6im7qXdQAtGKTdRuoAWik3UbqAFIzT04FMBzUgIoACKav3qfSqOaADNGadto20AMJzTd1SbaTZQAzdRup5SmFMUALmlpm004UALRRRQBHLISu0VUMbdSKvKg3VIY1KHNAGYH21NHJUEvEhxQh5oAL8hoW+ledeI4QS3Feg3fMRrhPEI+9QBw7jaxFJT5v9aaZQAUUUUAFFFFAGl8Kf8Akvtz/wBiy3/pUlfQFfP/AMKf+S+3P/Yst/6VJX0BQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBzfxH/5JZ4r/wCwLef+iHr5/wDDn/Iq6V/15Q/+gCvoD4j/APJLPFf/AGBbz/0Q9fP/AIc/5FXSv+vKH/0AUAaVFFFABRRRQBZstQuLCYSW0hU+gPWuvsfiDJHGq3KZI71w9FAHpifESy2/OjflSv8AESw2najZ+leZUUAdxe/EGSQEW6Y+ornbzxJqF5ndMyg9gayaKAHO7SNudix9TTaKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACnI7RnKMVPtTaKANG212/tT+7uHI9Ca3bHx5dwgCcbq5ICkNAHp1l4/tJcCZSp+lbVt4i0+6A2zKv1NeL05ZHX7rEfjQB7ol1ayfdnjP8AwKtG1ZNvysD9K8Di1O7h+5Mw/GtnTvGV/afK0rEfWgD20EHpS15xpfjzJAmNdlp+u2t6g2uM/WgDVopisHGVOacD60ALRRmigAoopDQAFhTd4FVZ5drcGq5mY96AL7TgVXe59KrFyabmgCVpmPeoyxNAFLsJ7UANoqQRE0ohPrQBFRip/IHdh+dBiResg/OgCHFLspslzbxfekX86rPrNon/AC0H50AW9lLsrOPiGzH8Y/Oom8TWS/8ALQfnQBrbKXZWBJ4ts16OKrP4zth0YUAdRsprJzXKN43gHQ1GfHMNAHWeWfSnINr8iuUXx3APSkfxxC3TFAHZbhSbhXFnxnGehqSHxfEzjc1AHZUVgxeJ7RwMuPzq1Hrlq/SQfnQBqUVTTUYH6SD86mF1G3Rx+dAEtGaasinoadnNAC5opKMUALTSaWmmgBdxpQ9NooAkD+9So9VqeMgUAWg9LuFVgxFODZoAsbhRUGcUu4igCY9KjzTfMNJuoAfRUZajJoAkpGYL1pFzUFz9aAJPtCio5LzK4FVutJtoARjk5pV60bacq0AR3AzGfpXD+IVxmu9mjPlE+1cP4kXAf6UAcDL/AK1vrTKdIcyH602gAooooAKKKKANL4U/8l9uf+xZb/0qSvoCvn/4U/8AJfbn/sWW/wDSpK+gKACiiigAooooAKKKKACiiigAooooAKKKKAOb+I//ACSzxX/2Bbz/ANEPXz/4c/5FXSv+vKH/ANAFfQHxH/5JZ4r/AOwLef8Aoh6+f/Dn/Iq6V/15Q/8AoAoA0qKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKBRS5oACe1JRRQAUUUUAFFFFACqxU5BrSsNauLNwVc4+tZlFAHoukeN2BVZmrttO162vYxhxn614MrlDkGtKw1qezkBVzj60Ae9AhhlDmlDY6159onjVSFSZvzrs7PV7a7QFXGfrQBoZzTXBI4oVkf7rCn0AUHgZmqNoGWtPFRy7RGS3AFAGb5ZpfLUfeNZeo+IrazYrvGRXL6h42HIiNAHcyXVvAPmYfnWfceIraHOHH515peeJri4zhjWVLfzynlzQB6Xc+Moo87WFZk/jkj7prgGldurGmZNAHZT+Obg/dY1nz+Mb+T7rn8652igDSl16+lPzSn86gbUrlusjfnVSigCY3c56yN+dNM8p6u351HRQA4yOerGk3H1NJRQAuT60maKKACl3H1pKKAF3N6mlEjDoxptFAEi3Eq9HP51Mmo3CdJD+dVaKANJNcvEIxIfzq7D4oukxuc/nWBRQB2dr40ePG85rYt/Gsb43GvNKUMV6HFAHsVr4ktpgMuBWjFqVvJ0cfnXiUd3NGflc1fh124ixhj+dAHs6zI44YGhmHavLrPxfLHgOxrctvGMTY3mgDswadmsG38TWsoHzCtOC/t5ukg/OgC4vJqSolljI+Vh+dO3DtzQA+im5paAHZo5pucdaeCD0oATmlNFFACAUtFFAD0qCcZaplOAarSSDfQA0LShaaZV9aaZwKAJtgp8cYJqmbpR1NINRVf4qANG4RRCa898WMFikNdVc6uvl9RXn/irUBKhVTyxoA5I8k0UUUAFFFFABRRRQBpfCn/kvtz/ANiy3/pUlfQFfP8A8Kf+S+3P/Yst/wClSV9AUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAc38R/+SWeK/wDsC3n/AKIevn/w5/yKulf9eUP/AKAK+gPiP/ySzxX/ANgW8/8ARD18/wDhz/kVdK/68of/AEAUAaVFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAOSRkOVOK07LXrq1Iw5x9ayqKAO3svHM0WN7H866Gz8fRMB5hryelDkdzQB7afGdgIN+4ZxXLa/4+MsbRWpxn0rz0yvjG84pmc9aALNzfz3UhaRyc+9Vs560UUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABmlDEd6SigCaO6kjPysRV2DW7qHGJD+dZlFAHTW/i24j+8x/OtW28bkY3muEoyaAPT4PGsLY3GtCPxbaMvLCvIdxpwmcdGNAHqd14sh/wCWbUlp4qUsNzcV5gLh/U09b11PWgD2e21y3mAy4/OrqXsD9HH514pFq0sf3XIq5F4iuU/5aH86APYxNGejD86a9zEgyWH515VH4ruFHLmh/E08g5kNAHo1zrEaqQrVQbUx13VwY1pz1bNDawT3oA7OTVlHU1XfWVH8VcY+qE9GqtJqTn+KgDsJda9G/WqUutH1rlWvmPeomumPegDfuNbYjAY1hX1ybiQEnNV2kLHk02gAooooAKKKKACiiigDS+FP/Jfbn/sWW/8ASpK+gK+f/hT/AMl9uf8AsWW/9Kkr6AoAKKKKACiiigAooooAKKKKACiiigAooooA5v4j/wDJLPFf/YFvP/RD18/+HP8AkVdK/wCvKH/0AV9AfEf/AJJZ4r/7At5/6Ievn/w5/wAirpX/AF5Q/wDoAoA0qKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigBckUbjSUUAO3ml3n1plFADyWppBNG6lD+tADaKfkGjANADKKkCZpTAe1AEVFKVK9aSgAooooAKKKKANL4U/wDJfbn/ALFlv/SpK+gK+f8A4U/8l9uf+xZb/wBKkr6AoAKKKKACiiigAooooAKKKKACiiigAooooAxPGun3Wr+AfEGm6fF513eaZcwQR7gu93iZVGSQBkkck4r5/wBN8G/E7T9KtLP/AIQHzPs8KRb/AO2bYbtqgZxu46V9N0UAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEY+J3/RPv/K1bf419JUUAfNv/AAjHxO/6J9/5Wrb/ABo/4Rj4nf8ARPv/ACtW3+NfSVFAHzb/AMIx8Tv+iff+Vq2/xo/4Rj4nf9E+/wDK1bf419JUUAfNv/CMfE7/AKJ9/wCVq2/xo/4Rj4nf9E+/8rVt/jX0lRQB82/8Ix8Tv+iff+Vq2/xo/wCEZ+J//RPv/K1bf419JUUAfNw8NfE8f80+/wDK1bf41IPD/wAUB1+H3/latv8AGvo2igD5xfw38Tm/5p9/5Wrb/Go/+EY+J3/RPv8AytW3+NfSVFAHzb/wjHxO/wCiff8Alatv8aP+EY+J3/RPv/K1bf419JUUAfNv/CMfE7/on3/latv8aP8AhGPid/0T7/ytW3+NfSVFAHiXwp8IeMdP+Kdzr3ifw7/ZFo2itZIft0M+5/PRx9xsjgN2xx15r22iigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigD/2Q==)

이전에는 RVT Volume를 사용해 표면과의 깊이 검사를 수행했지만 씬에 로드되는 RVT Volume이 많아질 수록 텍스처가 샘플링되지 않는 문제가 발생해 페인팅이 안 될 수 있는 상황으로 이어진다.

UE5 Paint in Game 2차 구현 영상: <https://www.youtube.com/watch?v=5p-yw-6oTY0>

2차 페인팅 구현 영상처럼 랜드스케이프 아래에 바닥을 캡처해 깊이 검사를 수행하는 것을 렌더타겟에 투영하는 경우도 있다.

랜드스케이프 표면에 영향을 미치는 오브젝트를 감지하기 위해 두 개의 깊이 버퍼 Custom depth와 Scene depth를 사용하며, 이를 위해 포스트 프로세싱을 사용해야 한다.

RVT 페인팅 방식을 고치게 되면서 해당 방식으로 수정하고자 했다.

하지만 하나의 랜드스케이프가 아닌 각 메시별로 페인팅을 수행하도록 구현하기위해서 포스트 프로세싱 마테리얼로 표면에 닿은 오브젝트를 지속적으로 RT에 Draw하는데에 어려움이 있었다. (2차 페인팅의 경우에도 RT를 2개로 더블버퍼링 방식을 사용했다)

UE5 Paint in Game 11차 구현 영상: <https://youtu.be/Thy8gW99Mwc>

지금에 이르러서 구현한 방식은 다음과 같다.

1. 페인팅 받을 메시의 블루프린트 액터(BP\_Plane)가 브러쉬 역할을 할 액터(BP\_SlimeCharacter)를 참조한다.
2. 참조 받은 액터의 위치와 벡터를 토대로 라인 트레이스를 수행해 표면에 닿았는지를 탐지한다.
3. 탐지되면 충돌된 uv 좌표에 페인팅을 할 수 있도록 M\_HeatSplat으로 위치, 크기 파라미터를 전달한다.
4. BP로부터 전달받은 파라미터를 변경해 렌더 타겟 텍스처(RT\_Plane)에 그린다.

2번의 경우는 Tick 단위로 수행하기 때문에 매우 안정적인 방식은 아니다.

또한 실시간으로 달라지는 슬라임의 크기를 파라미터로 라인 트레이스에 전달해줘야 할 것이다. 자연스럽게 보이기 위해 좋은 파라미터 값을 추출할 수 있도록 논리식을 찾아내거나 반복 노가다 테스트를 수행해야 한다.

이 경우는 깊이 버퍼 방식이 유리하기 때문에 아쉽다.

바닥과 벽 모서리에 슬라임이 들어섰으면 양쪽에 페인팅을 할 수 있는 것이 현실적이지만, 라인 트레이스가 슬라임 본인의 아래 방향으로 수행하기 때문에 바닥 면적에만 페인팅을 한다. 벽을 기어오르기 시작하면 슬라임이 roll 회전을 하면서 바닥에서 벽으로 페인팅을 수행한다.

[UE5 Paint in Game 8차 구현] <https://www.youtube.com/watch?v=kb5Lpw4lxIo>

* Skeletal mesh 페인팅 시도
* RT 해상도 수정 뒤 성능 테스트를 진행해야 함

[UE5 Paint in Game 9차 구현] <https://youtu.be/wnuN2Mo8MBA>

* 라인 트레이스 방식 페인팅 구현
* (메시 표면에 닿지 않아도 페인팅되는 문제가 있다. 현재는 수정됨.)

[UE5 Paint in Game 10차 구현] <https://youtu.be/tTucwkVAux0>

* niagara grid 2d 방식으로 공부
* https://www.youtube.com/watch?v=3fW5xjiDm-A&list=LL&index=31&t=363s 참고

[UE5 Paint in Game 11차 구현] <https://youtu.be/Thy8gW99Mwc>

* custom depth를 포기하고 캐릭터 액터의 포워드 벡터로 페인트 브러쉬 위치 감지해 페인트를 함

**슬라임 표면 페인팅 구현 목록**

* ~~렌더타겟으로 마테리얼 페인팅 구현~~
* ~~렌더타겟으로 액터 위치기준 depth 거리 탐색해서 페인팅 구현~~
* ~~마스킹 영역에 복합적인 데칼 효과(메타볼 점액) 적용~~
* 마스킹 영역에서 슬라임 액터가 특수 액션 구현(점액 위에서 빠르게 움직이기)
* 오브젝트 대상으로 마테리얼 페인팅 구현
* 마테리얼 블루프린트 결과물을 HLSL 코드로 변환

(페인팅 로직을 수정함으로써 구현 일정이 지연됨)

|  |  |  |  |
| --- | --- | --- | --- |
| **문제점 정리** | 졸작 목적인 R&D를 충실히 실천하기 위해서 기록을 잘하는 습관이 중요하다. 개발 중에 흐름이 깨지거나 정신이 없어서 기록이 뜸해지는 경우가 흔하다. | | |
| **해결방안** | 저녁 시간에 편안한 마음가짐으로 노션 팀 프로젝트에 작업한 내역을 기록하는 여유를 갖는 것이 효과가 있을 것 같다. (개발도 중요하지만 R&D인 만큼 기록도 중요하다)  해당 작업일지도 그러한 결과물이다. | | |
| **다음주차** | 32주차 | **다음기간** | 2023.01.30 ~ 2024.02.05 |
| **다음주 할일** | * 팀 회의 진행 후 레벨 프로토타입 제작 * 데디케이트 서버 멀티 테스트를 진행하기 위해 초기 세팅을 진행 | | |
| **지도 교수**  **Comment** |  | | |